Before the
Federal Communications Commission
Washington, D.C. 20554

FCC 90-276

In the Matter of	)	
	)	
Competition, Rate Deregulation and the	)	
Commission's Policies Relating to the	)	MM Docket No. 89-600
Provision of Cable Television Service	)	

REPORT

Adopted: July 26, 1990 ; Released: July 31, 1990

By the Commission: Commissioners Sikes, Chairman, Quello and Barrett issuing separate statements.

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I. INTRODUCTION

1. This Report has been prepared and is being submitted to the Congress pursuant to the requirements of the Cable Communications Policy Act of 1984 ("Cable Act").[1] Congress enacted the Cable Act to establish a franchise process that would encourage the growth and development of cable systems and to encourage cable systems to provide the widest possible diversity of information sources and services to the public.[2] The Cable Act was designed

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1 Pub. L. No. 98-549, 98 Stat. 2780, codified in Title VI of the Communications Act of 1934, 47 U.S.C. §§ 521 et seq.

2 Section 601 of the Cable Act states:

The purposes of this title are to -- (1) establish a national

to promote competition in cable communications and minimize unnecessary regulation that would impose an undue economic burden on cable systems.[3] To assist in a review of marketplace developments in the six years following enactment of the Cable Act, Congress gave the Federal Communications Commission ("FCC" or "Commission") a mandate to prepare a report and make appropriate recommendations regarding cable rate regulation, based on a study of the effect of competition in the marketplace.[4]

2. Responding to that statutory mandate, this Report finds that the six years since enactment of the Cable Act -- and particularly the three and one-half years since widespread rate deregulation began thereunder -- have witnessed a significant and ongoing transformation of the video marketplace.

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policy concerning cable communications; (2) establish franchise procedures and standards which encourage the growth and development of cable systems and which assure that cable systems are responsive to the needs and interests of the local community; (3) establish guidelines for the exercise of Federal, State, and local authority with respect to the regulation of cable systems; (4) assure that cable communications provide and are encouraged to provide the widest possible diversity of information sources and services to the public; (5) establish an orderly process for franchise renewal which protects cable operators against unfair denials of renewal where the operator's past performance meets the standards established by this title; and (6) promote competition in cable communications and minimize unnecessary regulation that would impose an undue economic burden on cable systems.

47 U.S.C. § 521.

3 Id.

4 Section 623(h) of the Cable Act states:

> Not later than 6 years after the date of the enactment of this title, the Commission shall prepare and submit to the Congress a report regarding rate regulation of cable services, including such legislative recommendations as the Commission considers appropriate. Such report and recommendations shall be based on a study of such regulation which the Commission shall conduct regarding the effect of competition in the marketplace.

47 U.S.C. § 543(h).

The Cable Act sought cable industry growth, and the number of communities and homes served by cable has increased significantly. The Cable Act sought cable industry development, and cable has further developed its multichannel services beyond retransmission, changing the expectations of most Americans about television viewing options. The Cable Act also sought competition to cable operators, however, and the competition within the video industry is just beginning to expand and include alternative multichannel providers. Thus, the cable industry, and the newer alternative multichannel video providers beginning to compete with cable, are still evolving.

3. The growth and development that the cable industry has experienced since the Cable Act are readily measurable. First, the cable industry has invested in expanding its plant to the point where it now offers multichannel video service to about 90 percent of Americans; before the Cable Act, cable was available to about 70 percent of American households.[5] Second, the cable industry has significantly expanded its channel capacity -- now offering substantially greater viewing choices to the American public. While almost 60 percent of all cable subscribers were served by cable systems with at least 30 channels before the Cable Act, that number has grown to about 90 percent of cable subscribers today.[6] The cable industry has significantly increased its annual investment in new and expanded capacity by 55 percent, from $1.1 billion in 1984 to $1.7 billion in 1989.[7] Third, the cable industry has launched numerous new programming services and original programs. Indeed, the number of cable programming services has doubled since the Cable Act.[8] The cable industry has tripled annual spending on programming from $302 million to $965 million during this same period.[9] Fourth, we note that cable industry revenue has more than doubled from $8.5 billion in 1984 to $17.7

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5 These figures represent the fraction of American households passed by cable in 1989 and 1984, respectively. The total households figures are from 58 Television & Cable Factbook, Cable & Services at C-340 (1990 ed.) and 53 Television & Cable Factbook, Cable & Services at 39 (1985 ed.). The homes passed figures are from Paul Kagan Associates, Inc., Marketing New Media, at 5 (June 18, 1990).

6 The figures are for 1984 and 1990, respectively. See 58 Television & Cable Factbook, Cable & Services at C-385 (1990 ed.) and 52 Television & Cable Factbook, Cable & Services at 1726 (1984 ed.).

7 National Cable Television Association ("NCTA"), Cable Television Developments at 6 (May 1990).

8 The increase is from 67 to 181. See infra para. 43. The primary growth areas have been regional sports and other niche services.

9 See infra para. 44.

billion in 1989; the portion of cable's revenues derived from advertising has more than tripled from $594 million to over $2 billion.[10]

4. The American public has clearly welcomed the wider viewing options that the cable industry has provided. The number of cable subscribers has grown from 37 million in 1984 to 53 million in 1989; however, penetration of homes passed has remained between 61-63 percent during this period.[11] Overall audience ratings for basic cable programming services have doubled since 1984, now exceeding, on average, the total all-day audience share of any major television network affiliate.[12]

5. Congress intended to free cable operators from the constraints of unnecessary local rate regulation, subject to an appropriate definition of "effective competition" to be adopted by the Commission.[13] The Cable Act was designed, inter alia, to allow the substantial investments necessary for expanded system capacity and new programming -- and these have occurred.[14]

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10 NCTA, Cable Television Developments at 12-13 (citing estimates of Paul Kagan Associates, Inc.). In addition to expenses for system investments and programming, cable systems have significant expenses for operation, maintenance, depreciation and local franchise fees, the last of which in 1989 amounted to $767 million. Comments of NCTA at 35.

11 The cable subscribership data are from NCTA, Cable Television Developments at 2 (citing Nielsen estimates). The homes passed data are from Paul Kagan Associates, Inc., Marketing New Media at 5 (June 18, 1990).

12 For the period from January to April 1990, the composite basic cable average 24 hour rating in all television households was 6.0. For affiliates of the three major commercial networks, the comparable figures were 5.6, 5.5 and 5.5. For independent broadcast stations taken together, the rating was 5.9. See Cabletelevision Advertising Bureau, "Advertiser Alert: Average Ratings Delivery in Total TV Households: 24 Hours" (undated).

13 Section 601(6) states that the Cable Act was intended to "promote competition in cable communications and minimize unnecessary regulation that would impose an undue economic burden on cable systems." Furthermore, the report accompanying the Cable Act of 1984 states: "The Committee believes that the availability of competing sources of programming in a given market will keep the rates for basic services reasonable in that market without the need for regulation." See Cable Franchise Policy and Communications Act of 1984, H.R. Rep. No. 9431, 98th Cong., 2d Sess. 25 (1984) ("House Report").

14 Section 601(4) states that the Cable Act was intended to "assure that cable communications provide and are encouraged to provide the widest possible diversity of information sources and service to the public." 47 U.S.C. § 521.

Despite the substantial investment in expanded capacity and programming made possible by deregulation under the Cable Act, however, many cable subscribers have complained about the significant cable rate increases which have accompanied this expanded service. Deregulated rates for the lowest price tier of cable service have risen faster than the general rate of inflation,[15] although the percentage of annual rate increases has begun to decline (to about eight and one-half percent in 1988 and 1989) since their initial 15.5 percent jump in 1987.[16] Furthermore, increases in the average subscriber's total monthly bill (including premium services and equipment) have also slowed to only slightly above the general rate of inflation, with the average subscriber's bill rising 5.4 percent in 1989 (after roughly seven percent increases in 1987 and 1988).[17] The data collected on rate increases are inconclusive on the issue of market power, however, in the absence of information about costs.

6. Notwithstanding the fact that rate adjustments may have been an anticipated consequence of deregulation, a number of subscribers and municipalities have expressed alarm about especially sharp rate hikes. Sometimes these increases have amounted to more than a doubling of basic rates in a relatively short period.[18] Coupled with rising frustration over the poor quality of technical and customer service some subscribers have received from their local cable operators, such rate increases have fueled broader concerns that cable operators exercise market power.[19]

7. In addition to these complaints about rates and service since the Cable Act, existing or emerging competitors to cable allege anticompetitive developments and conduct in the cable industry. These charges have focused on the increasing concentration of ownership in the cable industry and on cable industry relationships with program providers, with developing competitors

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15 While inflation totaled 12.5 percent for the three-year period from 1987 through 1989, monthly rates for the lowest priced tier rose a total of 36 percent during that period.

16 General Accounting Office, Telecommunications: Follow-up National Survey of Cable Television Rates and Services, Report to the Chairman, Subcommittee on Telecommunications and Finance, Committee on Energy and Commerce, House of Representatives (June 1990) ("1990 FCC-GAO survey").

17 Id.

18 For examples of substantial increases in monthly basic rates, see infra para. 29.

19 "Market power" is the ability to restrict output or raise price over what would prevail in a competitive market, and maintain it over time.

and with the broadcast industry. Our undertaking of this Report thus coincides with a growing sense, among various interested parties, subscribers and their legislators, that the time is ripe to review both the progress of the cable industry and the legal framework under which it operates.

8. The goal of this Report is to provide Congress with information on the state of the cable television industry and to recommend ways to ensure diversity and consumer choice in a changing local video marketplace. As the Report reveals, this Commission steadfastly believes that robust competition will more efficiently provide both a better safeguard against undue rate increases or service failings and a greater diversity and choice than any web of rules and regulations designed to mimic competition or otherwise compensate for its absence. Where such competition flourishes, government should avoid interceding. Where such competition has yet to thrive, government should tread lightly -- seeking to encourage fledgling competitors only so much as to overcome unfair barriers to entry, without suppressing the continued growth and development of successful incumbents. Only where the absence of competition can be explained by a market's natural economics should the government intercede aggressively and embrace extensive ratemaking and other intrusive regulatory measures.

9. This Report finds that robust competition in the video marketplace has not yet fully evolved, but that the development of a fully competitive marketplace is possible. Our overall analysis suggests that the video marketplace is a highly dynamic sector in a state of transition. By fulfilling the Cable Act's promise of enhanced choices for the American viewer, the cable industry has generated intense demand for its multichannel service -- but in the process of meeting that demand, has accrued some degree of market power. With the developing field of existing and potential multichannel competitors to cable, however -- from wireless cable and proposed direct broadcast satellite services to home satellite dishes and satellite master antenna TV operations -- and with evidence that even direct competition between cable operators may increasingly occur, we are unwilling to endorse or recommend any drastic or long-term reregulation of cable rates and services. To do so could jeopardize gains made since the Cable Act was adopted. The public interest will instead be promoted by improving the conditions for competition.

10. Accordingly, while we desire to deal effectively with specific anticompetitive abuses, we find in this Report no need to encumber the cable industry with a harsh new regulatory regime. Rather, we propose to foster a more competitive marketplace for the distribution of multichannel video services. Our Report therefore proposes, first, the removal of certain undue regulatory barriers to multichannel service competition and, second, certain targeted and generally temporary restraints on certain cable industry practices which directly or indirectly impede such competition. We decline to propose more far-reaching rate regulation of the cable industry; such measures could unnecessarily jeopardize the wealth of viewing choices fostered by the Cable Act and delivered by the cable industry.

11. Notice of Inquiry. The Commission launched the study upon which this Report is based on December 12, 1989, adopting a comprehensive Notice of Inquiry ("Notice") in MM Docket No. 89-600, 5 FCC Rcd 362 (1989). In the Notice, we recognized the great strides the cable industry has taken in reshaping the video services market both locally and nationally, along with the significant consumer benefits these developments have brought. At the same time, we acknowledged that consumers, television broadcasters and other video service providers have complained that the cable industry has accrued market power and at times abused it. With the Notice, we sought to develop a factual record -- reliable evidence and empirical analyses of cable industry conduct and relationships -- that would enable us to judge the validity of these concerns. We anticipated that this record would provide the Commission with a reasonable basis for a comprehensive examination of the state of the cable industry today; the impact -- positive and negative -- that the Cable Act has had in attaining cable's current market development; and whether complaints and charges against the industry were isolated or symptomatic of widespread and fundamental market deficiencies.

12. In response to the Notice, we received more than 180 comments and nearly 70 reply comments.[20] To supplement information received in comments and reply comments, we also requested detailed ownership information from the top nine multiple system operators ("MSOs"),[21] conducted three field hearings,[22] requested written responses to follow-up questions after the hearings[23] and sought additional information from other parties.[24] Along with the General Accounting Office ("GAO"), we also conducted a survey of cable

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20 A list of the commenters and reply commenters appears in Appendix A. A few of these commenters filed in an untimely fashion. In the interests of compiling as complete a record as possible, and in view of the minimal disruption that these late-filed pleadings have caused, we hereby accept those pleadings. We also note that we have received numerous ex parte submissions (including letters, city resolutions and scholarly articles), which we have placed in the record.

21 Appendix B contains a list of the MSOs providing responses to the Commission.

22 The field hearings took place in Los Angeles, California on February 12, 1990; in Orlando, Florida on March 2, 1990; and in St. Louis, Missouri on March 15, 1990.

23 Appendix C contains a list of the parties providing responses to these follow-up questions.

24 Appendix D contains a list of the parties responding to these inquiries.

rates and services of nearly 2,000 cable systems (the "FCC-GAO survey"). In addition, we incorporated into this docket the records of two other related proceedings[25] and two relevant petitions.[26] Finally, we invited commenters to assess the extent to which different outcomes in ten other ongoing Commission proceedings regarding the video marketplace could enhance or thwart the development of vigorous competition in this market.[27]

13. Based on the record compiled in this and related proceedings, the Commission has reached the following principal findings, which are explained in detail in the remainder of this Report:

(1) Deregulation under the Cable Act has fostered the intended results: increases in investment, with corresponding expansion of cable reach, number of subscribers, channel capacity and new programming.

(2) The video marketplace continues to be a highly dynamic sector in the midst of transition. Cable television service consists of a

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25 Petition for Rulemaking in RM-5475 (filed by SATCOM, Inc., Feb. 21, 1986), proceeding terminated and record incorporated herein, 5 FCC Rcd 1113 (1990); Cable Signal Carriage Inquiry in MM Docket No. 88-138, proceeding terminated and record incorporated herein, 5 FCC Rcd 1109 (1990).

26 Association of Independent Television Stations, Inc. ("INTV") Petition for Notice of Inquiry (filed Dec. 21, 1988) ("INTV 70-70 Petition"); INTV Petition for Rulemaking and Supplemental Statement in Support of Notice of Inquiry (filed Oct. 23, 1989) ("INTV Cable Competition Petition").

27 These proceedings include: Telephone Company-Cable Television Cross-Ownership Rules, Sections 63.54 - 63.58, CC Docket No. 87-266; Imposing Syndicated Exclusivity Requirements on Satellite Delivery of Television Broadcast Signals to Home Satellite Earth Station Receivers, Gen. Docket No. 89-89; Inquiry into the Need for a Universal Encryption Standard for Satellite Cable Programming, Gen. Docket No. 89-78; Review of the Technical and Operational Requirements of Part 76, Cable Television, MM Docket No. 85-38; Definition of a Cable Television System, MM Docket No. 89-35; Inquiry into the Existence of Discrimination in the Provision of Superstation and Network Station Programming, Gen. Docket 89-88; Amendment of the Rules Relating to Program Exclusivity in the Cable and Broadcast Industries, MM Docket No. 87-24; Amendment of the Rules Concerning the Fairness Doctrine and Political Cablecasting Requirements for Cable Television Systems, MM Docket No. 83-331; Amendment of the Rules to Eliminate the Prohibition on Common Ownership of Cable Systems and National TV Networks, MM Docket No. 82-434; and Amendment of the Rules with Respect to the Form and Procedure of Ownership Reporting by Cable Television Systems, MM Docket No. 84-1297.

unique cluster of services comprised of retransmitted broadcast signals, premium programming, broadcast-like basic cable services and specialized basic cable network services such as ESPN, CNN, MTV and BET. Local broadcasters provide varying degrees of competition to cable's retransmission function, and, to a certain extent, to the more broadcast-like basic cable services. Also, video cassette rentals provide significant competition to premium movie services. Although broadcast stations offer some degree of the specialized programming provided by the specialized basic cable network services, they do not provide it full-time. Generally, there is no close substitute for that steadily-expanding complement of specialized program services offered by the typical cable system at this time. Competition from alternative multichannel providers such as second competitive cable systems, wireless cable (MMDS), satellite master antenna TV systems ("SMATV") and direct broadcast service ("DBS") satellites, while limited at present, is emerging. Indeed, if provided reasonable access to cable programming services, wireless cable, second competitive cable systems and SMATV operators have the potential to provide significant competition to cable. In addition, DBS has the potential, in our judgment, to become a strong competitor by the mid-1990s if recently announced plans go forward and DBS can obtain reasonable access to programming.

(3) Following sharp rate increases in the year after rate deregulation, average basic rate increases have moderated and increases in average total monthly bills (including premium services and equipment rental) have slowed recently to a level near the rate of general inflation. Additionally, the per channel price for cable service has increased at a rate significantly lower than inflation during this period. In any event, the rise in rates alone, without cost data, is not conclusive on the question of market power. That assessment requires analysis of additional factors.

(4) On balance, the evidence submitted in this proceeding suggests that cable operators possess varying degrees of market power in the local distribution of video programming.

(5) Horizontal concentration and vertical integration in the cable industry have increased significantly since enactment of the Cable Act. This growth has brought substantial benefits to American consumers, but also has added potential for certain anticompetitive conduct.

(6) Vertically integrated cable operators often have the ability to deny alternative multichannel video providers access to cable programming services in which such cable operators hold ownership

interests, and there is considerable anecdotal evidence that some have used this ability in anticompetitive ways.

(7) Most cable operators have the ability to deny or unfairly place conditions on the access of most program services to the cable communities they serve, and evidence suggests that some have done so. This ability reflects some degree of market power in the local video distribution market, which MSOs may leverage on an intermarket basis. It does not demonstrate, however, that national horizontal concentration has yet provided any single MSO with the unilateral ability to preclude the successful launch of new programming services.

(8) Although encouraging leased access programming was a key purpose of the Cable Act, existing enforcement provisions are too cumbersome to permit the development of leased access as a promising force in the video market. The lack of adequate remedies for any programmer denied fair access to local cable distribution has retarded the overall development of leased access programming.

(9) Local franchising requirements often discourage and even forbid competition, for reasons that have little to do with appropriate governmental interests such as public health and safety, repair of public rights-of-way and construction performance.

(10) The current compulsory copyright and right of retransmission regime for cable creates an imbalance in the relationship between the commercial broadcasting and cable industries. While the current compulsory copyright scheme is designed to reduce transaction costs in providing a cable antenna service, it also serves as an unfair subsidy for cable operators.

(11) Cable and broadcast programming compete for advertising revenues. Cable operators' incentive to deny carriage or to provide disadvantageous carriage (e.g., frequent or ill-timed channel repositioning) to programming services in which they have no financial interest appears to be particularly great as against local broadcasters. This creates a market disadvantage in local commercial broadcasters' ability to compete against cable operators for advertising revenues.

(12) The continued viability of noncommercial television (which by its very nature is affected by market forces in different ways than is commercial broadcasting) may depend on targeted mandatory carriage obligations for multichannel video providers.

(13) The current three-signal standard for effective competition no longer reflects the realities of the video marketplace. It would

be inappropriate, in our judgment, for the Commission to alter this standard at this time when Congress is actively considering legislation that would either expressly redefine or moot the effective competition standard for rate regulation. We are concerned, moreover, that redefining the effective competition standard in a way that would impose widespread and extensive rate regulation could unnecessarily undermine the growth in cable services.

(14) A general pattern of problems with cable technical quality and customer service has emerged since the passage of the Cable Act, although the industry has recently launched efforts to deal with customer service problems.

(15) Uniform federal technical standards for all cable video transmissions are essential to address cable technical quality problems and to prevent a patchwork of inconsistent technical standards in franchise agreements. Therefore, the Commission will launch an industry advisory process to that end.[28]

(16) At present, franchising authorities lack adequate enforcement mechanisms to compel cable operators to improve customer service to ensure high-quality service to the public.

14. In light of our findings, we make the following recommendations:

(1) To encourage more robust competition in the local video marketplace, the Congress should: (a) forbid local franchising authorities from unreasonably denying a franchise to potential competitors who are ready and able to provide service; (b) prohibit franchising rules whose intent or effect is to create unreasonable barriers to the entry of potential competing multichannel video providers; (c) limit local franchising requirements to appropriate governmental interests (e.g., public health and safety, repair and good condition of public rights-of-way, and the posting of an appropriate construction bond); and (d) permit competitors to enter a market pursuant to an initial, time-limited suspension of any "universal service" obligation.

(2) Congress should remove legal barriers to entry for alternative multichannel providers by prohibiting local governments from regulating installation of reception equipment beyond those provisions reasonably related to clearly defined health, safety or reasonable aesthetic objectives.

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28 See infra para. 206.

(3) Congress should adopt a must carry regime[29] to safeguard local broadcast stations so long as the compulsory copyright license for local broadcast programming exists. This regime, including compulsory copyright, should sunset at the same time as any programming access provisions enacted pursuant to Recommendation (6). Either in the absence of or due to the expiration of any must carry regime, Congress should repeal the cable compulsory license and amend the Communications Act to provide local broadcast stations a clearly defined right to bargain for compensation for retransmission of their programming.

(4) Congress should adopt the industry-proposed must carry provisions for noncommercial television.[30]

(5) Congress should restrict changes in the channel assignment of local broadcast stations except under the following conditions: (a) when channel repositioning is mutually agreed to by the broadcaster and the cable operator; or (b) when technical limitations of the cable system prohibit carriage on a specific channel.[31] Adequate prior notice for any such repositioning must be provided to the station as well as to subscribers. This provision should sunset upon adoption of a retransmission consent regime.

(6) Congress should promote the emergence of alternative multichannel distributors by: (a) prohibiting any programming service in which a multichannel video provider holds a cognizable interest[32] from unreasonably refusing to deal with any competing multichannel provider in areas served by the multichannel provider(s) with

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29 We note that the commercial broadcasting and cable industries appear to have reached a compromise on must carry. See Communications Daily, July 23, 1990. Any rate regulation recommendations in that proposal are not encompassed in our must carry recommendation.

30 These provisions are described in Communications Daily, March 29, 1990, at 5.

31 We recommend that the restrictions placed on channel repositioning begin with broadcast channel positions as of June 29, 1990, pursuant to the industry compromise reached on channel repositioning. The terms of this compromise are reported in Communications Daily, July 23, 1990, at 1-2.

32 "Cognizable interest" is discussed later in the text of this Report. See infra para. 129.

which that programming service is vertically integrated; (b) defining "unreasonable refusals to deal" to allow (i) bona fide exclusive distribution arrangements that do not significantly impede competition in the local distribution market; and (ii) bona fide volume discounts;[33] (c) requiring local cable system operators, where they market cable network programs to other multichannel video providers within their franchise areas, to do so at reasonable and nondiscriminatory prices and terms; and (d) limiting these specific requirements to five years, by which time the Commission should report to Congress on the necessity of reenacting such requirements.

(7) Congress should provide clear, explicit and convenient administrative remedies for coercion by any multichannel service provider that requires a programming service to yield as a condition of carriage: (a) any financial interest in that programming service; (b) an exclusive distribution arrangement; (c) a refusal to deal with a competing multichannel provider; or (d) an unreasonably restrictive agreement not to compete with any programming service in which that multichannel service provider holds a financial interest.

(8) If the Congress adopts the measures proposed in Recommendations 6 and 7 above, it should authorize and instruct the Commission to report to the Congress within three years on the effect of such remedies in fostering competition in the video marketplace and whether direct limits on horizontal growth or vertical integration in the cable industry have become necessary.

(9) Congress should encourage leased access by: (a) adding "the promotion of robust programming competition" to the stated purposes of leased access obligations; (b) changing the burden and standard of proof required to establish a violation of the leased access rules; (c) providing the Commission with original jurisdiction to resolve disputes over the provision of leased access channels; and (d) requiring cable operators to provide billing and collection services for channel lessees pursuant to Commission rules.

(10) Congress should strengthen the authority and ability of local franchising authorities to enforce reasonable and effective customer service standards by expressly allowing them to impose

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33 In our view, bona fide volume discounts would be either cost-based or otherwise applied equally to both affiliated and unaffiliated customers.

penalties for violations thereof at any time in the life of a franchise.

(11) To the extent that any new cable legislation would impose significant administrative burdens on the Commission, Congress should appropriate the necessary funds or provide the Commission with the authority to impose cost-of-regulation fees to fund these activities adequately to fulfill its functions fully and effectively.

15. The remainder of this Report discusses in detail the bases for our findings and recommendations. Rates and the quality of cable services are of course the public's fundamental concerns; those will be, therefore, our starting points for reviewing cable industry developments under the Cable Act. Accordingly, in Section II, the first section of our detailed discussion, we assess the evidence regarding cable rates, programming offerings, technical quality and customer service.

16. In Section III, we examine the validity of allegations that, in fact, cable operators have accrued market power sufficient to explain the pattern of industry rate increases and service problems that have occurred since the Cable Act went into effect.

17. Section IV presents a discussion of programming access problems and our recommended response to cable systems' abuses, real or potential, of varying degrees of market power. Therein, we recommend taking action to foster increased competition by the emerging alternative multichannel video providers. We find that these alternative multichannel competitors may provide vigorous multichannel competition in the medium- and even near-term, but that their chance of providing such competition in all likelihood depends upon their ability to gain fair access to programming. Accordingly, we find that temporary, narrowly tailored remedial measures to promote fair access to programming for alternative providers are crucial to any competitive response to cable market power. In addition, we find that certain existing cable industry practices toward both cable programming services and the broadcast industry work to discourage healthy competition; we call, therefore, for limited, specifically-targeted remedial measures. We also find that the prevailing norm of exclusive cable franchises, coupled with an overly restrictive definition of the types of facilities that can be exempted from the franchising and other requirements of the Cable Act, impedes emerging competition. Section IV addresses these issues and sets forth the bases for our recommendations in these areas.

18. Finally, in Section V we take up the issue of complaints regarding customer service and technical quality.

II. FINDINGS REGARDING CABLE RATES AND SERVICE

A. Cable Rates

19. This section examines the changes in rates charged for cable services since the passage of the Cable Act of 1984. The discussion is based primarily on information from the results of the FCC-GAO survey of cable rates and services.[34] We also discuss comments submitted in response to the Notice. Both sources show that cable rates and services have increased significantly since 1984. The cause for the rise in basic cable service rates is a matter of sharp dispute among the commenters and, because the survey data focus only upon rates and services rather than upon the surveyed systems' various costs, they are inconclusive on this question.[35]

1. The FCC-GAO Survey

20. The FCC and GAO conducted a survey of cable systems, requesting certain information about cable rates and services since the passage of the Cable Act. The survey questionnaire was designed to elicit a picture of cable rates and services at specific points in time, generally in one-year increments, from December 31, 1984, to December 31, 1989. It requested information on three "tiers"[36] of service offered by the system: lowest priced basic tier (Tier I), the next lowest priced tier (Tier II) and the third lowest tier (Tier III). In addition to the changes in rates and services over time, the survey requested specific information regarding the responding system's size (subscriber count), whether or not the system has changed ownership, whether or not a multiple system operator currently has a

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34 In 1989, the General Accounting Office completed a more circumscribed survey of cable system rates and services. See General Accounting Office, Telecommunications: National Survey of Cable Television Rates and Services, Report to the Chairman, Subcommittee on Telecommunications and Finance, Committee on Energy and Commerce, House of Representatives (Aug. 3, 1989) ("1989 GAO survey").

35 Without cost data, it is impossible to determine the extent to which increases in rates indicate some level of abuse of market power in the aggregate. For example, a direct comparison of cost data would necessarily reflect expenditures for increases in investment, expansion of cable reach, channel capacity and new programming, as well as declining costs of technologies, economies of scale and the low marginal cost of adding subscribers. These variables may offset concerns about rate increases.

36 A tier of service is the bundle of channels offered at a single collective rate. Tiers are usually offered cumulatively, so that Tier II is an add-on to Tier I, and Tier III is an add-on to Tiers I and II.

greater than 10 percent ownership interest, and whether or not the system was regulated at any time during the five-year period. This information has enabled us to compare rate and service data for four different types of cable systems.[37]

21. Data overview. Analysis of the survey data reveals that rates for basic services, as well as other rates affecting most cable subscribers, have indeed risen noticeably since 1986.[38] Monthly rates for the lowest price tier (Tier I)[39] increased by a total 36 percent during the three-year period (1986-1989).[40] In the same period, monthly rates for the most popular tier[41] of services -- the tier with the most subscribers -- increased on average a total of 38 percent.[42] During this same period, prices for Tier II rose an

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37 The tables setting forth the data discussed in this section all appear in Appendix F.

38 The FCC-GAO survey employed a stratified random sample of 1,971 cable systems, representing 22 percent of United States cable systems, but accounting for 62 percent of subscribers. Responses were received from 1,530 cable systems, yielding a substantial response rate of 77.6 percent. In addition to overall figures, the tables in Appendix F provide results for certain subsets of the sample, e.g., classified by number of subscribers. All of the survey data are subject to sampling error. Estimates or differences based upon a particularly small number of cases in a category as compared to the total universe for that category may not be statistically significant and, therefore, must be viewed with caution. See 1989 GAO Survey at 17.

39 The types of services on the lowest price tier vary from system to system. On some cable systems, this tier includes only over-the-air broadcast signals, while on other systems, this tier also contains additional signals (such as cable networks).

40 Tier I average monthly rates increased 15.5 percent from November 30, 1986 to December 31, 1987; 8.5 percent from December 31, 1987 to December 31, 1988; and 8.6 percent from December 31, 1988 to December 31, 1989. See Appendix F, Table 1A. The total percent increase in rates for the three-year period reflects a compounding of the individual yearly percent increases.

41 For each cable system, the most popular tier is either Tier I, Tier II or Tier III. The tier designated most popular is the one for which the system reported the most subscribers. Consequently, the data used to generate information about this tier are actually a mixture of data from Tiers I, II and III.

42 For the most popular tier, the average monthly rates increased 14.5 percent from November 30, 1986 to December 31, 1987; 10.4 percent from December 31, 1987 to December 31, 1988; and 9.0 percent from December 31,

average total of 21 percent, while subscribers to Tier III saw their rates rise an average total of 28 percent.[43] The increases in the average subscriber's total monthly bill, however, have slowed during this period from 7.1 percent in 1987 and 7.2 percent in 1988, to only 5.4 percent, or slightly above the general rate of inflation, in 1989 (4.8 percent).[44] It is important to note, however, that because of the increase in the number of channels provided, the cost per channel to the subscriber for Tier I rose a total of only seven percent ($0.04) during this period.[45] Moreover, the rates for some selected and less popular tiers increased very little or not at all.[46] Also, while subscribers in systems sold during the survey period experienced greater rate increases than subscribers in unsold systems, repeated sales did not appear to be associated with larger rate increases than systems sold only once.[47]

22. Focusing upon rates for the least expensive tier of services, Tier I, the survey revealed that subscribers to this tier saw an annual rate increase of 15.5 percent from November 1986 to December 1987 (the first year in which most cable systems experienced rate deregulation).[48]

1988 to December 31, 1989. See Appendix F, Table 1B.

43 Tier II average monthly rates increased 7.7 percent from November 30, 1986 to December 31, 1987; 5.4 percent from December 31, 1987 to December 31, 1988; and 6.3 percent from December 31, 1988 to December 31, 1989. For Tier III, the average monthly rates increased 10.4 percent from November 30, 1986 to December 31, 1987; 11.0 percent from December 31, 1987 to December 31, 1988; and 4.1 percent from December 31, 1988 to December 31, 1989. See Appendix F, Table 1B.

44 See 1989 GAO Survey at 57.

45 It is important to note, however, that cable subscribers typically do not purchase cable services on a per channel basis.

46 See Appendix F. Furthermore, the analysis above reflects changes since 1986 only. Prior to 1986, the average rate increases from December 31, 1984 to December 31, 1985, and from December 31, 1985 to November 30, 1986 for Tiers I, II, and III are as follows: Tier I -- 5.1 percent and 7.0 percent; Tier II -- 5.2 percent and 3.3 percent; and Tier III -- 8.4 percent and 4.5 percent, respectively for all three tiers. Inflation during this period was 3.6 percent in 1985, and 1.9 percent in 1986. See id. at Table 1A.

47 See id. at Tables 4A, 4B, 4H and 4I.

48 For information about the pattern of rate increases for the other tiers of cable service, see Appendix F.

During the subsequent two years, rates for the entire package of service comprising Tier I continued to rise, but not nearly as sharply as in the first year following deregulation, i.e., 8.5 percent in 1988 and 8.6 percent in 1989. During the same three-year period, the average number of channels included in the Tier I package grew nearly 28 percent, from 18 to 23. This meant that for this tier, the cost per channel to subscribers increased only $0.04, from $0.57 to $0.61 during the 1986-1989 period.

23. The effect of system size on rates. We also have separated cable systems into five groups based on the number of their subscribers[49] and compared the changes in the average monthly rates, number of channels and charge per channel for the most popular tier among the five groups. The purpose was to discover whether there was any correlation between the size of a cable system and the rate changes experienced by its subscribers. The rates, number of channels and price per channel within each of these groups increased over time in a manner comparable to that of the entire sample.[50] In general, however, larger systems had a higher average monthly rate but a greater number of channels, with a concomitant lower price per channel to the subscriber.[51]

24. The effect of MSO ownership on rates. In 1986, the average monthly rate for the most popular tier of services offered by systems with minimal or no MSO ownership ("non-MSO systems") matched fairly closely the average rate charged by systems held by MSOs, with non-MSO systems having slightly lower figures. In the next three years, MSO systems raised rates somewhat faster than non-MSO systems, thus increasing the difference between the rates charged by the two types of systems. At the same time, however, MSO systems increased their channel capacity more than non-MSO systems, so that the monthly price per channel for MSO systems increased at about the same rate as for non-MSO systems.[52] Although the average number of channels that both types of systems

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49 The five groups were composed of cable systems with subscriber counts of 1 - 1,000; 1,001 - 3,500; 3,501 - 10,000; 10,001 - 50,000; and 50,000+ respectively.

50 Compare Appendix F, Table 1B with Tables 2A - 2E.

51 See id. at Tables 2F - 2H.

52 Cable operators were asked if any of the 25 largest MSOs had an ownership interest greater than 10 percent in their systems as of December 31, 1989. MSO ownership interest in systems prior to that date cannot be determined from the survey. Therefore, the data in Appendix F, Tables 3A and 3B, present the historical picture of rate changes since December 31, 1984, only for those systems whose MSO ownership status is known as of December 31, 1989. The most popular tier data for such systems is presented in Appendix F,

included in their most popular tier of services grew steadily, the number of channels offered by the MSO systems was consistently greater than that offered by non-MSO systems.[53]

25. The effect of sales on rates. For the most popular tier of service, we also compared rates charged by cable systems experiencing at least one ownership change since December 31, 1984 with those charged by systems with no ownership change.[54] Our goal was to see whether rates rose more sharply for those systems that underwent a change in ownership during this period. The comparison revealed that while the average monthly rates for those systems that were sold[55] were generally slightly higher than the rates for those systems not sold,[56] the annual increase in rates for both groups of systems, when expressed as a percentage of the preceding year's rates, were comparable. Charges per channel, however, were markedly different. For systems that were not sold during the period, the average price per channel for the five-year time span fluctuated between $0.51 and $0.54 per channel, ending the period at $0.54. For systems that were sold, the average price per channel increased from $0.52 to $0.64 -- ten cents more per channel than for systems not sold. Moreover, by December 31, 1989, systems sold during the five-year period offered on average three fewer channels in the most popular tier than did the unsold systems.[57]

Table 3A. For comparison purposes, the most popular tier data for systems with no (or less than 10 percent) MSO interest as of December 31, 1989, appears in Appendix F, Table 3B.

53 On November 30, 1986, MSO systems averaged five more channels than non-MSO systems (23 vs. 18). By December 31, 1989, the difference had grown to seven channels (30 vs. 23). For MSO systems, price per channel ranged from $0.50 on November 30, 1986, to $0.54 on December 31, 1989, while for non-MSO systems these figures were $0.61 and $0.65, respectively.

54 The FCC-GAO survey revealed that 728 systems had experienced at least one ownership change during the five-year period covered by the survey, while 763 systems had no ownership change in this period.

55 Systems that indicated a change in ownership in each year since 1984 have their five-year historical data displayed in Appendix F, Tables 4C through 4G. Table 4C presents the most popular tier data for those systems that changed ownership in 1985. Similarly, tables 4D, 4E, 4F and 4G presents the most popular tier data for those systems that experienced an ownership change in 1986, 1987, 1988 and 1989, respectively.

56 See Appendix F, Tables 4A and 4B.

57 GAO reported that analysis of the data for systems that were sold did not reveal a pattern of basic service rate increases following the sale of

26. We also compared the most popular tier rate changes of systems sold more than once during this period to the rate changes of systems sold only once in this period. Our purpose was to see whether the rates for systems experiencing repeated ownership changes rose more than rates for the other systems. We found that with the exception of December 31, 1984, rates, the average rate for systems that experienced more than one ownership change over the five-year period was slightly higher in each year of the survey than the average rate for systems sold only once.[58] The percentage by which monthly rates for systems that experienced more than one ownership change increased from the monthly rates charged during the preceding year was higher in 1985, 1986 and 1988, but lower in 1987 and 1989 than for all other systems. Also, with the exception of 1985, the price per channel was lower for systems that experienced two or more ownership changes than for systems with only one ownership change. Furthermore, from 1986 to 1989, systems that experienced two or more ownership changes offered, on average, one channel more to subscribers than systems with only one ownership change.

27. The effects of regulation on rates. Survey questions linking rates and regulation requested data for only December 31, 1984, November 30, 1986, and December 31, 1989. Survey responses reveal that on all three dates, systems that were regulated had lower average rates than those that were not regulated.[59] For the first two dates, the average number of channels offered

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the cable system. GAO compared the dollar amount of increases in monthly rates occurring immediately after systems changed ownership with increases in monthly rates during the same period for systems that did not change hands, and found the differences were not statistically significant. See 1989 GAO survey at 28. This analysis, however, does not account for any rate increase initiated other than shortly after the sales transaction. We performed additional analyses comparing the change in basic monthly cable rates for systems that sold (in the years in which they were sold) to the final 1989 basic cable rates of those systems. This result was compared to the change in basic cable rates for systems that never sold for the same time periods. A statistical test was performed to test whether the differences between the average rate increase for each type of system was or was not statistically significant. Cable rate increases for systems that were sold in 1985, 1986 and 1988 were not significantly different from rate increases for those systems that never sold. For those systems that were sold in 1987, however, the average rate increase from 1987 to 1989 was higher than the average rate increase for those systems that were not sold during the same time period.

58 See Appendix F, Tables 4H and 4I.

59 See id. at Tables 5A and 5B.

were about the same for both types of systems. However, on December 31, 1989, non-regulated systems offered an average of 27 channels compared to 20 for regulated systems. Thus, the price per channel was higher for non-regulated systems than for regulated systems on the first two dates, but on December 31, 1989, the price per channel for regulated systems was 10 cents higher than for non-regulated systems ($0.68 vs. $0.58, respectively).[60]

28. Other factual findings. Additional specific findings gleaned from the data (set forth in Tables in Appendix F) include the following:

The average number of active channels increased from 23 on December 31, 1984, to 27 on November 30, 1986, to 32 on December 31, 1989 (Table 6). Almost all of this increase can be attributed to the increase in basic service channels (Table 7), and all of the increase in the number of basic service channels is due to an increase in the carriage of basic cable networks (Table 8).

