financial support for faltering program services."[5] Likewise, in the current rulemaking at ¶6, the Commission recites Congressional recognition that "vertical relationships promote diversity and make the creation of new, innovative and risky programming services possible."

Notwithstanding these acknowledged benefits, both Congress and the Commission appear to be concerned that such vertical integration provides cable operators with "the incentive and ability to favor their affiliated programmers," which "could make it more difficult for noncable-affiliated programmers to secure carriage on cable systems."[6] However, neither the Commission's Notice nor the legislative history of the 1992 Cable Act identifies any systematic pattern of actual discrimination.

The reported empirical investigations of MSO treatment of unaffiliated or competing "basic" programming services have concluded that cable operators with ownership interests in cable networks have not attempted to foreclose other networks from carriage. In my own extensive analysis of the carriage decisions of cable systems in which TCI had an ownership interest, I found no evidence of discrimination against unaffiliated networks.[7] Similarly, an earlier study by Benjamin Klein[8] concluded that "there is no sys-

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5 *Id.*, 5009.

6 *Cable Television Consumer Protection And Competition Act Of 1992*, §2(a)(5); *Notice Of Proposed Rulemaking And Notice Of Inquiry*, ¶¶42-45.

7 *See Vertical Integration*, pp. 5-19.

8 B. Klein, *The Competitive Consequences Of Vertical Integration In the Cable Industry* (June 1989) (hereinafter *Klein Study*).

tematic discrimination by vertically integrated MSOs as a group against networks among the top 28 in which they do not have an ownership interest."[9] Instead, Klein found that, among the top 28 networks, vertically integrated MSOs were more likely to carry both networks in which they had an ownership interest and other unaffiliated networks. This result is not surprising because one reason for MSO investment in programming services is to improve programming choices on their cable systems, thereby enhancing consumer demand for cable service. A similar conclusion was reached in yet another prior study[10] conducted by the NTIA.[11]

In its 1990 study of the cable industry, the Commission concluded 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.[12]

However, the anecdotal evidence to which the Commission referred largely addressed alleged content limitations in programming contracts and included only one example of alleged discrimination

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9 *Klein Study*, p. 44.

10 National Telecommunications and Information Administration, *Video Program Distribution And Cable Television: Current Policy Issues And Recommendations* (June 1988).

11 Two other studies focused on premium movie channels -- not "basic" services. Salinger, *A Test Of Successive Monopoly And Foreclosure Effects: Vertical Integration Between Cable Systems And Pay Services* (September 1988); Waterman and Weiss, *The Effects Of Vertical Integration Between Pay Cable Networks And Cable Television Systems* (January 1992). *See also* Waterman, Weiss and Valente, *Vertical Integration Of Cable Television Systems With Pay Cable Networks: An Empirical Analysis* (October 1989).

12 *Report to Congress*, p. 5031.

against an unaffiliated "basic" programming service in favor of a service in which the cable operator had an equity interest.[13] Further, the Commission expressly recognized that the *Klein Study* "shows that MSOs do not discriminate against unaffiliated programmers" and acknowledged that the available data were insufficient to demonstrate any "overall" anticompetitive effect.[14]

In this study, I examine the carriage decisions of cable systems in which Liberty Media has an ownership interest.[15] The surveyed systems included nearly 100 headends serving over 1.5 million subscribers.[16] More specifically, I compare in Table I the carriage of "basic" cable programming services in which Liberty Media has an ownership interest[17] by cable systems in which it has an

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[13] *See Report to Congress*, pp. 5027-31. That example involved a commercial dispute and litigation between Jones Intercable and USA Network in which Jones deleted the USA Network "in favor of the proposed TNT programming service -- a service in which Jones ha[d] an equity interest through its investment in TBS..." *Id.*, pp. 5029-30.

[14] *Report to Congress*, p. 5030.

[15] Liberty Media has a majority ownership interest in cable systems serving only approximately 10 percent of the subscribers served by surveyed systems. However, it does have 50 percent ownership interests in systems serving the majority of such subscribers. Nonetheless, it does not manage any of the cable systems in which it has a majority or other ownership interest.

[16] The surveyed cable systems do not include those former Storer cable systems in which Liberty Media holds an indirect limited partnership interest or Intermedia Partners in which it also has a minority limited partnership interest.

[17] The reference to "basic" programming services is intended to include those services which traditionally have been carried by cable operators on "basic" or "expanded basic" tiers as distinguished from "pay" services. This analysis and comparison does not include the "Encore" programming service, in which Liberty Media has a 90 percent ownership interest. Encore is carried on a tier by some cable systems and as a

ownership interest with the carriage of the same programming by all cable systems. Table II compares the carriage of the fifteen largest "basic" cable programming services in which Liberty Media does not have an ownership interest by cable systems in which it has an ownership interest with the carriage of the same programming by all cable systems.

"pay" service by others. It also does not include regional sports programming services in which Liberty Media has an ownership interest for which comparisons with national carriage figures would be inappropriate. Finally, I have not attempted to anticipate any Commission attribution standard and consider only those programming services in which Liberty Media or a subsidiary has an ownership interest.

TABLE I

Carriage Of Programming
In Which Liberty Media Has Ownership Interest

Programming Service	Liberty Media Systems Subscribers	United States Subscribers*
TBS Superstation**	96.8%	100.4%
The Family Channel	98.7%	99.9%
QVC Network	81.4%	78.7%
American Movie Classics	74.8%	75.2%
Black Entertainment TV	59.9%	59.3%
Home Shopping Network	36.2%	36.4%
Home Shopping Network 2	12.1%	19.6%
Video Jukebox/The Box	13.4%	16.4%
QVC Fashion Channel	9.1%	13.1%
Court TV	15.3%	12.2%

* National subscriber figures for individual programming services may include some MMDS, SMATV and HSD subscribers, and hence may exceed 100%.