The average rates for each of three premium channels (HBO, Showtime and Cinemax) increased from December 31, 1984, to November 30, 1986, but then decreased, generally returning to December 31, 1984 rate levels by December 31, 1989 (Table 9).

The average number of network affiliates, other commercial and non-commercial stations available over-the-air in a cable system's franchise area remained constant at four, three and two, respectively (Table 10).

Almost half (48.5 percent) of the respondent systems changed ownership at least once since December 31, 1984 (Table 11).

The percentage of responding cable systems that were rate-regulated on December 31, 1984, decreased slightly by November 30, 1986 (76 percent to 73 percent), and, as expected, fell dramatically to less than 3 percent by December 31, 1989 (Table 12).

2. Information from Commenters

29. The rate information submitted by commenters is primarily anecdotal. Accordingly, no specific conclusions can be drawn from this information alone. Nevertheless, the comments are instructive insofar as they bear upon the information contained in the FCC-GAO survey. We intend to rely on the joint

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60 It is important to note, however, that there were only 41 cable systems claiming regulated status on December 31, 1989, while 1,419 claimed no rate regulation. Such a disparity in the number of observations warrants extreme caution when making comparisons.

FCC-GAO survey as a general indicator of the industry's rate setting performance over the last five years. We note, however, that the comments in this record do highlight the difficulties of drawing any conclusions from the rate data revealed by that survey. For example, while the FCC-GAO survey indicates that average monthly basic service rates rose only 36 to 38 percent over the three years between November 1986 and December 1989, commenters describe situations in which individual cable operators more than doubled their rates in this time period. Given these instances of rate increases far more extreme than the national average, there have clearly existed numerous cable operators whose rate increases during this period have been far more modest even than the national average. Understandably, however, few municipalities actually came forward to state that they have had no or slight rate increases. Fairfax County, Virginia notes that from 1986-1989, basic service rates in that jurisdiction rose from $4.95 to $10.95, a total increase of 121 percent.[61] Hawthorne, California states that subscribers in that city saw basic cable rates increase from $6.95 in November 1986 to $16.95 in December 1989, a total increase of 144 percent.[62] During this same period, basic service rates in Kearney, Nebraska increased a total of 90 percent, rising from $8.90 to $16.90 per month.[63] In Los Angeles, one cable franchisee raised monthly basic service rates from $7.50 to $15.99 from 1986 to 1989, while a second raised its basic service rates from $8.40 to $17.80 from 1986 to 1989.[64] This meant that subscribers to the first system saw rates increase a total of 113 percent between November 1986 and December 1989; subscribers to the second system saw rates rise a total of 112 percent during the same time period. In Torrance, California, the cable franchisee raised the monthly charge for basic cable services from $7.50 to $16.95 between November 1986 and December 1989, a total increase of 126 percent.[65] During this same period, subscribers in Somerville, Massachusetts saw their monthly rate for basic cable services more than double, rising from $8.50 to $16.95, a total increase of 121 percent.[66]

30. There was little dispute among the commenters that basic cable rates have increased from November 1986 (the beginning of deregulation) to the

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61 See Comments of Fairfax County, Virginia at 5-7.

62 See Comments of City of Hawthorne, California at 9.

63 See Comments of City of Kearney, Nebraska at 1-2.

64 See Comments of Los Angeles, California ("Los Angeles") at 6-10.

65 See Comments of City of Torrance, California at 2.

66 See Comments of Massachusetts Community Antenna Television Commission ("Massachusetts CATV Commission") at 4.

present time. Rather, the major points of contention concern the degree, significance and causes of these increases. On one side of the debate, a large number of commenters cite price increases since deregulation as evidence of uncontrolled monopoly behavior on the part of the cable industry. In addition, some commenters stress that increases understate the increased charges to subscribers because they do not take into account large increases in fees for other services, such as charges for additional outlets and installation.[67]

31. Cable interests and other commenters criticize many of the proffered rate figures on several different counts and offer explanations to justify the rate increases. Cable commenters state that comparisons of basic rates from one year to another do not take into account the fact that new channels have been added to the basic tiers. These commenters explain that programming costs have increased dramatically, that cable systems incur substantial costs upgrading and expanding their facilities and that other costs imposed by franchising authorities explain much of the increase in rates.[68] They believe that decreases in pay service offset the increases in basic service. Finally, commenters such as Tele-Communications, Inc. ("TCI") and NCTA state that basic rates were artificially low before deregulation, and

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67 See, e.g., Joint Comments of City of New York, National League of Cities, et al. ("NYC/NLC") at 9-12. Various commenters contend that fees for additional outlets that were less than $5 before deregulation increased by $2 or $3. See, e.g., Attachment A of Comments of Cities of Burnsville and Eagan (additional outlet charge rising from $3.95 to $5.20 after deregulation); Comments of City of Tallahassee, Florida at 3 (monthly rates for additional outlets with converters rising from $1.50 to $4.00). Others point to installation charges that have jumped by a total of 200 percent. See, e.g., Attachment A to Comments of Cities of Burnsville and Eagan (aerial installation rates rising from $19.95 to $59.95); Comments of City of Kearney at 1 (installation rates rising from $0. to $27.41); Joint Comments of City of Dubuque, Iowa, Montgomery County, Maryland, and City of St. Louis, Missouri ("Dubuque, et al.") at 15 (Montgomery County installation rates increasing a total of 256 percent).

68 For example, Concord Cable contends that its programming costs from 1986 to 1990 increased overall by 120 percent, and that one-third of its $3.10 increase in basic service charges reflects the increase in programming costs. Similarly, the New England Cable Association ("NECA") claims that one cable system pays a franchise fee three times more than the state law defined cap and has been required to expend substantial funds for such franchise-required projects as renovating a city-owned building for use as an access studio, purchasing and maintaining access equipment, funding public access and renting the access studio; according to NECA, such costs explain a significant percentage of the system's rate increases.

that rates are just now reaching competitive levels and are therefore leveling off.[69] These commenters conclude that when all these factors are taken into account, rate increases compare very favorably to the increases in the CPI.[70]

32. In order to reach any definitive conclusions regarding the cause of the rate increases revealed in the FCC-GAO survey and in the comments, price change information must be supplemented by reliable cost data. We possess only limited information on costs.[71] For example, the material submitted by Continental Cable indicates that from 1986 to 1989, its operating expenses went up by 22 percent, and programming expenses, a component of operating expenses, rose by 28 percent.[72] We note that operating expenses account for

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69 Thus, commenters like TCI contend that a short term comparison of rates is not a fair one. According to TCI, the average price of basic service from 1972 to 1986 rose at a significantly slower pace than the Consumer Price Index ("CPI") for all consumer goods, and that the increases after 1986 (during deregulation) still have not compensated for inflation since 1972. See Comments of TCI at 24-26.

70 Those opposed to this line of analysis dispute the underlying assertions. For example, NYC/NLC asserts that increases in cable rates exceed the cost of added programming or improved service. See Comments of NYC/NLC at 8-9. The Wireless Cable Association ("WCA") attributes rate increases to debt accumulation rather than compensation for previously overregulated rates. See Comments of WCA at n.6. The Massachusetts CATV Commission asserts that rate increases are not justified by the increase in number of programming channels, because the increase in channels has partially resulted from the proliferation of home shopping channels and others that cost little and that share their profits with the cable operators. See Comments of Massachusetts CATV Commission at 5. While the data alone cannot be analyzed with respect to market power, we do attempt to analyze market power based on the other factors. See infra paras. 46, 54-59.

71 In the absence of specific cost data, some commenters have suggested that expressing prices on a per channel basis and then deflating per channel price increases by the economywide inflation rate (i.e., CPI) during the relevant period give an accurate picture of how the nature of basic service has changed over time. Using data from the FCC-GAO survey, we find that the per channel price of basic service rose 7.0 to 7.4 percent from November 30, 1986 to December 31, 1989 (equivalent to an annual rate of under 2.5 percent), depending on the definition of basic service used. This measure too is imperfect because it does not directly capture changes in the cost of cable channels.

72 These data appear in Cable Television Operations and Finance: Seminar for the Federal Communications Commission Staff, an ex parte presentation made

60 percent of total revenues in the cable systems in this sample.[73] We also possess only limited information concerning the underlying costs of adding channels to the system.[74]

3. Conclusions

33. The comments clearly support the principal conclusions that we have derived from our analysis of the FCC-GAO survey data. Following the sharp rate increases in the first year following widespread rate deregulation, the upward trend in basic cable rates has moderated and the recent rate of increase for all services (basic and pay) is only slightly more than that of general inflation. In fact, the average price of basic cable service when measured on a per-channel basis has increased at a rate significantly lower than inflation during the past three years.

34. Of course there have been systems for which rates increased substantially more than the average. We believe that these limited individual cases -- including cases in which system operators more than doubled cable service rates during this period -- contributed to some consumers' outcry and the broader concerns that cable operators exercise market power. As the preceding analysis shows, cable rate increases during this period were, on average, far more moderate. There is more than one possible explanation for the rate increases documented in the FCC-GAO survey and in our inquiry. On the one hand, the rate increases revealed by our inquiry and survey may reflect only a one-shot "correction" to rates that had been constrained below reasonable levels before deregulation. On the other hand, because market power manifests itself as an ability to raise and hold prices above cost over a protracted period, these increases might, as some commenters suggest, be evidence of market power. Lacking essentially any cost data, however, we are unable to draw a conclusion about why cable service rates rose or the degree to which these rate increases reflect market power. In particular, we cannot

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by Continental Cablevision on March 26, 1990 ("Continental Cablevision Presentation").

73 Continental Cablevision Presentation.

74 In the retiering now underway it is not unusual to see the modified tier offered at a price only slightly less than the pre-retiered price, with the remaining channels offered for one or two dollars more. We do not have information adequate to determine the extent to which cable customers preferred significant rate increases with additional channels to rate stability without additional channels on the Tier I and II packages of services. Further, we have no cost data regarding franchise fees or improved customer service or technical compliance requirements.

conclude that the price increases reflect a pattern of anticompetitive behavior or a definitive degree of market power by the cable industry.

B. Cable Service

35. The commenters who complain about rising rates also express an additional concern -- that as rates have increased, the quality of cable service has remained static or declined. This section examines this concern in light of the three basic areas of service covered by the record in this proceeding: (1) technical service, such as picture quality; (2) nontechnical service, such as installations, repairs, continuity of service, telephone interaction and billing practices; and (3) the number and quality of programming services offered by cable systems. As discussed in detail below, the number and quality of programming services offered by cable systems have increased significantly, but the record reveals a pattern of dissatisfaction with the quality of technical and customer service rendered by many cable systems.

1. Technical Cable Service

36. On the issue of technical cable service, the record in this proceeding adds little to the record already established in our pending cable technical standards proceeding (MM Docket No. 85-38). In 1988, the Commission solicited comments in MM Docket No. 85-38 on its proposal to extend the FCC's voluntary technical guidelines[75] for video signals carried on class I cable channels to cover video signals carried on class II and class III channels.[76] At present, local authorities are permitted to adopt our guidelines as franchise requirements for class I channels. These authorities also may adopt less stringent requirements, but they are prohibited from imposing stricter standards for class I channels or any standards for class II through IV channels.

37. The comments in MM Docket No. 85-38 were fairly polarized. Cities and allied interests argued that cable technical service is often unsatisfactory, that the Commission should adopt mandatory standards for class

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75 47 C.F.R. § 76.605(a).

76 Further Notice of Proposed Rule Making in MM Docket No. 85-38, 3 FCC Rcd 5966 (1988). Commission rules separate cable channels into four classes, or categories. See 47 C.F.R. §76.5(t)-(w). In general, class I channels carry broadcast programming; class II channels deliver non-encoded cablecast programming; class III channels carry encoded cablecast programming and non-video, non-interactive communications; and class IV channels carry interactive communications.

I, II and III channels and that local authorities should have the discretion to adopt stricter standards. While not opposing the Commission's proposal to extend the reach of its voluntary guidelines beyond the class I channels, cable interests asserted that any other expansion of the standards is unnecessary. All parties agreed that the Commission should not adopt technical standards for class IV channels; the franchising authorities, however, argued that they should be permitted to set such standards for their franchisees.

38. In the current proceeding, the Commission again sought information about the technical quality of existing cable service, which resulted in some additional evidence in the record suggesting that the technical quality of cable service could be improved. NYC/NLC cites the experience of some franchise areas in Illinois in which the cable operators' services not only fail to meet our guidelines but continue to deteriorate. In its reply comments, NYC/NLC reports the results of recent surveys of customers served by two cable companies in New York City. Forty percent of the surveyed customers of Manhattan Cable, which serves the southern half of Manhattan, rated their cable television reception as "fair" or worse. Since approximately 28 percent of those responses were in the "fair" category, 88 percent of Manhattan's customers surveyed rated their cable television reception as "fair" or better. Nearly 61 percent complained of prolonged or repeated picture or sound problems in the last two years; almost 42 percent experienced picture or sound problems in the thirty days preceding the survey. For Paragon Cable, serving the northern half of Manhattan, the results were only slightly better. Thirty-five percent of its customers rated their cable television reception as "fair" or worse. Since approximately 26 percent of those responses were in the "fair" category, 91 percent of Paragon's customers rated their cable television reception as "fair" or better. Slightly more than 56 percent of Paragon's customers reported repeated or prolonged picture or sound problems within the last two years; 28 percent reported picture or sound problems within the thirty days preceding the survey.

39. Cable operators contend that problems with technical quality of cable service generally occur with older systems or with systems that are in the process of upgrading their facilities. In addition, cable operators generally state that since the passage of the Cable Act, they have spent substantial sums to improve the quality of the picture they transmit to their customers. While there is evidence in the record of substantial investments on the part of the cable industry in facility upgrades, these investments largely represent an increase of capacity or upgrade in programming, and are not directly responsive to consumer complaints regarding the technical quality of service. Based on the evidence submitted in MM Docket No. 85-38 and in this proceeding, we find that there is a pattern of technical problems with cable service. As more fully discussed below in Section V-B, we believe the best course is to encourage further inter-industry negotiations to develop a consensus proposal on mandatory federal standards, in order to prevent a patchwork of inconsistent technical standards in franchise agreements.

2. Cable Customer Service

40. As with technical service, the record reveals a pattern of customer service problems. Numerous commenters, including individual subscribers, complain that cable operators are often inaccessible or difficult to reach by telephone, rude in their dealings with the public, unresponsive or unaccommodating to repair requests and slow or unhelpful in correcting billing errors. Complaints also were raised regarding the difficulty of receiving credit for service outages, installation delays in wired areas and unredressed property damage in connection with installations. Los Angeles reports a steady increase in consumer complaints, culminating with a rate of 23.6 oral and written complaints per 10,000 subscribers for all of its franchisees during the last quarter of 1989.[77] The NYC/NLC survey of the two cable operators serving Manhattan reflects a myriad of problems in telephone, repair and billing service.[78] Other franchising authorities report numerous service complaints,[79] although a minority indicates that nontechnical service provided by their franchisees is acceptable.

41. Cable interests generally acknowledge that there are incidents of poor service, but they state that service is, for the most part, adequate, and that many of the problems are transitional, reflecting the usual difficulties that attend dramatic, rapid industry growth and facilities upgrades.[80] A number of cable commenters have pointed to NCTA's "Recommended Cable Industry Customer Service Standards" to show that the cable industry is concerned about consumer complaints and intends to improve its service. In February 1990, NCTA adopted these voluntary consumer service standards to govern office and telephone availability, installations, outages and service calls, communications, bills and refunds. Critics of the cable industry state that NCTA does not anticipate general compliance with these standards until July 1991 and that, until then, cable systems will continue to provide service at a level below that which any non-monopoly enterprise already must meet

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77 See Comments of Los Angeles at 22. It should be noted, however, that the complaint ratios cited by Los Angeles appear to include complaints about rates and technical service, as well as nontechnical service.

78 See Attachment to Reply Comments of NYC/NLC. For example, the results for both systems show that more than half of the subscribers who attempted to call their cable system during the last two years were, in their last attempt to phone, placed on hold for more than one minute or were never connected.

79 See, e.g., Comments of Dubuque, et al. at 20; Comments of City of Hawthorne, California at 10; Comments of City of Santa Ana, California at 8; Comments of City of Torrance, California at 4.

80 See, e.g., Comments of Time Warner at 20.

every day to stay in business.[81] According to Dubuque, the NCTA voluntary standards constitute "an extraordinary admission by the cable industry that its treatment of consumers is generally abysmal now."[82] NYC/NLC contends that the NCTA standards, while welcome, are insufficient to resolve current problems because the standards are voluntary and, depending on the needs of given community, may be inadequate.[83]

42. Our own analysis of the entire record leads to the conclusion that there is, at this point, a pattern of problems with the customer service offered by the cable industry. As described elsewhere in this Report, there currently is insufficient competition to provide a check on the quality of service offered by cable operators and responsive measures thus are necessary to ensure that consumers receive adequate service quality. Accordingly, in Section V-B below, we recommend that Congress clarify the subscriber protection provisions of the Cable Act to increase the effectiveness of the powers given to local franchising authorities to oversee the customer service practices of cable operators.

3. Programming Fare

43. There is no question that the number of programming services offered by cable systems has increased substantially since the passage of the Cable Act in 1984. As we observed in the Notice, the number of existing or proposed cable services in 1984 was reportedly 67, while in 1989, the number of domestic existing and proposed pay TV and satellite cable services was reportedly 181.[84] In the first two years after deregulation (1986-1988), cable systems, on average, added five to six programming channels to their basic service tiers, according to the first GAO survey.[85] The next year (1989), cable systems generally added another one to two more channels to their basic service tiers, according to the FCC-GAO survey.[86]

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81 See, e.g., Reply Comments of City of Dubuque, Iowa ("Dubuque") at 15-16.

82 Id. at 15.

83 Comments of NYC/NLC at 35-36.

84 See Notice, 5 FCC Rcd at 376 n.8, citing 53 Television & Cable Factbook, Cable & Services at 166-71 (1985 ed.) and 57 Television & Cable Factbook, Cable & Services at C-3 (1989 ed.).

85 See 1989 GAO survey at 3.

86 See Appendix F, Tables 1A and 1B.

44. Individual reports by commenters also reflect the increase in the number of programming services. Twenty-three observations in the comments report an average of nine additional programming services from 1986 to 1989, almost all of which were cable networks. A number of cities, however, complain that many of the additional services are home shopping networks, which these parties state are of little value to consumers.[87] In contrast, cable interests and others have supplied extensive evidence that the cable industry has developed a substantial amount of "high quality" programming since deregulation.[88] Moreover, programming expenditures by the cable industry have increased dramatically. NCTA states that the amount invested annually in basic cable programming has more than tripled since 1984, estimating that between 1984 and 1989, cable operators' yearly expenditures on basic cable programming increased from $302 million to $965 million.[89]

45. Conclusion. While the record clearly reflects a substantial increase in the number and quality of programming services offered on cable systems, it does not necessarily lead to any conclusion about the appropriate level of cable rates.

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87 See, e.g., Comments of NYC/NLC at 9.

88 For example, Continental Cablevision of Western New England, Inc., describes the award-winning local programming efforts of its systems (which serve 136,000 subscribers overall). See Reply Comments of Continental Cablevision of Western New England, Inc., at 7-8. The National Association of Broadcasters ("NAB") acknowledges that "[c]able provides numerous unique services and niche programming which could not otherwise be made available in most markets," and that "in this regard the growth of cable has [undoubtedly] been a public good." Reply Comments of NAB at 2.

89 Comments of NCTA at 17-18. In support of this assertion, NCTA relies on data compiled by Paul Kagan Associates, Inc., a leading industry analyst.

III. THE COMPETITIVE POSITION OF CABLE TELEVISION IN THE VIDEO MARKETPLACE

A. Local Distribution of Video Programming

1. Summary Statement

46. In general, consumers today have a wider range of video services from which to choose than ever before. Local cable television service provides, via a single medium, a cluster of video services the components of which are also frequently available from other sources. Our analysis of the local market for distribution of video programming, based on the extensive record we have compiled in this proceeding, indicates that cable operators possess some market power; though the degree of market power cannot be quantified precisely and varies across markets, depending on a variety of factors.[90] This conclusion is based on our analysis of the services offered by cable and its rivals, and on calculations of the "q ratio," a statistical measure that has been used to quantify market power. Studies of the impact of broadcast signal availability on cable rates are also consistent with the finding of varying degrees of market power.

47. The fact that cable operators possess varying degrees of market power does not mean that other delivery media do not compete with cable. Broadcast television and videocassette rentals provide substitutes for some, but not all, of the services offered by cable, and thus constrain the behavior of cable operators to some extent. Moreover, the degree of competition confronting cable is expected to increase over time. Rivals such as SMATV, MMDS, home satellite dishes (HSDs), and second cable systems will probably expand their coverage, and DBS service may begin to have a significant impact in four or five years. Hence, we will focus our recommendations and actions in this area on encouraging rival multichannel video providers to enter the market and on invigorating the existing competition to cable as soon as possible.

2. The Relevant Market

48. The conceptual framework for delineating the relevant market comes from antitrust analysis. Relevant markets have both a geographic and a product-line dimension. In the case of cable, the principal geographic market is local. Most cable systems operate under a local franchise that describes the area within which they are entitled to distribute video services. Moreover, cable systems in different areas do not compete with each other for subscribers.

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90 See supra note 19.

49. Delineation of an appropriate product market is complicated, since a variety of other media clearly compete with cable systems in the provision of various categories of programming. Thus, our assessment of the degree of competition in the relevant product market must be based on examining the extent to which consumers can and do utilize other media to obtain reasonable substitutes for the services that cable television offers. Commenters differ on the degree of substitutability actually provided by the media enumerated above and on the significance of that substitutability for public policy.

3. Characteristics of Cable and Rival Media -- Reasonable Interchangeability

50. The services provided by cable television systems can be divided roughly into four categories. First, because cable can offer a high level of signal quality, it serves as an "antenna service," delivering quality reception of retransmitted local broadcast signals. Second, cable offers "premium" programming, such as recent movies, usually without commercial interruption. Third, cable offers some general interest basic channels similar to independent television stations, such as USA Network and TNT. The wide array of specialized basic services like CNN, ESPN, MTV, and BET constitutes the fourth service category.[91]

51. The evidence shows that different media provide competition for different components of cable service. The availability of comparable off-air broadcast television service is a good substitute for cable's "antenna service" function. The substantial penetration of VCRs and the ubiquity of tape rental stores provides a good substitute for commercial-free movie channels.[92] Indeed, tape rental has some desirable characteristics that compare favorably with those of premium cable channels.

52. With respect to the third and fourth components of cable service, satellite-delivered basic channels, broadcast signals offer some degree of competition to the more broadcast-like basic cable services. As noted above, some basic services offer programming similar to that of independent broadcast stations and, in fact, distant broadcast signals represent a

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91 Cable systems are able to provide these categories of service because of two key characteristics: (1) multiple channel capacity (which permits the provision of a wide range of programming); and (2) the ability to charge viewers for the service.

92 The two services do differ, of course, with movie channels offering some first-run and sports programming, plus added convenience, and tape rental offering time flexibility, selection, and the ability to pay only for programs one specifically chooses to view.

significant component of basic cable viewing. Furthermore, the type of material offered by specialized cable services such as CNN, ESPN, MTV, Nickelodeon, BET, and C-SPAN,[93] which comprise the final component of cable service, is available to some extent from broadcast signals, particularly in markets with many such signals.[94] Broadcast channels generally do provide news, sports, weather, music videos, childrens' programming, and minority-oriented programming. However, such programming is not available over-the-air on a full-time basis as it tends to be on cable, thus making the specialized cable channels that provide such programming highly valued by subscribers who particularly like the type of specialized programming they provide. Of course, there are certain exclusive live events on cable, such as the National Basketball Association playoffs on TNT, for which an exact substitute is not available. Nevertheless, the large, albeit gradually declining, share of cable household viewing accounted for by local broadcast signals suggests that sufficient broadcast signal availability can constrain the ability of cable systems to raise prices for basic cable service and local signal retransmission.[95] At the same time, the growing share of viewing accounted for by cable network viewing underlines the drawing power of cable networks.

53. Some commenters proposed an extremely broad product market definition, including information and leisure entertainment services. By

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93 CNN is a 24-hours news service, ESPN is a national sports channel, Nickelodeon is a children's service, BET is a service designed to showcase programming from the perspective of Blacks, and C-SPAN carries Congressional proceedings.

94 It is well established that as the number of broadcast signals in a market increases, more and more specialized programming is offered. For a discussion of the mechanics of this process, see Wildman and Owen, Program Competition, Diversity, and Multichannel Bundling in the New Video Industry, in Video Media Competition: Regulation, Economics, and Technology at 250-255 (Noam ed. 1985).

95 Sixty one percent in January-April 1990, down from 65 percent a year earlier. The viewing data are from Cabletelevision Advertising Bureau, "Advertiser Alert: Basic Cable Leads in Average Ratings Delivery January '90-April '90 Year to Date" (undated). The analysis is based on Nielsen data and, because the reported figures do not distinguish between local and distant independents, the actual viewing share for local signals is lower than 61 percent. Nevertheless, the fact that, in cable television households, the viewing share for local signals is large suggests that availability of a significant number of over-the-air signals, particularly in conjunction with certain other factors, may be sufficient to constrain a local cable system's market power.

this standard, radio, the print media, movie and legitimate theater, live events, and other alternatives belong in the market. While these media and activities provide substitutes for some services provided by cable, the magnitude of their impact appears to be too small to justify including them in our market power analysis.

4. Statistical Evidence of Cable Market Power

54. The record in this proceeding and in MM Docket No. 90-4 (the "Effective Competition" proceeding)[96] includes two types of statistical evidence on the issue of market power -- q ratio calculations and regression analyses that relate broadcast signal availability to basic rates and other relevant parameters.[97] These categories of evidence are discussed in the following paragraphs.

55. The q ratio. The q ratio is defined as the ratio of the market value of a firm to the replacement cost of its assets.[98] Industry-wide or economy-wide q ratios can also be calculated. While the q ratio was originally developed as a tool to analyze investment decisions, it has also been employed as a measure of market power. Although there are some conceptual and important measurement problems associated with applying the q ratio, it is recognized as a useful indicator of market power.

56. The q ratio is designed so that in competitive industries, the q ratio will be equal to or close to 1.0. In other words, the market value of

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96 See Notice of Proposed Rule Making in MM Docket No. 90-4, 5 FCC Rcd 259 (1990). In that Notice, the Commission tentatively concluded that changed circumstances in the video marketplace made it necessary to review the "three broadcast signal" standard for determining if cable systems are subject to "effective competition." The Cable Act exempted from rate regulation cable systems subject to effective competition and directed the Commission to establish the standard by which the presence of effective competition would be determined.

97 Data on post-deregulation changes in basic cable rates are discussed in Section II-A. The record shows that basic cable rates have increased substantially since deregulation, but, on a per-channel basis, the increases have been modest. Moreover, conclusions regarding market power cannot be drawn based on price changes alone; data on cost changes are also needed. However, the Commission lacks such cost data.

98 A more complete explanation of our use of the q ratio in analyzing the cable industry is set forth in Appendix E. Appendix E discusses the calculation of the q ratio, measurement problems, and other limitations in using the ratio.

assets should be equal or close to their replacement cost. If the q ratio is greater than 1.0 (i.e., if the market value is greater than the replacement cost), someone could find it profitable to enter the market, driving the q ratio back to 1.0. If there are barriers to entry, however, the firm or firms already in existence will continue to earn economic profits and the q ratio will remain above 1.0.[99] The q ratio may also remain above 1.0 if the incumbent firm controls a scarce resource, such as a license to use the radio spectrum.[100]

57. Some commenters have suggested that the q ratio for cable television systems ranges from approximately 3.3 to 4.3. For example, in the q ratio analysis submitted by Paul MacAvoy, the cable industry q ratio is calculated at 3.3 as of February 28, 1990.[101] MacAvoy's "best estimate" of q for the cable television industry as of September 30, 1989 is 4.3.[102] These calculations suggest that cable television systems are currently valued in the marketplace at three to four times the replacement cost of their assets.

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99 In the present context, "economic profits" include monopsony profits that cable operators may earn by virtue of any market power they might possess in the program acquisition market. When sellers of a product or service face only one possible buyer, the buyer is said to have monopsony power. In its review of the q ratio studies submitted in the cable inquiry, the United States Department of Justice ("Department of Justice") concludes that there is little evidence of monopsony power, so that any cable market power revealed by the q ratio analyses is attributable to cable's local distribution position. See Reply Comments of the Department of Justice at 21.

100 But see infra para. 59.

101 See Attachment to Reply Comments of United States Telephone Association ("USTA") (MacAvoy, "Reply to Comments Filed by the National Cable Television Association and Adelphia Communications Corporation, et al.") ("MacAvoy Reply Statement").

102 This estimate is based on a calculated market value per subscriber of $1698 and a replacement cost of tangible assets of $395 per subscriber. See Appendix 5 of Comments of USTA (MacAvoy, "Tobin's q and the Cable Industry's Market Power") ("MacAvoy Statement"). In addition to his preferred value of 4.3, MacAvoy presents three other estimates, based on alternative assumptions that he considers less satisfactory than those used for the preferred value. The other estimates are: 2.68, 4.56, 6.20. As explained in Appendix E, the alternative assumptions include basing replacement cost on engineering models of cable construction costs rather than adjusted book value of tangible assets and basing market value on recent selling prices of cable systems rather than on the aggregate value of their equity and debt.

58. In order to test for the possibility that the level of stock prices (used to calculate market value per subscriber) was influenced by some economy-wide phenomenon at the time these calculations were made, MacAvoy also computes the q ratio for all nonfinancial corporations. That ratio is 0.89 as of September 30, 1989 and 0.85 as of February 28, 1990.[103] Based on these figures, MacAvoy rules out the possibility that the calculated cable q ratios are high because of stock price fluctuations caused by developments in the economy at large.

59. The computation of both the numerator and denominator of the cable television q ratio, and the computation of the economywide q ratio are all subject to criticism. The most comprehensive critique of the q ratio is provided by the Department of Justice. The Department of Justice points out that the q ratio is an upper bound indicator of monopoly power, because it also reflects any monopsony power possessed by the firm or industry in question, and notes that the q ratio can remain above 1.0 in industries subject to above average risk or in industries in which firms own a scarce resource. Moreover, the Department of Justice cautions that, in some industries, certain intangible assets as well as tangible ones must be included in the replacement cost estimates. These points are discussed in more detail in Appendix E. After considering them all, the Department of Justice suggests that:

> given the magnitude of the q ratios, and the likely size of any corrections that should be made to them, it is likely that the q ratios for cable firms are greater than should be expected in industries subject to effective competition. Therefore, these studies provide some support for the conclusion that cable firms posess some degree of local market power.[104]

60. Regression Analyses. The record in this proceeding and in MM Docket No. 90-4 contains four studies examining the effect of broadcast signal availability on cable rates and one study of the impact of signal availability on market value per subscriber of cable systems.[105] These five studies, all of

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103 See MacAvoy Statement at 30-32 and MacAvoy Reply Statement at 37-38. MacAvoy also calculated q ratios for broadcast companies and for the seven Regional Bell Operating Companies and GTE. See Appendix E at para. 10. As explained therein, because these firms control scarce spectrum or are subject to rate regulation, comparison of their q ratios with cable q ratios are of little analytical importance.

104 See Reply Comments of Department of Justice at 23.

105 See Appendix A of Comments of National Telecommunications and

which employ the statistical technique of regression analysis, are discussed in some detail in Appendix E. Three of the four cable rate studies demonstrate a statistically significant inverse relationship between basic rates and the number of broadcast signals available.[106] The fourth study, which examines the change in basic cable rates from 1986 to 1988, finds no relationship. However, that study suffers from methodological deficiencies not present in the other three.[107] The fifth study finds an inverse relationship between market value per subscriber and the number of broadcast signals available. The Dertouzos and Wildman Study and the MacAvoy Reply Statement attempt to derive the precise number of broadcast signals required to constrain cable rates to competitive levels, but we cannot rely on these conclusions.[108] The other studies make no such attempt.

61. The NTIA Staff Report estimates the price per basic channel as a function of the number of broadcast signals available in the market and other variables. It examines the separate effects of increasingly greater numbers of broadcast signals, with results for 4 through 11 signals, and then for greater than 11 signals. The NTIA Staff Report finds that cable rates decline continuously as the number of broadcast signals increases.

Information Administration ("NTIA") in MM Docket No. 90-4 (Staff Report, "Competitive Effects of Broadcast Signals on the Price of Basic Service") ("NTIA Staff Report"); Attachment 1 to Comments of TCI in MM Docket No. 90-4 (Crandall, "Regulation, Competition and Cable Performance") ("Crandall Cable Performance Study"); Attachment to Comments of NCTA in MM Docket Nos. 89-600 and 90-4 (Dertouzos and Wildman, "Competitive Effects of Broadcast Signals on Cable") ("Dertouzos and Wildman Study"); Attachment to Comments of NAB in MM Docket No. 90-4 (Ducey and McLean, "The Impact of Off-the-Air Signals on Cable Pricing") ("Ducey and McLean Study"). For the market value per subscriber study, see MacAvoy Reply Statement.

106 In addition to "demand side" factors, such as the availability of substitutes, cable rates are affected by "supply side" factors, i.e., costs. Good cost data are not generally available. Nevertheless, it is worth noting that areas with many broadcast signals are also frequently served by relatively high-capacity cable systems. Such systems may realize economies of scale and scope that allow them to offer service at lower cost. Among other factors, high-capacity systems can earn revenue and recover costs from a wider than average range of sources, including multiple pay channels, pay-per-view events, and the scale of a greater complement of local advertising availabilities. Other things equal, prices will be lower on cable systems with lower costs.

107 See Appendix E, paras. 27-29.

108 See Appendix E, paras. 26 and 30 for a discussion.

62. The Crandall Cable Performance Study seeks to explain basic cable rates as a function of the number of broadcast signals available in the market, the number of basic cable networks carried, and other factors. It finds that basic cable rates decline as the number of broadcast signals increases, but, after a threshhold of five signals has been reached, the effect is no longer statistically significant.

63. The Dertouzos and Wildman Study relates the basic cable price per channel to broadcast signal availability and other factors. It finds that availability of five signals, and also of more than six channels, has a significant negative effect on rates. The study claims that the maximum effect on cable rates occurs at five signals.[109]

64. The Ducey and McLean Study seeks to explain the change in basic rates by the number of off-the-air signals available in the cable service area in 1988. No statistically significant relationship is found.[110]

65. Finally, the MacAvoy Reply Statement finds that broadcast signal availability has a statistically significant negative effect on market value per subscriber but the magnitude is small.[111]

66. In sum, while none of these studies satisfactorily indicates the point at which broadcast signals reduce cable rates to the fully competitive

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109 The Dertouzos and Wildman Study relies on another work, not in the record, to deduce that the availability of five broadcast signals is sufficient to constrain cable rates to competitive levels. That inference is critiqued and rejected in Appendix E at para. 26. The statistical results presented, do not support such an inference, since the study does not report on the separate effects of greater numbers of channels (i.e., 7, 8, 9, 10, or more).

110 Because this study does not control for other relevant variables, because it suffers from other defects, and because the other three studies all document a statistically significant relationship between cable rates and signal availability, we are inclined to discount the Ducey and McLean Study. For a more detailed critique of this study, see Appendix E, paras. 27-29.

111 This study also reports a calculation that roughly 60 broadcast signals would be needed to reduce cable system market values per subscriber to the competitive level. However, the assumptions utilized to derive that number are subject to some criticism, so we view it sceptically. For a critique of the 60 signals calculation, see Appendix E, para. 30.

level, the regression analyses we have reviewed lead us to conclude that broadcast signal availability can be a significant constraint on basic cable rates.

5. Other Evidence

67. Information on current basic cable rates in markets served by more than one competing cable system is available, both in the record and from FCC staff research.[112] These sources indicate that, where cable systems compete head-to-head, per channel rates for basic service are generally significantly lower than the national average. For example, the average per channel price for the sample of cable systems listed in Appendix H is 38.2 cents as of May 1990, while the December 31, 1989 national per channel average was 58.0 cents. The national figure is 52 percent higher. What is not clear, however, is whether the prices in markets with rival cable systems are equilibrium rates.[113]

68. Other anecdotal evidence offered in the record on cable market power includes allegations regarding: poor service quality coupled with rising subscribership; cable operator pressure on programmers to withhold or impede access of rival delivery medium to their services; and suggestions that cable MSOs can extract excessive concessions from programmers in exchange for channel space on their cable systems. The first allegation is discussed in Sections II-B and V-B, but cannot be quantified in a way that allows it to be meaningfully related to market power. The second and third allegations are discussed in Section IV below.

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112 See Appendix H for information based on a telephone survey by FCC staff, and on data from the record and from the Television & Cable Factbook. See also Hazlett, Duopolistic Competition in Cable Television: Implications for Public Policy, 7 Yale J. on Regulation 65, 90 (Winter 1990); Hazlett, Competition v. Franchise Monopoly in Cable Television, IV Contemporary Policy Issues 80 (1986). Additional data are available in Consumer Research 10 (May 1990).

113 If they reflect "predatory pricing" on the part of existing cable operators to prevent competition, as second entrants sometimes claim, then such rates are unlikely to be sustainable. Moreover, if existing operators are willing to absorb short-run losses to drive out (or create the opportunity to buy out) entrants, it suggests that incumbents may have created barriers to entry into the cable business. Such barriers are an indication of market power. See Testimony of Harry P. Cushing, III, President and CEO of Telesat Cablevision, Inc., ("Telesat"), FCC Orlando Cable Field Hearing (March 2, 1990); see also Comments of Telesat at 20-26; Reply Comments of Telesat at 5; and Letter from Gregory Schmidt, Counsel to Telesat, to The Honorable Alfred C. Sikes, Chairman, FCC (July 17, 1990).

6. Conclusion

69. A careful examination of the characteristics of cable service and the characteristics and availability of rival distribution media suggests that cable systems do possess varying degrees of market power in local distribution. The video marketplace continues to be a highly dynamic sector in the midst of transition. Cable television service consists of a unique cluster of services comprised of retransmitted broadcast signals, premium programming, broadcast-like basic cable services, and specialized basic cable network services such as ESPN, CNN, MTV, and BET. Local broadcasters provide varying degrees of competition to cable's retransmission function, and, to a certain extent, to the more broadcast-like basic cable services. Also, video cassette rentals provide significant competition to premium movie services. Although broadcast stations offer some degree of the specialized programming provided by the specialized basic cable network services, they do not provide it full-time. Generally, there is no close substitute for that steadily-expanding complement of specialized program services offered by the typical cable system at this time.

70. Our conclusion regarding cable market power is supported by the q ratio analysis. While the exact magnitude of the cable industry q ratio cannot be pinpointed precisely, the record shows that it is high enough to indicate the presence of some market power. The degree of market power differs from market to market, and the q analysis is not well suited for indicating with any precision the degree to which cable rates are above competitive levels. Because the q ratio is sensitive to the assumptions used in its calculation and to specific industry characteristics, it must be applied with caution. Post-deregulation increases in basic cable rates, in the absence of cost data with which to compare them, do not permit an inference regarding cable market power.

B. National and Regional Market Power Issues

1. Findings Regarding Horizontal Concentration

71. Although measuring horizontal concentration of control in the cable industry involves certain complexities and is thus subject to some debate, the record in this proceeding demonstrates a clear trend toward increased national concentration -- a trend that has accelerated since the enactment of the Cable Act. We agree with other federal agencies and the cable industry that this increased concentration has provided economies of scale and fostered program investment. However, this increase in concentration among companies that frequently enjoy monopoly franchises has also raised the question of whether MSOs (particularly the largest MSOs) have attained sufficient market power to extract unreasonable concessions from program suppliers and to unfairly restrain competition from alternative distribution services.

72. Concentration of control in the cable industry is based on the share of subscribers served by individual cable companies through their ownership or control of numerous local cable systems. Such concentration may be measured on a local, regional or national basis. On the local level, relatively few cable systems presently face competition from other multichannel video distributors for either programming or subscribers,[114] but they do compete directly with broadcast stations for programming, viewers and advertising revenues.[115] Cable operators also participate in regional and national markets for the creation and distribution of video programming, competing with other cable operators (including MSOs), broadcast networks and stations, and other distributors of video product. A system's ability to compete in these regional and national programming markets is obviously enhanced to the extent it is affiliated with an MSO, which is able to distribute a supplier's programming to significant numbers of subscribers. Horizontal concentration not only enables cable operators to share with program producers information about the tastes and reactions to programs of a wider base of viewers, thus helping to assure a closer match between those tastes and the programs those producers create; it also permits those operators to take advantage of valuable economies of scale.[116]

73. Data developed in this proceeding reveal that, overall, national concentration in the cable industry has increased significantly since the Cable Act was passed. For example, as shown by the tables in Appendix G,[117]

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114 See Section III-A, supra.

115 See, e.g., Comments of NAB at 19.

116 For a more extensive discussion of the benefits of horizontal concentration, see infra Section III-B-3.

117 The first three tables in Appendix G assess the level of national horizontal concentration in the cable television industry. (It was not possible to compile data on regional concentration of control.) Table I presents statistics based on the most recent data showing the number of subscribers to cable systems operated by each of the ten largest MSOs as a percent of subscribers to all systems of the 50 largest system owners ("top 50 subscribers"). The subscribers to each of the ten largest MSOs are also shown as a percent of the total of all cable subscribers. In addition, Table I provides the current cumulative shares for the top 4, 8, 10, 25 and 50 largest companies based on (a) the number of subscribers to cable systems owned by the 50 largest MSOs, and (b) the total number of cable subscribers. Tables II and III are intended to compare these statistics with the comparable values for earlier years. Table II compares the share of top 50 subscribers served by the top company and top 4, 8, 10 and 25 MSOs for selected years. Table III compares the largest company and top 4, 8, 10, 25 and 50 companies' shares of subscribers, expressed as a percent of all cable subscribers for selected

TCI, the country's largest MSO, has doubled in size since 1984, and now serves nearly 12 million subscribers, or 22.16 percent of all cable subscribers.[118] The second largest company, Time Warner, currently serves another 6 million subscribers, or 11.58 percent of all cable subscribers.[119] Combined, these two MSOs alone serve almost 34 percent of all subscribers nationwide.[120]

74. The concentration of subscribers served by the top four cable companies also has increased by more than 60 percent since 1984, rising from 34.3 percent to 52.3 percent.[121] Similarly, the share of subscribers served by the top 10 MSOs has grown substantially from 41.3 percent in 1984 to 61.8 percent this year.[122] Thus, at present, the top ten cable companies serve 32.9 million of the nation's 53 million cable subscribers.

75. Commenters representing cable interests point out that, according to traditional antitrust analyses, the cable industry is relatively unconcentrated and horizontal concentration therefore is not a problem requiring any Commission action at this time. Using basic subscriber numbers to estimate market shares, these commenters find that the Herfindahl-Hirschman Index (HHI)[123] for the cable industry is between 458 and 800, depending on the sources used for data -- well below the 1000 figure used by the Department of Justice to determine that an industry is concentrated. Significantly, the Department of Justice agrees that if it is appropriate to

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years.

118 See Appendix G, Table I. TCI's share of subscribers as a percent of the top 50 MSOs increased from 10.7 percent in 1984 to 24.7 percent in 1990. Id. at Table II.

119 See id. at Table I.

120 See id.

121 See id. at Table II.

122 See id. at Table III.

123 Most commenters framed their analysis of concentration in terms of the HHI. The Department of Justice generally uses the HHI when reviewing proposed mergers. Under the Justice 1984 Merger Guidelines, and HHI below 1000 indicates a relatively unconcentrated industry. The Department of Justice is likely to challenge a merger if it produces an HHI above 1000 and increases the pre-merger index by more than 100 points. The HHI for an industry is determined by squaring the market shares of each firm within the industry and adding the squares together.

analyze cable systems as a distinct national program acquisition market, then the cable industry is relatively unconcentrated from an antitrust perspective.

76. In light of growing concentration, however, we believe that the Commission should continue to monitor further horizontal concentration in the cable industry. Even where there is agreement that the industry is not excessively concentrated under prevailing antitrust standards, there is a belief that the steady increase in concentration in the last decade has brought the industry closer to the point at which any significant increase in concentration will likely attract antitrust scrutiny.[124] Furthermore, some cable networks operate on a regional rather than a national basis, and an MSO could be sufficiently concentrated to occupy an anticompetitive position at the regional level without possessing a large enough market share to disrupt the national market. Other commenters question whether an HHI that is measured at the national level is relevant because cable operators rarely compete against each other in individual markets.[125] These parties state that horizontal concentration is more appropriately measured at the local level, and that the Commission should be concerned over the fact that most cable systems do not face competition from other cable operators in their franchise areas. Indeed, it is our view that it is the present level of local -- not national -- concentration from which MSO's have primarily derived the ability to take anticompetitive action against programming services or competing multichannel providers. If we succeed in our present mission to enhance competition to cable in the local distribution market, then MSOs' ability to leverage local market power on an intermarket basis will be constrained, as well. Thus, we conclude that the current level of horizontal concentration in the cable industry is not sufficient to warrant regulatory intervention. However, the Commission intends to examine trends in horizontal concentration in the future.[126]

2. Findings Regarding Vertical Integration

77. At the same time that the cable industry has become more horizontally concentrated, it has become more vertically integrated,[127] with

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124 See Comments of NTIA at 48-53.

125 The commenters further note that, even by traditional measures, cable concentration at the local level exceeds the level of concentration enjoyed by broadcast stations, virtually all of whom have head-to-head competition from other broadcast stations within their service areas and are subject to various Commission ownership restraints.

126 See infra para. 91.

127 Vertical integration refers to common ownership of cable systems and program networks, channels or services.

many popular cable networks now having ownership links with one or more MSOs.[128] The record in this proceeding shows that the same MSOs that have grown horizontally since 1984 have also acquired more and more interests in cable programming services and networks. For example, TCI, the country's largest MSO, presently owns equity interests in 22 cable networks.[129] Time Warner, the second largest MSO, holds interests in 8 cable networks.[130] And Cox Cable, which ranks as the fifth largest MSO, has equity interests in 6 cable programming services.[131]

78. Overall, cable systems have equity interests in 13 of the top 20 national basic cable networks, and in 6 of the 8 national pay cable networks. The exact nature of the link varies considerably from network to network. For example, several programming networks have broadly based cable operator ownership participation, some are wholly owned by one or a few MSOs, and some networks have both MSOs and non-MSOs as part owners. This vertical integration has increased both the quality and quantity of program services available to the viewing public.[132]

79. It is apparent that vertical integration of the cable industry has accelerated since passage of the 1984 Cable Act. In fact, the Cable Act

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128 Tables in Appendix G show the patterns of vertical integration since 1975. More specifically, Table IV lists the national cable programming networks with at least some degree of cable operator ownership/equity, and indicates when the service began. Table V lists the national cable programming services with no cable operator ownership interest and states when they began service. Table VI is based upon recent data that presents the vertical interests of the major MSOs. This information shows the varied pattern of vertical ownership common in the cable industry. Table VII presents the vertical connection, if any, between the largest cable programming networks (in terms of subscribership) and MSOs. (Non-MSO ownership interests are not reported.) Table VIII presents the vertical connection, if any, between the most popular cable programming networks (in terms of ratings) and MSOs. (Again, non-MSO ownership interests are not listed.) Table XV in Appendix G contains data indicating that the number of vertical relationships has increased since deregulation.

129 See Appendix G at Table VI.

130 See id.

131 See id.

132 For a more extensive discussion of the benefits of vertical integration, see infra Section III-B-3.

presents somewhat of a line of demarcation in the vertical integration of the industry. In the years before passage of the Act, numerous independent cable channels (i.e., without MSO equity participation) began operation, and many of these continue to enjoy high subscribership. Data presented in this proceeding show that only thirty-eight percent (14 of 37) of the channels that pre-date passage of the Cable Act are vertically owned.[133]

80. Data for channels begun since passage of the Cable Act present a significantly different pattern. Sixty-four percent of cable channels launched since passage of the Cable Act (21 of 33) are vertically owned.[134] Furthermore, post-Cable Act channels which are vertically owned enjoy significantly higher subscribership (and correspondingly higher ratings) than new non-vertically owned channels. For example, Tables VII and VIII of Appendix G present subscribership and ratings data for the most popular cable channels. Only three post-Cable Act channels appear among the 15 channels with the highest subscribership and ratings; all three (TNT, The Discovery Channel and Nickelodeon) are vertically owned. In fact, FNN/Sports, the post-Cable Act independent programmer with the highest subscribership, has less than half of the subscribers of the vertically owned Discovery Channel.

81. This increase in vertically owned channels subsequent to the enactment of the Cable Act may be explained at least in part by the increasing difficulty encountered by new channels in gaining a niche in the steadily expanding universe of competing cable services. This is not to say, however, that only vertically owned programmers are successful. Some independent programming channels are among those with the highest subscribership. For example, the cable channel with the highest subscribership is independently owned ESPN. However, all of the independent channels with the highest subscribership and ratings were established -- in most cases well established -- before passage of the 1984 Cable Act.

3. Benefits of Horizontal Concentration and Vertical Integration

82. We agree with a number of commenters in this proceeding, including other federal agencies[135] and various cable interests, that horizontal

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133 Moreover, some of these 14 channels which currently are vertically integrated, including CNN, the Family Channel and WTBS, began as independently owned channels, and became vertically integrated only after passage of the Cable Act.

134 As noted at note 133, in addition to these 21 channels, since 1984 MSOs have acquired equity interests in at least three programming services that were independent before passage of the Act.

135 The government commenters are NTIA, The Department of Justice and the staff of the Bureau of Economics and the San Francisco Regional Office of the

concentration and vertical integration produces significant benefits for cable subscribers. Higher concentration levels in the cable industry have enabled companies to take advantage of valuable economies of scale and foster investment in more and better program sources, which lead to more investment in programming, more original programming and a wealth of new viewing options for consumers.

83. For example, on several occasions, MSO investment has enabled a programming service to remain in operation when it otherwise would have been forced to discontinue its programming. MSO commenters emphasize that the cable industry provided critical financial support to sustain both Turner Broadcasting (owner of WTBS and CNN) and C-SPAN.[136] In addition, NCTA quotes Discovery Channel Chairman John S. Hendricks' statement that cable operators' investment "rescue[d]" his programming service.[137] Another example is TCI's financial backing of Black Entertainment Television (BET), which BET's own president describes as being "most responsible for the fact that black Americans today have dedicated to their specific viewing interest a 24-hour cable television network."[138] Thus, vertical integration by MSOs with significant subscribership has contributed to program diversity by providing financial support for faltering program services.

84. Horizontal concentration and vertical integration can also promote the introduction of new services into the increasingly competitive programming services market. In addition to providing needed capital and a ready subscriber base for such services, cable operators can more easily share information with producers about viewer taste, reaction to programs and desire for new programs. Vertical integration also can help a cable company avoid transaction costs normally incurred in acquiring programming. Such costs include time, human resources, and money expended in negotiating and enforcing program contracts.

85. Vertical integration enables cable operators to improve the quality of existing program services. Cable systems have strong market incentives to make the program services they offer more attractive if they

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Federal Trade Commission ("FTC").

136 See Comments of Cablevision at 134; Coments of NCTA at 55.

137 Comments of NCTA at 55 (quoting Statement of John S. Hendricks before the Subcommittee on Communications of the Senate Committee on Commerce, Science and Transportation at 4 (June 21, 1989)).

138 Comments of NCTA at 56 (quoting Testimony of Robert L. Johnson before the Subcommittee on Communications of the Senate Committee on Commerce, Science and Transportation at 3-4 (June 21, 1989)).

believe market penetration will increase as a result.[139] In the absence of a vertical relationship, however, increased programming expenditures by one cable operator, which generally would result in better programming, could benefit unaffiliated system owners in other communities who, because of their position as the only local multichannel program provider can obtain and distribute this new programming relatively inexpensively, even though they have not contributed any initial investment to the creation of this programming. This would create a "free rider" situation, resulting in a decrease in overall expenditures that would otherwise be devoted to programming investments. Vertical integration between cable operators and program producers can help avoid the potential "free rider" problem.

86. Furthermore, vertically integrated cable systems will have little incentive to reduce program payments unreasonably to programmers that it owns, because these payments will ultimately return to the system. The result for the public is an increase in the quality and amount of programming that flows from an increase in revenue to the programmer.

4. Other Relevant Issues

87. In addition to distributing video programming on a local level, cable operators also sell advertising time, purchase and create programming and distribute such programming to other video providers. The advertising and programming markets clearly have regional and national dimensions, and commenters have raised concerns that cable's horizontal and vertical ownership patterns reflect an undue degree of market power on the regional and national levels.

88. We do not find that horizontal concentration or vertical integration gives cable systems market power in advertising markets. In the national advertising market, advertising is sold by the programmers, not by cable operators. While it is true that MSOs have interests in most (but not all) popular programming, all cable programming services reach far fewer homes than broadcast networks, providing a much smaller audience for advertisers. In local spot advertising markets, the competitiveness of the market depends on the number of local outlets, not upon the extent of the cable operator's national or regional ownership. It should be noted, however, that many advertisers are increasing their use of narrowcasting, which more defined audiences view more often.

89. Finally, some commenters assert that vertically integrated MSOs discriminate against services they do not own by denying carriage or offering carriage on inferior terms. Similarly, some commenters complain that

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139 Because most of cable operators' costs are fixed, revenues increase faster than costs as penetration increases for a given plant size.

vertically integrated cable systems discriminate against rival delivery media by denying or hindering access to cable-owned programming services. Some commenters state that the increasing size and concentration of MSOs may allow them to extract anticompetitive concessions from unaffiliated programming services, undermining the competitive environment on all market levels. These concerns will be addressed in Section IV-B regarding "Program Access".

5. Conclusions

90. As demonstrated above, horizontal concentration and vertical integration in the cable industry have increased significantly since enactment of the 1984 Cable Act. This has brought benefits in terms of efficiencies and program investment. Some commenters have identified concerns that can be associated with high levels of horizontal concentration and vertical integration.

91. The Commission concludes that the introduction of competition at the local level is the best way to cure any potential difficulties arising from horizontal concentration. As we have stressed throughout this Report, encouraging the development of multichannel competition to cable is our primary objective. As we will outline later in this Report, the Commission finds that carefully targeted, temporary measures can be employed to address particular program access problems associated with horizontal concentration and vertical integration. See infra para. 129-30. Such actions are warranted as an interim measure pending the realization of multichannel competition. In light of those proposals, we find it unnecessary to propose any specific structural limitations. If the Congress adopts the measures proposed in Recommendations 6 and 7 set forth in the Introduction to this Report, it should authorize and instruct the Commission to report to Congress within three years on the effect of such remedies in fostering competition in the video marketplace and whether direct limits on horizontal growth or vertical integration in the cable industry have become necessary.

IV. COMPETITIVE ANSWERS

92. Introduction. This Commission is convinced that the most effective method of promoting the interests of viewers or consumers is through the free play of competitive market forces. In the Notice, however, we indicated that it might be possible for vertically integrated MSOs to exert market power to prevent these forces from working in local, regional and national cable service and programming markets.[140] We have found and reported that cable systems do, in fact, possess varying degrees of market power in the local distribution of video programming. The following discussion in subsection A evaluates the prospects for competition in this local market.

93. The development of competition on the local level can be enhanced by taking certain steps to assure that cable's competitors are allowed limited temporary access to programming. These steps are more fully described in subsection B.

94. Subsection C examines an equally significant facet of the problem of local competition to cable: the franchise process. We have found that certain aspects of this process discourage the growth of competing cable systems and competing non-cable video distribution media. Accordingly, we make several recommendations for modifying the franchise process to increase the prospects for competition.

95. Subsection D examines the unique interdependency of broadcast and cable and the ways in which current regulations artificially and harmfully skew this relationship. This subsection also discusses measures that can make this relationship more competitive.

96. Subsection E examines another access concern: whether cable operators discourage the use of their "leased access" channels by unaffiliated programmers. Under the Cable Act, a cable operator must set aside a certain number of channels, depending on the size of the system, for commercial lease by unaffiliated programmers. It appears that these channels are underused, and we make certain recommendations to rectify this situation.

A. Prospects for Competition in the Local Distribution of Video Programming

97. In the Notice, we sought to determine whether there are viable competitors to local cable operators. In a few areas, direct competition is provided by a second competing cable system. In other areas, we stated that "[e]ven though there may be only one cable system in a given community, cable systems may face competition at the local level because subscribers have

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140 See Notice, 5 FCC Rcd at 363.

alternatives to cable service." Notice, 5 FCC Rcd at 365. In addition to the availability of a sufficient number of over-the-air television signals to act as a check on basic cable rates, we sought comment on the degree to which other sources of programming acted as partial substitutes for cable-delivered video services. Specifically, we discussed "wireless cable," home satellite receiving antennas (i.e., HSDs), SMATV and the sale and rental of pre-recorded video cassettes for use in VCRs. Wireless cable service is a multichannel terrestrial service delivered to homes over the air on channels specifically allocated for that purpose in the microwave frequency band. It offers the same type of cable network program services that traditional hardwired cable offers but generally has less channel capacity.[141] SMATV, sometimes referred to as "private cable," is a service provided in apartment buildings, condominiums, hotels, and similar multi-unit buildings, utilizing wire or cable to deliver throughout the building signals received on a satellite reception antenna and receiver.

1. Second Cable Systems

98. The number of directly competitive second cable systems is relatively small, with commenters reporting 40 to 49 directly competitive systems currently in operation.[142] Approximately two thirds of these systems have overlap areas of 50 percent or more. The relative paucity of successful competitive cable systems to date has been variously attributed to a lack of interest by cable operators (due to less attractive economics), to restrictive requirements by franchising authorities (e.g., universal service requirements), and to what has been called predatory activity by incumbents, as well as other advantages of incumbency. In those cases where second cable systems exist, the

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141 Wireless cable service can be provided via ten channels in the Multipoint Distribution Service ("MDS") and in MMDS, three channels in the Private Operational-Fixed Microwave Service ("OFS") and twenty channels in the Instructional Television Fixed Service ("ITFS"). The ITFS channels are primarily used for educational purposes and are available for wireless cable use only when an ITFS licensee is willing to lease time on its channels. Wireless cable usage of ITFS channels is also subject to certain time restrictions. See 47 C.F.R. § 74.931(e).

142 It appears that in the past local franchising authorities have rarely encouraged second competitive systems, and, where second systems have been authorized, it has been difficult for them to succeed. Commenters note that in a number of cases even when competing systems were authorized, second systems were never ultimately constructed. As of 1988, approximately twenty systems had not been constructed after authorization. While six competitive systems have failed completely, 30 such systems have been bought by or merged with the incumbent service provider.

direct competition has resulted in reduced per channel rates for cable service. See Appendix H.

99. Despite the apparent difficulties currently encountered in introducing competing cable systems to local markets, some commenters claim that there has been an increase in franchising authorities' interest in reducing barriers and authorizing competitive systems, and a recent increase in the initiation of new systems would appear to support this claim.[143] Moreover, several factors are likely to encourage the further increase in the number and extent of competitive cable systems. First, competitive systems may prove more viable if more cities modify restrictive franchise regulations and authorize second franchises as a way to resolve problems with existing exclusive operators. We can expect to see increasing interest in this approach, as the public and franchising authorities become increasingly aware of communities where second systems have proven viable and effective. Second, as the availability of attractive unwired markets declines, existing cable operators may become more interested in expanding into areas that are already served by another operator. Third, the recent dramatic increases in cable advertising revenues introduce a significant new revenue stream for cable operators, increasing the overall available income, and thus the potential support base for competing systems.

2. Wireless Cable

100. There are currently 50 or more wireless cable systems serving approximately 300,000 subscribers across the country, with numerous additional systems planned.[144] The Commission is currently in the process of updating and simplifying its rules governing the services that provide wireless cable

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143 Indeed, some state cable television associations appear threatened by this interest and have apparently been lobbying state and local governmental authorities to subject second systems to the same obligations that apply to existing operators.

144 This number is supplied by WCA, which also asserts that at least 24 new systems have begun operating in the last year alone. More systems can be anticipated. Time Warner cites the 1989 Television & Cable Factbook data showing that there were 216 outstanding construction permits, with an additional 360 lottery selectees identified, and 132 uncontested applications on file. The 1990 Television & Cable Factbook reports 161 outstanding construction permits. 58 Television & Cable Factbook, Cable & Services at B-87-96 (1990 ed.) The Commission's own records of April 20, 1990, showed 126 outstanding construction permits, 892 identified lottery selectees, and 1,293 pending uncontested applications on file.

channels. See Notice of Proposed Rulemaking and Notice of Inquiry in General Docket Nos. 90-54 and 80-113, 5 FCC Rcd 971 (1990).[145] Its expressed intent is to enhance the viability and competitive stature of wireless cable. Depending on the results of this proceeding, as well as other technological advances, wireless cable may well expand its channel capacity in the relatively near future to compete more effectively with cable in numerous communities, and eventually across the country.

101. There are two additional factors essential to the continued and successful development of wireless cable as a competitive alternative media. The first is the availability of programming. Wireless cable operators continue to contend that programming is often refused to them altogether or offered only at discriminatory prices or terms. Appended to its comments, NCTA has submitted a study by Dr. Benjamin Klein ("Klein Study") which disputes the contention that wireless cable operators are systematically discriminated against. The Klein Study concludes that over the past few years, more and more cable programming has been made available to wireless cable operators. Even taking that conclusion for granted, the record shows that programming is not available on the same terms and conditions to wireless cable operators as it is to traditional cable operators.[146] The justifications offered for such disparate treatment, the benefits of program exclusivity, and the proposed regulatory response are discussed below in Section IV-B.

102. The other significant factor affecting wireless cable growth is the impediment presented by a variety of local regulations. One impediment is the effort by some local authorities to expand the definition of "cable system." Although the Commission determined in 1978 that wireless cable systems were exempt from local franchising requirements, the issue was reopened in MM Docket No. 89-35, in which we initiated an inquiry into whether Congress intended wireless cable to be included within the definition of "cable system," and thus be required to secure local franchises.[147] A second regulatory impediment is

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145 In that proceeding, the Commission is also investigating the technological and economical practicality of the Comband transmission system, which delivers two complete program signals on each alloted channel, thereby at least doubling a wireless cable system's "channel" capacity.

146 The Klein Study does not address the severe geographic restrictions that attach to the carriage of many such programs, the frequently delayed availabilities, and the discriminatory pricing practices and different contractual terms with which alternative distribution media -- unlike cable operators -- must comply. Consequently, we cannot conclude that the cost of providing service or concerns over either the creditworthiness of alternative media or the security of their signals justify such disparate treatment.

147 See Notice of Proposed Rule Making in MM Docket No. 89-35, 4 FCC Rcd 2088 (1989).

local land use regulation, which in many localities has appeared to discriminate against wireless cable reception antennas. Third, "mandatory access" laws exist in thirteen states and the District of Columbia. These laws provide franchised cable operators, but generally not other multichannel video providers, with mandatory access to buildings. Even in some jurisdictions without mandatory access laws, local authorities achieve the same result by interpreting Section 621 of the 1984 Cable Act (47 U.S.C. § 541), which provides franchised cable operators with access to "dedicated easements," to apply to private easements. In this way, franchised cable operators are granted access to all buildings in which an internal cable system has been provided to tenants or cooperative owners. These local regulation issues are more fully addressed below in connection with the local franchise process.

3. Service to Home Satellite Dish Owners

103. HSD use in the United States has grown from approximately 900,000 units in use in 1984 to roughly 2.8 million units in use today. An initial rapid growth of HSD sales was stalled in 1986 by the advent of satellite signal scrambling. Prior to that, however, HSD sales had reached a rate of almost three quarters of a million per year, growing five-fold in a three-year period. With the near universal availablility of descramblers (a development of the last several years), along with the growth of satellite program distributors, sales rates have again begun to rise modestly since 1988, but there has not been sufficient experience to project a growth rate with certainty.[148] While the number of HSD owners is small relative to the number of cable subscribers, it is argued that HSD ownership is an effective alternative to cable service in terms of programming choice. According to one commenter, more programming is available to HSD users than to cable subscribers.[149] Nonetheless, even if a

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148 According to figures submitted by the Satellite Broadcasting and Communications Association of America ("SBCA"), monthly sales in the last half of 1989 and in 1990 (25,000 to 45,000 units per month) have been higher than in 1988 and early 1989 (15,000 to 40,000 units per month), but the monthly changes have been erratic. Sales remain well below the pre-scrambling levels.

149 There are approximately 70 unscrambled video program signals available. SBCA claims that all scrambled signals are available to HSD owners, and this commenter provides data appearing to verify this claim, although some signals are available only from certain distributors and perhaps in certain packages. See Comments of SBCA at 2 and at Exhibits B and C. While the National Rural Telecommunication Cooperative ("NRTC") specifically recounts, in its reply comments, its unsuccessful efforts to secure seven program channels at any price, those channels are carried by various other satellite distributors and thus are not being withheld from home reception.

variety of programming is available to the HSD industry at "just and reasonable" prices, as some claim, such service is considerably more expensive for HSD subscribers than cable service and requires reception equipment generally costing $2000 - $3000.[150] In addition to the high cost of HSD reception equipment, zoning regulations or physical limitations so restrict many viewers that they cannot install HSDs at any price.

4. Direct Broadcast Satellite Service

104. While DBS service will not be available in the immediate future, it does appear to be attracting the investor interest necessary to launch the service in the next three to five years. If and when DBS becomes a reality, it could readily compete with cable. Some single operators plan to offer close to thirty channels and are likely eventually to offer over one hundred channels.[151] Construction costs (satellite construction, launch, positioning and insurance) for these systems should be in the range of $300 - 500 million for the satellite capacity and $300 - 500 per subscriber for reception equipment; this compares quite favorably with the per subscriber cost for cable installations or system purchases.[152] It is thus likely that if DBS service

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150 Monthly fees for premium programming considerably exceed the fees typically charged by cable systems for the same programming. According to NRTC, satellite program distributors pay an average of 460 percent more for premium cable programming than small cable systems. NRTC supports its claim with specific program price figures submitted with its reply comments. The Commission has recently requested information regarding the pricing of superstation and network station signals from satellite distributors and cable system operators. See Further Notice of Inquiry in Gen. Docket No. 89-88, FCC 90-196 (released June 21, 1990), 55 Fed. Reg. 27478 (July 3, 1990).

151 All DBS permittees currently are assigned from eight to twenty-seven pairs of DBS channels, with each pair of channels (i.e., one channel at each of two orbital locations) capable of delivering one channel of service to the entire country. The permittees have the capability of combining facilities, and a third party lessee could lease transponder capacity from multiple DBS operators to offer a system with even more channels. Moreover, at least one DBS entity has stated its expectation to put four distinct complete video signals on each DBS channel, using a digital signal compression transmission technique, so that it could deliver 108 signals on its currently authorized twenty-seven channel system.

152 For cable systems, per subscriber costs for installation, plant and facilities are estimated by various parties to be in the $400 - $750 range, depending on the system. See, e.g., Appendix E at 3, 6 n.11. While the DBS construction costs do not represent the total investment required to initiate service, the additional start-up and operating expenses would be similar to those necessary for a cable system or other multichannel video delivery

becomes available in the United States, it will have the capacity to compete effectively with cable service, provided it is able to secure adequate programming. Such systems are, however, at least three years away from the completion of construction and launch.

105. Commenters have also raised another significant issue regarding DBS: whether cable ownership or involvement with DBS systems should be prohibited or constrained. A number of large MSOs have announced that they plan to provide or participate in the provision of DBS service.[153] All parties in such ventures, including the DBS entities that would hold the licenses, have publicized an intention not to compete directly with local cable systems, but rather to use the local cable systems as their distribution arm to effectively increase the system capacity of local cable systems. Such operations obviously would diminish or eliminate the competitive aspects of DBS. On the other hand, it is arguable that the entry of cable interests in this industry, with their financial resources, marketing experience and programming resources, could present the best opportunity for the advancement of DBS, which promises significant benefits beyond the possibility of direct competition to cable. Despite some concerns about the competitive effects of cable involvement with DBS, we therefore do not favor limiting cable participation at this time. Cable participants in DBS should have considerable incentive to use that medium to compete vigorously with other cable operators on a scale that would be otherwise unattainable. Nonetheless, developing relationships between cable and DBS should be monitored.

5. Satellite Master Antenna Television Systems

106. In 1989, SMATV operators collectively served about a half million subscribers, down from a high of one million in 1987. The National Private Cable Association ("NPCA") claims a potential market for SMATV operators of 17 to 22 million subscribers, and SMATV operators generally claim that their service is valuable not only in providing a competitive alternative to a large,

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system, although additional economies may exist for DBS systems.

153 One DBS entity, TEMPO Satellite, Inc., is a subsidiary of TCI, the largest cable MSO in the United States. Another, Hughes Communications Galaxy, Inc., has recently announced that it is to become a member of a consortium, called SkyCable, which will also include a major cable company and a national broadcast network. According to published reports, another consortium composed entirely of cable MSOs (including TCI) -- K Prime Partners -- has been or is being formed to deliver a package of programming direct to homes, first on FSS satellites, and later on DBS satellites when they become available. SkyCable and K Prime apparently intend to lease transponder capacity and may directly finance the building of DBS satellites.

albeit limited, number of subscribers, but also in providing "benchmark competition" to the benefit of the public beyond the reach of their systems.[154]

107. The several SMATV operators who filed comments contend that a variety of local regulations and practices have severely restricted their ability to operate and to compete, to their detriment and to the detriment of their subscribers and the general public. These regulatory issues are more fully discussed below in Section IV-D. The only regulatory impediment to SMATV service erected by Commission rules or regulations affects systems which attempt to expand their service beyond commonly owned facilities separated by a public right-of-way. This issue will soon be addressed in a Report and Order in MM Docket No. 89-35, regarding the definition of cable systems.

6. Local Exchange Carriers

108. As we stated in the Notice, local telephone companies are seeking relief from statutory and regulatory restrictions which generally preclude them from providing video programming in their service areas. The advisability of maintaining, modifying or repealing such prohibitions are the subject of a separate proceeding, and we expect to report our analysis thereof to the Congress in due course. Among the subjects we will be considering in that proceeding are: the adequacy and availability of safeguards against anticompetitive conduct; the impact of entry on the development of new telecommunications services; its impact on the modernization and competitiveness of the nation's telecommunications infrastructure; and terms of the Modification of Final Judgment ("MFJ") that broke up AT&T and imposed line-of-business restrictions on the Bell Operating Companies. Under any scenario, substantial telephone company participation in the video marketplace is unlikely to occur in the near term and, consequently, does not play a role in our analysis.

7. Video Cassette Recorders

109. VCR penetration has grown dramatically during the past few years. In 1990, VCR penetration reached 72 percent,[155] up from 30 percent in 1986.[156] It

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154 According to this argument, the rates that cable operators charge in the limited instances where they compete directly with a SMATV operator give a clear indication of the competitive rate for their service. This is of little consequence to subscribers outside the reach of the SMATV systems, however, in the absence of a requirement that the cable company charge a uniform rate throughout its franchise area.

155 Arbitron, "May 1990 VCR Penetration Estimates" (June 1990).

156 Testimony of Jack Valenti, President and CEO, Motion Picture Association of America, Inc., Hearings before the Judiciary Committee, United States

is expected to grow another 9 percent by 1993.[157] Indeed, cassette rentals and sales produced combined revenues in excess of basic cable service revenues nationwide.[158]

110. The widespread availability of VCRs allows viewers to see over-the-air programs at times other than when they are broadcast and allows viewers to choose pre-recorded tapes on a variety of subjects that, with the exception of sports programming, cannot be matched even by the cable medium. High VCR penetration levels and video cassette rentals combined with broadcast or another over-the-air video program delivery system offers an alternative that, at least to some degree acts as a partial substitute to cable services.

8. Conclusion

111. Competition from alternative multichannel providers such as second competitive cable systems, wireless cable systems, SMATV systems, and DBS service, while limited at present, is emerging. Indeed, if provided reasonable access to cable programming services, wireless cable, second competitive cable systems and SMATV operators have the potential to provide significant competition to cable. In addition, DBS has the potential, in our judgment, to become a strong competitor by the mid-1990s if recently announced plans go forward and DBS can obtain reasonable access to programming.

Senate, at 10 (October 23, 1986).

157 Reply Comments of Time Warner in MM Docket No. 90-4, at 29.

158 Paul Kagan Associates, Inc., The Kagan Media Index at 2 (March 14, 1989).

B. Programming Access and the Competitive Process

112. We have indicated that there may be several obstacles to the development of competition to cable systems on the local level. A major component of the ability to compete with cable systems is the ability to secure programming. Ensuring fair and equitable program access is the key to fostering the development of vigorous multichannel competitors to cable. In addition, ensuring program suppliers fair and equitable access to carriage on cable systems or other multichannel program distributors is necessary to encourage development of new programming and thus enhance the diversity of available program services for consumers.

1. Evidence of Program Access Problems

113. While there clearly has been substantial and beneficial growth in the provision of cable services as a result of vertical integration and horizontal concentration, the record in this proceeding contains substantial evidence of specific problems concerning program access. First, the record shows that vertically integrated cable operators often have the ability to deny alternative multichannel video providers access to their vertically owned programming services. If permitted to continue, this practice could jeopardize the viability of new competition to cable. Second, the record shows that program services, particularly new program services, have sometimes experienced difficulty obtaining access to cable carriage. In addition, some vertically integrated MSOs have the ability to limit competition to vertically owned services. Such activities restrict the reach of the excluded service, especially where the cable operator's market share is relatively large on a regional or national basis. Moreover, discriminatory program practices serve to limit diversity of subscriber viewing choices.

114. Alternative distribution media's access to cable programming. Alternative distribution media operators have presented evidence that some cable programmers have either refused outright to sell cable programming to them, or have imposed discriminatory terms and conditions in their programming licenses that have seriously handicapped the alternative media's ability to compete effectively against incumbent cable systems. In particular, competitive media providers have made the following complaints:[159]

> (a) Some programming services refuse to make their programming available to wireless cable providers, even in areas unserved by cable. Turner Broadcasting Systems ("TBS") admits that "TNT is

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159 The cable industry's and other commenters' response to these complaints will be discussed below. See, e.g., infra paras. 115-17.

not available to MMDS," and that "[o]nly cable systems and TBS are eligible to be distributors of TNT."[160] TBS also confirms that TNT is not available to cable overbuilders. TNT states that it elected to deal only with cable operators because it believes that "the value of the additional distribution [to cable competitors] was outweighed by the value to TNT of providing cable operators the incentive of additional exclusivity."[161] Other commenters note, however, that, at least in some cases, TNT is not offered on an exclusive basis to cable systems.[162]

(b) Wireless cable operators complain that most programming services made available to them are sold only at a significantly higher per-subscriber rate than is charged to existing cable operators purchasing the same service. For example, while the top cable rate for CNN is $.28/subscriber, the top wireless cable rate is $.50/subscriber.[163] The top cable rate for USA Network is $.23/ subscriber, in contrast to the top wireless rate of $.38/ subscriber.[164] Similarly, while the Nashville Network charges cable operators a top rate of $.20/subscriber, it charges wireless cable a top rate of $.35/subscriber.[165] Cross Country Cable, Inc. asserts that, for 17 basic programming services available to both wireless cable and cable MSOs, the price charged to wireless cable is as much as 200 percent higher.[166]

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160 Exhibit 1 of Reply Comments of TBS.

161 Id.

162 See Letter from Edward P. Taptich, Counsel to Pacific West Cable Television, to Robert L. Pettit, General Counsel, FCC, at 3 (April 18, 1990).

163 See Appendix G, Table XI.

164 Id.

165 Id.

166 See Letter from George Ring, Chairman and CEO of Cross Country Cable, Inc., to The Honorable Alfred C. Sikes, Chairman, FCC, at 4-5 (April 4, 1990). Mr. Ring also comments on the difficulties his company has experienced in attempting to secure programming rights for its wireless cable system, and notes that his prior dealings with the same program services had been far more favorable when he was purchasing programming rights for cable services. Id. at 1-2.

(c) Wireless cable operators also complain of discriminatory terms and conditions imposed upon their acquisition of various program services, making it difficult for them to engage in head-to-head competition with local cable systems. For example, WCA submits that even when programming is made available to wireless services, its distribution is often limited geographically in order to prevent competition with wired systems. According to WCA, a number of ESPN contracts prohibit wireless cable operators from distributing ESPN to "any location which is located in any portion of an area which is any part of the franchise area of an ESPN cable television affiliate."[167] ESPN counters that it has imposed geographic restrictions on MMDS operators after weighing a number of factors, including its "distribution pattern, the ability of a market to support additional efficient distributors, the attractiveness of [its] programming, [its] marketing efforts and, importantly, incentives for local promotion."[168] Similarly, WCA reports that the contract between People's Choice TV (PCTV) and SportsChannel Chicago Associates (SCCA) restricts PCTV from distributing SCCA programming outside of Cook County, Illinois, even though PCTV's wireless cable system serves areas well beyond the county's boundaries. As a possible explanation for this limitation, WCA notes that SCCA's parent, Cablevision, owns and operates cable facilities outside of Cook County that are located within PCTV's wireless cable service area.[169]

WCA also submits evidence on another program contract provision which effectively protects cable systems from head-on competition with wireless program distribution services. WCA notes that Cablevision, a large cable MSO with equity interests in a number of programming services (including American Movie Classics, Bravo and CNBC) requires wireless cable operators to renegotiate their program affiliation agreements to impose area-wide marketing and distribution obligations on the operators once their penetration reaches 2 percent. Cablevision asserts that it requires this provision to protect against "free-rider" problems or "cherry-picking" by the wireless cable operator, who, it claims, may have economic incentives not to expand service into

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167 Letter from Paul J. Sinderbrand, Counsel for WCA, to Robert L. Pettit, General Counsel, FCC, at 1 (June 26, 1990) ("Sinderbrand Letter").

168 Reply Comments of ESPN at 3.

169 Sinderbrand Letter at 2.

less attractive neighborhoods.[170] WCA contends, however, that because of the technology they use, wireless systems have no such incentives and will provide service wherever an adequate signal can be found.[171] WCA thus concludes that the 2 percent provisions are in reality intended to cap wireless penetration, thereby inhibiting its growth and limiting the competition it provides to cable systems.