Sources: Cablevision, Network Subscriber Counts, February 8, 1993, pp. 42-3; National Basic Subscriber Figure: A.C. Nielsen Data, NCTA Cable Television Developments, March 1993, p. 1-A.

** Liberty Media's wholly-owned subsidiary, Southern Satellite Systems, Inc., transmits the signal of WTBS to cable systems as a passive carrier.

Note: When programming services share a channel, each is given a weight of ½, ⅓, ¼, etc. depending upon how many services share the channel.

TABLE II

Carriage Of Basic Cable Networks And Superstations In Which Liberty Media Does Not Have Ownership Interest

Programming Service	Liberty Media Systems Subscribers	United States Subscribers*
ESPN	100.0%	107.4%
Cable News Network	99.3%	106.9%
USA Network	99.3%	105.0%
The Discovery Channel	98.3%	102.8%
Nickelodeon/Nick At Nite	99.2%	102.6%
TNT	99.9%	102.6%
Lifetime	99.4%	101.4%
MTV	99.4%	100.1%
C-Span	95.5%	100.0%
The Nashville Network	93.9%	99.5%
Arts & Entertainment	97.8%	98.0%
The Weather Channel	97.9%	93.3%
Headline News	86.2%	89.9%
CNBC	82.7%	83.4%
VH-1	78.9%	82.3%

* National subscriber figures for individual programming services may include some MMDS, SMATV and HSD subscribers, and hence may exceed 100%.

Sources: Cablevision, Network Subscriber Counts, February 8, 1993, pp. 42-3; National Basic Subscriber Figure: A.C. Nielsen Data, NCTA Cable Television Developments, March 1993, p. 1-A.

Note: *When programming services share a channel, each is given a weight of ½, ⅓, ¼, etc. depending upon how many services share the channel.*

The percentages reported for Nickelodeon include headends that carried Nickelodeon and/or Nick at Nite, which are typically carried on the same channel. The United States subscriber figure was based on the Nickelodeon subscribers, which is greater than the number of Nick at Nite subscribers.

Admittedly, this analysis is much simpler than my prior study of TCI carriage decisions, and, consequently, it does not account for the numerous variables identified in that study. Further, as noted in the tables, at least some of the publicly reported national subscriber figures include subscribers to non-cable distribution media, thereby slightly overstating the actual carriage of such programming services by cable systems.

Recognizing these limitations to my analysis, the results are consistent with the prior analyses of cable-operator basic-network carriage decisions and support the conclusion that cable systems in which Liberty Media has an ownership interest are not discriminating in favor of programming services in which it has an ownership interest or against programming services in which it does not. In Table I, the carriage of the ten national "basic" programming services in which Liberty Media has an ownership interest closely tracks the United States carriage figures. For three of the ten programming services, the carriage by cable systems in which Liberty Media has an ownership interest slightly exceeds the national average -- but by only 0.6 percent, 2.7 percent, and 3.1 percent respectively. Similarly, virtually all cable systems in which Liberty Media has an ownership interest carry the eight largest cable programming services unaffiliated with Liberty Media (Table II). The carriage of the next seven largest cable programming services tracks the national averages but generally is slightly less, probably because of the overstatement in the national totals caused by MMDS, SMATV and/or HSD carriage, as noted

These results are consistent with my prior findings and observations that, although discriminatory behavior could conceivably benefit a vertically integrated firm, the costs "in terms of foregone profits that would otherwise have been earned" would outweigh such benefits:

> In the circumstances of the cable industry...it seems very likely that the benefits of discrimination to the vertically integrated firm would be small or nonexistent, and in any event outweighed by the costs.[18]

Thus, even if cable operators had the ability and incentive to discriminate in their carriage decisions against unaffiliated programming services, the empirical evidence suggests that such incentive is limited and outweighed by the need to meet viewer demand by offering the best programming available. Where, as appears to be typically the case, a cable operator has only a minority interest in a programming service, its incentive is even smaller and the countervailing forces larger.

Under these circumstances, where Congress and the Commission have identified a potential incentive to discriminate but the actual behavior of cable operators consistently has confirmed that such discrimination has not occurred, the Commission should take great care to craft rules which do not adversely affect or limit a cable operator's incentive to invest in new programming services. For example, with respect to channel occupancy limits, the Commission states that:

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[18] *Vertical Integration*, pp. 1-2.

> [O]ur intention is to establish a channel occupancy limit that maximizes the number of voices that are available to cable viewers without impairing the ability or incentive of cable operators to invest in new and existing programming services. In this regard, we note that MSO investment has been essential to the development and continuation of many of the most popular and innovative programming services.[19]

Overly restrictive channel occupancy limits would unnecessarily preclude such investment and foreclose the resulting diversity.

Given the evidence cited in this study and the mounting body of evidence that vertical integration by cable-system owners has not prevented independent basic cable networks from obtaining

The Commission has recognized the crucial role of vertical integration in developing new programming since the 1984 Act. Indeed, with video technology improving at an explosive rate, the limits to viewer choice ultimately will not derive from physical limitations on channel capacity among cable systems, MMDS operations, DBS ventures, or fiber-optic networks. The limitation will be software -- programming. If the Commission unduly limits the ability of the major MSOs to exhibit networks in which they have an interest, it will only reduce the incentives to produce the new