(d) SMATV operators complain of similar problems. NPCA, representing packagers of programming to SMATVs, complains that programming is often available to SMATV operators only through the local cable operator, which either refuses to provide access to the programming, offers programming at very high prices or offers programming subject to a time-delay requirement.[172] For example, SMATVs must purchase HBO (at a substantial mark-up) from cable operators serving the same area. Disparities in prices charged to cable and SMATV systems by program services are illustrated by the experiences of Mid-Atlantic Communications, Inc., a company that operates both cable systems and SMATV systems. As shown in Table XII to Appendix G, Cinemax is available to Mid-Atlantic's cable systems at $3.86/subscriber, but its SMATV systems must pay $6.50/subscriber. MTV is available to cable systems for $.17/subscriber, but SMATV operators must pay $.29/subscriber. SMATV systems must pay $.17/subscriber for FNN, while cable operators pay only $.055/subscriber.[173]

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170 See Letters from Marc Lustgarten, Vice Chairman, Cablevision, to The Honorable Alfred C. Sikes, Chairman, FCC (March 28, 1990 and May 24, 1990) ("March 28 Lustgarten Letter" and "May 24 Lustgarten Letter"). Cablevision requires wireless cable operators to bear certain costs of marketing its program service once their penetration rate exceeds 2 percent. In contrast, although imposed on some, these requirements are typically not required of franchised operators.

171 Sinderbrand Letter at 2-3 n.3.

172 Examples of these program access problems are summarized in Table IX in Appendix G. "Time delay," as used in this context, involves a programmer selling to a private cable operator only following an extended period (e.g., 90 days) after the franchised cable operator is replaced as the multichannel provider by the private cable operator. Comments of NPCA at 25.

173 See Appendix G, Table XII. Additional evidence of disparities in prices charged to cable and SMATV systems is presented by the National Satellite Programming Network, Inc., et al. ("NSPN").

(e) HSD owners have complained about similar experiences. NRTC, representing packagers of programming to owners of HSDs, alleges that most vertically integrated programmers refuse to deal with third parties who distribute programming to HSD subscribers. It should be noted, however, that the record indicates that all program networks are available to HSD owners either through program distributors or direct sales. HSD distributors complain, however, that they pay higher prices for the programming than even the smallest cable operators. NRTC provides examples of such price differentials, showing that in one case an HSD program distributor was charged $10/subscriber for an eighteen channel package, while the local cable operator was charged $2.25/subscriber for the same package.[174]

(f) Some second competitive cable systems have alleged similar program access difficulties. Telesat, an operator of second competitive systems in Florida, asserts that it has been denied access to some cable network programming. For example, Telesat filed suit against The Nashville Network for its refusal to renew Telesat's affiliation agreements in areas in which Telesat competes with another cable system.[175] Telesat also claims that it is denied access to the Sunshine Network, a regional sports network owned, in part, by MSOs that operate in Florida.[176]

(g) Small cable operators have complained that they also receive less favorable treatment from many cable programming services, even when they try to enhance their appeal to program suppliers by combining their program purchasing efforts. The National Cable Television Cooperative ("NCTC"), a cable cooperative formed to secure programming in bulk for small cable operators, claims that it has experienced significant difficulties purchasing programming from cable networks. According to NCTC, although it has reached agreement with some basic cable networks, none of the major pay networks (such as HBO, Cinemax and Showtime) has presented NCTC with master affiliation agreements, which are necessary, in NCTC's view, to offer its members the same benefits

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174 See Appendix G, Table IX, n.a.

175 See Telesat Cablevision, Inc. v. Opryland USA, Inc. d/b/a The Nashville Network, Case No. 90-137-Civ-Orl-19 (M.D. Fla., filed Feb. 28, 1990).

176 Sunshine Network was organized in 1988, and is 51 percent owned by eleven MSOs that operate in Florida, and 49 percent owned by Home Sports Entertainment, an affiliate of TCI and other MSOs.

and provisions a major MSO would receive.[177] NCTC states that the smaller cable operators it represents are usually offered program affiliation agreements that include only stock provisions, and that they do not benefit from unspecified "attractive features" included in side agreements that the MSOs enjoy.[178]

115. In response to these complaints by alternative distribution media, the cable industry and cable programmers state that program networks are available to competitive media. For example, NCTA's Klein Study finds that cable network programming is widely available to alternative media. We note that Klein does not, however, explain the different terms and conditions under which programming is licensed to alternative delivery media.

116. The cable industry and cable programmers also point out that there are several legitimate business reasons why programming is either unavailable to alternative programmers or is made available under different terms and conditions. For example, they point out that the wireless cable industry historically has been financially unstable in general. In addition, they cite problems regarding theft of programming signals in wireless technologies. Cable commenters also note that program networks have expressed concerns about the poor quality of the wireless cable signal.[179] On the other hand, in their comments and in testimony at the cable field hearings, alternative media providers dispute these claims.

117. Moreover, the cable industry notes that offering volume discounts is a widely recognized, legitimate business practice. The cable industry also points out that exclusivity is a bedrock business practice in the

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177 Letter from Michael L. Pandzik, President, NCTC, to The Honorable Alfred C. Sikes, Chairman, FCC, Attachment at 1 (March 15, 1990).

178 Id. at 3. NCTC also states that it has had particular problems dealing with cable networks owned by broadcasting, film studio or major media entities. Id. at 1.

179 For example, The Disney Channel states that SMATV and MMDS wholesale rates are slightly higher than cable operator wholesale rates "[i]n order to account for higher administration and marketing costs, bad debts, and problems with signal security." Letter from Hal Richardson, Senior Vice President, Walt Disney Television, to The Honorable Alfred C. Sikes, Chairman, FCC, at 2 (March 23, 1990). Similarly, in its reply comments, ESPN states that it has not licensed its programming to some MMDS operators because of problems relating to signal theft, financial stability and distribution capabilities. Reply Comments of ESPN at 3.

broadcast and other industries, and argues that the cable industry should also be able to contract for program exclusivity within its franchise area. Further, the industry notes that the Commission favors exclusivity for broadcasters and has expressed opposition to the compulsory copyright.

118. Programmers' access to cable systems. Given the growth in both horizontal concentration and vertical integration in the cable industry since the 1984 Cable Act, complaints have been raised that some cable MSOs have some incentive and ability to limit or impede the national distribution of cable program services that directly compete with the MSOs' vertically owned services. Such conduct is not allegedly directed toward all program services, however, because even some program services with no MSO connection now appear to be so large, established and valuable that they have sufficient leverage in negotiations with cable operators to be assured of carriage on favorable terms.[180] For example, Robert Thompson of TCI testified during the Commission field hearings that certain channels such as ESPN, USA and HBO are, for all practical purposes, "must carries" for all cable systems.[181] In fact, this leverage is borne out by program service contracts which have been reviewed in the course of this proceeding.[182] For example, a typical ESPN contract provides that ESPN "shall have the sole right and privilege to determine which sports events and other programming shall be included in the ESPN Service."[183]

119. Not all new program services have the benefit of association with a "must carry" service or a vertically integrated programmer. The Commission has gathered a significant amount of evidence through its field hearings and follow-up inquiries in an attempt to determine whether new program services without such advantages have access to cable carriage.

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180 Examples of such unaffiliated program services include ESPN, USA Network and The Nashville Network. See Appendix G, Table VII.

181 Testimony of Robert Thompson, FCC Los Angeles Cable Television Field Hearing (Feb. 12, 1990).

182 The Commission's staff has reviewed a number of program affiliation contracts in the course of this proceeding, some of which were submitted under a request for confidentiality.

183 Some affiliation agreements require that certain services be carried on the basic tier to ensure maximum subscriber access; such placement can then reduce demand for other competing services not carried on the basic tier. In another instance, a particular non-vertically integrated programmer specified in its carriage agreement what services its program could be packaged with, specifically prohibiting packaging of the service with other directly competitive programming. See May 24 Lustgarten Letter at 6.

Those inquiries have revealed a number of specific examples of significant access limitations.

120. One example of MSOs' ability to curtail programming services directly competing with their vertically owned programming services involves the attempt of NBC and Cablevision to launch the Consumer News and Business Channel (CNBC). In testimony before the Senate Commerce Committee last year, NBC chairman Bob Wright testified that a number of large MSOs insisted as a condition of carriage that CNBC not become a general news service in direct competition with CNN, which is owned in part by TCI, Time Warner, Viacom and other MSOs.[184] The Commission has obtained copies of typical CNBC carriage contracts which confirm that MSOs have secured this concession from the cable network. The contracts contain a general description of the service to be provided but also stipulate that "[i]t is understood and agreed that it is not the intent of [CNBC] to allow [the service] to become, and the CNBC Service or no segment thereof shall become, a general news service covering events unrelated to [business, financial, consumer and other specified news events]."

121. The cable industry defends such restrictions as mere program descriptions, necessary to ensure that cable programmers stay within a defined niche so that cable systems get the benefit of what they bargained for. However, it appears that the CNBC contract goes beyond past practice in terms of protecting cable systems in their contracts with cable programmers. While contracts frequently contain program service descriptions, most, including that of CNN, appear quite general and do not prohibit particular kinds of programming.[185] Given these differences between the provisions in CNBC and a typical CNN contract, it is not

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184 Specifically, Wright testified that CNBC has "a provision in our affiliation agreement that was requested, required if you will, by most cable operators that we not enter into general competition with CNN." Testimony of Robert Wright, Hearings on Media Ownership, Diversity and Concentration, Subcommittee on Communications, Committee on Commerce, Science and Transportation, United States Senate, 101st Cong., 1st Sess. 609-10 (June 14, 21 and 22, 1989). MSOs hold nearly 50 percent of the equity of CNN, which, as the second largest cable network, reaches nearly 55 million cable and alternative media subscribers. See Appendix G, Table VII.

185 For example, a typical affiliation contract with Showtime, a well-established service that has been in business for more than a decade, provides that the cable operator will "distribute the Showtime service without addition, alteration or amendment," and that Showtime merely agrees to "endeavor to provide programming commensurate in quality and amount with a recent [monthly] schedule."

unreasonable to conclude that the effect of the CNBC clause is to protect CNN from competition.

122. By contrast, CNBC's contracts do not preclude it from providing programming that might duplicate or compete with FNN, another consumer news service, or ESPN, both of which are independently owned. In fact, the CNBC contract contemplates that the network will provide "[s]ports oriented programming" and "business and financial news and information."[186] These provisions enable CNBC to offer programming that could potentially compete with ESPN and FNN. Whether this was the intent behind the provisions or, alternatively, whether the MSOs have merely sought to describe the programming they anticipated would be provided by CNBC, the contractual limitations do protect CNN from direct competition to its "general news service" at the same time that they allow CNBC to provide programming that could compete with other unaffiliated program services.

123. Other program affiliation contracts have revealed instances in which large, vertically integrated MSOs sometimes give preferential treatment to program services in which they hold an equity interest. For example, almost all of the contracts between unaffiliated program services and cable operators that we examined give the operators "deletion rights" -- i.e., the right to discontinue carriage of a program service if it modifies its content in a manner inconsistent with the program description set forth in the affiliation agreement. Such deletion rights provisions, however, appear to be absent from or significantly minimized in affiliation agreements between vertically integrated MSOs and their own programming services. In some program service contracts, there are provisions in which large MSOs specifically state that their own program services will be treated differently from non-affiliated programming. In one case, a vertically integrated MSO agreed to offer an independent program service the same carriage guarantees that it offers to any basic or tiered basic cable service. The contract specifically excluded from this provision, however, the MSO's vertically owned basic or tiered basic programming services.[187]

124. Other examples of apparent favoritism toward carriage of services in which the operator has an equity interest have also been brought to our attention. For example, Jones Intercable ("Jones") removed the USA Network

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186 Similarly, carriage contracts for TNT and the Family Channel reviewed by the Commission specifically permit these channels to provide sports programming.

187 The contract states, "other than services in which [the MSO or its subsidiaries] has a substantial economic interest," the MSO will promptly offer the same carriage guarantees to the independent program service as it offers to any basic or any tiered basic cable service.

("USA") from many of its systems after USA sought to negotiate a rate increase, despite the fact that third party audience measurements showed that it was the most highly viewed service on those systems. Jones then deleted USA in favor of the proposed TNT programming service -- a service in which Jones has an equity interest through its investment in TBS -- even though TNT's rates were higher than those proposed by USA. USA ultimately obtained a summary judgment in a U.S. district court proceeding against Jones for breach of contract.[188] When ruling in USA's favor, the district court stated that Jones' intentions with respect to USA "appeared to be anything but benign."[189]

125. Finally, the record reveals that Manhattan Cable TV, Inc., a Time Warner system, repeatedly denied access to Showtime, a movie service owned by Viacom that is a direct competitor to Time's general subscription service, HBO. When Manhattan Cable expanded its channel capacity to create room for additional services, it agreed to carry Showtime, but later refused and instead added its own new pay service, Cinemax.[190]

126. The cable industry generally relies on NCTA's Klein Study to rebut these types of charges of program access abuse stemming from vertical ownership of programmers. In addition to its observations about the availability of cable network programming to alternative media (discussed above), the Klein Study shows that MSOs do not discriminate against unaffiliated programmers. While the Klein Study reveals that virtually all networks are carried more frequently on affiliated MSOs than on non-affiliated MSOs, the differences are quite small. For example, basic cable networks affiliated with MSOs were carried, on average, by 86.7 percent of all affiliated systems and by 78.7 percent of all unaffiliated systems. The difference in carriage is more significant for pay services. Pay cable networks affiliated with MSOs were carried, on average, by 89.8 percent of all affiliated systems, but by 61.4 percent of all unaffiliated systems. See Appendix G, Table XIII. In their comments on the Klein Study, the Department of Justice and the FTC staff also agree that, while carriage decisions are clearly influenced by ownership interests, the available data are insufficient to determine whether the overall effect is anticompetitive.

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188 USA Network v. Jones Intercable, Inc., Civ. No. 6895, slip op. (S.D.N.Y. Jan. 18, 1990).

189 Id. at 18.

190 A New York district court upheld the standing of a citizens' committee that challenged Manhattan Cable's actions on antitrust grounds. New York Citizens Committee v. Manhattan Cable TV, Inc., 651 F. Supp. 802 (S.D.N.Y. 1986). The case was ultimately settled, and Manhattan Cable agreed to carry Bravo, a specialized premium service.

2. Conclusions

127. It seems fairly clear from the above facts that vertically integrated MSOs have the ability to limit competition to particular programming services. For example, it is theoretically possible for large MSOs to limit competition to vertically owned CNN by prohibiting access to their systems by anyone proposing a "general news" service. It also appears that most cable operators have the ability to deny or unfairly place conditions on a programming service's access to the cable communities they serve, and the record in this proceeding indicates that some have done so. This ability reflects some degree of market power in the local video distribution market, which MSOs may leverage on an intermarket basis. The record does not demonstrate, however, that horizontal concentration or vertical integration provides any MSO with the unilateral ability to prevent the launch of new programming services.

128. In addition, vertically integrated cable operators often have the ability to deny alternative multichannel video providers access to cable programming services in which such cable operators hold ownership interests, and there is considerable anecdotal evidence that some have used this ability in anticompetitive ways.

3. Recommendations

129. While we agree with the cable commenters that the Commission should and does generally support exclusivity rights, we believe that the public interest in developing competition to the local cable operator justifies temporary, limited and targeted intervention to ensure that alternative multichannel program providers have fair and equitable access to programming. Reasonable access to programming is important to achieving effective competition among program distributors and fostering maximum possible public choice. To promote the emergence of alternative, effectively competitive multichannel distributors, Congress should reaffirm the applicability of traditional antitrust principles, including the general obligation of firms enjoying market power not to frustrate the emergence of effective competition. In addition, Congress should promote the emergence of alternative multichannel distributors by:

(a) Prohibiting any programming service in which a multichannel video provider holds a cognizable interest[191] from unreasonably refusing to deal with any competing multichannel provider in areas served by the

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191 The Commission would institute a rule making to define "cognizable interest" and to determine the extent to which its current attribution rules would or would not apply.

multichannel provider(s) with which that programming service is vertically integrated;

(b) Defining "unreasonable refusals to deal" to allow (i) bona fide exclusive distribution arrangements that do not significantly impede competition in the local distribution market;[192] and (ii) bona fide volume discounts. In our view, bona fide volume discounts would be either cost-based or otherwise applied equally to both affiliated and unaffiliated customers.

(c) Limiting these special requirements to five years, by which time the Commission should report to Congress on the necessity of reenacting such special requirements.

130. Because it is in many ways inappropriate and inadvisable for the government to intrude in programming negotiations or to substitute its judgment to resolve legitimate business concerns, we recommend that Congress enact legislation providing clear, explicit and convenient administrative remedies for coercion by any multichannel service provider that requires a programming service to yield as a condition of carriage: (a) a financial interest in the programming service; (b) an exclusive distribution arrangement; (c) a refusal to deal with a competing multichannel provider; or (d) an unreasonably restrictive agreement not to compete with any programming service in which that multichannel service provider holds a financial interest.

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192 An example of an exclusive distribution arrangement that might impede competition in the local distribution market and be disfavored by the Commission would be a situation in which a vertically integrated programmer were to create any new exclusive service(s) that unreasonably siphoned extensive programming from any previously non-exclusive service(s).

C. The Franchise Process

131. We have previously discussed the development of competition to local cable distribution of programming to the public, as well as possible obstacles to such competition. In this section of the Report, we discuss the extent to which the franchising provisions of the Cable Act and the regulatory activities of some local authorities may discourage or even preclude competing cable systems or other competing multichannel media.

1. Background

132. We briefly discussed above the difficulties a competing second cable system faces in entering a local market already served by another operator. While the present number of directly competitive systems is small, it appears that the number of these systems is beginning to grow. We have identified three factors that should promote the continued development of competing systems: (a) the likelihood that more municipal authorities may grant franchises to competing systems; (b) the gradual decline in number of available unwired, attractive markets; and (c) the dramatic increases in cable advertising revenues (projected to exceed $2 billion in 1990), which should increase the overall available income and thus broaden the potential support base for competing systems.[193]

133. As we also discussed in Section IV-A above, alternative distribution media, including wireless cable, SMATV and HSD distributors, have all faced problems due to restrictive local regulations and unsettled questions of law concerning the requirement to obtain a local franchise. In particular, alternative media interests assert that the following factors have slowed or in some areas blocked their success: (1) "universal service" requirements, (2) regulations restricting the use, size or height of antennas and other receiving equipment, (3) discriminatory mandatory access to buildings for the purpose of providing multichannel video service, and (4) confusion regarding whether delivery media that do not cross public rights of way with wire are subject to franchising requirements.

2. Findings

134. Despite some promising developments, the record in this proceeding reveals competing systems face several problems that can be eased by changing the franchise process. First, cable companies interested in competing with existing franchisees assert that some franchise authorities require second systems to serve the entire market (i.e., "universal service" requirements), thus precluding a more economically feasible incremental approach to service. Second, some franchising authorities require new entrants to meet a variety of

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193 See supra para. 99.

municipal requirements that apply to existing operators and which, it is argued, are more sustainable for a sole operator. Third, some franchising authorities require second entrants to meet certain requirements, such as the posting of a bond or letters of credit, not imposed on the incumbent. Fourth, some jurisdictions have granted exclusive franchises, an unwise policy in our judgment.

135. In many localities, alternative media distributors face land use regulations that prohibit or restrict the use of antennas and other receiving equipment. These regulations have taken many forms, including the imposition of (1) requirements for building permits for the installation of satellite dishes or antennas of more than a particular size (only 2 feet in diameter in one instance), (2) extensive regulatory review procedures as a condition to allowing the installation of antennas, and (3) height restrictions on receiving equipment. Some localities even prohibit the use of any outdoor antennas.

136. Wireless cable interests point out that the Commission has preempted land use regulations that inhibit the development of MMDS[194] and has ruled against HSD antenna restrictions intended to protect cable systems from competition.[195] These parties believe that the Commission's rulings have already preempted local regulations that interfere with the installation of wireless cable reception points, but uncertainty at the local level has hampered the growth of this distribution system.

137. As a separate matter, thirteen states and the District of Columbia presently have mandatory access laws.[196] The stated purpose of these laws is

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194 See Orth-O-Vision, Inc., 69 FCC 2d 657 (1978), recon. 82 FCC 2d 178 (1980); New York State Commission on Cable Television v. FCC, 669 F.2d 58 (2d Cir. 1982).

195 See Earth Satellite Communications, Inc., 95 FCC 2d 1223 (1983), aff'd, New York State Commission on Cable Television v. FCC, 749 F.2d 804 (D.C. Cir. 1984); Report and Order in CC Docket No. 85-87, Amendment of Rules Concerning Preemption of Local Zoning Regulation of Receive-Only Satellite Earth Stations, 51 Fed. Reg. 5519 (Feb. 14, 1986).

196 As noted above, in some states where no mandatory access law exists, local authorities reach the same result by applying § 621 of the Act, which provides franchised cable operators with access to "dedicated easements," to private easements. In this way, franchised cable operators are granted access to all buildings in which an internal cable system is provided to occupants. But see Cable Investments v. Woolley, 867 F.2d 151 (3rd Cir. 1989) (holding that no such right is created by the Cable Act).

to ensure that tenants may not be denied access to multichannel video services by building owners. However, some commenters allege that in practice these laws discriminate against alternative delivery media in favor of franchised cable operators, because access is mandated for franchised cable systems only. As a result, it is contended that these statutes have been used by franchised cable operators to require property owners to grant them access to their property, even when these owners have arranged for and offer similar video services to their tenants using competitive technologies.

3. Conclusions

138. The video marketplace is changing in ways that should further encourage the development of more competing cable systems. While exclusive franchising is not the only impediment to the growth of second competitive systems, it is clear that the number of competitive systems would grow at a more rapid pace if local franchise authorities were unable to discourage or forbid such systems. While it may not be feasible to require franchise authorities to award two or more system franchises (since there may not be more than one firm willing to serve), we see no valid reason to discourage or forbid competing systems. We believe that local authorities have a significant role in ensuring that consumers receive reasonable service. In Section V-B below, we discuss our recommendations concerning local regulation of service quality, both technical and nontechnical.

139. New competitors can often enter the market only by providing a limited number of products or services, or by serving a limited number of customers. Such fringe competition, although not initially full-fledged, usually results in lower prices or the provision of new service, which benefits consumers.[197] This has been the pattern in the cable industry. Thus, requiring second or additional entrants to the market to provide "universal service" from the outset is, in our judgment, ill-advised. The Cable Act, however, contains a provision that may discourage franchising authorities from allowing the type of incremental service that is often essential to the entry of a second competing cable system.[198]

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197 The experience of MCI and other competitors in the interexchange telecommunications market provides a good example of the benefits that fringe competition can create. In this market, initial geographically limited competition blossomed into broader competition benefitting more consumers as the competition grew.

198 Specifically, Section 621(a)(3) of the Cable Act prohibits discrimination based on the income of the residents of a franchise area. While this is an important policy objective, this provision should be modified to ensure that it is not applied to competitive entrants at the time they enter the market. Although existing operators and some franchising authorities state that this will lead to "cream skimming," the nature of the

140. After reviewing the record, we believe that discriminatory local mandatory access laws can operate to hinder the growth of alternative distribution services. Legislative action is also needed to cure this problem. In a related matter, in 1978, the Commission determined that wireless cable systems were exempt from franchising requirements. However, that issue was reopened as a result of two conflicting district court decisions concerning the definition of a cable system in the Commission's "Cable Definition" proceeding in MM Docket No. 89-35.[199] In that rule making, the Commission asked whether entities such as SMATV systems, MMDS and DBS systems should be considered cable systems under the Cable Act and therefore should be potentially subject to franchise regulation. We expect to address these questions in the future in the "Cable Definition" proceeding.

4. Recommendations

141. We recommend that Congress amend the Cable Act to forbid local franchise authorities from unreasonably denying a franchise to applicants that are ready and able to provide service.[200] Congress should also make it clear that local authorities may not pass rules whose intent or effect is to create unreasonable barriers to the entry of potential competing multichannel video providers. Franchise requirements should be limited to appropriate governmental interests, such as establishing requirements concerning public health and safety, repair and good condition of public rights-of-way, and the posting of an appropriate construction bond. We also recommend that Congress

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broad-based demand for cable services should minimize the prospect that in the long term new entrants would find it profitable to only serve limited groups of homes within a metropolitan area. Further, if franchising authorities prohibit rate discrimination by the incumbent, even those subscribers not initially having the choice of a second service will benefit from lower prices resulting from competition in other parts of their communities.

199 The two court cases are City of Fargo v. Prime Time Entertainment, Inc., No. A3-47, slip op. (D.N.D. March 28, 1988) and Pacific and Southern Co. v. Satellite Broadcast Networks, Inc., 694 F. Supp. 1565 (N.D. Ga. 1988).

200 While the issue has not definitively been decided by the courts, it is clear that cable operators have significant first amendment rights in connection with the operation of their systems. For example, courts have struck down mandatory state-of-the-art technical requirements on first amendment grounds. See Preferred Communications, Inc., v. City of Los Angeles, No. CV 83-5846 (CBM), slip op. (C.D. Ca. Jan. 5, 1990). Limiting the franchising authorities' powers to regulating only those matters of traditional local concern would serve first amendment goals as well as remove significant obstacles to competition at the local level.

amend Section 623(a)(3) of the Cable Act to permit competitive entrants to enter a market already served by a cable system without the obligation to provide "universal service" for an initial and limited period of time following their entry into the market.

142. To remedy the anticompetitive effect of local restrictions pertaining to receiving equipment and building access, we also recommend that Congress prohibit local governments from regulating installation of reception equipment beyond those provisions reasonably related to a clearly defined health, safety or reasonable aesthetic objective.

D. The Broadcast/Cable Relationship

1. The Imbalance in the Broadcast-Cable Relationship

(a) Background

143. The FCC has sought, over the years, to fulfill its mandate to foster a mass communications framework conducive to the "public interest, convenience and necessity" by relying on two principal values: localism and diversity. These values are distinct but reinforcing; they complement each other, as the diverse groups and cultures in our continent-wide nation bring about local and regional pluralism.

144. Today, both radio and television reflect our diverse nation. In city after city, locally-originated news and public affairs programs generally provide information of interest primarily within a station's coverage area. Most Americans are able to choose daily from a number of television channels and hours of local programming to learn what happened at the city council meeting or to find out about tomorrow's weather.

145. While this locally-originated programming most closely mirrors the diversity of our nation, considerable credit for its existence must go to the framework in which it is broadcast -- a framework formed by the national programming networks and the skillfully-crafted combinations of programming they buy from independent producers. The networks, their affiliates and independent stations marshal massive resources to mix and blend this programming to appeal to the viewing audience. Clearly a local station's strength lies not only in its individual programs, but also in this synergy of local and national offerings.

146. In the current market for video programming, broadcast stations and cable systems have a complex, highly interdependent relationship. On the one hand, they compete for viewers, programming and advertising revenues; on the other hand, broadcast stations provide a primary source of programming for cable systems, and cable carriage of broadcast signals improves a station's reach and reception quality and thus increases broadcast stations' audiences. Laws and regulations governing the relationship between broadcast stations and cable systems, particularly the presence or absence of must carry

obligations and cable television's compulsory license to retransmit broadcast signals, can have a major effect on the financial health and competitive relationship of the two media and on the availability of video programming to the public. The Commission is specifically concerned that the absence of must carry rules, coupled with the compulsory license, may have drastically changed the competitive relationship of the two media and upset the balance of the market.

147. More than two decades ago, when cable television was in its infancy, the courts ruled that cable could carry broadcast signals without seeking broadcasters' consent or paying them for the use of the signals.[201] Then, 14 years ago, when cable was an emerging but still relatively young industry, the government affirmatively decided to support cable's development by letting it convey, with virtually no compensation, locally originated programming and the locally transmitted mix of regional and national programming. The device for this arrangement was the compulsory copyright license.[202] In short, to foster the growth of a new and promising industry -- an industry which initially served to improve television reception and introduce a limited amount of new television programming into the local market through carriage of distant broadcast signals[203] -- the government forced the cable television industry and the broadcast television industry into a significantly imbalanced "contract." This contract achieved its intended result; cable's compulsory access to broadcast programming helped make the fledgling industry viable and foster its explosive growth. It also assisted broadcasters in reaching many homes that previously were technically difficult to reach.

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201 TelePrompter Corp. v. Columbia Broadcasting System, Inc., 415 U.S. 394 (1974).

202 Cable systems paid no copyright fees for either local or distant broadcast signals until 1976. In the Copyright Act of 1976, Congress established both copyright liability for unauthorized cable retransmissions of broadcast programming and the compulsory copyright licensing process for the cable television industry. The compulsory license permits cable operators to retransmit broadcast signals without obtaining permission, provided the operator pays a compulsory license fee to the Copyright Office. The fees are then distributed to copyright holders. 17 U.S.C. §§ 101 et seq. The royalty payments are minimal for local signals and larger for distant signals, but in most cases they do not reflect the market value of the programming to cable operators.

203 See Cable Television Syndicated Program Exclusivity Rules, 79 FCC 2d 652, 816-826 (1980) ("1980 Syndex Report"); Amendment of Parts 73 and 76 of the Commission's Rules Relating to Program Exclusivity in the Cable and Broadcast Industries, 3 FCC Rcd 5299, 5300-5302 (1988).

148. Again with the goal of furthering this diversity and growth and making cable service more widely available, Congress enacted the 1984 Cable Act. Passage of the Cable Act resulted in substantial deregulation of the cable television industry. In the six years after the Cable Act's passage, cable has continued to grow, extending its reach to roughly 90 percent of the nation's households and increasing its penetration to almost 60 percent of all television households (about 63 percent of homes passed). Moreover, cable systems increasingly sell advertising time, thus competing with broadcasters directly in the market for advertising as well as for viewers.[204] With its increased revenues, the cable industry has steadily enhanced its stock of cablecast programming. A number of distinctive national cable program services have emerged offering new and appealing programming. Not only has original cable programming increased, but cable is increasingly able to obtain exclusive rights to sports and other entertainment programming that formerly would have been available to broadcast networks and stations.

149. Cable -- no longer a fledgling, struggling industry -- continued to enjoy the benefits of the compulsory license for its carriage of broadcast signals into the 1980s. The imbalance resulting from the growth in cable's advertising revenues and cablecast programming was, in our view, critically exacerbated by the loss of must carry rights by local broadcasters in 1985.[205] With the compulsory copyright license and without must carry obligations, cable operators are able to engage in a type and degree of competition against local broadcasting that was unenvisioned and unintended when the Copyright Act was adopted. Cable operators carry the most popular local stations with virtually no compensation to the stations, use the audience they derive from carriage of these stations to increase their own advertising revenue and, in turn, buy more and better cable-exclusive programming, further draining

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204 Sale of advertising time by the cable industry is growing rapidly. Estimates reported by the cable industry show that total expenditures on cable television advertising rose from $594 million in 1984 to $2.02 billion in 1989. Local cable advertising expenditures rose from $98 million to $496 million during that period. Total broadcast television advertising expenditures increased from $19.31 billion in 1984 to $25.65 billion in 1989. Thus, cable's share of the total rose from 3.0 percent in 1984 to 7.3 percent in 1989. Cable's 1989 share in local advertising was 6.0 percent. NCTA, Cable Television Developments (May 1990), citing Paul Kagan Associates, Inc., Cable TV Advertising (April 26, 1990); 58 Television and Cable Factbook, Cable & Services at C-332 (1990 ed.).

205 Quincy Cable TV, Inc. v. FCC, 768 F.2d 1434 (D.C. Cir. 1985); cert. denied sub nom. National Association of Broadcasters v. Quincy Cable TV, Inc., 476 U.S. 1169 (1986); Century Communications Corp. v. FCC, 835 F.2d 292 (D.C. Cir. 1987).

audience and advertising revenues away from local stations. Indeed, some cable operators are now also beginning to compete directly with local television stations, creating channels that look very much like traditional broadcast television stations. The strong localism and diversity in broadcast television service -- positive forces that fifty years of regulatory policy under the Communications Act have sought to develop -- will be jeopardized if this situation continues unredressed.

150. In light of these public policy concerns, this Commission recommended in 1989 that Congress eliminate the compulsory license, concluding that private negotiations would better serve the public interest.[206] The Notice recognized the importance of the compulsory license to the issue of must carry rules. It pointed out that broadcasters claim it is unfair that cable systems can acquire broadcast programming at rates set by the government without the owners' permission, but local broadcasters have no guarantee of access to cable systems. As we observed then, the rationale for the compulsory license was to avoid the transaction costs of negotiating licenses for cable retransmission when cable operators were required by the must carry rules to retransmit broadcast programming. Without must carry, this rationale largely disappears. We specifically sought comment on the interplay between must carry and the compulsory license.

151. Many broadcast parties continue to argue in favor of conventional must carry rules. Proposals for such conventional carriage rules contained various provisions designed to meet constitutional concerns, such as limits on the type, location and number of stations that would be entitled to mandatory carriage, and exceptions to avoid signal duplication. Low-power television stations urged that they be included in must carry requirements, and public station advocates suggested the need for special carriage rules for public stations. Television station commenters also stressed the need for rules pertaining to channel location in order to prevent cable operators from arbitrarily and anticompetitively shifting broadcast stations to undesirable channels. Many commenting cable parties indicated no fundamental objection to the adoption of mandatory signal carriage legislation, provided the specific provisions were reasonable and a constitutional justification could be developed. In opposition, however, other cable interests and NTIA argued that such regulations were neither desirable policy nor legally sustainable, citing prior judicial findings.

152. Some parties supported the suggestion in our Notice that if Congress retains the compulsory licensing provisions of the Copyright Act, carriage rules might properly be tied to continued cable system exercise of

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206 Report on the Compulsory License for Cable Retransmission in Gen. Docket No. 87-25, 4 FCC Rcd 6562 (1989).

the advantages derived from these provisions. These parties offered proposals that would require a cable operator to carry all local station signals if the operator sought to carry any one broadcast signal (local or distant) under the compulsory license. Other parties urged that if systems take advantage of the compulsory license, they should not only be required to carry local station signals, but also to pay a new fee to the local stations. For example, NAB proposed that Congress amend the Communications Act to create a retransmission consent requirement, under which cable systems would pay a statutorily-set retransmission fee for the right to retransmit local broadcast signals, which would be deposited at the Commission (or other governmental agency) and then distributed to broadcast and copyright claimants.[207] The retransmission consent proposal is intended to permit broadcasters to be compensated for the added value -- beyond the value of the individual programs broadcast -- that broadcasters create through developing, purchasing, producing, scheduling, promoting and transmitting a mix of national and local programs for broadcast.

(b) Findings and Conclusions

153. Today, the local broadcast television industry, which has grown from 962 to more than 1,400 stations since the compulsory copyright license was enacted, increasingly is threatened and disadvantaged. The decline of the networks' audiences has been the focus of extensive press coverage. Less has been said, however, about the local competitive balance. Locally, while many stations remain strong, generally the value of television stations has fallen; and in an almost unprecedented development, we now see cases of local television stations failing. This development is undoubtedly due to a number of forces, but the emergence of strong national cable television companies, with rights to serve as exclusive local providers of dozens of channels, is surely a significant factor, as is the power of cable television to attract both subscriber and advertising revenue.

154. In the current environment, the lack of must carry obligations, especially when combined with the effect of the compulsory license, creates an imbalance between broadcasting and cable television. The nature and effects of this imbalance are a matter of immediate public policy concern and need to be addressed expeditiously. Accordingly, Congress should enact must carry rules tied to cable's continued enjoyment of the compulsory copyright license. The need for such a remedy at this time is further buttressed by the fact that cable systems are currently the only multichannel carriers of programming in most markets, making it difficult for local broadcasters to negotiate on even terms with cable operators and rendering it impossible for them to extract the full value of their programming from cable systems even if the compulsory license were to be abolished. In the interim, a must carry rule coupled with

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207 See Comments of NAB at 56-61.

the compulsory license is the best way to fully protect broadcasters' interests and the interest of the local communities they serve.

155. Notwithstanding the need for must carry rules coupled with the compulsory license at this time, the long-term interests of the viewing public, in our judgment, demand that the government should withdraw from dictating contractual relationships between local stations and cable television distributors. If television stations, in the foreseeable future, are prohibited by the government from receiving value for their products, the government may be complicit in the demise of a system which today offers Americans a diversity of voices, presentations, interpretations and opinions.

156. Even if must carry rules are enacted, under the current copyright regime local broadcasters cannot compete on an even footing with cable systems. The compulsory license allows cable systems to use programming at little cost for which local broadcasters may have paid substantial sums, and also provides cable with a subsidy for importing distant broadcast signals that closely resemble local stations and which thus compete directly with the local stations for viewers. These imbalances undermine the viability of local television. Consumers thus have an important stake in seeing that local television stations remain healthy as a source of diversity and of local programming. Additionally, the compulsory license fails to recognize the added value local broadcasters provide when they construct successful programming schedules mixing local and national programming -- the value of the whole is greater than the mere sum of the parts.

157. We believe that ultimately the preferable public policy goal is to redress the competitive imbalance between cable systems and local broadcasters by giving broadcasters the right to control the use of their signals. If cable systems were required to obtain the consent of local stations to carry their programs, local stations would be able to negotiate the terms of their carriage on cable systems and would receive compensation for their programming commensurate with its value to cable systems and viewers. Broadcast stations would gain a measure of competitive leverage relative to cable systems that did not depend on government intervention. Imposing retransmission consent provisions would warrant elimination of the compulsory copyright, which would have the additional advantage that with full copyright liability, consumers would benefit from a menu of programming more closely matched to their preferences and delivered by a more efficiently utilized group of transmission media.[208]

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208 An alternative to the imposition of a retransmission consent scheme would be clarification or recognition of a local broadcaster's substantial compilation copyright interest in the programming it packages.

158. If Congress chooses not to reimpose a must carry requirement, or if must carry expires or is not sustained, the compulsory copyright provisions of the Copyright Act should, in our judgment, be repealed in order to correct the serious imbalance between the two industries.

159. If the Congress decides that the compulsory copyright system should be retained in some form, regardless of any must carry requirement, then we believe that Congress should consider repealing the compulsory copyright for distant signals. While we do not necessarily advocate an immediate repeal of this provision, we do believe such a provision should sunset when alternative multichannel providers are fully competitive with cable. In considering this proposal, we recognize both the costs and benefits of such a recommendation. The benefit is that such an action would end a cable system's ability to carry distant signals at below-market prices in competition with local stations. It also would remove a cable system's incentive to bias their programming toward distant signals. On the other hand, we recognize that must carry rules for local signals would provide a measure of protection against disparities in broadcast and cable programming choices due to compulsory copyright. In addition, we note that the compulsory copyright for distant signals assists in lowering the transaction costs for competitive multichannel alternatives to the local cable operator. Further, we note that the existing compulsory copyright system has played a role in the development of the present, increasingly diverse, multichannel television distribution system.

160. Although advertising sales by cable systems may exacerbate the disadvantages broadcasters suffer due to the compulsory license and the ability of cable systems to manipulate channel positioning of or otherwise disadvantage broadcast stations, we find that any ability of cable systems to behave anticompetitively toward broadcasters derives from their market power in the program delivery market and from the inequities of the current compulsory license regime, not from advertising sales per se. Thus, we find that the cable industry's involvement in advertising raises no concerns and, indeed, to the extent that advertising revenues enable cable systems to provide additional programming, the public benefits.

(c) Recommendations

161. We believe that as long as a significant competitive imbalance exists between single-channel and multichannel competitors in the local television market, mechanisms are required to correct that imbalance. Accordingly, we recommend that Congress adopt a must carry regime to safeguard local broadcast stations so long as the compulsory copyright license for local broadcast programming exists. This regime, including compulsory copyright, should sunset at the same time as any program access provisions enacted pursuant to our recommendations above at paragraph 129.

162. Either in the absence of or due to the expiration of any must carry regime, Congress should repeal the cable compulsory license and amend the

Communications Act to provide local broadcast stations a clearly defined right to bargain for compensation for retransmission of their programming.

163. Because of the unique service provided by noncommercial television stations, and because of the expressed governmental interest in their viability, we believe that all Americans should have access to them. We believe that mandatory carriage of noncommercial television stations would further this important goal. Specifically, we recommend that must carry provisions for noncommercial television stations consistent with the recent agreement between the National Association for Public Television Stations and the National Cable Television Association be incorporated into the Communications Act.[209]

2. Channel Repositioning

(a) Background

164. In 1988, the Commission opened MM Docket No. 88-138 to establish an empirical record concerning the carriage of local broadcast signals by cable systems in the absence of carriage rules. 3 FCC Rcd 2698 (1988). The record in that docket was incorporated into this proceeding, and we requested information on the need to reimpose some form of carriage rules.

165. The information obtained in MM Docket No. 88-138 indicated that a number of local stations were subject to noncarriage or to channel repositioning.[210] That proceeding, however, did not focus on or attempt to explain the factors affecting cable systems' carriage decisions. Thus, it was not clear whether those decisions reflected cable operators' perception of subscribers' preferences or intentional efforts to harm competing broadcast stations. The responses to our present Notice added little factual data to the information concerning carriage and repositioning gathered in Docket 88-138. Some broadcasting interests asserted that cable operators use channel placement techniques to enhance the success of cable offerings (e.g., by placing cable programming services near the most popular broadcast stations) or to hinder the viewing of broadcast stations (e.g., by placing those stations on high-numbered channels).[211] Broadcasters offer anecdotes of

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209 See Agreement of March 28, 1990, incorporated in H.R. 4415; see also Reply Comments of National Association of Public Television Stations and Reply Comments of NCTA.

210 Data concerning noncarriage and channel repositioning are contained in the Commission's September 1, 1988, "Cable System Broadcast Signal Carriage Survey Report" and in findings responsive thereto, which are included in MM Docket No. 88-138.

211 See, e.g., Comments of Chris-Craft Industries, Inc. at 1-7; Comments of

egregious cases of channel repositioning that they claim clearly harmed the broadcast stations involved.[212] As stated earlier, large MSOs have the ability and incentive either to create or limit competition to particular program services.[213] Furthermore, cable operators are continuing to aggressively sell advertising and are creating local broadcast-like channels. Such activities may create additional incentives to exercise control over competing advertiser supported services such as broadcasting. While most cable operators choose to carry local broadcast channels, as our data show, cable operators may disadvantage broadcast channels by repositioning their channel carriage during critical audience measurement months. Channel repositioning results in lower audience measurement and lower rates that stations can charge for advertising. Such activity harms broadcasters' ability to provide diverse programming and to meet programming obligations of Section 307(b) of the Act.

(b) Findings

166. Cable and broadcast programming compete for advertising revenues. Cable operators' incentive to provide disadvantageous carriage (e.g., frequent or ill-timed channel repositioning) to programming services in which they have no financial interest appears to be particularly great as against local broadcasters. This creates a market disadvantage in local commercial broadcasters' ability to compete against cable operators for advertising revenues. Although we have no comprehensive evidence of industry-wide abuse of channel-positioning powers, egregious cases that appear to be anticompetitive in intent have occurred.[214] Such cases could be prevented by a rule containing narrowly circumscribed channel positioning restraints.

(c) Recommendations

167. We believe that channel positioning concerns are best addressed by limiting changes in channel assignment. We recommend that the Congress restrict changes in the channel assignment of local broadcast stations except

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NAB at 2-3; Comments of 97 Television Stations at 4-5.

212 For example, Chris-Craft Industries asserts that the cable system serving Oakland, California shifted the channel position of station KBHK three times in four months, and then changed that station's channel position again a year and a half later. Cases were reported of channels being repositioned during ratings sweeps periods.

213 See supra para. 127.

214 See, e.g., Comments of Chris-Craft at 10-16; Comments of 97 Stations at 5; Attachment 10 to Comments of INTV.

under the following conditions: (a) when channel repositioning is mutually agreed to by the broadcaster and the cable operator; or (b) when technical limitations of the cable system prohibit carriage on a specific channel. Adequate prior notice for any such channel repositioning must be given to the station as well as to subscribers. We recommend that restrictions placed on channel repositioning begin with broadcast channel positions on cable systems as of June 29, 1990, pursuant to the industry compromise reached on channel repositioning.[215] This provision should sunset upon adoption of a retransmission consent regime.

E. Leased Access

168. A number of commenters voiced concern over another access issue: the difficulty in gaining carriage over the "leased access" channels that the Cable Act requires cable operators to set aside for unaffiliated programmers.

1. Background

169. Section 612 of the Cable Act requires certain cable systems to lease channels to unaffiliated entities. The stated purpose of this provision is "to assure that the widest possible diversity of information sources are made available to the public from cable systems in a manner consistent with growth and development of cable systems." 47 U.S.C. § 532(a).

170. Capacity requirements. The leased access requirement does not apply to cable systems with fewer than 36 activated channels. Cable systems with 36-54 activated channels must set aside 10 percent of these channels for this purpose, and systems with 55-100 activated channels must set aside 15 percent. Cable systems with more than 100 activated channels must dedicate 15 percent to leased access.[216]

171. Terms and conditions. Section 612(c) instructs cable operators to establish the price and conditions for use of leased access channels in such a way that this use "will not adversely affect the operation, financial

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215 The terms of this compromise are reported in Communications Daily, July 23, 1990, at 1-2.

216 See 47 U.S.C. § 532(b). For cable systems with 36-100 activated channels, channel capacity does not include channels required or prohibited by federal law or regulation. Thus, channels used to fulfill must carry obligations, should they be reimposed, and channels not used due to Commission regulations regarding interference with aeronautical frequencies are not included.

condition, or market development of the cable system." Moreover, cable operators are prohibited from exercising "any editorial control" over leased access programming and may not "consider the content of such programming, except that an operator may consider such content to the minimum extent necessary to establish a reasonable price" for use of the channel. 47 U.S.C. § 532(c).

172. The legislative history of the Cable Act provides additional information regarding the intent of Congress in establishing leased access.[217] The purpose of Section 612 is to promote and encourage "an increase in the sources of programming available to the public," and to "assure the widest possible diversity of information sources to the public." The House Report notes that cable operators do have incentives to provide diverse programming, but that these incentives are limited "when a particular program supplier's offering provides programming which represents a social or political viewpoint that a cable operator does not wish to disseminate, or the offering competes with a program service already being provided by that cable system." The price and other terms for commercial use of cable channels are to be set so they will not "adversely affect the operation, financial condition, or market development of the cable system." The intent of the Committee is not to "adversely affect the cable operator's economic position, since it is not the cable operator's exercise of any economic power, but his exercise of editorial control which is of concern to the Committee."

173. The House Report also explicitly states (at 51) that there is not a requirement to provide leased access channels on a non-discriminatory basis, noting that the fair market price for access will differ according to the content of the service. It gives as examples a premium movie service, a news or public affairs service, and an instructional or educational service. Cable operators are permitted to consider the "nature (but not the specific editorial content) of the service being proposal [sic], how it will affect the marketing of the mix of existing services being offered by the cable operator to subscribers, as well as potential market fragmentation that might be created and any resulting impact that might have on subscriber or advertising revenues." The House Report also indicates (at 52) that cable operators are not required to provide "marketing, billing, or other such services" to users of leased access channels.

174. Enforcement. The enforcement mechanism established in Section 612(d), (e) and (f) is a cumbersome one. Aggrieved parties may bring action in federal district court, which is empowered to order cable operators to

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217 House Report at 50-52.

provide access to channels in accordance with this section, to establish price, terms and conditions for such access, and, in its discretion, to award actual damages. Aggrieved parties may also petition the Commission for relief if there have been three or more adjudicated violations against the cable operator in question. The Commission can provide the same relief (except for awarding damages) that the courts can provide. The FCC has the additional power to establish rules and regulations governing provision of leased access channels by the cable operator in question and other cable systems owned by the same entity, provided that the Commission determines that a "pattern or practice of violations" exists.

175. In evaluating the price and conditions of access offered by a cable operator, the courts and the Commission are directed to presume that they are "reasonable and in good faith unless shown by clear and convincing evidence to the contrary." Moreover, courts are prevented from considering "any price, term, or condition established between an operator and an affiliate for comparable services." The House Report (at 53) implies that, in this context, "affiliate" means a commonly-owned programming service.

176. Section 612(g) authorizes the Commission to "promulgate any additional rules necessary to provide diversity of information sources" when cable systems with 36 or more activated channels are available to 70 percent of American households and 70 percent of households with access to such systems choose to subscribe (the "70-70 criteria"). The legislative history of this subsection emphasizes that leased access is designed to further the "First Amendment goal of assuring diversity." 47 U.S.C. §532(g).

2. Findings

177. Few commenters provided information or argument as to the extent to which the leased access mechanism has been used, the feasibility of the mechanism, whether it can or could be used to ameliorate possible competitive problems and promote diversity and access, the changes that might be needed to strengthen the leased access mechanism, and whether such changes could be implemented by the Commission without additional legislative action. NYC/NLC and the State of Hawaii suggest that the implementation of leased access has been frustrated because cable operators have established unreasonable terms or, in some cases, simply refused to discuss the issue.[218] Other commenters complained that the enforcement mechanism for leased access is too cumbersome to be effective. These commenters cite the expense of litigation and the high burden of proof on the would-be lessee. On the other hand, the City of Eau Clair, the New York

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218 Comments of NYC/NLC at 70-71. Comments of State of Hawaii at 16, 23.

State Commission on Cable Television, Continental Cablevision and NCTA assert that the demand for leased access is very low.[219]

178. As noted above, the Commission cannot adopt additional rules on leased access until the "70-70 criteria" have been met. NCTA provides data from Nielsen indicating that 48.7 percent of American television households are passed by cable systems with 36 or more channels and 57.3 percent of those households subscribe to cable.[220] NCTA notes that the Cable Act specifies total households as the universe, but the Nielsen data refer to television households, a smaller set. Thus, the 48.7 percent figure is a slight overestimate of the fraction of total households passed by cable systems with 36 or more channels. Moreover, some of the changes needed to make it possible for leased access to be an effective source of competition would likely not be permissible for the Commission to make under Section 612(g). Consequently, Congressional action is required to provide for prompt modification of the leased access provisions.

179. Unless the purpose of Section 612 is modified to include the goal of promoting competition, the rate setting process would presumably continue to be constrained by language in the legislative history of the Cable Act to the effect that leased access is not intended "to adversely affect the cable operator's economic position."[221] Rates, terms and conditions set according to such criteria are unlikely to facilitate vigorous competition by independent programmers to the services selected by the cable operator.

3. Conclusions

180. Although leased access was not designed to deal with the possible exercise of market power by cable operators vis-a-vis programmers, we believe that it is a promising alternative or supplement to the measures regarding programmer access to cable facilities discussed in Section IV-B of this Report. A new focus on promoting competition to the cable operator renders the operators' discretion to set the leased access rates and conditions inappropriate. When leased access is used competitively, i.e., as a means of delivering a program service that has faced difficulties in amassing the number of subscribers nationwide necessary to begin service, it

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219 Comments of the City of Eau Claire, Wisconsin, at 4; Comments of New York State Commission on Cable TV at 9; Comments of Continental Cablevision, Inc., at 103; Comments of NCTA at 92.

220 Comments of NCTA at 89.

221 We note that currently pending in the Senate is a proposed amendment that would modify Section 612(a) to add as a goal: "to promote competition in the delivery of diverse sources of video programming."

is likely that the program service (or a "channel broker," see below) would be seeking access to a number of cable systems across the country. For this competitive purpose, it is appropriate to have a national framework of rules governing leased access. Moreover, the Commission has the experience, expertise and resources to develop such a framework. Local franchise authorities generally have far more limited resources.

181. We are convinced that the current enforcement provisions of Section 612 are too cumbersome, particularly given that the use of leased access with its newly assigned purpose is likely to be much greater than anticipated if Congress were to adopt the leased access legislation. In its contemplated new form, leased access could increase the diversity of programming available over cable, promote competition to the channel package selected by the cable operator, and provide a check on any incentives that cable operators might have to exclude unaffiliated programmers or otherwise take undue advantage of their bargaining power as the only or primary multichannel provider across the country.

182. If leased access becomes an established channel acquisition mechanism, it is quite possible that "channel brokers" will come forward. These entities would be in the business of accumulating leased access channels across the country and then "subleasing" them in groups to program services. These brokers could then provide program services with access to subscribers, independent of cable operators and with reduced transactions costs.

4. Recommendations

183. For these reason, we recommend that the Congress amend the leased access section of the Cable Act. We suggest first that Congress amend Section 612(a), the statement of purpose, to include the "promotion of robust programming competition." Second, we urge Congress to either change the burden and standard of proof required to establish a violation, or

delegate to the Commission the authority to do so. As noted above, the proposed new, pro-competitive purpose of Section 612 would make it inappropriate to retain the deference given to cable operator choices regarding leased access rates. Third, we suggest that Congress give the Commission original jurisdiction to resolve disputes over the provision of leased access channels. Fourth, we recommend that Congress require cable operators to provide billing and collection services for channel lessees and authorize the Commission to craft the relevant rules. We emphasize that these enhanced leased access requirements in no way obligate a cable operator to carry programming that is obscene or otherwise unprotected by the law.[222]

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222 See 47 U.S.C. § 532(h); see also Enforcement of Prohibitions Against the Use of Common Carriers for Transmission of Obscene Materials, 2 FCC Rcd 2819 (1987) (describing standards for denying transmission of obscene programming by an MDS carrier).

V. LOCAL REGULATORY ISSUES

A. Effective Competition and Rate Regulation

184. Background. Section 623 of the Cable Act permits local franchising authorities to regulate basic service rates only in those situations where the cable system is not subject to "effective competition."[223] The Cable Act directed the Commission to define the circumstances in which a cable system is not subject to effective competition and to establish standards for the regulation of rates for basic cable service[224] by local franchising authorities in such cases.[225] In addition, Section 623 requires the Commission to periodically review its regulations on effective competition.[226]

185. Under existing Commission rules, adopted in 1985, a cable system is deemed subject to effective competition if at least three unduplicated broadcast television signals are "available" over the entire cable community.[227] That standard counts a broadcast signal as available based on predicted Grade B coverage or "significantly viewed" status in the cable community.

186. The presence of three over-the-air broadcast signals has not been an appropriate measure of effective competition to cable service, and, in our judgment, is not viable.

187. Sensing that the old standard might no longer be viable, we initiated a Notice of Proposed Rule Making earlier this year seeking comment on whether the three signal standard remains valid, and, if not, what might constitute a more appropriate standard.[228] Extensive comments have been

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223 47 U.S.C. § 543.

224 The Cable Act defines "basic cable service" as "any service tier which includes the retransmission of local television broadcast signals." 47 U.S.C. § 522(2).

225 47 U.S.C. § 543(b)(2)(A) and (b)(2)(B).

226 47 U.S.C. § 543(b)(3).

227 47 C.F.R. § 76.33(a). The Commission also established procedural requirements for those franchising authorities that regulate basic cable rates, although the specific rate-setting methodology used to set such rates was left to the local franchising authorities. Id.

228 See Notice of Proposed Rule Making in MM Docket No. 90-4, 5 FCC Rcd 259 (1990). Commenters were also asked whether the standards for rate regulation

received in that proceeding, and we are currently evaluating the most appropriate revisions to our effective competition regulations.

188. Congress is actively considering legislation that may substantially alter the effective competition provisions of the Cable Act.[229] In particular, Congress may redefine effective competition in a sweeping way or discard this test altogether and require that all basic service tiers be rate regulated.

189. Findings. The pendency of these legislative efforts, combined with the extensive comments the Commission has received on its proposal to change its effective competition regulations, make it appropriate, in our judgment, for the Commission to defer adoption of a new definition of effective competition at this time. Nevertheless, because the legislative process is currently still at a stage in which some indication of options the Commission considers promising might be of material assistance to the Congress in its further deliberations, we will describe several alternative definitions that have been presented.

190. The Commission believes there are several possible ways to measure effective competition and that the appropriateness of using a particular standard may depend on the circumstances of the particular cable community involved. In some markets, cable derives its market power from its ability to provide a diversity of programming directly to consumers in one convenient package. In other cases, cable's market power is due to its ability to provide good reception of over-the-air signals. Thus, no single standard of effective competition can be expected, in every case, to measure the source and extent of a cable system's market power. An effective competition standard composed of several alternative definitions, therefore, may well permit a better way to consider various local circumstances.

191. While no final determinations have been made by the Commission at this point, several alternatives are under consideration.[230] One proposal

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by local franchising authorities in cable communities not subject to effective competition should be amended.

229 We note that the Senate Commerce Committee already has approved a cable bill (S. 1880) that established specific thresholds for the presence of effective competition. Also, the House Commerce Committee has under consideration a cable bill (H.R. 5267) that would eliminate the need for a definition of "effective competition."

230 The first three of these proposals described below are derived from comments submitted in the record of this proceeding. The fourth, the "competitive package" alternative, has been developed internally by Commission staff.

would simply increase the number of over-the-air signals required to constitute effective competition. Another includes a combination of a certain number of over-the-air broadcast signals (more that the current three-signal standard), coupled with a cable penetration rate significantly lower than the current national penetration average. A third alternative definition would be the existence of a competing multichannel video delivery system in the cable community which passes a stated percentage of households and is subscribed to by a stated percentage of those passed. A fourth alternative, featuring a behavioral or "good" actor test, would presume the existence of effective competition wherever a cable system offered a "competitive package" of basic cable service consisting of a minimum number of channels at or below a specified range of prices or price increases.[231]

192. As stated previously, out of deference to the ongoing legislative process we decline to take further steps to adopt revised effective competition standards at this time or to specify in any detail the potential alternatives. However, if Congress does not enact statutory changes to the rate regulation provisions of the Cable Act in this legislative session, we intend to move expeditiously to determine an appropriate effective competition definition.

193. With regard to the ratemaking process applicable where effective competition does not exist, it is our view that federal standards should guide local ratemaking to assure that nonfederal power is exercised reasonably, but the process of rate regulation should be left to municipalities or states. Bifurcation of the standard-setting and rate-setting process between federal and nonfederal jurisdictions will best assure that the regulatory interests of each will be met.

194. It is important to address one last aspect of the effective competition/rate regulation issue: the impact of currently pending legislation that would require the Commission to establish and administer rate regulation standards set by the approximately 27,000 franchising authorities regulating 9,600 cable systems. The Federal Communications Commission, as the chief body charged with enforcing the laws and regulations affecting communications, must command the resources and people necessary to carry out the tasks imposed upon it by Congress. If not, its machinery will soon be overwhelmed, its authority eroded, and its credibility as a regulatory agency seriously compromised. It is both logical and necessary therefore, in our judgment, for the Congress to consider, along with currently pending cable legislation, appropriating sufficient funds to cover the costs they impose. Alternatively, we recommend that Congress consider enacting a fee program that

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231 We wish to emphasize, however, that we will consider these and other possible alternatives only if the 101st Congress fails to act.

will allow the Commission to recoup the costs of any increased regulatory responsibilities that Congress would have us assume.

B. Service Regulation

195. In the following subsections, we discuss our conclusions and recommendations for addressing the problems related to service quality discussed above in Section II-B.

1. Technical Cable Service

196. Background. Since 1972, the Commission has had technical standards to govern the video signal of cable channels retransmitting broadcast programming (i.e., "class I" channels). At the outset, the Commission also permitted local franchise authorities to adopt and enforce stricter cable technical standards than the ones it promulgated. This resulted in a variety of different standards adopted by local authorities, which created a significant degree of confusion and inefficiency. Consequently, in 1974 the Commission preempted the authority of state and local governments to set more stringent standards than the Commission. Until 1985, the Commission itself enforced these standards. At that time, however, the Commission decided that it would no longer enforce the standards, but would retain them as voluntary guidelines that local authorities could include as requirements in their franchise agreements and could themselves enforce.[232] The Commission's preemption of local authority in this area remained in effect.

197. Although the Commission initially anticipated setting additional standards for class II, III and IV channels as the need developed, it ultimately determined that standards for class II through IV channels would stifle the development of services using these channels, and that competitive forces would be a far more effective regulator of service quality for these channels.[233] The Commission therefore did not adopt any standards or guidelines for class II through IV channels, and, to ensure that technical innovation proceeded without unnecessary impediment, the Commission also preempted local authorities from imposing any technical standards for these channels.

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232 See Report and Order in MM Docket No. 85-38, 102 FCC 2d 1372 (1985).

233 See Report and Order in MM Docket No. 85-38, 102 FCC 2d at 1372-73, n.2; cf. Notice of Inquiry and Proposed Rulemaking in Gen. Docket No. 83-114, 48 FR 14399 (April 4, 1983) (concluding that when communications services are sufficiently competitive, government-mandated technical quality standards are unwarranted).

198. In 1985, the Commission again declined to set standards (or guidelines) for class II through IV cable channels and continued to preempt local franchising authorities from doing so. Franchising authorities appealed the decision, arguing that this preemption, coupled with the absence of federal quality standards for these channels, made it impossible for them to perform an adequate analysis of whether a franchise should be renewed, in accordance with their obligations under the Cable Act. Finding merit in this argument, the Court of Appeals for the District of Columbia Circuit remanded the case to the Commission. Responding to the remand, the Commission launched a further rulemaking proceeding, proposing to extend the now voluntary technical guidelines for video signals carried on class I cable channels to cover video signals carried on class II and class III channels.[234] The Commission believed that the varied and experimental nature of non-video services carried on class III and class IV channels made defining standards for these channels difficult, if not impossible. It also stated its continuing concern that such standards would stifle further development of new uses of cable technology. Consequently, no standards were proposed for non-video signals carried on class III and IV channels.

199. Findings. While we anticipated that our class I guidelines, coupled with the pressure of the marketplace, would assure that cable subscribers receive a consistently high quality picture signal for both cablecast and broadcast signals, this does not appear to have occurred throughout the industry. Moreover, the existing class I channel standards, which have not been revised since the early 1970s, do not even address some technical problems. Thus, we find merit in the criticism of some municipal commenters that the standards are outdated and inadequate to assure subscribers a high quality picture.

200. Conclusions. We continue to believe that uniformity of technical standards in the 27,000 communities with cable franchises is essential to prevent the inefficiency and confusion that threatened the cable industry during the period when local authorities (far fewer at that time) could set stricter standards than those promulgated by the Commission. Moreover, uniform standards would permit cable operators, program suppliers and equipment manufacturers to take advantage of any economies of scale that might otherwise be lost if differing technical standards force them to customize their services or equipment to meet the requirements of a myriad of jurisdictions. As the cities themselves recognize, federal standard setting could also save the local authorities the expense associated with developing their own standards. The evidence presented by NYC/NLC concerning technical service problems (discussed above in Section II-B) suggests that at least some

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234 Further Notice of Proposed Rule Making in MM Docket No. 85-38, 3 FCC Rcd 5966 (1988).

cable operators now lack a strong incentive to provide a technically high quality service.

201. This analysis applies to the video signals carried on class I, II and III cable channels. The number of variations in the nature and types of non-video services offered on class III and class IV channels would make it difficult to develop uniform standards for those services at this time. Such standards could also stifle the continuing experimentation and innovation that has taken place in connection with these services, which the Commission has traditionally sought to foster.

202. As stated by the Court of Appeals, our existing approach toward technical regulation prevents local authorities from meeting their obligations imposed by the Cable Act's franchise renewal provisions. At present, local authorities are left without any effective means to redress technical problems that are occurring on class II, III and IV cable channels. Moreover, adoption of technical standards would let cable operators know the benchmarks against which the quality of their signals will be measured in determining whether they are fulfilling their franchise obligations. Additionally, the lack of recourse in cases where a cable system provides poor technical quality service harms consumers and must therefore be corrected.

203. As stated in our findings above, uniform federal technical standards appear advisable for video transmissions carried on the class I through III channels, but not for non-video transmissions (which are carried on class III and IV channels). We do not, however, believe that an absence of federal standards for non-video transmissions will prevent local authorities from fulfilling their obligations under the Cable Act; technical standards for video transmissions should be adequate to enable a franchising authority to determine whether the signal quality of its franchisee's system overall merits franchise renewal. Thus, these standards should provide local authorities with an adequate benchmark for judging franchisee performance for renewal purposes and thus for ensuring that their franchisees provide a reasonable degree of technical quality service to subscribers. In order that any standards adopted do not inadvertently stifle technological advances and experimentation, however, it is important that such standards be limited to those fundamental service aspects capable of assuring reasonable technical quality to all subscribers. New federal standards should not impose new costs on the cable industry that outweigh benefits to the consumer.

204. Establishing new uniform technical standards for the video component of class I through III cable channels will require the continued preemption of local standards for this component that are more stringent than those the Commission ultimately promulgates. The potential benefits flowing from experimentation and innovation also justify continued preemption of local authorities' power to set technical standards for non-video signals carried on class III channels. The case in favor of preemption is more difficult to make for class IV channel signals. In some systems, class IV channels may be used for separate institutional networks that are not interconnected with the cable

operator's broadcast and cablecast channels. Moreover, at least some of the channels may be used for intrastate private carrier or common carrier services, over which the Commission's jurisdiction is at best questionable. Consequently, whether we should preempt local authorities from setting technical quality standards for transmissions over these channels is a question best answered on a case-by-case basis. Preemption would be warranted only in those cases in which local regulation would prevent the Commission from fulfilling its obligations under the Communications Act.

205. Recommendations. Efforts are being made in various quarters to address customer dissatisfaction with the technical quality of cable service. Congress is weighing legislation, for example, that would increase the cable industry's obligations in this area. Some local authorities have attempted to raise the level of cable service by negotiating for higher technical standards in their franchise agreements. The cable industry itself has made efforts to reach an inter-industry consensus on new technical standards. Currently, NCTA, NYC/NLC and the National Association of Telecommunications Officers and Administrators ("NATOA") are working together to develop a new set of cable technical standards acceptable to all.

206. We believe that the best way to fashion effective technical standards is to involve the interested parties, including the cable industry and franchising authorities, by encouraging the completion of the ongoing inter-industry negotiations in this area.[235] Thus, we will initiate an inter-industry advisory process, geared toward reaching consensus for revamping the specific standards for cable technical regulation, within the following framework:

(a) The Commission intends to adopt mandatory technical standards for class I, II and III video signals.

(b) The Commission will continue to preempt the power of local authorities to set technical standards for these signals more strict than the federally established ones.

(c) As a practical matter, the Commission will continue to rely on local franchising authorities as the first line of enforcement; with mandatory standards, however, the Commission will have enforcement responsibilities.

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235 In the past, the Commission has met with great success using this type of approach. For example, in an effort to improve the quality of the AM radio service, the Commission acted on a recommendation by the National Radio Systems Committee to adopt a new emissions standard for AM stations.

(d) For non-video transmissions carried on class III and IV channels, technical standards, to the extent they are necessary, should not be so restrictive as to stifle innovation and experimentation in this dynamically evolving area of new technology and service.

Once a consensus agreement is reached among the interested parties, the Commission will issue a notice of proposed rule making setting forth and seeking comment on the proposed set of additional federal standards.

2. Nontechnical Cable Service

207. Background. Section 632 of the Cable Act, 47 U.S.C. § 552, provides that a franchising authority may require, as part of the franchise contract, provisions for the enforcement of customer service requirements. Several commenters argue that, as a practical matter, local authorities generally do not attempt to enforce nontechnical standards until the operator seeks renewal of its franchise. More likely, they argue, enforcement is foregone entirely because the Act makes it difficult for a local authority to deny renewal.[236] Moreover, they submit that the Act limits the ability of the local authority to deny requests for modifications of the franchise agreement. They also assert that customer service provisions included in a franchise agreement are often unenforceable due to the operator's request for modification based on commercial impracticability. In addition, at least one court has held that a request for modification of the franchise agreement stays the imposition of any penalties pursuant to that agreement, regardless of when they accrued.[237] Commenters finally note that well-financed cable operators have the resources to prolong litigation beyond the means of the local authority.

208. Findings. As discussed above in Section II-B, there is a pattern of nontechnical service problems, including telephone and billing difficulties and inadequate response to repair requests. The industry has recently launched efforts to deal with such customer service problems. Local franchising authorities have little power to address such service problems, notwithstanding the authority afforded them by Section 632, as their only recourse is the undesirable and often ineffective option of taking the cable operator to court for breach of the franchise agreement.

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236 The need or basis for this reaction is a subject of considerable debate among commenters.

237 Tribune-United Cable of Montgomery County v. Montgomery County, et al., 784 F.2d 1227 (4th Cir. 1986).

209. Conclusions. The emergence of more robust competition will in all likelihood, lead to improved customer service.[238] In the meantime, because we believe that the local franchising authority is the best arbiter of the particular customer service requirements of its community, promulgation of such standards is best left to those local authorities, as is currently dictated by the Act. This leaves parties free to negotiate nontechnical safeguards which account for conditions specific to the local community. Local control of customer service standards provides aggrieved customers with a forum other than the cable company or a distant (federal) governmental entity with which to lodge complaints, and empowers the local authority to act on those complaints.

210. Recommendations. We recommend that Congress clarify the consumer protection provisions of the Cable Act to enable local authorities to effectively implement their existing powers. Because Congress clearly intended Section 632 to enhance rather than inhibit the local authorities' enforcement of consumer protection standards, we recommend that Congress clarify the rights and limitations of franchising authorities under Section 632. Particularly, we recommend that Congress permit local franchising authorities to impose penalties for customer service violations by expressly allowing them to impose penalties for violations thereof at any time in the life of the franchise.

VI. CONCLUSION

211. In compiling and analyzing the record leading to this Report, we have found that since the Cable Act of 1984, the cable television industry and cable television subscribers have benefited significantly from the regulatory certainty and economic freedoms contained in the Act. Cable operators have expanded their systems -- both in terms of service area and channel capacity -- deployed new technology and invested in new programming, thereby increasing choices for consumers. The Cable Act was intended to establish a national policy concerning cable communications that would promote competition, minimize unnecessary regulations imposing undue economic burdens on cable systems, and encourage the provision of the widest possible diversity of information sources and services to the public. In many respects these fundamental purposes of the Cable Act are being accomplished.

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238 In Section IV-C, above, we recommended removing some aspects of the franchise process from the purview of the local authority so as to foster the development of competition. Here, we see no reason to curtail the authority of the local franchising body, since the present rule does not affect entry into the cable marketplace.

212. While the dramatic growth and development of the cable industry has benefited the American public, many cable subscribers and local officials have expressed alarm about the substantial rate increases that accompanied this growth and the poor quality of technical and consumer service some subscribers have experienced. Also, existing and emerging competitors to cable have alleged that increasing concentration of ownership and vertical integration within the industry have resulted in anticompetitive conduct by cable operators and programmers.

213. It is, we believe, in the national interest to foster, for the future, a domestic video distribution system which ensures the benefits that cable television offers, but which does not unfairly disadvantage competitors.

214. This Report finds that robust competition in the video marketplace has not yet developed but is emerging. In light of the developing field of existing and potential multichannel competitors to cable, and evidence that even direct competition between cable operators may increasingly occur, we do not recommend any drastic or long-term reregulation of cable rates and services. Therefore, the proposed actions and recommendations to Congress set forth in this Report are designed to eliminate market restraints and enhance the prospect for competition rather than to reregulate the cable industry. Consequently, they are targeted and limited and should become largely unnecessary once full-fledged multichannel competition develops.

215. As with other mass media, television is best at contributing to the marketplace of ideas when there is vigorous competition -- competition in ideas and for viewers. The recommendations outlined in this Report are designed to foster a video distribution marketplace that will ensure the benefits of competition.

ORDERING CLAUSE

216. IT IS ORDERED that the Secretary shall send copies of this Report to the appropriate committees and subcommittees of the United States House of Representatives and the United States Senate.

FEDERAL COMMUNICATIONS COMMISSION

Donna R. Searcy
Secretary

APPENDIX A

LIST OF COMMENTERS

Comments

1. Action For Children's Television
2. Adelphia Communications Corporation, et al.
3. Ameritech Operating Companies
4. Arkansas Public Service Commission
5. Association Of Independent Television Stations, Inc.
6. Steve & Lorraine Augustyn
7. Baltimore City Mayor's Office Of Cable & Communications
8. Bellsouth Corporation
9. Joseph S. Broadman
10. Cable Television Operators & Associations
11. Cable TV Consumers
12. Cablevision Systems Corporation
13. Capitol Cablevision
14. CBS Inc.
15. Center For Communication's Cable Access Project
16. Channel America LPTV Holdings, Inc.
17. Charter Township Of Milford
18. Chris-Craft Industries, Inc./United Television, Inc.
19. Chula Vista Cable, Ultronics
20. City Of Beverly Hills, California
21. City Of Brentwood, Tennessee
22. City Of Burnsville and Eagan, Minnesota
23. City And County Of Denver
24. City Of Dubuque, Iowa, Montgomery County, Maryland, and The City Of St. Louis, Missouri
25. City Of Eau Claire, Wisconsin
26. City Of Fort Lauderdale, Florida
27. City Of Fort Worth, Texas
28. City Of Hattiesburg, Mississippi
29. City Of Hawthorne, California
30. City Of Issaquah, Washington
31. City Of Kearney, Nebraska
32. City Of Lakeville, Minnesota
33. City Of Longview, Texas
34. City Of Los Angeles, California
35. City Of Mesa, Arizona
36. City Of Minden, Nebraska
37. City Of Natchitoches, Louisiana
38. City Of New York, National League Of Cities, United States Conference Of Mayors, City Of Huntsville, Alabama, City Of Portland, Oregon and Northwest Municipal Cable Council

39. City Of Olathe, Kansas
40. City Of Olivette, Missouri
41. City Of Palo Alto, California
42. City Of Peoria, Arizona
43. City Of Portsmouth, Virginia
44. City Of Redondo Beach, California
45. City Of Rochester, Minnesota
46. City Of San Diego, California
47. City Of Santa Ana, California
48. City Of Schuyler, Nebraska
49. City Of St. Louis Park, Minnesota
50. City Of Sunnyvale, California
51. City Of Tallahassee, Florida
52. City Of Thousand Oaks, California
53. City Of Torrance, California
54. Community Antenna Television Association
55. Competitive Cable Association
56. Connecticut Cable Television Association
57. Consumers Against Cable Monopolies
58. Contel Corporation
59. Continental Cablevision, Inc.
60. Contra Costa County
61. Joseph Conway
62. Tom Cunningham
63. Deridder Cable TV
64. ESPN Inc.
65. Fairfax County, Virginia
66. Fisher Broadcasting Inc.
67. Florida Public Service Commission
68. Glenn A. Grago
69. GTE Telephone Companies, GTE Service Corp., and GTE Laboratories
70. Guam Cable
71. Hope C. Hardin
72. Harte Hanks Television, Inc. (Kens 5 TV)
73. Heritage Communications, Inc.
74. Hillsborough County, Florida
75. Hughes Communications Galaxy, Inc.
76. Illinois Cable Television Association
77. Intermedia Partners and Intermedia Partners II, L.P.
78. Ka'ikena Lani TV Corporation
79. Kings Bay Communications, Inc.
80. Latino Community Justice Center, Los Angeles, California
81. Richard S. Leghorn
82. The Lenfest Group
83. Major League Baseball
84. Massachusetts Community Antenna Television Commission
85. Massillon Cable TV and Clear Picture, Inc.

86. Massillon Cable TV, Inc., Cooney Cable Associates Of Ohio, Kings Bay Cablevision, Inc., and Fairmont Cable TV
87. Minnesota Cable Communications Association
88. Monmouth Cablevision Associates
89. Motion Picture Association Of America, Inc.
90. Natchitoches Cable TV
91. National Association Of Broadcasters
92. National Association Of Public Television Stations
93. National Association Of Regulatory Utility Commissioners
94. National Cable Television Association, Inc.
95. National Private Cable Association
96. National Rural Telecommunication Cooperative
97. National Satellite Programming Network, Inc., et al.
98. National Telecommunications and Information Administration
99. Navy Broadcasting Service
100. Netlink USA
101. New Milford Cablevision Company, Housatonic Cablevision Company, and Mid-Connecticut Cablevision Company
102. Newhouse Broadcasting Corporation
103. The 97 Television Stations
104. Sylvia Chan-Olmsted
105. Orange County Cable Operators
106. Otec Communication Company
107. Pappas Telecasting Inc.
108 Paragon Cable
109. Barry Pineless
110. Post-Newsweek Cable
111. Prime Cable
112. Public Broadcasting Service
113. Public Service Commission Of The District Of Columbia
114. QVC Network, Inc.
115. Scientific Atlanta
116. Charles D. Sneed
117. Southern Cable Group, Inc.
118. Southwest Missouri Cable TV, Inc.
119. Southwestern Bell Corporation
120. Spectradyne
121. St. Mary's TV, Inc.
122. State Of Hawaii
123. Joe Stein
124. Jerry L. Stockton
125. Tele-Communications, Inc.
126. Telecommunications Industry Association
127. Telemundo Group, Inc.
128. Telesat Cablevision, Inc.
129. Time Warner, Inc.
130. TKR Cable Company
131. Mary O. Torres
132. Turner Broadcasting System, Inc.
133. TVX Broadcast Group, Inc.

134. United States Catholic Conference
135. United States Telephone Association
136. United Telecommunications, Inc.
137. University Of Tennessee, Municipal Technical Advisory Service
138. USA Network
139. Village Of Dodge, Nebraska
140. Lawrence R. Walz
141. Charles R. Wells
142. WGXA-TV 24
143. Wireless Cable Association, Inc.
144. Mark A. Zupan

Comments (late-filed)

1. American Cablecom, L.P.
2. Cencom Cable Associates
3. Charter Township Of White Lake, Michigan
4. City Of Albion, Nebraska
5. City Of Beverly Hills, California
6. City Of Bloomington, Minnesota
7. City Of Cupertino, Cupertino Cable Television Advisory Committee
8. City Of Daly City, California
9. City Of Danville, Virginia
10. City Of Fremont, Nebraska
11. City Of Germantown, Tennessee
12. City Of Humphrey, Nebraska
13. City Of La Mesa, California
14. City Of Leesburg, Florida
15. City Of Minneapolis, Minnesota
16. City Of Oceanside, California
17. City Of Palm Desert, California
18. City Of Schertz, Texas
19. County Of Los Angeles, Internal Services Department
20. Sam Dana
21. Federal Trade Commission
22. Fireweed Television
23. Grassroots Cable Systems, Inc.
24. Jack Hooper
25. Kootenai Cable Inc.
26 The Lenfest Group
27. John P. Liston
28. Litchfield Country Club Property Owners' Association, Inc.
29. John Mock
30. New York State Commission On Cable Television
31. Omaha City Council
32. James C. Reed
33. Sioux Valley Rural Television Cooperative, Inc.
34. Town Of Grove Hill, Alabama

35. Township Of Alpena, Michigan
36. U.S. Dept. Of Commerce
37. Village Of Wolverine Lake, Michigan
38. Huson A. Wilken

Reply Comments

1. American Telecasting, Inc.
2. Bell Atlantic Telephone Companies
3. Bellsouth Corporation
4. Blackstar Communications, Inc., Roberts Broadcasting Company and Home Shopping Network, Inc.
5. C-Sat Committee Of 435
6. Cable Television Operators and Associations
7. Cablevision Systems Corporation
8. Cacomm, Inc.
9. City Of Boston, Massachusetts
10. City Of Dubuque, Iowa
11. City Of Los Angeles, California
12. City Of New York, The National League Of Cities, The United States Conference Of Mayors, The City Of Huntsville, Alabama, The City Of Portland, Oregon and The Northwest Municipal Cable Council
13. Clear-Vu Cable, Inc.
14. Comcast Cablevision Of Santa Ana, Inc.
15. Concord TV Cable
16. Consumer Federation Of America, Office Of Communication Of The United Church Of Christ, Telecommunications Research and Action Center
17. Continental Cablevision Of Western New England, Inc.
18. Corporation For Public Broadcasting
19. Eastern Microwave, Inc.
20. Bruce L. Egan and Douglas A. Conn
21. ESPN, Inc.
22. Fairfax County, Virginia
23. Gateway Cable
24. General Instrument Corporation
25. GTE
26. Guahan Airwaves, Inc.
27. Hughes Communications Galaxy, Inc.
28. Illinois Cable Television Association
29. International Family Entertainment, Inc.
30. Longview Cable Television Company
31. Magnavision, Inc.
32. Major League Baseball
33. Maricopa County Highway Department
34. Mark S. Nadel
35. National Association Of Broadcasters
36. National Association Of Public Television Stations

37. National Basketball Association and National Hockey League
38. National Broadcasting Company, Inc.
39. National Cable Television Association, Inc.
40. National Private Cable Association
41. National Rural Telecommunications Cooperative
42. National Satellite Programming Network, Inc., et. al.
43. National Telecommunications and Information Administration
44. Network Affiliated Stations Initiative
45. New England Cable Television Association
46. New York Telephone Company and New England Telephone and Telegraph Company (NYNEX)
47. News Corporation Limited
48. Northwest Municipal Cable Council
49. Northwest Suburbs Cable Communications Commission, et. al.
50. Office Of Communication, United Church Of Christ; Communication Unit, National Council Of Churches Of Christ In The U.S.A.; and National Federation Of Local Cable Programmers
51. Organization For The Protection and Advancement Of Small Telephone Companies
52. Pacific West Cable Television
53. People's Choice TV
54. Sacramento Metropolitan Cable Television Commission
55. Satellite Broadcasting and Communications Association Of America
56. Selkirk Communications, Inc.
57. Southern Satellite Systems, Inc.
58. Tele-Communications, Inc.
59. Telesat Cablevision, Inc.
60. Time Warner Inc.
61. Turner Broadcasting System, Inc.
62. United Cable Television Of Baltimore, L.P.
63. United States Department Of Justice
64. United States Telephone Association
65. United Video, Inc.
66. Village Of Buffalo Grove, et al.
67. Wireless Cable Association, Inc.
68. WWOR-TV, Inc.

Reply Comments (late-filed)

1. Association Of Independent Television Stations, Inc.

APPENDIX B

LIST OF 9 MSOs RESPONDING TO COMMISSION REQUESTS FOR INFORMATION

1. American Television and Communications Corporation
2. Cablevision Systems Corporation
3. Comcast Corporation
4. Continental Cablevision, Inc.
5. Cox Communications, Inc.
6. NewChannels Corporation
7. Sumner Redstone, National Amusements, Inc., Viacom, Inc., Viacom International, Inc. and subsidiaries ("Viacom")
8. Tele-Communications, Inc.
9. Warner Cable Communications, Inc.

APPENDIX C

PARTIES PROVIDING RESPONSES TO COMMISSION'S FOLLOW UP QUESTIONS TO FIELD HEARINGS

1. American Television and Communications Corporation
2. Blackstar Communications, Inc.
3. Cable Television Laboratories
4. Cablevision Industries
5. City of Leesburg, Florida
6. Communications Support Corporation
7. Continental Cablevision, Inc.
8. Cosmos Broadcasting Corporation
9. Cross Country Cable, Inc.
10. Glasgow Electric Plant Board
11. KBHK-TV Channel 44
12. Missouri Public Service Commission
13. Multimedia Cablevision
14. National Cable Television Cooperative, Inc.
15. North Carolina Utilities Commission
16. Paramount Communications, Inc.
17. Product & Technology Planning
18. St. Louis County Missouri
19. Supreme Cable Company, Inc.
20. Tele-Communications, Inc.
21. Telemundo Group, Inc.
22. Telesat Cablevision, Inc.
23. Times Mirror Cable Television
24. Universal Television Corporation
25. Walt Disney Television
26. Warner Brothers
27. Weier, Hockensmith & Sherby
28. WLRN-TV and FM
29. WUFT-TV/FM

APPENDIX D

PARTIES RESPONDING TO COMMISSION REQUESTS FOR ADDITIONAL INFORMATION

1. Turner Broadcasting System, Inc.

2. Wireless Cable Association, Inc.

APPENDIX E

STATISTICAL EVIDENCE OF CABLE MARKET POWER: A MORE DETAILED ANALYSIS OF THE STUDIES SUBMITTED

1. This appendix provides a more comprehensive discussion of the q ratio studies and the regression analysis studies that were submitted in response to the Notice and also those submitted in the Effective Competition proceeding. The first part of the appendix addresses the q ratio studies, while the second addresses the regression analyses of the effects of broadcast signal availability on cable rates and on the market value per subscriber of cable systems.

I. The q Ratio

2. The q ratio is defined as the ratio of the market value of a firm to the replacement costs of its assets. Industry-wide or economy-wide q ratios can also be calculated. The q ratio was originally developed as a tool to analyze investment decisions. However, it has also been appropriately used to measure market power. Although there are important measurement problems associated with applying the q ratio, it is widely accepted as a useful measure.

3. The mechanics of the q ratio may be illustrated by a simple, hypothetical example. Consider an asset called a "fountain." The market value of one fountain is $100 -- that is, willing buyers are offering $100 in exchange for a fountain. Buyers base their valuation of a fountain on the stream of income it generates. Suppose that a fountain can be constructed from raw materials for total cost, including labor, of $50. Assuming that the market information about fountains is widely known, investors would likely channel funds into fountain production. The increased supply would, other things equal, drive down the price of fountains. When the price reached $50, then people would stop building new fountains.

4. Suppose now that one ingredient of fountains, call it "marble," is in limited supply. Suppose further that the cost of all the other ingredients of fountains is $45 and the cost of marble, when it is available, is $5. It is possible that all of the available marble will run out before the price of fountains has fallen to $50. In this situation, the equilibrium price of fountains will not fall to $50.

5. One additional refinement will complete the illustration. The equilibrium price of fountains, $50 in the first instance, is determined by the amount of money earned by virtue of ownership of a fountain. Suppose that investors are not certain of that amount of money, which, after all, accrues over a period of time in the future. Perhaps, even though the expected value of a fountain is $50, investors know that there is a chance,

albeit very small, that the fountain will be worth only $5. To compensate for that risk, the equilibrium price per fountain may be more than $50.

6. Assuming no scarce resources and risk, however, if the price of fountains were to persist at a level significantly above $50, two conclusions could be drawn. First, fountain owners would be reaping excess profits. Second, there must be some impediment (in economic parlance, a "barrier to entry") to the production of additional fountains or other assets that are close substitutes for them.

7. The preceding example is intended to illustrate the point that, in a competitive industry that is in equilibrium, the q ratio, properly calculated, should equal 1.0. If it is greater than 1.0 (i.e., if the market value is greater than the replacement cost), someone would find it profitable to enter the market. The additional quantity supplied of fountains would cause the price of fountains to fall. Thus, the market value of fountains would fall, the replacement cost would be unchanged, and the q ratio would drop. When the q ratio reached 1.0, no additional entry would be profitable. However, if there are barriers to entry, the incumbent firm or firms will continue to earn economic profits and the q ratio will remain above 1.0.[1] Moreover, if the incumbent firm controls a scarce resource such as a license to use the radio spectrum, the q ratio may also remain above 1.0.[2]

8. Thus, the general procedure for using the q ratio to assess the presence of market power is to estimate the market value of the firm or industry in question, estimate the replacement cost of the relevant assets of that firm or industry, divide the former by the latter, and compare the resulting ratio to the critical value of 1.0. As described below, however, one widely used method of estimating market value involves calculating the

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1 In this context, "economic profits" include profits that cable operators may earn due to market power in the program acquisition market, or "monopsony power." When sellers of a product or service face only one possible buyer, the buyer is said to have monopsony power. In its review of the q ratio studies submitted in the cable inquiry, the Department of Justice concludes that there is little evidence of monopsony power, so any cable market power revealed by the q ratio analyses is attributable to cable's local distribution position. See Reply Comments of the United States Department of Justice, filed April 2, 1990 ("Justice Reply Comments") at 21. But see discussion in paras. 85, 88, and 125 of this Report.

2 As discussed below, superior management may also be a scarce resource.

total value of the firm's equity. Because stock prices can be quite volatile for reasons unrelated to market power,[3] the aggregate q ratio for all nonfinancial corporations in the economy is sometimes calculated as an alternative critical value. Comparison to this q ratio presumably controls for any economy-wide factors that might cause the general level of stock prices to fluctuate.

9. Paul MacAvoy submitted a comprehensive q ratio analysis on behalf of the United States Telephone Association.[4] His "best estimate" of q for cable as of September 30, 1989 is 4.3. This estimate is based on a calculated market value of $1698 per subscriber and a replacement cost of tangible assets of $395 per subscriber. For comparison, MacAvoy computes the q ratio for all nonfinancial corporations. That ratio is 0.89. The computation of both the numerator and denominator of the cable television q ratio and the computation of the economywide q ratio are all subject to criticism, as detailed below. Nevertheless, even if all of the assumptions of the analysis were altered to reflect more closely the position of the cable industry, the analysis would still demonstrate the existence of some cable market power.[5]

10. Again for purposes of comparison, MacAvoy also calculates q ratios for broadcast companies and for the seven Regional Bell Operating Companies

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3 See Grossman, Sanford J. "On the Misuse of Tobin's Q to Measure Monopoly Power." Attachment to Comments of the National Cable Television Association, Inc., filed March 1, 1990, p. 9. Comments of Adelphia Communications Corporation et al., filed March 1, 1990, p. 56. Crandall, Robert W. "Vertical Integration and q Ratios in the Cable Industry." Attachment 1 to Reply Comments of Tele-Communications, Inc., filed April 2, 1990, p. 27 ("Crandall Reply Statement").

4 See Comments of the United States Telephone Association, filed March 1, 1990 ("USTA Comments"); Appendix 5: "Tobin's q and the Cable Industry's Market Power," by Paul W. MacAvoy ("MacAvoy Statement").

5 See Justice Reply Comments at 23. MacAvoy uses his estimates to calculate the replacement cost of tangible assets for the entire cable industry and the market value of the entire cable industry. By subtracting the former from the latter, he derives an estimate of capitalized monoply profits of $63 billion for the industry. Because the precise magnitude of the cable television q ratio is subject to significant uncertainty, the magnitude of this figure should not receive undue emphasis. Moreover, it is worth noting that, even if one were confident of the market value and replacement cost estimates, additional assumptions and a substantial amount of additional analysis would be needed to translate the findings into information about how far cable rates diverge from the competitive level.

and GTE. For a sample of nine broadcasting companies, he finds q ratios ranging from 0.9 to 3.6, with a weighted average of 2.1. This average is below the cable industry q ratio. Moreover, the market value of the broadcasting companies presumably reflects the "scarcity rents" that they earn on the broadcast spectrum for which they are licensed. The telephone company q ratios range from 1.1 to 1.3, with a weighted average of 1.2. MacAvoy notes that some of these firms have cellular telephone subsidiaries, which, due to their control of scarce spectrum, are likely to have high q ratios. The implication is that, for the traditional local exchange telephone services, these firms exhibit q ratios close to 1.0. Presumably this reflects their status as regulated utilities. Comparisons between these q ratios and those for cable are of little utility.[6]

11. MacAvoy's preferred q ratio estimate of 4.3 employs a market value per subscriber of cable systems based on a sample of five multiple system operators (MSOs). The sample is small because it was necessary to limit it to publicly traded firms that are only in the business of operating cable systems. For these firms, the market value on a particular day of their outstanding common stock is added to the book value of debt and preferred

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6 William B. Shew, in a study submitted on behalf of Time Warner, Inc., presents estimates of the q ratio for cable television, for television broadcast stations, for FM radio stations, and for cellular telephone. Shew's study is based on selling prices of these properties in 1986, 1987, and 1989. (MacAvoy used selling prices of cable systems for some of his estimates, but not for the preferred ones.) He finds average q ratios of 4.3, 4.6, 7.8, and 9.9 for cable, television, FM, and cellular, respectively. For cellular, only 1989 data are available. However, since Shew does not take the use of spectrum by the other industries into account, his figures do not provide a useful benchmark for comparison. See Reply Comments of Time Warner Inc., filed April 2, 1990, Appendix A: "Tobins's Q for Cable Television, Media and Telecommunications: A Comparative Assessment," by William B. Shew.

stock.[7] The replacement cost is based on the adjusted book value of tangible assets for these firms.

12. One reason that the q ratio may exceed 1.0 is superior management. Superior management may be thought of as a scarce resource, one that enhances the market value of the firm, but is not reflected in replacement costs based on book value of tangible assets.[8] One critique of the MacAvoy analysis points out that the five firms used account for less than 11 percent of total cable subscribers and that those firms grew significantly faster than the industry as a whole between 1985 and 1989.[9] These

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7 MacAvoy refers to this as the "public" market value. An alternative concept is the "private" market value, which is based on the price at which cable systems have recently sold. MacAvoy estimates market value both ways, but uses public market value, which is significantly lower than private market value, in his preferred estimates. He notes that "the reasons why public and private values differ so greatly is not well understood. There may be an element of excessive payment when a competing bidding process breaks out. Alternatively, the acquiring firm may believe that it can introduce cost-reducing programs so as to increase the acquired firm's profits, and has to share these increased profits with the stockholders of the acquired firm in competition with other bidders." MacAvoy Statement at 27-28. Daniels, a major cable system broker, recently announced that the average per subscriber price of cable system sales that it closed in the first half of 1990 was $2200. See Communications Daily, July 3, 1990, p. 7. Morgan Stanley & Co. figures for the first three quarters of 1989 show per subscriber selling prices for cable systems in the $2250-$2500 range. Morgan Stanley & Co., Media & Communications Report 1990 (199), p. 128.

8 The conclusion that superior management enhances the market value of the firm is based on the assumption that superior managers do not capture for themselves all of the returns to their skills. If all of the increase in firm profits attributable to superior management was paid out in managerial salaries, then such management skills would raise the market value of the managers rather than the firm. Because some management skills and experience are firm-specific, though, it is reasonable to assume that some of the returns to management skills are captured by the firm.

9 Moreover, one firm, ATC (a Time Warner subsidiary), accounts for almost three quarters of the five firms' total subscribers. See Crandall Reply Statement at 22-25.

observations are at least consistent with the hypothesis that these firms were better managed than average. Thus, it is possible that MacAvoy's market value figure of $1698 per subscriber overestimates the average market value per subscriber for the whole industry. It is unlikely, however, that superior management could account for more than a fraction of the value of the q ratio.

13. The Department of Justice observes that the q ratio may also exceed 1.0 in particularly risky industries.[10] Cable may be an industry with above-average risk, since it is characterized by enormous sunk costs of cable plant that has very limited alternative uses in the event that a franchise is not renewed. If the market value of a firm includes a "risk premium," that market value will remain above 1.0.

14. There are also some questions regarding replacement cost estimates. The figure of $395 used in the preferred estimate is below, in some cases significantly, the alternatives MacAvoy and others presented based on engineering models of cable construction costs. These range between $446 and $765.[11] Some data from Continental Cable show a gross book

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10 Justice Reply Comments at 22-23.

11 MacAvoy derives three replacement cost estimates from data on current construction expenditures. They range from $446 to $458. Shooshan and Jackson have also submitted q ratio studies of the cable industry on behalf of USTA. See Appendix to Comments of the United States Telephone Association in CC Docket 87-266: Opening the Broadband Gateway: The Need for Telephone Company Entry Into the Video Services Marketplace," and USTA Comments, Appendix 4: Measuring Cable's Market Power: Recent Developments, which updates the first study. Shooshan and Jackson use an engineering model constructed by Malarkey Taylor Associates, plus book value of tangible assets per subscriber data for 14 firms involved only in the cable business, to derive their replacement cost estimates. Their preferred value of $616 per subscriber is bracketed by "high" and "low" estimates of $765 and $528 per subscriber, respectively. Shooshan and Jackson's updates preferred estimate is $603 per subscriber.

MacAvoy also presents an replacement cost estimate of $466 per subscriber, based on the Shooshan and Jackson figures, which he styles "the FCC's own estimate of cable plant per subscriber." This attribution is not accurate. The calculation to which he refers was an attempt to estimate the portion of basic cable rates that is used to amortize cable plant. It makes use of Shooshan and Jackson's preferred estimate of new plant costs, i.e., $519, removes from it the "drop and install" component on the grounds that this cost is frequently recovered through a one-time installation fee rather than through the monthly basic rate, and alters the Shooshan and Jackson assumption regarding penetration of homes passed. The resulting estimate of

value of capital investment per subscriber of $763.[12] Even after adjustment for depreciation, the figure from this source would be above MacAvoy's preferred value of $395.

15. MacAvoy's estimates of replacement cost only include tangible assets. In his methodological discussion, he asserts that "intangible assets are not relevant for calculating replacement costs since, as purchased "good will," they consist largely of capitalized monopoly profits."[13] Grossman and Crandall each argue that, in some circumstances, intangible assets can be important and should be included in replacement cost estimates.[14]

16. In a supplementary paper filed with USTA's reply comments, MacAvoy agrees that some intangible assets, such as research and development, advertising, and marketing, may be relevant for replacement cost calculations. He suggests, however, that investment by the cable industry in assets of this nature is negligible.[15] It appears that little R&D is done by the industry. Cable interests point out that intensive marketing is needed when a system is being built to create awareness of the product and create and maintain a good reputation for the system.[16] The fact that some cable systems have very poor reputations for service quality does not mean that these factors are irrelevant on an industry-wide basis.

17. As noted above, in addition to a comparison with the theoretical equilibrium value of 1.0, MacAvoy compares cable q ratios to the q ratio for all non-financial corporations. Since stock prices can fluctuate for a

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the per-subscriber cost of new plant is then amortized to a monthly fee based on Shooshan and Jackson's estimate of average cable plant life and an assumed interest rate. See Second Report in Gen. Docket No. 86-336 at note 32. 3 FCC Rcd 1202 (1988).

12 Continental Cablevision Presentation.

13 MacAvoy Statement at 19.

14 See Grossman Statement at 11-12, Crandall Reply Statement at 27-29, and the references cited therein.

15 MacAvoy, Paul W. "Reply to Comments Filed by the National Cable Television Association and Adelphia Communications Corporation, et al." Attachment to Reply Comments of the United States Telephone Association at 16-22 ("MacAvoy Reply Statement").

16 See Crandall Reply Statement at 27-28. See also Reply Comments of Tele-Communications, Inc. in CC Docket 87-226, pp. 13-14.

variety of reasons unrelated to changes in market power, such a comparison is needed to allow for the possibility that, at the time the calculations are made, some economy-wide phenomenon is causing the general level of stock prices to rise and make q values above 1.0. MacAvoy's estimate of the q ratio for all non-financial corporations is 0.89. However, Crandall raises questions about the methodology of those calculations and suggests that they are serious underestimates.[17]

18. Crandall also criticizes MacAvoy's initial study on the grounds that it includes data for only one point in time. He points out that because "q can fluctuate widely, reliable conclusions cannot be drawn from its value for an industry at any one point in time," and cites an estimate by Summers that, in a two day period of October 1987, stock prices rose precipitously enough to cause the q ratio for all non-financial corporations to rise by over 10 percent.[18] With respect to the cable company stock prices used by MacAvoy, Crandall notes that they dropped in value by 21.3 to 61.6 percent between the 1989 date used as a base by MacAvoy and March 30, 1990.[19]

19. In an attachment to USTA's reply comments, MacAvoy recalculates the preferred q ratio as of February 28, 1990.[20] Over the five-month period from September 30, 1989 to February 28, 1990, the q ratio fell to 3.3. This illustrates the volatility of the q ratio, but MacAvoy proffers an explanation for this particular fluctuation and also presents fragmentary data on q ratios for up to 12 cable firms over the 1983-1989 period. He explains the upward trend in q ratios in this period as a consequence of the deregulatory freedom enjoyed by cable operators coupled with the failure of rival distribution systems to develop as fast as originally anticipated. The recent precipitous drop in cable q ratios is attributed primarily to "current political activities which threaten the continued market power of the cable industry." He also notes a drop in the ratio for all

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17 Crandall Reply Statement, pp. 30-32. Crandall points out that in earlier years, there were three time series of aggregate q ratios calculated, but that they have all been discontinued. MacAvoy uses the methodology of one of them, that of Summers, to calculate his aggregate q. Crandall asserts that, for 1960-74, estimates by Tobin and Brainard are 99 to 163 percent higher than Summers' estimates.

18 Id. at 25. This increase in the stock price level followed a major drop on October 17, 1987. On that day alone, stock prices fell by 20 percent. See Grossman Statement, p. 9.

19 Crandall Reply Statement 26.

20 MacAvoy Reply Statement at table 1 and pp. 36-39.

non-financial corporations from 0.89 to 0.85, concluding that economy-wide fluctuations can account for only a small share of the decline in cable q ratios. On the other hand, Morgan Stanley & Co. attributes the fall in cable stocks during this period to "junk bond market woes," in addition to the "threat of reregulation."[21]

20. Clearly the q ratio is sensitive to the assumptions used in constructing it. Nevertheless, while the exact value of the q ratio for the cable industry may be debated, it is clear from the record presented above that, even taking account of various criticisms and adjustments that might be made, the q ratio remains high enough to present an indication of some market power.

II. REGRESSION ANALSYES OF THE IMPACT OF SIGNAL AVAILABILITY ON BASIC CABLE RATES AND MARKET VALUE PER SUBSCRIBER

21. Four of the five regression analysis studies summarized in Section III-A of the Report test for a relationship between basic cable rates and the number of broadcast signals available off-the-air, while the fifth relates signal availability to cable system market value per subscriber.[22] The three rate studies that control for other relevant factors in addition to signal availability establish a statistically significant inverse relationship between basic rates and the number of broadcast signals available, but do not indicate that some particular number of signals is sufficient to constrain rates to competitive levels.[23] The market value per subscriber study indicates that increasing numbers of available broadcast signals constrain the profitability of cable systems.

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21 Morgan Stanley & Co. Media and Communications Report 1990, p. 128.

22 For the cable rate studies, see Appendix A of Comments of National Telecommunications and Information Administration ("NTIA") in MM Docket No. 90-4 (Staff Report, "Competitive Effects of Broadcast Signals on the Price of Basic Service") ("NTIA Staff Report"); Attachment 1 to Comments of TCI in MM Docket No. 90-4 (Crandall, "Regulation, Competition and Cable Performance") ("Crandall Cable Performance Study"); Attachment to Comments of NCTA in MM Docket Nos. 89-600 and 90-4 (Dertouzos and Wildman, "Competitive Effects of Broadcast Signals on Cable") ("Dertouzos and Wildman Study"); Attachment to Comments of NAB in MM Docket No. 90-4 (Ducey and McLean, "The Impact of Off-the-Air Signals on Cable Pricing") ("Ducey and McLean Study"). For the market value per subscriber study, see MacAvoy Reply Statement.

23 The fourth study finds no relationship between the 1986-88 change in basic rates and the 1988 number of broadcast signals available. Because this study suffers from a variety of methodological defects, its results may be safely ignored. See paras. 27-29 below.

22. The NTIA Staff Report estimates the price per basic channel on a sample of cable systems as a function of the number of broadcast signals in the market and other variables. The equations estimated include dummy variables for markets with 4, 5, 6, 7, 8, 9, 10, 11, and greater than 11 broadcast signals. Virtually all of them have statistically significant coefficients. The report concludes that broadcast signal availability does constrain cable rates and that the magnitude of the reduction increases continuously as the number of signals increases. NTIA suggests that six over-the-air signals is the appropriate threshold for constraining basic cable rates.

23. In the Crandall Cable Performance Study, the dependent variable is the monthly basic cable rate. Among the explanatory variables are the number of basic cable networks carried and the number of broadcast signals available in the market. Crandall estimates a series of separate equations, each designed to compare two groups of systems. For example, one equation compares systems with two or more signals available to those with only one signal available. Another compares systems with three or more signals to those with two or fewer. He finds significantly lower basic rates in each case up to and including five or more versus four or fewer signals. Greater numbers of signals are also associated with lower rates, but the effect is not statistically significant.

24. Crandall concludes that broadcast signal availability affects basic rates, but that beyond the threshold level of five signals, there is no additional effect. Because he specified his variables in terms of "x or more" broadcast signals available, Crandall's analysis is less suited than that of the NTIA Staff Report to pinpointing the incremental effect of additional signals on basic rates.

25. The Dertouzos and Wildman Study estimates equations that explain price per channel and other dependent variables. They show significant negative effects on rates from the availability of five channels and also of more than six channels. Because the coefficient on the "five channels" variable is "not significantly different" from the coefficient on the "greater than six channels variable," they argue that the maximum effect is reached at five signals. However, unlike the NTIA Staff Report, Dertouzos and Wildman did not report on the separate effects of greater numbers of channels (i.e., 7, 8, 9, 10, or more). Therefore, their conclusion that the maximum effect is reached at five signals may not be correct.

26. In order to conclude that availability of five signals is sufficient to provide effective competition to cable, Dertouzos and Wildman use a study by Jaffe and Kanter, which is not in the record.[24] That study

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24 See Dertouzous-Wildman Study, pp. 24-26.

purports to show that, in the 100 largest broadcast markets, the deregulation of the cable television industry by the Cable Act of 1984 did not lead to an increase in cable system selling prices. Jaffe and Kanter conclude from this that "intermedia competition appears to be effective in the largest markets." This study has been criticized on methodological grounds by MacAvoy.[25] However, aside from any such criticisms, its results do not support the inference that Dertouzos and Wildman try to make from them. Dertouzos and Wildman note that most of the top 100 markets have five or more broadcast signals, while most of the others have four or fewer. Since the markets in which system prices have allegedly not risen since deregulation have not five, but five or more signals in general, the Jaffe-Kanter results do not support the conclusion that five signals is the critical number needed to provide effective competition to cable.

27. The Ducey and McLean Study contains regression equations relating the change in basic rates between 1986 and 1988 (apparently in percentage terms) to the number of off-the-air signals available in the cable service area in 1988. No statistically significant relationship is found. However, the authors do not explain why a relationship between changes in rates and broadcast signal availability should be expected. To rationalize such a relationship requires assumptions regarding the extent to which regulation constrained 1986 rates and would also require information on which systems in the sample were regulated and which were unregulated in 1986. The more clear-cut and obvious relationship, and the one successfully identified in the other regression studies, is between rate levels and signal availability.

28. In addition to the unsatisfactory specification of the dependent variable, the equations estimated also suffer from omission of independent variables other than signal availability. Among the other relevant factors that should have been controlled for are the regulatory status of the cable systems in the sample in 1986 and variations across systems in the number of channels offered on the basic tier. The other studies either used the per channel price as the dependent variable or included number of channels on basic as an independent variable. In each case, the results were statistically significant.

29. Finally, the equations were estimated only in linear form. The other studies employed a log linear functional form. If Ducey and McLean had tested alternative functional forms, their results might have been different. In view of the weaknesses in their analysis, and the significant relationship between basic cable rates and signal availability in the other

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25 MacAvoy Reply Statement, pp. 24-30.

studies, there is no reason to weaken the conclusion that broadcast signal availability does, in fact, constrain basic rates.

30. The MacAvoy Reply Statement includes an equation explaining market value per subscriber for a sample of recently-sold cable systems by various factors including the availability of broadcast signals.[26] He finds that broadcast signal availability has a statistically significant negative effect on market value per subscriber, but the magnitude is small.[27]

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26 MacAvoy Reply Statement, pp. 31-36.

27 MacAvoy combines his regression results with information on replacement costs for cable systems and goes through an exercise purporting to show that roughly 60 broadcast signals would be needed to bring the market value per subscriber down to a level that would yield a q ratio of one. Because this figure is far outside the signal availability range in his sample, and because of the factors discussed above concerning measurement problems in calculating q ratios, we view the 60 signal finding sceptically.

APPENDIX F

TABLES FROM FCC-GAO SURVEY

The following tables present data from the FCC-GAO survey regarding the changes in rates for cable services over the last five years. In general, the cable systems included in the survey were randomly selected as part of a nationwide sample of cable systems.[1] The sample of systems receiving survey questionnaires represents approximately 22 percent of all cable systems in the United States, but accounts for about 62 percent of subscribers. Of the 1,971 surveys sent to cable systems, 1,530 were returned, for a response rate of 77.6 percent. FCC and GAO staff reviewed all for completeness. Where information was incomplete, the staff tried to obtain usable information by contacting respondents directly. Not all the historical data requested was easily obtained from respondents, due to staff turnovers, changes in system ownership and records not readily accessible. Some systems were too new to have certain data elements requested on the survey. Except in those instances when current rate schedules were provided with the returned survey (as requested), time constraints prevented us from verifying the accuracy of data. We have therefore been constrained to rely on survey participants for the accuracy of the data provided. Thus, the data tabulated below generally reflect the information exactly as submitted by the participating cable systems. Where applicable, the number of respondents for each category is indicated and the accompanying data are presented on a per system basis unless otherwise specified.[2]

The FCC-GAO data represent information from an unbiased stratified sample of cable systems. A substantial response rate of almost 78 percent indicates that we have captured a representative cross-section of the cable industry.[3] In general, we have obtained a reasonable depiction of the changes

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1 For more information about how the sample was designed, see the "Explanation of Differences Between Data Presented in the FCC and GAO Reports" at the end of the numbered tables in this Appendix.

2 The General Accounting Office, Telecommunications: Follow-up Survey of Cable Television Rates and Services, Report to the Chairman, Subcommittee on Telecommunications and Finance, Committee on Energy and Commerce, House of Representatives (June 13, 1990) ("GAO Report"), published results of the same survey but generally on a per subscriber basis. Our results and those of GAO are generally consistent; differences in results are generally attributable to differences in the way we aggregated and analyzed the data.

3 It should be noted that without cost data, this survey alone cannot be used to make a determination regarding market power.

that have occurred with respect to cable rates and services. In addition to overall figures, the tables herein provide results for certain subsets of the sample. Estimates or differences based upon a particularly small number of cases in a category as compared to the total universe for that category may not be statistically significant and, therefore, must be viewed with caution. As the following analysis reflects, however, it is clear that the actual dollar figure for basic rates has increased significantly since deregulation, but that the per channel cost of services to subscribers on the basic rate tiers has increased to a lesser extent.

Tables 1A and 1B

Table 1A presents the average rate, the annual percent change in the average rate, the average number of channels and cost per channel to the subscriber for the entire sample of systems for each of the three tiers of basic service for which information was requested. Table 1B presents the same data for the most "popular" tier of basic service. We account for the differences between entries for basic service rates, average number of channels and average cost per channel to the subscriber appearing in Tables 1A and 1B and the corresponding GAO figures in a discussion following Table 12 in this Appendix.

TABLE 1A

(for entire sample)

TIER I - Basic Service Rates, Average Number of Channels and Cost/Channel

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average* No. of Channels	Average Cost Per Channel
12/31/84	1091	$ 1.50 -	$28.00	$ 9.09	-	16	$0.57
12/31/85	1147	$ 1.00 -	$28.00	$ 9.56	5.1	17	$0.56
11/30/86	1251	$ .99 -	$29.25	$10.23	7.0	18	$0.57
12/31/87	1330	$ .99 -	$31.00	$11.82	15.5	21	$0.56
12/31/88	1415	$ .99 -	$31.00	$12.83	8.5	22	$0.58
12/31/89	1500	$ 1.00 -	$30.00	$13.93	8.6	23	$0.61

* Not all of the respondents who submitted rate data also submitted channel counts; therefore, the average number of channels per system was calculated from the number of respondents who submitted a channel count - a number slightly different than the number of responses indicated in the table.

TIER II - Basic Service Rates, Average Number of Channels and Cost/Channel

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average* No. of Channels	Average Cost Per Channel
12/31/84	398	$ 2.05 -	$32.95	$12.46	-	23	$0.54
12/31/85	444	$ 2.05 -	$32.95	$13.11	5.2	23	$0.57
11/30/86	463	$ 2.05 -	$35.95	$13.54	3.3	24	$0.56
12/31/87	367	$ 1.00 -	$35.95	$14.58	7.7	26	$0.56
12/31/88	346	$ 1.00 -	$38.90	$15.37	5.4	28	$0.55
12/31/89	353	$ 1.00 -	$38.90	$16.34	6.3	30	$0.54

TIER III - Basic Service Rates, Average Number of Channels and Cost/Channel

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average* No. of Channels	Average Cost Per Channel
12/31/84	46	$ 6.95 -	$31.50	$12.60	-	37	$0.34
12/31/85	53	$ 6.95 -	$31.50	$13.66	8.4	35	$0.39
11/30/86	63	$ 7.95 -	$31.50	$14.27	4.5	36	$0.40
12/31/87	47	$ 7.25 -	$31.50	$15.76	10.4	33	$0.48
12/31/88	56	$10.81 -	$31.50	$17.49	11.0	33	$0.53
12/31/89	61	$13.90 -	$31.50	$18.20	4.1	33	$0.55

TABLE 1B

(for entire sample)

Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	884	$ 2.00 -	$28.00	$ 9.67	-	18	$0.54
12/31/85	953	$ 1.00 -	$28.00	$10.33	6.8	20	$0.52
11/30/86	1096	$ 4.00 -	$29.25	$11.28	9.2	21	$0.54
12/31/87	1214	$ 4.00 -	$31.00	$12.92	14.5	24	$0.54
12/31/88	1316	$ 4.00 -	$31.00	$14.27	10.4	25	$0.57
12/31/89	1465	$ 4.00 -	$30.00	$15.55	9.0	27	$0.58

* The most popular tier (the tier with the most subscribers) is either tier I, II or III depending on the system; therefore, the figures in this table represent a mixture of data from tiers I, II and III.

** Not all of the respondents who submitted rate data also submitted channel counts; therefore, the average number of channels per system was calculated for the number of respondents who submitted a channel count - a number slightly different than the number of responses indicated in the table.

Tables 2A, 2B, 2C, 2D and 2E

Tables 2A through 2E presents the same data as Table 1B (the most "popular" tier) but stratified by the following subscriber counts: 1-1,000 (Table 2A); 1,001-3,500 (Table 2B); 3,501-10,000 (Table 2C); 10,001-50,000 (Table 2D); and, 50,000+ (Table 2E). We account for the differences between the entries for basic service rates, average number of channels and average cost per channel to the subscriber appearing in these tables and the corresponding GAO figures in a discussion following Table 12 in this Appendix.

TABLE 2A
(for those systems with 1-1000 subscribers)
Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	114	$ 2.00 -	$19.90	$10.04	-	11	$0.91
12/31/85	137	$ 2.00 -	$19.90	$10.33	2.9	12	$0.86
11/30/86	169	$ 4.00 -	$19.90	$11.09	7.4	12	$0.92
12/31/87	219	$ 4.00 -	$19.90	$12.09	9.0	14	$0.86
12/31/88	273	$ 4.00 -	$19.90	$13.29	9.9	15	$0.89
12/31/89	345	$ 4.00 -	$30.00	$14.46	8.8	16	$0.90

TABLE 2B
(for those systems with 1,001-3,500 subscribers)
Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	166	$ 4.00 -	$17.31	$ 9.49	-	14	$0.68
12/31/85	176	$ 4.00 -	$17.31	$10.08	6.2	15	$0.67
11/30/86	201	$ 4.00 -	$17.31	$10.85	7.6	17	$0.64
12/31/87	232	$ 4.00 -	$22.95	$12.50	15.2	19	$0.66
12/31/88	259	$ 4.00 -	$24.95	$13.88	11.0	21	$0.66
12/31/89	301	$ 6.00 -	$28.95	$15.33	10.4	24	$0.64

TABLE 2C
(for those systems with 3,501-10,000 subscribers)
Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	236	$ 3.90 -	$14.00	$ 9.28	-	18	$0.52
12/31/85	249	$ 3.71 -	$16.50	$10.09	8.7	19	$0.53
11/30/86	283	$ 4.00 -	$16.95	$10.98	8.8	21	$0.52
12/31/87	305	$ 4.14 -	$19.52	$12.85	17.0	24	$0.54
12/31/88	316	$ 4.14 -	$21.58	$14.33	11.5	27	$0.53
12/31/89	332	$ 4.43 -	$21.58	$15.70	9.6	28	$0.56

TABLE 2D
(for those systems with 10,001-50,000 subscribers)
Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	253	$ 5.50 -	$15.95	$ 9.67	-	22	$0.44
12/31/85	269	$ 1.00 -	$18.95	$10.39	7.4	23	$0.45
11/30/86	304	$ 6.00 -	$19.95	$11.43	10.0	25	$0.46
12/31/87	314	$ 5.00 -	$17.95	$13.30	16.4	28	$0.48
12/31/88	323	$ 5.00 -	$18.65	$14.81	11.4	31	$0.48
12/31/89	340	$ 5.00 -	$20.54	$16.22	9.5	33	$0.49

TABLE 2E
(for those systems with 50,000+ subscribers)
Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	113	$ 2.00 -	$16.95	$10.19	-	26	$0.39
12/31/85	120	$ 1.95 -	$17.75	$10.97	7.7	28	$0.39
11/30/86	137	$ 7.70 -	$19.95	$12.35	12.6	31	$0.40
12/31/87	142	$ 9.85 -	$20.95	$14.08	14.0	34	$0.41
12/31/88	142	$ 7.30 -	$22.00	$15.37	9.2	36	$0.43
12/31/89	146	$ 4.95 -	$22.00	$16.75	9.0	37	$0.45

Table 2F

Average rates by system subscriber count - composite of Tables 2A through 2E

Date	1-1,000	1,001-3,500	3,501-10,000	10,001-50,000	50,000+
12/31/84	$10.04	$ 9.49	$ 9.28	$ 9.67	$10.19
12/31/85	$10.33	$10.08	$10.09	$10.39	$10.97
11/30/86	$11.09	$10.85	$10.98	$11.43	$12.35
12/31/87	$12.09	$12.50	$12.85	$13.30	$14.08
12/31/88	$13.29	$13.88	$14.33	$14.81	$15.37
12/31/89	$14.46	$15.33	$15.70	$16.22	$16.75

Table 2G

Average number of channels offered by system subscriber count - composite of Tables 2A through 2E

Date	1-1,000	1,001-3,500	3,501-10,000	10,001-50,000	50,000+
12/31/84	11	14	18	22	26
12/31/85	12	15	19	23	28
11/30/86	12	17	21	25	31
12/31/87	14	19	24	28	34
12/31/88	15	21	27	31	36
12/31/89	16	24	28	33	37

Table 2H

Average cost per channel to the subscriber by system subscriber count - composite of Tables 2A through 2E

Date	1-1,000	1,001-3,500	3,501-10,000	10,001-50,000	50,000+
12/31/84	$0.91	$0.68	$0.52	$0.44	$0.39
12/31/85	$0.86	$0.67	$0.53	$0.45	$0.39
11/30/86	$0.92	$0.64	$0.52	$0.46	$0.40
12/31/87	$0.86	$0.66	$0.54	$0.48	$0.41
12/31/88	$0.89	$0.66	$0.53	$0.48	$0.43
12/31/89	$0.90	$0.64	$0.56	$0.49	$0.45

Tables 3A and 3B

Tables 3A and 3B present the same data as Table 1B (the most "popular" tier) but for systems with a current multiple system owner (MSO) interest of at least 10% (Table 3A) and systems with no (or less than 10%) MSO interest (Table 3B). We account for differences between the entries appearing in these tables and corresponding GAO figures in a discussion following Table 12 in this Appendix.

TABLE 3A

(for those systems with an MSO interest of >10%)

Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	570	$ 2.00 -	$16.95	$ 9.65	-	20	$0.48
12/31/85	608	$ 1.00 -	$18.95	$10.41	7.9	21	$0.50
11/30/86	684	$ 4.00 -	$19.95	$11.44	9.9	23	$0.50
12/31/87	731	$ 4.14 -	$19.95	$13.29	16.2	26	$0.51
12/31/88	774	$ 4.14 -	$22.00	$14.71	10.7	28	$0.53
12/31/89	816	$ 4.43 -	$22.00	$16.06	9.2	30	$0.54

TABLE 3B

(systems with no (or <10%) MSO interest)

Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	303	$ 2.00 -	$28.00	$ 9.72	-	16	$0.61
12/31/85	334	$ 2.00 -	$28.00	$10.22	5.1	17	$0.60
11/30/86	400	$ 4.00 -	$29.25	$11.05	8.1	18	$0.61
12/31/87	466	$ 4.00 -	$31.00	$12.37	11.9	20	$0.62
12/31/88	516	$ 4.00 -	$31.00	$13.63	10.1	21	$0.65
12/31/89	614	$ 4.00 -	$30.00	$14.87	9.1	23	$0.65

Tables 4A and 4B

Tables 4A and 4B presents the same data as Table 1B (the most "popular" tier) but for systems with a change in ownership since December 31, 1984, (Table 4A) and systems with no change (Table 4B). Systems that indicated a change in ownership in each year since 1984 have their five year historical data displayed in **Tables 4C** through **4G**. Table 4C presents the most popular tier data for those systems that changed ownership in 1985. Similarly, tables 4D, 4E, 4F, and 4G presents the most popular tier data for those systems that experienced an ownership change in 1986, 1987, 1988, and 1989, respectively. **Table 4H** presents the most popular tier data for those systems that experienced more than one ownership change over the five year period, while **Table 4I** presents similar data for those systems experiencing an ownership change only once during this period. We account for differences between entries appearing in these tables and corresponding GAO figures in the discussion following Table 12 in this Appendix.

TABLE 4A
(systems that changed ownership since 12/31/84)

Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	287	$ 2.05 -	$19.45	$ 9.90	-	19	$0.52
12/31/85	321	$ 1.95 -	$17.31	$10.60	7.0	20	$0.53
11/30/86	417	$ 4.00 -	$19.95	$11.56	9.1	21	$0.55
12/31/87	518	$ 4.14 -	$22.95	$13.28	14.9	23	$0.58
12/31/88	603	$ 4.14 -	$24.95	$14.67	10.5	24	$0.61
12/31/89	704	$ 4.43 -	$28.95	$15.95	8.7	25	$0.64

TABLE 4B
(systems with no ownership change)

Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	587	$ 2.00 -	$28.00	$ 9.57	-	18	$0.53
12/31/85	623	$ 1.00 -	$28.00	$10.21	6.7	20	$0.51
11/30/86	666	$ 4.00 -	$29.25	$11.11	8.8	22	$0.51
12/31/87	680	$ 4.00 -	$31.00	$12.66	14.0	24	$0.53
12/31/88	697	$ 4.00 -	$31.00	$13.92	10.0	26	$0.54
12/31/89	739	$ 4.00 -	$30.00	$15.17	9.0	28	$0.54

TABLE 4C

(for those systems that changed ownership in 1985)

Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	58	$ 5.00 -	$19.45	$ 9.55	-	17	$0.56
12/31/85	76	$ 5.50 -	$16.80	$10.58	10.8	20	$0.53
11/30/86	91	$ 4.00 -	$19.95	$11.58	9.5	21	$0.55
12/31/87	99	$ 5.50 -	$22.95	$13.69	18.2	24	$0.57
12/31/88	111	$ 7.50 -	$24.95	$14.89	8.8	25	$0.60
12/31/89	121	$11.20 -	$28.95	$16.30	9.5	27	$0.60

TABLE 4D

(for those systems that changed ownership in 1986)

Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	118	$ 4.00 -	$17.31	$10.08	-	19	$0.53
12/31/85	126	$ 4.00 -	$17.31	$10.73	6.4	20	$0.54
11/30/86	184	$ 4.00 -	$17.85	$11.52	7.4	21	$0.55
12/31/87	216	$ 5.00 -	$18.95	$13.24	14.9	23	$0.58
12/31/88	225	$ 5.00 -	$20.00	$14.77	11.6	25	$0.59
12/31/89	242	$ 5.00 -	$21.15	$16.11	11.3	26	$0.62

TABLE 4E

(for those systems that changed ownership in 1987)

Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	80	$ 5.50 -	$14.00	$ 9.89	-	17	$0.58
12/31/85	86	$ 1.95 -	$15.40	$10.47	5.9	18	$0.58
11/30/86	103	$ 5.50 -	$18.90	$11.57	10.5	21	$0.55
12/31/87	158	$ 5.50 -	$18.95	$13.16	13.7	22	$0.60
12/31/88	177	$ 6.50 -	$19.95	$14.95	13.6	24	$0.62
12/31/89	197	$ 6.50 -	$20.95	$16.18	8.2	26	$0.62

TABLE 4F

(for those systems that changed ownership in 1988)

Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	76	$ 5.00 -	$15.95	$ 9.58	-	20	$0.48
12/31/85	80	$ 5.00 -	$16.95	$10.75	12.2	22	$0.49
11/30/86	96	$ 5.00 -	$19.95	$11.83	10.0	23	$0.51
12/31/87	115	$ 5.00 -	$18.95	$13.46	13.8	25	$0.54
12/31/88	179	$ 5.00 -	$19.98	$14.64	8.8	23	$0.64
12/31/89	210	$ 5.00 -	$20.95	$15.95	8.9	24	$0.66

TABLE 4G

(for those systems that changed ownership in 1989)

Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	49	$ 2.05 -	$15.75	$ 9.88	-	20	$0.49
12/31/85	54	$ 3.71 -	$15.75	$10.67	8.0	20	$0.53
11/30/86	69	$ 4.05 -	$15.90	$11.67	9.3	21	$0.56
12/31/87	86	$ 4.14 -	$16.95	$13.13	12.5	23	$0.57
12/31/88	94	$ 4.14 -	$18.95	$14.37	9.4	24	$0.60
12/31/89	153	$ 4.43 -	$19.45	$15.26	6.2	25	$0.61

TABLE 4H

(for those systems that changed hands more than once between 12/84 and 12/89)

Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	85	$ 5.00 -	$16.80	$ 9.63	-	19	$0.51
12/31/85	92	$ 5.00 -	$16.80	$10.81	12.3	20	$0.54
11/30/86	114	$ 5.00 -	$19.95	$11.90	10.1	22	$0.54
12/31/87	143	$ 5.00 -	$17.95	$13.42	12.8	24	$0.56
12/31/88	163	$ 5.00 -	$18.95	$15.04	12.1	25	$0.60
12/31/89	192	$ 5.00 -	$19.95	$16.06	6.8	26	$0.62

TABLE 4I

(for those systems that changed hands only once between 12/84 and 12/89)

Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	203	$ 2.05 -	$19.45	$10.02	-	19	$0.53
12/31/85	230	$ 1.95 -	$17.31	$10.52	5.0	20	$0.53
11/30/86	304	$ 4.00 -	$18.90	$11.44	8.7	21	$0.54
12/31/87	376	$ 4.14 -	$22.95	$13.23	15.6	22	$0.60
12/31/88	441	$ 4.14 -	$24.95	$14.54	9.9	23	$0.63
12/31/89	514	$ 4.43 -	$28.95	$15.92	9.5	25	$0.64

Tables 5A and 5B

Tables 5A and 5B present the same data as Tables 1B (the most "popular" tier) for systems that were regulated (Table 5A) and for those not regulated (Table 5B) but only for three specific points in time. We account for any differences between the entries appearing in these tables and corresponding GAO figures in the discussion that follows Table 12 of this Appendix.

TABLE 5A

(systems that were regulated)

Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	687	$ 2.00 -	$28.00	$ 9.50	-	19	$0.50
11/30/86	823	$ 4.00 -	$19.95	$11.14	17.3	22	$0.51
12/31/89	41	$ 5.00 -	$25.00	$13.56	21.7	20	$0.68

TABLE 5B

(systems that were not regulated)

Most Popular Tier* - Basic Service Rates, Average No. of Channels and Cost/Ch.

Date	Number of Responses	<----Range----> Low	High	Average Rate	% Change From Previous Date	Average** No. of Channels	Average Cost Per Channel
12/31/84	180	$ 2.00 -	$17.31	$10.35	-	18	$0.57
11/30/86	251	$ 4.00 -	$29.25	$11.76	13.6	22	$0.53
12/31/89	1419	$ 4.00 -	$30.00	$15.61	32.7	27	$0.58

Tables 6 - 12

Tables 6 through 12 highlight selected information from the survey for three specific points in time (December 31, 1984; November 30, 1986; December 31, 1989). These data are for the entire sample of cable systems and are delineated by the following:

Table 6 - Average channel capacity and active channels per system.

Table 7 - Average number of basic, premium, and pay-per-view channels per system.

Table 8 - Type and average number of program services carried on tiers I and II.

Table 9 - Rates for premium channels HBO, Showtime and Cinemax.

Table 10 - Average number of network affiliates, other commercial and non-commercial stations available over-the-air in the cable system's franchise area.

Table 11 - Number and percent of cable systems that changed ownership since December 31, 1984.

Table 12 - Number and percent of regulated/unregulated cable systems.

We account for any differences between entries appearing in these tables and corresponding GAO figures in the discussion that follows Table 12.

TABLE 6

Average Channel Capacity and Active Channels

Date	<--Channel Capacity--> Number of Responses	Average No. of Ch.	<--Active Channels---> Number of Responses	Average No. of Ch.
12/31/84	1112	32	1105	23
11/30/86	1265	35	1272	27
12/31/89	1485	39	1499	32

TABLE 7

Average Number of Basic, Premium, and Pay-Per-View Channels Per System

Date	<--Basic Channels---> Number of Responses	Average No. of Ch.	<--Premium Channels-> Number of Responses	Average No. of Ch.	<---PPV Channels---> Number of Responses	Average No. of Ch.
12/31/84	1104	20	1089	3	35	2
11/30/86	1274	22	1256	4	99	1
12/31/89	1507	27	1494	4	419	2

TABLE 8

Type and Average Number of Program Services Carried on **Tier I**
(of those systems in the entire sample that reported carrying at least one station in each category of program service - all averages rounded up to nearest unit)

Type of Program Service	<-----12/31/84------> Number of Responses	Average No. of Ch.	<-----11/30/86------> Number of Responses	Average No. of Ch.	<-----12/31/89------> Number of Responses	Average No. of Ch.
Local:						
Net. Affil.	1003	4	1164	4	1406	4
Commercial	622	3	823	3	1094	3
Non-Comm'l	892	1	1050	1	1281	1
Distant:						
Net. Affil.	419	3	437	3	518	3
Commercial	879	2	1033	2	1271	2
Non-Comm'l	238	1	250	1	285	1
Cable Net.	929	7	1100	9	1327	14
Leased Acc.	145	1	181	1	216	1
Other	565	2	661	2	796	2

Type and Average Number of Program Services Carried on **Tier II**
(of those systems in the entire sample that reported carrying at least one station in each category of program service - all averages rounded up to nearest unit)

Type of Program Service	<-----12/31/84------> Number of Responses	Average No. of Ch.	<-----11/30/86------> Number of Responses	Average No. of Ch.	<-----12/31/89------> Number of Responses	Average No. of Ch.
Local:						
Net. Affil.	328	4	393	4	336	4
Commercial	225	3	296	3	284	3
Non-Comm'l	295	2	359	2	321	2
Distant:						
Net. Affil.	147	3	164	3	114	2
Commercial	318	2	376	2	307	3
Non-Comm'l	88	1	97	1	69	1
Cable Net.	355	11	414	12	337	17
Leased Acc.	72	2	93	1	96	1
Other	223	3	266	3	254	3

TABLE 9

Rates For Premium Channels HBO, Showtime and Cinemax

Date	<-------HBO-------> Number of Responses	Average Rate	<----Showtime-----> Number of Responses	Average Rate	<-----Cinemax-----> Number of Responses	Average Rate
12/31/84	964	$10.39	594	$10.30	559	$ 9.88
11/30/86	1159	$10.59	794	$10.41	774	$10.09
12/31/89	1402	$10.39	1057	$10.14	1060	$ 9.91

TABLE 10

Average Number of Network Affiliates, Other Commercial and Non-Commercial Stations Available Over-the-Air in the Cable System's Franchise Area

Type of Station	<-----12/31/84-----> Number of Responses	Avg. No. of Sta.	<-----11/30/86-----> Number of Responses	Avg. No. of Sta.	<-----12/31/89-----> Number of Responses	Avg. No. of Sta.
Net. Affil.	1063	4	1192	4	1432	4
Commercial	702	3	900	3	1158	3
Non-Comm'l	900	2	1031	2	1231	2

TABLE 11

Number and Percent of Cable Systems That Changed Ownership Since 12/31/84

	Number of Responses	%
Changed	728	48.5
No Change	763	50.9
Unsure	9	0.6
Total	1500	100.0

TABLE 12

Number and Percent of Regulated/Unregulated Cable Systems

Date	<--Regulated---> Number of Responses	%	<-Unregulated--> Number of Responses	%	<----Unsure----> Number of Responses	%	Total
12/31/84	1006	76.4	237	18.0	73	5.5	1316
11/30/86	1023	73.3	303	21.7	69	4.9	1395
12/31/89	43	2.8	1463	96.9	4	0.3	1510

Explanation of Differences Between Data Presented in the FCC and GAO Reports

The data presented in the FCC Report and the GAO Report differ in a number of instances although both reports used the same source of information -- the returned surveys. The first, and major, difference (which accounts for almost all of the discrepancies) is the fact that GAO presented its data on a per subscriber basis whereas all FCC data are presented on a per system basis. Second, all GAO data are projected to the universe of cable subscribers while FCC data are straight compilations and summations of the survey responses with no manipulation of the data. By using GAO's methodology, all data attributed to large systems (those with the most subscribers) carry more weight in its overall calculations. Our calculations count each observation (system) as equal. Since large systems tend to have higher rates and offer more channels (at a lower per channel to the subscriber) than smaller systems, GAO's data will generally reveal a higher cable rate but with more channels offered at a lower cost per channel than our data. For example, the average monthly charge for basic cable service on the lowest-priced tier followed by the percent increase from the previous date is:

	GAO per sub	% Change From Previous Date	FCC per system	% Change From Previous Date
12/31/84	$ 9.50	-	$ 9.09	-
12/31/85	$10.19	7.2	$ 9.56	5.1
11/30/86	$11.14	9.3	$10.23	7.0
12/31/87	$13.01	16.8	$11.82	15.5
12/31/88	$14.50	11.4	$12.83	8.5
12/31/89	$15.95	10.0	$13.93	8.6

For the most popular tier:

	GAO per sub	% Change From Previous Date	FCC per system	% Change From Previous Date
12/31/84	$ 9.84	-	$ 9.67	-
12/31/85	$10.60	7.7	$10.33	6.8
11/30/86	$11.71	10.5	$11.28	9.2
12/31/87	$13.47	15.0	$12.92	14.5
12/31/88	$14.91	10.7	$14.27	10.4
12/31/89	$16.33	9.5	$15.55	9.0

The average number of channels and cost per channel on the lowest-priced tier:

	GAO per sub		FCC per system	
12/31/84	20.5	$0.46	16	$0.57
12/31/85	21.8	$0.47	17	$0.56
11/30/86	24.2	$0.47	18	$0.57
12/31/87	27.7	$0.48	21	$0.56
12/31/88	30.2	$0.49	22	$0.58
12/31/89	31.2	$0.51	23	$0.61

The average number of channels and cost per channel on the most popular tier:

	GAO per sub		FCC per system	
12/31/84	22.8	$0.43	18	$0.54
12/31/85	24.6	$0.43	20	$0.52
11/30/86	27.1	$0.44	21	$0.54
12/31/87	30.0	$0.45	24	$0.54
12/31/88	32.2	$0.47	25	$0.57
12/31/89	33.6	$0.49	27	$0.58

Number of Systems by Strata

The cable systems were generally randomly selected as a part of a nation-wide sample of cable systems. The sample was designed using five size groupings (or strata) of systems based on subscriber count: 1-1,000; 1,001-3,500; 3,501-10,000; 10,001-50,000; 50,000+. (Subscriber counts were from a recent Television & Cable Factbook). Systems were randomly chosen within each stratum except for the stratum containing systems with greater than 50,000 subscribers. Since less than 2 percent of almost 9,000 total systems have more than 50,000 subscribers, all systems within that stratum were sent surveys. GAO assigned a value to each system that was sent a survey corresponding to the stratum from which it was chosen. GAO then sorted returned surveys on this value and made the appropriate projections for its tables. Several of our tables used subscriber count information from Question 1 of the survey which asked how many subscribers the cable system served on December 31, 1989. Since this count is more recent and, therefore, different than that appearing in the Factbook, the actual count of systems within each strata returning a survey differs as follows:

Subs	GAO Count	FCC Count
1-1,000	353	362
1,001-3,500	318	308
3,501-10,000	357	344
10,001-50,000	351	347
50,000+	151	148
Total Surveys Returned	1530	1509 (that answered q.1)

Systems Sold

Similarly, GAO states that the percentage of cable systems that were sold between 1985 and 1989 is 53% with 13% having changed owners more than once (a sort on Question 19 of the survey, which asked how many times in each year the system sold). Our figure (48.5%) of cable systems changing hands at least once is a direct sort on Question 18, which asked whether or not the system changed ownership between 1985 and 1989.

Premium Channel Rates

GAO presented premium channel rates for HBO, Showtime and Cinemax on a per system basis but projected to the universe of systems. Our data are, again, straight compilations and averages of the responses. Both sets of figures depict the same pattern of change in the rates for premium channels. Rates for all three premium channels increased from 12/31/84 to 11/30/86; but, by 12/31/89 the rates generally returned to 1984 dollar levels.

	<-------HBO------->		<----Showtime----->		<-----Cinemax----->	
Date	GAO Rate	FCC Rate	GAO Rate	FCC Rate	GAO Rate	FCC Rate
12/31/84	$10.19	$10.39	$10.14	$10.30	$ 9.75	$ 9.88
11/30/86	$10.37	$10.59	$10.23	$10.41	$ 9.93	$10.09
12/31/89	$10.24	$10.39	$10.02	$10.14	$ 9.80	$ 9.91

Programming Offerings

GAO has a table (I.9) (1990 Report at p. 53) depicting the number of different types of programming available to the average subscriber on the lowest-priced tier. In generating this table, GAO summed the number of different types of programming listed in question 15. If the total was less than or five more than the count of channels offered in question 5, GAO deemed the information in question 15 as inaccurate and deleted the record for this table only. There were over 150 such records. Coupling this with the previously stated differences in methodology leads to the following differences between FCC and GAO figures:

	12/31/84		11/30/86		12/31/89	
Prog. Type	GAO	FCC	GAO	FCC	GAO	FCC
Local TV	7.2	8	7.7	8	7.9	8
Distant TV	3.3	6	3.1	6	3.1	6
Cable Nets	7.8	7	11.1	9	17.3	14
L.Acc/Other	2.3	3	2.3	3	2.5	3

Differences in the absolute numbers aside, the numbers in this table make the same point: that is, all of the growth in programming services occurred in basic cable networks.

Other Differences

Number of Over-the-Air Signals available in the cable community:

Date	(GAO) Available to Average Sub.	(FCC) Available to Average Sys.
12/31/84	7.9	9
11/30/86	8.4	9
12/31/89	8.9	9

Number of Active Channels Carried by System:

Date	(GAO) Available to Average Sub.	(FCC) Available to Average Sys.
12/31/84	29.0	23
11/30/86	33.7	27
12/31/89	39.8	32

APPENDIX G

HORIZONTAL CONCENTRATION, VERTICAL INTEGRATION AND PROGRAM ACCESS

TABLE I

CURRENT CONCENTRATION OF CONTROL OF THE CABLE TELEVISION INDUSTRY 1/

Rank	Company	Share of Top 50 2/	Share of Total Industry 3/
1	TCI	24.73%	22.16%
2	Time Warner	12.92	11.58
3	Comcast Cable	9.25	8.29
4	Continental Cablevision	5.39	4.83
Top 4		52.29	46.86
5	Cox Cable	3.38	3.03
6	Cablevision Systems	3.17	2.84
7	Jones Intercable*	3.06	2.74
8	NewChannels	2.53	2.27
Top 8		64.43	57.74
9	Times Mirror*	2.35%	2.10%
10	Cablevision Industries*	2.17	1.95
Top 10*		68.95	61.79
Top 25*		88.80	79.58
Top 50*		100.00	89.60

HHI assuming the top 50 companies represent the whole industry = 975**

Gini Index for top 50 companies = 0.64**

1/ As part of this Inquiry, the Commission requested certain updated information, including subscriber counts, from the top nine MSO's. This table was generated using that information, other comments filed in the Inquiry, and the top 50 MSO list from Broadcasting, December 11, 1989, page 42. The analysis has been adjusted to reflect the ATC/Time Warner merger.

2/ Total number of subscribers for the top 50 MSOs is 47,705,561. Information on the top 50 MSOs is used to determine the HHI.

3/ According to Broadcasting, March 26, 1990, at 16, the total number of cable subscribers is 53,238,000. Data prepared by Broadcasting and industry sources.

* Updated subscriber counts for these MSOs were unavailable and therefore estimated. To obtain the 1990 subscriber counts, the 1989 subscriber counts for these MSOs were adjusted upward by a factor of 1.046, which represented the overall growth factor in cable subscribership (53,238,000 divided by 50,897,080 = 1.046). The 1989 subscriber count was obtained from Broadcasting, December 11, 1989, at 42. This adjustment compensates for the continuing growth of the cable industry as a whole and prevents us from overrepresenting the top MSOs' share of the industry.

** If data were available for the entire industry, the indices would be lower. A lower value indicates less concentration. Therefore, the analysis based on only 50 companies maximizes the estimate of industry concentration.

TABLE II

CHANGES IN CONCENTRATION OF CONTROL OF THE CABLE INDUSTRY WITHIN THE TOP 50 COMPANIES 1/

	1972	1975	1979	1982	1984	1985	1988	1989	1990
Top Co. Share	15.0	15.3	11.6	11.1	10.7	12.4	24.8	25.8	24.7
Top 4 Share	35.9	37.3	34.3	37.3	33.6	34.3	45.5	50.4	52.3
Top 8 Share	53.4	54.0	52.1	54.6	51.8	50.6	58.4	63.0	64.4
Top 10 Share	59.6	59.3	58.0	60.3	58.0	56.8	63.7	67.7	69.0
Top 25 Share	83.2	82.7	83.0	83.8	82.4	82.9	85.5	88.4	88.8
HHI	524	533	468	507	457	464	868	1000	975
Gini Index	.52	.52	.49	.53	.50	.51	.59	.63	.64

TABLE III

CHANGES IN CONCENTRATION OF CONTROL OF THE CABLE INDUSTRY BASED ON TOTAL SUBSCRIBERS 1/

	1972	1975	1979	1982	1984	1985	1988	1989	1990
Top Co. Share	9.9	10.4	8.4	8.7	9.2	9.0	20.9	22.2	22.2
Top 4 Share	23.9	25.2	24.9	29.3	28.7	24.9	38.4	43.4	46.9
Top 8 Share	35.4	36.5	37.8	42.8	44.2	36.8	49.3	54.2	57.7
Top 10 Share	39.6	40.1	42.1	47.4	49.5	41.3	53.8	58.3	61.8
Top 25 Share	55.2	56.0	60.3	65.8	70.2	60.7	73.1	76.1	79.6
Top 50 Share	66.4	67.8	72.7	78.5	85.2	72.3	84.5	86.2	89.6

1/ Data for 1990 from Table I above. Data for 1989 calculated from information appearing in Broadcasting, December 11, 1989, at 42. Data for 1988 and 1985 calculated from information appearing in Broadcasting, May 2, 1988, at 36, and December 2, 1985, at 37, respectively. Data for 1984 calculated from information in Television & Cable Factbook Volume 52 at 1726 and Volume 53 at 1385 and Television Digest 1985, Cable and Station Coverage Atlas, at 4. Other data taken from 1982 Report and Order in Docket No. 18891, 91 FCC 2d 46 (1982), Appendix A.

Table IV

NATIONAL CABLE PROGRAMMING NETWORKS WITH CABLE OPERATOR OWNERSHIP/EQUITY 1/

Service	Began
AMC (American Movie Classics)	10/84
BET (Black Entertainment Television)	1/80
Bravo	2/80
CBN Family Channel	5/77
CNBC (Consumer News and Business Channel)	4/89
CNN (Cable News Network)	6/80
C-SPAN I	3/79
C-SPAN II	6/86
Cable Value Network	5/86
Cinemax	8/80
The Discovery Channel	6/85
The Fashion Channel (TFC)	10/87
HBO	12/75
Headline News	1/82
Lifetime	2/84
Mind Extension University	11/87
MTV	8/81
The Movie Channel	12/79
Movietime	7/87
Nickelodeon	4/79
NICK at Nite	7/85
The Nostalgia Channel	2/85
QVC Network	11/86
Request Television	11/85
Request Television 2	7/88
Shop Television Network	10/87
Showtime	7/76
SportsChannel America	1/89
SuperStation TBS	12/76
TNT (Turner Network Television)	10/88
The Travel Channel	2/87
VH-1	1/85
Viewers Choice 1	11/85
Viewers Choice 2	6/86
VISN (Vision Interfaith Satellite Network)	9/88

1/ This table was derived from Benjamin Klein, "The Competitive Consequences of Vertical Integration in the Cable Industry," (Klein study) June 1989, which was submitted as part of NCTA's comments. The Klein study was compiled based on information obtained in 1988 and 1989. Klein's table was edited to reflect certain ownership changes since that time.

Table V

NATIONAL CABLE PROGRAMMING SERVICES
WITH NO CABLE OPERATOR OWNERSHIP INTEREST 1/

Service	Began
A&E Cable Network (Arts & Entertainment)	2/84
ASTS Satellite Network Television	5/84
Alternate View Network	10/85
American's Value Network	3/87
Cable Video Store	1/85
Country Music Television	3/83
The Disney Channel	4/83
ESPN (Entertainment & Sports Prog. Network)	9/79
EWTN (Eternal Word Television Network)	8/81
Family Guide Network	6/86
Family Net (formerly Liberty Broadcasting)	6/80
Financial News Network (FNN)	11/81
FNN/SCORE	4/85
FNN/TelShop	8/86
Galavision/ECO	10/79
Hit Video USA	12/85
Home Shopping Network I	7/85
The Inspirational Network	4/78
International Television Network	1/88
KTLA	3/88
KTVT	7/84
The Learning Channel (TLC)	10/80
TNN (The Nashville Network)	3/83
National Jewish Television	5/81
The Playboy Channel	11/82
The Silent Network	2/84
TBN (Trinity Broadcasting Network)	4/78
Univision (formerly SIN Television Network)	9/76
USA Network	9/80
The Weather Channel	5/82
WGN	11/78
WPIX	5/84
WSBK	2/88
WWOR	4/79
Zap Movies (formerly Telstar)	11/86

1/ This table was derived from the Klein study. The Klein study was compiled based on information obtained in 1988 and 1989. Klein's table was edited to reflect certain ownership changes since that time.

Table VI

Major MSO Cable Network Ownership 1/
(as of 12/31/89) 2/
(figures are percentages of attributable ownership rounded to tenths of a percent)

Cable Program Service	TCI	Viacom	<Time Warner> ATC	<Time Warner> Warner	Continental	Cox	Comcast	Cablevision	New Chan.*
Am. Movie Clcs.	50.0	-	-	-	-	-	-	50.0	-
BET TV, Inc.	14.3	-	<14.3a/>		-	-	-	-	-
Discovery Ch.	49.2b/	-	-	-	-	24.6	-	-	24.8
Fashion Ch.	36.6b/	-	-	-	-	-	-	-	-
Int'l Ca. Tech.	11.7	-	-	-	-	-	-	-	-
Movietime Ch.	10.5	-	11.0	44.0	11.0	11.4	-	-	11.3
Netlink USA	80.0	-	-	-	-	-	-	-	-
PA Educ. Comm.	11.7	-	-	-	-	-	-	-	-
Prevue Guide	20.0	-	-	-	-	-	-	-	-
Prime Time Inc.	35.0	-	-	-	-	12.5	-	-	12.5
QVC Network	22.7b/	-	9.3	25.7	e/	-	13.0c/	-	-
So. Sat. Sys.	100.0	-	-	-	-	-	-	-	-
Think Ent.	37.5	-	-	-	-	-	-	-	-
Turner B/C Sys.	14.5b/	e/	-	18.1	e/	-	-	-	-
XPress Info.	100.0	-	-	-	-	-	-	-	-
KBL Ent.	100.0	-	-	-	-	-	-	-	-
TCI N.W. CATV	100.0	-	-	-	-	-	-	-	-
Affil. Reg. Com.	60.0	-	-	-	-	-	-	-	-
Raycom Partners	50.0	-	-	-	-	-	-	-	-
Sunshine Net.	56.1	-	9.6	-	18.0	-	6.6c/	-	-
Showtime	d/	100.0	-	-	-	-	-	-	-
The Movie Ch.	-	100.0	-	-	-	-	-	-	-
MTV	-	100.0	-	-	-	-	-	-	-
Nickelodeon	-	100.0	-	-	-	-	-	-	-
VH-1	-	100.0	-	-	-	-	-	-	-
Lifetime	-	33.0	-	-	-	-	-	-	-
HA! Comedy Net.	-	100.0	-	-	-	-	-	-	-
Pacific Spts.	50.0	50.0	-	-	-	-	-	-	-
Prime Spts. NW	60.0	40.0	-	-	-	-	-	-	-
Pay-P/View Net.	-	11.0	16.7	-	12.0	12.5	11.1c/	-	11.1
Info Channel	-	-	-	-	-	-	-	-	5.7
HBO	-	-	<100.0a/>		-	-	-	-	-
Cinemax	-	-	<100.0a/>		-	-	-	-	-
Video Jukebox	-	-	-	-	-	-	-	-	16.7
Z - Ch.	-	-	-	-	33.0	-	-	-	-

1/ These data are culled from responses to letters sent to these individual companies requesting data with respect to their vertical interests. The letters were sent by the Chief, Mass Media Bureau on December 29, 1989.

Cable Program Service	TCI	Viacom	<Time Warner> ATC	Warner	Conti-nental	Cox	Com-cast	Cable-Vision	New Chan.*
Amer. Shop Ch.	-	-	-	-	-	30.0	-	-	-
Spotlight	-	-	-	-	-	20.0	-	-	-
Bravo	-	-	-	-	-	-	-	50.0	-
CNBC	-	-	-	-	-	-	-	50.0	-
News 12 Long I.	-	-	-	-	-	-	-	49.5	-
PRISM	-	-	-	-	-	-	-	50.0	-
SprtsCh. Amer.	-	-	-	-	-	-	-	50.0	-
SprtsCh. Chi.	-	-	-	-	-	-	-	50.0	-
SprtsCh. Fla.	-	-	-	-	-	-	-	50.0	-
SprtsCh. L.A.	-	-	-	-	-	-	-	50.0	-
SprtsCh. N.E.	-	-	-	-	-	-	-	50.0	-
SprtsCh. N.Y.	-	-	-	-	-	-	-	50.0	-
SprtsCh. Ohio	-	-	-	-	-	-	-	50.0	-

* Includes NewChannels affiliated companies Metrovision, Inc. and Vision Cable Communications, Inc.

a/ Time Warner controls the indicated percent of this cable program service. Time Warner owns 82% of ATC and 100% of Warner Cable.

b/ This is the ownership figure for this cable program service as indicated in the acquisition section of TCI's letter. TCI holds a higher percentage than indicated of warrants or class B and C stocks for this cable service.

c/ Comcast supplied these percentage figures in a follow-up letter dated 2/15/90. Comcast has a beneficial ownership in the QVC Network of 28.1%.

d/ TCI has a 50% purchase of Showtime pending.

e/ This company has less than 5% interest in these cable networks.

2/ TCI has recently purchased a financial interest in the Family Channel. TCI has also announced its intention to spin off its programming interests. See letter dated January 31, 1990, to Roy J. Stewart, Chief, Mass Media Bureau from John M. Draper, Vice President and General Counsel of TCI.

Table VII

VERTICAL CONNECTION BETWEEN MAJOR CABLE PROGRAMMING NETWORKS AND CABLE SYSTEM OPERATORS 1/

Programming Network (top 25)	Subscribers (millions)	MSOs with Ownership/Equity Interest in Network	Date Began
ESPN	55.9	None	9/79
CNN	54.4	TCI(21.8%), Time-Warner(18.1%), Viacom(<5%), et al.	6/80
SuperStation TBS	54.0	TCI(21.8%), Time-Warner(18.1%), Viacom(<5%), et al.	12/76
USA Network	51.5	None	4/80
Nickelodeon/NICK at Nite	50.8	Viacom (100%)	4/79,7/85
MTV	50.4	Viacom (100%)	8/81
The Nashville Network	50.0	None	3/83
C-SPAN	49.7	2/	3/79
The Discovery Channel	49.7	TCI(49.2%), Newhouse(24.8), Cox (24.6)	6/85
The Family Channel	49.1	TCI(17%)	4/77
Lifetime	47.0	Viacom(33%), Hearst(33%)	2/84
TNT	44.5	TCI(21.8%), Time-Warner(18.1%), Viacom(<5%), et al.	10/88
A&E Cable Network	44.0	None	2/84
The Weather Channel	43.0	None	5/82
Headline News	41.8	TCI(21.8%), Time-Warner(18.1%), Viacom(<5%), et al.	1/82
Video Hits-One	34.6	Viacom (100%)	1/85
QVC Network	33.9	TCI(22.7%), Time-Warner(25.7%), Comcast (est.16%)	11/86
Financial News Network	33.8	None	11/81
WGN	30.0	None	11/78
BET	27.0	TCI(14.3%), Time-Warner (through HBO 14.3%)	1/80
American Movie Classics	26.0	TCI(50.0%), Cablevision(50.0%)	10/84
FNN/Sports	22.3	None	4/85
C-Span II	20.7	2/	6/86
The Learning Channel	20.0	None	10/80
Home Shopping Network I	19.9	None	7/85

1/ This table was derived from Cable Television Developments, NCTA Research & Policy Analysis Department, May 1990; data compiled from responses to FCC questions to cable operators and services; Tables IV, V, and VI.

2/ Cable affiliates provide 95 percent of the funding for C-SPAN, but have no owership or program control interests.

Table VIII

VERTICAL INTEGRATION: TOP FIFTEEN MAJOR CABLE PROGRAMMING NETWORKS (BY RATING) 1/

Rank	Service	Date Began	MSOs with Ownership/Equity
1	TBS	12/76	TCI(21.8%), Time-Warner(18.1%) Viacom(<5%), et al.
2	USA	9/80	none
3	ESPN	9/79	none
4	CNN	6/80	TCI(21.8%), Time-Warner(18.1%) Viacom(<5%), et al.
5	TNT	10/88	TCI(21.8%), Time-Warner(18.1%) Viacom(<5%), et al.
6	TNN	3/83	none
7	Discovery Channel	6/85	TCI(49.2%), Cox(24.6%), Newhouse(24.8%)
8	NICK at Nite	7/85	Viacom (100%)
9	Lifetime	2/84	Viacom(33%), Hearst(33%)
10	Family Channel	5/77	TCI (17%)
11	A&E	2/84	none
12	MTV	8/81	Viacom (100%)
13	Headline News	1/82	TCI(21.8%), Time-Warner(18.1%) Viacom(<5%), et al.
14	BET	1/80	TCI(14.3%), Time-Warner(14.3% through HBO)
15	Weather Channel	5/82	none

1/ This Table was derived from Nielsen's First Quarter CNAD Report, as presented in Broadcasting, June 18, 1990, at 52; data compiled from responses to FCC questions to cable operators and services; Tables IV, V, and VI.

Table IX

Access to Program Networks by Competitive Media
(Y = able to obtain; N = unable to obtain)

	(HSD)	(<----------MMDS 1/----------)						SMATV
	NRTC a/	CableMax	Peo.Ch.	Cleve.Wire.	Tele/PR	WCTV	MAGNAVISION	NPCA
HBO	Y	N f/	N	-	-	-	N	-
Cine	Y	N f/	N	-	-	-	-	-
Show	N b/	N f/	N	-	-	-	N k/	-
TMC	N b/	N f/	N	-	-	-	-	-
AMC	Y c/	-	N g/	No resp	-	-	-	N t/
MTV	N d/	-	-	-	-	-	No resp	u/
VH1	N d/	-	-	-	-	-	-	-
Dis *	Y	-	N	-	-	-	l/	-
FNN *	N d/	-	-	-	-	-	-	-
NICK	Y	-	-	-	-	-	No resp	-
TNT	N d/	N f/	N	-	-	-	N m/	-
TNN *	Y	-	-	-	-	-	-	-
CNBC	No resp	-	-	-	-	-	-	-
CNN	Y	-	-	-	-	-	-	-
A&E *	-	-	-	No resp	-	-	N n/	-
ESPN *	e/	-	Y h/	-	-	N j/	N o/	-
SPTS CH	-	-	N	-	-	-	p/	-
HSPTS	-	-	N	-	-	-	-	-
USA *	-	-	-	-	N i/	-	N q/	v/
MovT	-	-	-	-	-	-	N r/	-
Life	-	-	-	-	-	-	s/	-

* Program network is not vertically integrated with an MSO.

a/ NRTC states that it must pay, on average, 460% more for programming than small cable companies (i.e. $10 vs. $2.25 for an 18 channel package).

b/ NRTC states that it has made an offer to Viacom for the service. NRTC has yet to receive a response.

c/ A written proposal from AMC is currently under review.

d/ NRTC has been unable to obtain this service after reasonable and repeated requests. NRTC does not define reasonable or repeated.

e/ NRTC states that ESPN offered a contract to provide service in "restricted" territories. ESPN, in its comments, defends exclusivity as a valuable and time-tested component of the television business. ESPN states that it does not generally grant exclusive distribution rights.

f/ CableMaxx has yet to secure access to this service despite its offers to post letters of credit equal to several months billing.

g/ Cablevision Systems Corp., in reply comments, states that it supplies its programming to several wireless cable operators including Peo. Ch.

h/ People's Choice is not authorized to distribute ESPN through wireless cable. People's Choice is limited to distributing ESPN only via its SMATV facilities. See footnote e.

i/ Telecable of Puerto Rico had provided its subscribers with USA Network for several months. However, USA cancelled the agreement, claiming that USA had a policy of not selling to wireless and had mistakenly believed that Telecable was a hard wired system. In their March 28, 1990, letter response to follow up questions from the Los Angeles field hearing, USA

states that it distributes its programming to MMDS systems.

j/ The WCA claims that ESPN has refused to enter into an agreement with WCTV, the wireless cable operator in Tampa Bay, justifying its actions on the grounds that WCTV's operations manager was formerly employed by a wholly unrelated wireless company that sued ESPN after ESPN unilaterally stopped providing service. ESPN, in its reply comments, states that the WCA has misstated the facts regarding ESPN's relationship with WCTV. ESPN claims that it was forced to and successfully sued Skyview, Inc. of Belleville, WI, after its president (a current WCTV minority owner and operations manager) intentionally obtained unauthorized access to the ESPN service through the use of a consumer Videocipher II decoder for use on his MMDS system from 7/1/88 to 6/24/89. The "suit" referenced by WCA relates to Skyview's counterclaims alleging violations of the Wisconsin Fair Dealership Law and antitrust law. The counterclaims were dismissed at summary judgment and an order and damage award was thereafter entered against Skyview for its illegal activity. ESPN states that, under such circumstances, it is hesitant to enter into an agreement with WCTV.

k/ Magnavision stated that in 1986, Showtime's policy was not to issue licenses to MMDS. In 1988, Showtime refused sale again stating that MMDS technology is "too new and largely untested." In 1989, Showtime stated that it was testing wireless cable carriage by selling to Microband and that, in any event, Magnavision would have to provide Showtime a substantial amount of information about Magnavision before Showtime would consider a service order.

l/ Disney wanted assurances of protection against signal piracy along with price and growth projections.

m/ TNT refused service in 1989, saying that TNT might be available in the future.

n/ A&E informed Magnavision that its policy is not to serve MMDS. It will only deal with cable systems.

o/ ESPN refused to sell to Magnavision on the basis that it would license its programming to MMDS only when MMDS operators can "present unique test cases or (markets) to us." See footnote e.

p/ General "red-lining" to zip codes where cable exists.

q/ Refused to sell in 1988 because of its stated fear that MMDS has signal security problems.

r/ Movietime declined to sell and stated that it is currently reviewing its sales policy and its guidelines for affiliation.

s/ Must purchase (at a substantial markup) from cable operator in the same area.

t/ Refused to sell at all to the private cable industry. However, commenter states that service might become available. Cablevision states that it does sell its programming to the private cable industry.

u/ SMATV pays for MTV, NICK, and VH1 on a per subscriber basis, whereas cable operators receive discounts for a combined purchase of all three services.

v/ USA requires SMATV to pay per home passed, whereas cable pays per subscriber.

1/ The information about Magnavision was obtained from the comments it submitted. The information about the other MMDS systems was obtained from the comments submitted by the Wireless Cable Association (WCA), a trade association of MMDS operators.

Table X

Wireless Cable Systems' Access to Specific Program Networks 1/

	<---------Cable Program Network---------->					
Wireless Systems:	HBO	ESPN	Showtime	TNT	Sports Channel	Regional Sports Channel
Carry Unrestricted	5	11	6	1	4	5
Carry Restricted	1	6	0	0	1	0
Request Pending	1	1	0	0	1	0
Unavailable	25	14	26	31	26	27
Total Systems Surveyed	32	32	32	32	32	32

Note: The wireless cable system carrying TNT, PacWest in Sacramento, was recently notified that service would be terminated.

Table XI

Sample Rate Comparisons Between Wireless Cable and Cable 1/
(cents per subscriber)

	Top Wireless Rate	Top Cable Rate	Wireless Premium
CNN	$.50	$.28	78.6%
USA	.38	.23	65.2%
Nickelodeon	.35	.22	59.1%
MTV	.35	.22	59.1%
Nashville	.35	.20	75.0%
A&E	.15	.11	36.4%
Headline News	.50	.00	-

1/ Information obtained in the comments of the Wireless Cable Association.

Table XII

Rate Comparisons: Mid-Atlantic Communications' Cable Systems vs. SMATVs 1/

Programmer	SMATV	Cable System	SMATV Premium
HBO *	$6.25 per sub **	$4.00/mo. per sub a/	56.2%
Cinemax *	6.50 per sub **	3.86/mo. per sub	94.5%
Nick *	0.29 per sub	0.17 per sub	70.5%
MTV *	0.29 per sub	0.17 per sub	70.5%
USA	0.18 per passing	0.18 per sub	not comparable
FNN	0.17 per sub	0.055 per sub	209%
HTS	1.50 per sub	0.75 per sub	100%
CNN *	0.33 per sub	0.25 per sub	32.0%
ESPN *	0.47 per sub	0.32 per sub	46.9%

1/ Information obtained from the comments of the National Satellite Programming Network, Inc., et al.

a/ Sub = subscriber

* Cable network has vertical relationship with a cable MSO.

** Sold by cable operator

Table XIII

MSO CARRIAGE OF OWNED NETWORKS 1/

Network	MSO with Ownership Ints. in Network	Carriage Percentage By Systems with Network Ownership Interest	Carriage Percentage By Systems without Network Ownership Interest	Difference in Carriage Percentage
BET	TCI, Time Warner	53.6%	41.8%	11.8%
CNN	(a)	99.5	99.4	0.1
CVN	(b)	78.4	25.0	53.4
DSCV	(c)	88.1	85.1	3.0
HLN	(a)	80.9	73.3	7.6
LIF	Viacom, Hearst	90.0	90.0	0.0
MTV	Viacom	90.0	96.4	-6.4
NAN	Viacom	100.0	91.5	8.5
NICK	Viacom	100.0	100.0	0.0
VH1	Viacom	80.0	70.5	9.5
WTBS	(a)	93.6	92.2	1.4
Average of Basic Networks		86.7%	78.7%	8.1%
AMC*	Cablevision Systems, TCI, United Cable	62.7	29.2	33.6
BRVO*	Cablevision Systems	100.0	17.2	82.8
CMAX	Time Warner	96.2	79.7	16.5
HBO	Time Warner	100.0	99.7	0.3
SHOW	Viacom	90.0	83.8	6.2
TMC	Viacom	90.0	58.7	31.3
Average of Premium Networks		89.8%	61.4%	28.4%
Average of All Networks		87.8%	72.6%	15.3%

1/ This table was derived from the Klein study. The Klein study was compiled based on information obtained in 1988 and 1989. Klein's table was edited to reflect certain ownership changes since that time.

(a) TCI, Time Warner, United Artists, United Cable, Heritage, TCI-Taft, Cablevision Systems, Continental, Jones Intercable, Lenfest, Sammons, Storer, Times Mirror, TKR Cable, Viacom, Telecable, Centel, Scripps Howard (Telescripps).

(b) TCI, Time Warner, Cablevision Systems, Colony, Continental, Newhouse, Rogers Communications, Sammons, Times Mirror, Viacom, Daniels & Associates, Cooke Cablevision, American Cablevision, Adam Corporation, United Artists, Heritage.

(c) TCI, Cox, Newhouse, United Cable.

* Hybrid services (offered both as basic and premium).

Table XIV

CARRIAGE BY VERTICALLY INTEGRATED MSOs OF NETWORKS IN WHICH THEY HAVE NO OWNERSHIP INTERESTS 1/

Network	Vert. Integrated MSO's w/no Ownership Ints. in the Particular Network	Carriage Percentage By Vertically Integrated MSO's w/no Ownership Interests in the Network	Carriage Percentage By Systems with No Ownership Interests in Any Networks (153 Systems)	Difference in Carriage Percentage
AEN	TCI, T/W, Viacom, CVS	87.9%	81.7%	6.2%
BET	Viacom, CVS	50.0	31.4	18.6
CSPN*	TCI, T/W, Viacom, CVS	94.8	71.2	23.6
DSCV	T/W, Viacom, CVS	85.8	85.0	0.0
ESPN	TCI, T/W, Viacom, CVS	100.0	100.0	0.0
FNN	TCI, T/W, Viacom, CVS	74.1	63.4	10.7
LIF	TCI, T/W, CVS	96.2	79.1	17.1
MTV	TCI, T/W, CVS	98.1	93.5	4.6
NAN	TCI, T/W, CVS	87.0	94.4	-7.4
NICK	TCI, T/W, CVS	100.0	100.0	0.0
TNN	TCI, T/W, Viacom, CVS	89.7	93.5	-3.8
TWC	TCI, T/W, Viacom, CVS	82.8	72.5	10.2
USAN	TCI, T/W, Viacom, CVS	99.1	96.7	2.4
VH1	TCI, T/W, CVS	62.3	69.3	-7.0
WGN	TCI, T/W, Viacom, CVS	54.3	54.2	0.1
Average of Basic Networks		84.5%	79.7%	5.1%
AMC**	T/W, Viacom	47.2	21.6	25.7
BRVO**	TCI, T/W, Viacom	17.9	13.1	4.8
CMAX	TCI, Viacom, CVS	77.8	76.5	1.3
DSNY	TCI, T/W, Viacom, CVS	97.4	92.8	4.6
GALA**	TCI, T/W, Viacom, CVS	9.5	3.3	6.2
HBO	TCI, Viacom, CVS	100.0	99.3	0.7
SHOW	TCI, T/W, CVS	84.0	75.8	8.1
TMS	TCI, T/W, CVS	50.0	56.2	-6.2
Average of Premium Networks		60.5%	54.8%	5.6%
Average of All Networks		76.5%	71.4%	5.2%

1/ This table was derived from the Klein study. The Klein study was compiled based on information obtained in 1988 and 1989. Klein's table was edited to reflect certain ownership changes since that time.

* Cable affiliates provide 95 percent of the funding for C-SPAN, but have no ownership or program control interests.

** Hybrid services (offered both as basic and premium).

Table XV

History of Major MSO Cable Network Ownership Since 1975

(table generated from responses of the MSO's listed below that were sent letters requesting information regarding their cable programming interests)

Year	TCI	Viacom	<Time Warner-> ATC	Warner	Conti-nental	Cox	Com-cast	Cable-Vision	New Chan.
1975	-	-	-	a/	-	-	-	-	-
1976	-	b/	-	-	-	-	-	-	-
1977	-	-	-	c/	-	-	-	-	-
1978	-	-	d/	-	-	-	-	-	-
1979	e/	f/	-	g/	-	-	-	-	-
1980	-	-	h/	i/	-	-	-	-	-
1981	-	-	j/	k/	-	l/	-	-	-
1982	m/	n/	-	-	-	-	-	o/	-
1983	-	p/	-	q/	-	-	-	r/	-
1984	s/	t/	-	u/	-	v/	-	w/	-
1985	-	x/	y/	z/	-	-	-	aa/	-
1986	bb/	cc/	dd/	ee/	-	ff/	-	gg/	hh/
1987	ii/	-	jj/	kk/	ll/	mm/	nn/	oo/	pp/
1988	qq/	rr/	ss/	tt/	uu/	vv/	ww/	xx/	yy/
1989	zz/	aaa/	bbb/	ccc/	ddd/	eee/	fff/	ggg/	hhh/

Footnotes

1975

a/ **Warner** created the Movie Channel, originally known as the Star Channel.

1976

b/ Showtime Entertainment formed as a wholly-owned subsidiary of **Viacom International Inc.**

1977

c/ Pinwheel was launched by **Warner** as a young people's (ages 2-15) entertainment service.

1978

d/ **Time Warner** has wholly owned HBO during the entire period. HBO created Take 2 in December 1978 until it closed operations September 1980.

1979

e/ **TCI** became founding investor in Black Entertainment Television, Inc.

f/ In January, 1979, Showtime Entertainment became a partnership of Viacom **International** and Teleprompter, with each company owning 50%.

g/ Pinwheel was relaunched by **Warner** as Nickelodeon.

1980

h/ **Time Warner**-owned HBO created Cinemax in August 1980.

i/ Warner Amex Satellite Entertainment Company ("WASEC") was formed to market and distribute programming interests owned jointly by **Warner** and American Express Company ("AMEX").

1981

j/ **Time Warner** acquired 1/3 interest in USA network.

k/ MTV was launched in August by a partnership of subsidiaries of **Warner** and American Express as a rock music video service.

l/ **Cox** acquired 20% of Spotlight December 1981.

1982

m/ **TCI** acquired 11.7% of the Pennsylvania Educational Communications Systems.

n/ In November, **Viacom** acquired from the subsidiary of Group W its 50% partnership interest in Showtime Entertainment. Also, Viacom and two individuals (Mr. Jeffery Reiss and Dr. Art Ulene) formed Cable Health Network, Inc. Viacom was a minority stock-holder but assumed a significant management and financial role in the venture and had rights to increase its ownership. In June, the Cable Health Network was launched, producing programming related to health and life-style issues.

o/ **Cablevision's** programming arm (Rainbow Program Enterprises (RPE)) and Playboy Enterprises create a joint venture to own and operate Escapade (later renamed the Playboy Channel).

1983

p/ In November, Cable Health Network, Inc., owned in part by **Viacom**, became a one-third general partner with a one-third management interest in a partnership with Hearst/ABC Services (itself a partnership of subsidiaries of the Hearst Corporation and American Broadcasting Companies Inc.). The Cable Health Network and Daytime Service programming networks were thereby merged into a new programming service called Lifetime. Also, in 1983, **Viacom** entered into an agreement with subsidiaries of Warner Communications Inc. ("Warner") and the American Express Company ("American Express") whereby effective in September, 1983 the business of Showtime Entertainment was merged with the business of the The Movie Channel (formerly operated by Warner and American Express) as Showtime/The Movie Channel Inc. ("ST/TMC") (now SNI). (The Movie Channel commenced operation in 1973 as the The Starchannel and was first distributed nationally as The Movie Channel in 1979.) Viacom contributed to this venture its 100% ownership in Showtime Entertainment in exchange for 50% of the equity in ST/TMC and other consideration. Warner held 40.5% and American Express held 9.5% of the remaining equity in ST/TMC.

q/ In September 1983, **Warner** and Viacom formed a new corporation, Showtime/The Movie Channel. Also, Warner Amex Satellite Entertainment Co. created Home Sports Entertainment (HSE) internally in 1983.

r/ Effective January 1, 1983, **Cablevision's** program affiliate Rainbow Programming Enterprises (RPE) formed a partnership with New England Prime Cable Network which acquired all the assets of PRISM New England, a sports-movie service serving New England. The movies were discontinued and the service was renamed SportsChannel New England. RPE acquired a 40% pre-payout and 50% post-payout interest in the service consisting of both general and limited partnership interests. On June 1, 1983, sold to subsidiaries of the Washington Post, 50% of RPE's interest in SportsChannel New York and SportsChannel New England. In October 1983, RPE sold its remaining interest in the Playboy Channel to Playboy Enterprises, but continued to distribute the Playboy Channel until April 1986. On October 18, 1983, RPE and a subsidiary of the Washington Post Company formed a partnership which acquired The PRISM Company, the owner of PRISM, a sports-movie service serving the Philadelphia area. RPE acquired a 50% general partnership interest in the service.

1984

s/ **TCI** sold interest in Spotlight Service, Inc.

t/ In February, ST/TMC, owned by **Viacom**, acquired the assets of the Spotlight Partnership from its cable operator owners (Cox Cable Communications, Inc., TCI, Storer Communications Incorporated, and Times-Mirror Cable Television,Inc.). Spotlight was a pay programming service marketed to the cable systems owned by the cable operator owners. Pursuant to the asset purchase, subscribers to the Spotlight service became subscribers (subject to their approval) to either Showtime or The Movie Channel. Also, in 1984, **Viacom** launched Lifetime.

u/ On July 16, 1984, **Warner** sold Home Sports Entertainment (HSE) to a venture controlled by Houston Sports Associates. The assets of MTV, VH-1 and Nickelodeon were transferred to a new corporation, MTV Networks, Inc. ("MTVN"). Pursuant to a public offering, 5,125,000 shares of MTVN were sold to the public in August. Warner and American Express collectively retained ownership of 66.1% of the outstanding capital stock of MTVN.

v/ **Cox** sold holdings in Spotlight.

w/ On January 1, 1984, RPE, owned by **Cablevision**, and a subsidiary of the Washington Post Company formed a partnership which entered into a rights agreement with, and succeeded to the business of SportsVision of Chicago, which operated a sports programming service in the Chicago area called SportsVision.

1985

x/ **Viacom** increased its ownership in Cable Health Networks, Inc. (the one-third general partner in the Lifetime service) to 80%. Also, in 1985, Viacom purchased from Warner the 50% equity interest in ST/TMC that it did not then own (Warner had previously purchased the 9.5% interest of American Express). In January, VH-1 was launched by MTV as a music video service, programmed to complement MTV. In July, Nick-at-Nite was launched by Nickelodeon extending Nickelodeon's service to 24-hours for certain subscribers. Nick-at-Nite serves general audiences. In November, **Viacom** acquired from Warner 66.5% of the ownership interest in MTV Networks Inc. ("MTVN"), owner and operator of MTV, Nickelodeon and VH-1. (Warner had previously purchased from American Express its interest in the venture which operated these services). The remaining 33.5% of MTVN shares were publicly held. In November, **Viacom** through a division of SNI, initiated a national satellite delivered pay-per-view service, Viewer's Choice, which enabled cable subscribers to view theatrical features and special events on a program-by-program basis.

y/ HBO Inc., owned by **ATC**, began acquiring stock in Black Entertainment Television.

z/ In August of 1985, **Warner** acquired AMEX's interest in MTVN. Warner's interest in MTVN was sold to Viacom in November of 1985.

aa/ On January 25, 1985, RPE, owned by **Cablevision**, and The Washington Post Company sold to subsidiaries of CBS one-third of their interests in SportsChannel New York, SportsChannel New England, PRISM and SportsChannel Chicago. This transaction left RPE with a 33.5% general partnership interest in SportsChannel New York, a one-third general partnership interest in PRISM and SportsChannel Chicago and 13.33% pre-payout and 16.66% post-payout interest in SportsChannel New England. Also, on January 25, 1985, RPE sold to subsidiaries of CBS, 50% if RPE's interests in AMC and Bravo, leaving RPE with a 50% general partnership interests in such services.

1986

bb/ **TCI** acquired 49.22% of the Discovery Channel; 100% of X*press Information Services, Ltd.; and, 33.3% of the Z Channel (premium sports and movie channel). Acquired and sold Uptown (premium channel).

cc/ In March, **Viacom** acquired the remaining 33.5% of the shares of MTVN, a process whereby MTVN became a wholly-owned subsidiary of Viacom (MTVN was subsequently merged into Viacom and currently exists as one of its operating divisions, MTV Networks). In June, a second national pay-per-view channel, Viewer's Choice 2, was launched by Viewer's Choice.

dd/ **ATC** began acquiring stock in the QVC Network and the CVN Network. HBO Inc. created Festival and launched it in May.

ee/ **Warner** and Investors acquired equity interest in CVN over the period from October 21, 1986 through May, 1989.

ff/ **Cox** acquired 15% of America's Shopping Channel and 9.9% of the Discovery Channel.

gg/ In December 1986, **Cablevision** acquired certain limited partnership interests in RPE from outside investors, so that Cablevision now owns a 95.68% pre-payout interest and a 94.77% post-payout interest in RPE.

hh/ **NewChannels** acquired over 3 million shares in the Discovery Channel.

1987

ii/ **TCI** acquired 50% of American Movie Classics.; 36.6% of the Fashion Channel Network, Inc.; 10.5% of the Movietime Channel, Inc.; 22.7% of QVC Network, Inc.; and, 37.5% of Think Entertainment. Acquired interest in Turner Broadcasting System, Inc. Launched KBL Entertainment, Inc. (regional sports). Sold interest in the Z Channel.

jj/ **ATC** began acquiring stock in the Pay-Per-View Network, Inc.; Turner Broadcasting; and, the Fashion Channel; sold interest in the USA Network.

kk/ **Warner's** interest in TBS was acquired over a period beginning in June, 1987 through May, 1988.

ll/ **Continental** acquired 12% of Viewers Choice, Inc.

mm/ **Cox** acquired an additional 15% of America's Shopping Channel; 3.6% of the Discovery Channel; and, an initial 20% of Viewers Choice.

nn/ **Comcast** acquired various amounts of stock in the QVC Network during May and June.

oo/ On January 1, 1987 and August 25, 1987, **Cablevision's** programming affiliate Rainbow Programming Holdings, Inc. (RPHI) acquired from The Washington Post Company and CBS, all the foregoing interests previously sold. As a result, collectively, RPE and RPHI owned 100% of the partnership interests in such companies. Also on January 1, 1987, RPE sold to a subsidiary of Tele-Communications, Inc. 50% of RPE's interest in AMC, leaving RPE with a 50% general partnership interest.

pp/ **NewChannels** acquired another 4 million shares in the Discovery Channel and 5.7% of the outstanding shares of the Information Channel. NewChannels was an original investor in the Pay-Per-View Network when it purchased 20% of the shares in July.

1988

qq/ **TCI** acquired 20% of Prevue Guide, Inc.; 100% of Southern Satellite Systems, Inc.; TEMPO Sound, Inc. and TEMPO Television, Inc.

rr/ In November, certain assets of Viewer's Choice 1 and 2 were combined with Home Premiere Television and **Viacom** thereby acquired what is currently a one-ninth interest in PPVN which through a subsidiary owns

and operates Home Premiere Television (now called Viewer's Choice), a national pay-per-view service. Together with Viacom, PPVN is owned directly or by subsidiaries of these other companies: Continental Cablevision Investments, Inc.; Cox Communications Inc.; Telecable Corporation; Newchannels Corporation; ATC-PPV Inc.; Walt Disney Pictures and Television; Times-Mirror Cable Television; and Comcast Cable Communications, Inc. (The latter three entities became stockholders in PPVN subsequent to Viacom's obtaining its original one-sixth interest.) Viacom is one of nine board members. Also in 1988, Viacom further increased its ownership in Cable Health Network, Inc. to 100%.

ss/ **ATC** acquired interests in Movietime, Inc. and the Sunshine Network.

tt/ **Warner's** interest in Movietime was acquired over a period beginning February 16, 1988 through November 1, 1989.

uu/ **Continental** acquired 11% of the Movietime Channel, Inc.; 18% of the Sunshine Network, Inc.; and, 33% of the Z-Channel Limited Partnership.

vv/ **Cox** acquired an additional 0.3% of the Discovery Channel; sold 20% of common voting stock of Viewers Choice but lent company over $2 million to retain a total of 12.5% ownership; and, acquired an initial interest in Movietime.

ww/ **Comcast** purchased 14,000 shares of common stock in the Sunshine Network, Inc.

xx/ On April 19, 1988, the partners not affiliated with RPE, owned by **Cablevision**, and RPHI withdrew from the partnership in SportsChannel New England. As a result, RPE and RPHI collectively own 100% of the general and limited partnership interests in the service.

yy/ **NewChannels** acquired over 3 million shares in the Movietime Channel Inc.; acquired additional shares in the Pay-Per-View Network; and acquired stock in the Video Jukebox Network Inc.

1989

zz/ **TCI** acquired 60% of Affiliated Regional Communications, Ltd.; 11.7% of International Cablecasting Technologies, Inc. Founding investor in Prime Time Tonight, Inc. (35%). Launched TCI Bay Area Sports, Inc.; TCI Northwest Cable Sports, Inc.; and, TCI Sports, Inc. Sold TEMPO Sound, Inc. and TEMPO Television, Inc.

aaa/ **Viacom** and TCI entered a letter of intent with respect to TCI's purchase of a 50% equity interest in the business of SNI (formerly ST/TMC). Also, in 1989, Viacom (on behalf of a subsidiary yet to be formed) and TCI Bay Area Sports, Inc. agreed to form a partnership to operate a regional sports network in the San Francisco Bay Area and the surrounding counties. In the same month Viacom and TCI Northwest Cable, Inc. agreed to enter into a separate partnership to operate a regional sports network in the Seattle/Tacoma, Washington area. Definitive agreements are currently in negotiation. The PSN service

for San Francisco was launched in September 1989, sports programming, which at the time was not formally part of Prime, was launched in 1988 in Seattle/Tacoma prior to a formal agreement between Viacom and TCI to form the Prime partnership.

bbb/ Festival ceased operations in December. In October, **ATC's** interest in CVN were converted to QVC as a result of the merger of QVC and CVN. The Fashion Channel ceased operation. HBO created the Comedy Channel and launched it in December.

ccc/ On October 31, 1989, **Warner's** interest in CVN were converted into an interest in QVC pursuant to a merger of CVN with QVC. Warner's interest in QVC was acquired over a period from July through December, 1989. Also, in 1989, HSE was sold to a partnership made up of affiliates of Telecommunications, Inc. and Daniels & Associates. Warner holds 23,171 shares of Class B common stock of The Fashion Channel Network, Inc., representing approximately 0.93% of the outstanding shares. The Fashion Channel ceased operations in 1989.

ddd/ **Continental** sold holdings in the Z-Channel.

eee/ **Cox** acquired an additional 10.76% of the Discovery Channel resulting in a total ownership of 24.6%; lent America's Shopping Channel over $3 million; acquired additional stock in Movietime resulting in a 11.4% total interest; and, acquired an initial 12.5% interest in Prime Time Tonight.

fff/ **Comcast** acquired additional stock in the QVC Network; purchased stock and note in the Pay Per View Network Holding Co.

ggg/ On March 20, 1989, RPHI (a subsidiary of **Cablevision**) acquired certain of the assets of Z Channel a sports-movie service serving the Los Angeles area. The movies were discontinued and the service was renamed SportsChannel Los Angeles. On April 20, 1989, RPHI acquired a 49.5% general partnership interest in CNBC in connection with NBC's acquisition of interests in programming services from RPI and RPE described below. The sports channel in Chicago (SportsVision) continued until 1989 at which time the service was renamed SportsChannel Chicago. RPE acquired a 50% general partnership interest in the service. Also on April 20, 1989, RPE and RPHI sold to subsidiaries of NBC, 50% of RPE's and RPHI's respective interests in all the SportsChannel services, Bravo and News 12 Long Island, leaving RPE and RPHI collectively with a 50% general partnership interest in SportsChannel New York, Prism, SportsChannel Chicago, Sports-Channel Florida, SportsChannel Ohio, SportsChannel Los Angeles, SportsChannel America, Bravo and News 12 and a 50% general and limited partnership interest in SportsChannel New England.

hhh/ **NewChannels** acquired more stock in the Movietime Channel now totaling 11.3% of the outstanding stock; acquired more stock in the Video Jukebox Network Inc. now totaling 16% of the outstanding shares; acquired more stock in the Discovery Channel now totaling 24.8% of the outstanding shares; and acquired 12.5% of the outstanding shares in Prime Time Tonight.

SURVEY DATA ON SELECTED "COMPETITIVE" CABLE MARKETS
May 1990

	Year Begun	Homes in Franchise Area	% with Access to Two Systems	No. of Basic Subs.	Basic Rate	No. of Channels on Basic	Cents per Channel	Off Air in Mkt.	Rec'd. Off Air
Allentown, PA		39,000	100	~39,000				5	
Service Electric	1950's				$12.95*	25*	51.8		15*
Twin County	1950's				10.00*	21*	47.6		16*
Vidalia, GA		~6,000	83					3	
TCI	1972			3,660	12.75	31	41.1		6*
					9.75**		31.5		
Southland	10/88			2,310	15.75	40	39.4		NA
Citrus County, FL***		~25,000	~25					NA	
Telesat	7/87			6,407	9.95	40*	24.9		13*
CCF	NA			20,548*	9.95	33*	30.2		12*
Orange County, FL		NA	~20					6	
CCF	NA				16.95	32	60		8
					8.95****		28.0		
Cablevision Ind.	~1982				13.95	44	31.7		9
					7.95****		18.1		
Telesat	1986			12,514	11.95	51	23.4		6

"COMPETITIVE" CABLE MARKETS--Continued

	Year Begun	Homes in Franchise Area	% with Access to Two Systems	No. of Basic Subs.	Basic Rate	No. of Channels on Basic	Cents per Channel	Off Air in Mkt.	Rec'd. Off Air
Huntsville, AL		NA	25					4	
Comcast	1954			42,000	5.00	32	15.6		9
Cable America	1986			18,000	11.95	60	19.9		9
Mesa, AZ		107,723	~10					5	
Dimension	mid-70's	passed by Dimension		42,279	18.95	36	52.6		5
Cable America	late 1988			3,444	13.95	56	24.9		5
AVERAGE FOR "COMPETITIVE" SAMPLE							38.2		
AVERAGE FOR ALL CABLE MARKETS, December 31, 1989 (from 1990 FCC-GAO study, see Appendix F, table 1B)							58.0		

SOURCE: Except as indicated, all data are from telephone interviews, 5/17/90.

* 1989 Television Factbook.

** For subscribers who hooked up prior to 2/1/90.

*** Telesat Filings.

**** Overbuilt areas only. From Telesat filings.

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF
THE CHAIRMAN

Thursday, July 26, 1990

Statement of FCC Chairman Alfred C. Sikes
on the
Commission's Cable Television Report

As my colleagues have said, and the report indicates, the data we have collected presents a mixed picture regarding cable price increases. As has been true with prior GAO studies, this report contains data for both critics and defenders of cable developments since the 1984 Act. And, as is true of national studies there are always a number of deviations from the norm. If a customer feels victimized, regardless of the industry, national statistics provide no consolation.

While our data collection and interpretations are helpful, one thing is clear. Cable operators do not face head to head competition in more than a handful of markets. And, in my view the end result is equally clear. As has been demonstrated in communications market after communications market, as competition increases both costs and prices go down. Head to head competition places an exceptionally high premium on cutting costs and putting the customer first. Study after study, in sector after sector, has identified the extraordinary cost and price-cutting pressure that exists in highly competitive markets. Those same studies demonstrate that highly competitive markets also spur product differentiation, innovation, and service quality.

So those who may want to read this report as justifying rate reregulation would be wrong. The centerpiece of this report is competition not reregulation. My colleagues and I are of one mind: competitive markets and competitive markets alone will in the final analysis force prices toward true costs.

Competition, then, is the linchpin for consumers. Where it exists they can be confident they are getting good value.

Competition in the cable or multichannel video marketplace is controversial. Many say it is not possible to have competition because this is a natural monopoly business. And, many cable franchising authorities who, in return for granting and working to sustain exclusive franchises, have gotten a number of tangible benefits, do not want competition.

Earlier this month, the Wall Street Journal recounted the sad experience in Sacramento, California, where two entrepreneurs seeking to compete ended up in a court battle with both the city

and what the Journal called the "officially anointed cable operator."

And, it was only after running an almost endless litigation gauntlet that cable competition in Sacramento was allowed. Now, incidentally, the city reportedly has changed its mind about the virtues of monopoly franchises, and is cheering the competition on.

The end result of this "natural monopoly" attitude and obstructionist actions has been that many despair of ever seeing competition develop and consequently choose government regulations. I think that is the wrong approach.

As this reports shows and concludes, the cable or multichannel video market is in transition. Cable was, at one time, a retransmission business with clear revenue limitations. Today, cable is that and a lot more. Cable networks together deliver the same audience as a broadcast network and the trends for gaining more ground are clear. As the popularity of the cable networks grows, the cable operator's second stream of income, advertising revenue correspondingly grows. And, technologically the industry is on the threshold of being able to deal more selectively with customers, thus giving them the opportunity to develop many new products. In fact, pay per view revenue growth is second only to advertising.

It is this promise of financial rewards that literally has resulted in an outbreak of lawsuits asking the courts to stop franchise authorities from slamming the door on competition.

These developments, and the insight gained from watching the remarkable developments in competitive communications markets, have caused the Commission to be of one mind. Legislation should be passed which limits municipal authority to erect or sustain entry barriers and which prohibits an "unreasonable refusal to grant a second franchise." To use the code word of the day there should be more "deregulation."

Additionally, and importantly the Commission has recommended that vertically integrated companies not be able to use their market power to deny programming to those who seek to compete against them.

There is another area of regulation that has also concerned me. The compulsory copyright license has, in my view, become an impediment to the long term health of the video industry. It distorts market developments by dictating both the terms and conditions of many program relationship. It undermines exclusivity and creates an artificial price for broadcast

programming distributed by cable. While the Commission has again recommended the elimination of the compulsory license for distance signals, it noted, that without competition for broadcast program distribution, its total elimination today would generally not help the broadcaster get true value for his/her product. I agree with this finding but want to add that, in my view, the continuation of the "Compulsory License", will over the long term harm not help the video marketplace.

Finally, I would like to say a few words about rate regulation. While we have concluded that three signals no longer constitute "effective competition" we have, appropriately, deferred to the Congress which is working actively as we meet on cable legislation. We believe the potential harm of two conflicting approaches to rate regulation being taken by different government entities merits holding back.

We hope, however, that the Congress will see, through our section on "effective competition", and the alternatives that are presented, that there are ways to protect consumers without a high degree of reregulation and that the exercise of any rate regulation authority should be at the local not national level. There is certainly nothing wrong with establishing a federal standard regarding rate regulation. But when the authority is exercised it should be done locally as underlying cost circumstances vary widely.

Adopted July 26, 1990

Statement of Commissioner James H. Quello

In the Matter of Competition, Rate Deregulation and the Commission's Policies Relating to the Provision of Cable Television Service

This item today is proof that, regardless of individual viewpoints and prerogatives, the collegial process is alive and well at the FCC.

This comprehensive report represents intensive individual input from Commission bureaus, offices and Commissioners' staff members.

I wish to commend all my fellow Commissioners for their efforts in achieving a reasonable consensus to this complex subject. I commend Commissioner Marshall's contribution of thought-provoking diverse viewpoints for consideration and inclusion in the final report. During the initial, and inevitable, churn I nominate Comr. Duggan for an FCC equivalent of the Nobel peace prize for his key role in achieving agreement among the various individual Commissioners. And, we all know that the Chairman ultimately assumes the principal credit or all the blame for FCC actions -- so a salute to his statesmanship and leadership in this process. And this leaves you and me, Andy, with strong individual opinions that are reflected in portions of this report -- I'm going to steal or paraphrase Commissioner Barrett's statement from our last FCC meeting: "I don't think it matters much what we think, this item will be principally decided in Congress and the Courts."

However, I do want to take this opportunity to briefly bottom line some of my opinions. The final cable rate formula, if not legislated by Congress, could be influenced by an FCC revised definition of effective competition. This is being addressed in a separate docket -- yet it is a major issue for our recommendations to Congress. I feel compelled to express my views on the critical subject as I'm the only Commissioner here who voted for a three station TV standard as establishing effective competition. At that time I expressed grave doubts and facetiously characterized our efforts as "defective" competition. However, there didn't seem any place else to go at that time and I reluctantly voted for it. Also, must carry and channel positioning were securely in place; cable was not aggressively selling TV advertising in competition with local stations, there were many fewer cable channels six years ago, and cable penetration was considerably less than the 60% reported last month.

Under these circumstances, I believe it appropriate for Congress and the FCC to revisit the 1984 Cable Act and update its provisions to serve a drastically changed multi-channel cable TV marketplace of the 1990s.

I'm merely going to repeat what I have been saying in public speeches the past three years: In my view the 3 station standard for effective competition is outdated and totally inadequate in the varied multi-channel TV cable marketplace of today--particularly when you consider that cable isn't even legally required to carry the three stations!

In my mind the most effective competition to existing cable is another multi-channel provider. In this item today we encourage development of multi-channel marketplace competition by emphasizing program access for potential competitors. As of today MDS, MMDS and DBS are more potential than actual competitors. They require much more time and development to evolve as cable competitors in the marketplace of today.

So today and for the immediate future there is very little viable effective competition for cable with its 60% market penetration. The action word here is "effective."

I understand there is a comprehensive cable-TV agreement for must carry and channel positioning that will probably be incorporated into legislation.

At this time I believe it appropriate to have must carry and channel positioning as first priority items.

However, I believe to establish a truly equitable TV marketplace in the future, Congress will have to eventually revoke the compulsory license and require retransmission consent to transmit the broadcaster's program product.

The compulsory license served an essential purpose in the early days of cable when cable provided a basic TV service to thousands of unserved or underserved small towns. My home town of Laurium is an example. Only one poor TV signal was available from Marquette, Michigan. Cable brought basic TV service to the grateful populations of Laurium and hundreds of other Upper Peninsula towns. In my home town most people would have preferred cable TV service over phones or bathtubs. (Fortunately, they weren't required to make the choice.)

However, I can't possibly conceive that it was ever intended by government officials that local broadcasters in hundreds of larger cities would be required to provide a free program subsidy that delivers 60-70% of the cable audience for a cable system aggressively selling TV advertising in competition with them. This must be corrected at some future date.

Now for the rest of the story -- Cable has provided a desirable, popular service. It has been a dynamic growth industry. It has invested heavily in new plant, new technologies and many additional channels. I have often said, and I repeat, I personally like cable. I won't stay home without it. I particularly like CNN, ESPN, TNT, C Span, A and E, American Movie Classics and the Discovery channel.

I think it is essential that any rate regulation eventually established by Congress or proposed by the FCC represent a free enterprise solution with the least intrusive government intervention so that cable can continue to explore advanced technology and to expand its popular service. I support our report today that recommends a general preference for competition over regulation. I understand we will propose specific rate formulas in our effective competition report this fall.

Briefly a word about vertical and horizontal limitations: I believe any limitations should be enacted only to correct abuses.

The occasional abuses today must be considered in the context of the public benefits of economies of scale for a dynamic growth industry.

There are many other detailed facets of this comprehensive item but I reserved my bottom line comments for items that were uppermost in my mind. My comments are formed from a perspective of 16 years on the FCC witnessing the dynamic development of cable, the essential free over-the-air service of TV, and trying to be an objective practical regulatory referee in the long standing cable-TV conflict. Also, I have a longtime working knowledge of the highly respected executives in both industries.

In the future I foresee more areas of agreement and fewer areas of bitter competitiveness between these two industries that play such a prime role in informing and entertaining America. In fact, there is emerging now more joint annual conventions by state broadcasting and state cable conventions. I hope our actions today will help foster future cooperation.

Cable and broadcasting have presented the American public with the most comprehensive and best telecommunications service in the world. I don't think public interest is served by making either of them any less than they are. Congress in its wisdom is taking progressive steps to preserve their service by assuring a reasonable rate structure and an equitable broadcasting marketplace that best serves all American consumers.

Thanks for indulging me this opportunity, Mr. Chairman and colleagues -- I rarely have lengthy comments but I have lived with this issue a long time.

July 26, 1990

SEPARATE STATEMENT
OF
COMMISSIONER ANDREW C. BARRETT

In Re: Competition, Rate Deregulation and the Commission's Policies Relating to the Provision of Cable Television Service, MM Docket No. 89-600

This Report demonstrates a consensus of Commission views. The Report emphasizes our ultimate goal of encouraging competition as a solution to the problems currently faced by cable consumers and competitors. I believe our review process, which entailed three public hearings and the comments filed in our Notice of Inquiry, resulted in a strong and balanced document that accurately reflects the record before this agency. I recognize that both houses of Congress are working diligently towards adoption of cable legislation later this year. I am hopeful that Congress will find our recommendations useful in their deliberations.

I write separately to voice my concern over the "effective competition" section of the Report.[1] Therein, the Commission sets forth its intention to move forward on revisions of the effective competition standard if Congress does not act on this issue. While I agree that the current three over-the-air broadcast signal standard is no longer valid, I am concerned that the Commission does not currently possess a sufficient record to redefine this standard. Thus, before the Commission seeks to define a new standard, it would be useful to issue a Further Notice of Proposed Rule Making to permit comment on all of the proposals listed in our Report. I also think it is important to seek comment on any alternative proposals developed during Congressional markups.

In addition, I am not convinced that simply redefining our effective competition standard is the best course of action. I have listened intently to the public comments on all sides of this issue. In particular, I attended all three FCC cable field hearings. It would appear that the major concern from interested parties is with a few "bad actors" who engaged in price gouging. Thus, I am concerned that this Commission not recommend a broad-based reregulatory action that could affect an entire industry; especially if the problems being addressed are premised on the

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[1] See Report at paras. 184-194.

actions of a few cable operators.[2]

Therefore, the key point that I wish to emphasize is that we should promote competition among video providers rather than adopt broad-based cable reregulation. I firmly believe that a robust competitive marketplace, rather than reregulation, will more adequately address concerns over cable rates and service. Moreover, these steps have the benefit of allowing cable growth in terms of new programming and other services.

Given the appropriate incentives, including access to programming and a lessening of certain municipal regulatory barriers, I am hopeful cable communities will become more competitive. Cable overbuilders, MMDS operators, SMATV systems and in the longer term DBS operations should provide the competitive spur needed to correct many of the current competitive imbalances and consumer service problems. Promotion of these competitive services would be the most balanced method to ensure fair rates and quality service from the cable industry without stifling the overall growth of that industry. I cannot overemphasize my goal that the news and entertainment programming that cable television has been able to bring to American homes should not be impeded. Rate regulation has the potential to do just that; whereas competition adds even more diversity and consumer choice to the local video marketplace.

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[2] I note that the Report we adopt today does contain a recommendation that some provision be made to exclude good actors from the regulatory constraints of rate reregulation. However, in the absence of cost data, I query whether it is possible to accurately define a "good actor" standard under such a scheme.

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