THE ECONOMIC EFFECT OF TELEVISION-NETWORK PROGRAM "OWNERSHIP"*

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There is a marked tendency for students of public regulation to question the necessity for the extensive regulation of public utilities in the U.S. economy. As markets grow, the strength of the "natural monopoly" argument declines, and it is reasonable to ask if market forces could not supplant regulation with beneficial results in terms of economic welfare. Such a question often proves embarrassing to regulators who are hard pressed to demonstrate that their functions are necessary to prevent the evils of monopoly.

In May, 1970, the Federal Communications Commission (the FCC) announced a "Prime-Time Access Rule" which will limit the number of hours of prime-time entertainment programming which television networks may transmit to their affiliates. In addition, this Rule proscribes network invest-

* My initial interest in this area developed when I was retained by the Antitrust Division of the United States Department of Justice in 1967-1968. Data utilized in this study were supplied by the network companies, and I am grateful to them and their counsel for their cooperation. Of course, the opinions and conclusions contained in this paper are my own and do not reflect the views of the Justice Department or of the networks. I am grateful for suggestions of Edwin Kuh in the development of the discriminant analysis below and to Susan Shea and Glenn Robbins for completing the statistical calculations. Support for the empirical work was provided by the Department of Economics at M.I.T.

1 Examples of such works are George J. Stigler & Claire Friedland, What Can Regulators Regulate? The Case of Electricity, 5 J. Law & Econ. 1 (1962); Harold Demsetz, Why Regulate Utilities?, 11 J. Law & Econ. 55 (1968); and Paul W. MacAvoy, The Effectiveness of the Federal Power Commission, 1 Bell J. Econ. & Man. Sci. 271 (1970).

2 Fed'l Communications Comm. (F.C.C.), Report and Order, In the Matter of Part 73 of the Commission's Rules and Regulations with Respect to Competition and Responsibility in Network Television Broadcasting, Docket No. 12782, May 7, 1970, 35 Fed. Reg. 7417 (May 13, 1970) [hereinafter Report and Order]. This final Report was issued after the completion of the first draft of this paper, which was based upon the Commission's earlier Notice of Proposed Rulemaking, Competition and Responsibility in Network Television Broadcasting, 30 Fed. Reg. 4065 (Mar. 27, 1965) [Hereinafter Notice of Proposed Rulemaking]. However, some modifications have been made in the paper since the final policy announced by the Commission was somewhat different from that announced in the Notice of Proposed Rulemaking, id. It should be emphasized that the Commission's announced reasons for adopting the final Rule are identical to the rationale underlying the Proposed Rule.
ment in certain subsidiary interests in such programs. The Rule is the culmina-
tion of a study begun by the Commission’s staff in 1959 which resulted in
the publication of a Proposed Rule in 1965. While the Proposed Rule and
the final Rule differ somewhat in substance, both are supported by the same
reasoning: networks are to be constrained in their direct negotiation with
program suppliers so as to provide these suppliers with more favorable access
to television markets.

Unfortunately, the Commission’s actions in this policy matter have not
been subject to careful, disinterested analysis. The merits of both the Pro-
posed Rule and the final Rule were debated only by those parties directly
involved—the suppliers and the networks—and the outcome of this debate
has been far from satisfactory. The Commission declares that its intention is
to promote greater program quality and diversity, but analysis of its an-
nounced policy leads to the conclusion that the Rule will have little effect
upon either. In fact, its principal effect will be to simply increase the costs
of program distribution.

I. THE SOURCE OF THE PROBLEM: NETWORK ACTIVITIES

*Network functions.* Basically, a network is no more than a broker of local
stations’ time. The network company secures contracts with a number of
geographically dispersed stations for access to their frequencies, and in turn
the network sells to advertisers time in which to convey programs and at-
tached commercial messages over the entire “network” of stations. The net-
work company need not own stations, provide cable or microwave inter-
connection, nor produce programs. It merely must maintain a brokerage office
to bring national advertisers, the buyers, into contact with dispersed licensed
television stations, the sellers, for the purpose of utilizing the stations’ broad-
casting time.

Of course, the three major networks today do not resemble the simple
model of a broker. Networks own television stations, produce programs, and
buy other programs for resale to advertisers, but interconnection services
are still purchased from A.T.&T.\(^3\) I shall not be concerned with the reasons
for network ownership of stations. My primary concern is with the networks’
backward integration into program production and program brokerage. These
functions are now under FCC attack for a variety of reasons.

As licensees of five stations each, the three networks are subject to the

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\(^3\) Even this function may be integrated into network activities if network managers
are unable to persuade the FCC or A.T.&T. to lower the fees for microwave circuits
leased by the networks. As this paper is being written, the network companies are sug-
gest ing that they be given permission to establish their own domestic satellite system for
interconnection of their affiliated stations.
requirement (contained in the Federal Communications Act) that they broadcast in the public interest. This requires the transmission of programs such as national news, local news, documentaries, local features, and other generally nonremunerative programs. As a result, each network has found it necessary to develop its own news and public service programming facilities and staff. Presumably, these functions could be contracted out, but the networks undoubtedly feel that control is more easily maintained through their own organizations. In addition, maintenance of their own facilities probably allows greater flexibility in adapting to unforeseen news events and in assuring fairness in covering various editorial points of view.

While it is not surprising to find networks producing their own news and public-service programming, similar integration into entertainment programming is more difficult to explain. There would seem to be little reason for networks to produce their own westerns or situation comedies for continuing series or to produce motion pictures. Show business would seem to be somewhat alien to a broker of station time, but a glance at the history of the industry will show that networks have always produced some of their own entertainment programs although the past ten years have witnessed a striking decline in network-produced shows. As a substitute for their own productions, networks have turned to outside producers, but in so doing the networks have undertaken a new function—the brokerage of programs.

Program sources. The three basic sources of network entertainment programming are (1) advertisers, (2) independent producers or "packagers," and (3) the networks' own production facilities.

1. Advertisers. Historically, an important source of prime-time series has been the advertiser. An advertiser may arrange to procure his own program series from an independent production company and bring this series to a network for exhibition. In such "advertiser-supplied" series, the advertiser merely pays the network a time rate for access to its interconnected stations, and the network does not intercede in program production details. In practice, an advertiser will usually seek prior network approval before investing heavily in a new series since network exhibition is by no means assured for every series which an advertiser may wish to purchase.

An important aspect of this source of programming is the absence of network financial participation in the initial development of the series or in sub-

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4 Networks, as such, do not have statutory responsibility for broadcast matter. See Office of Network Study, F.C.C., Television Network Program Procurement, 2nd Interim Report, pt. 2, at 200 (1965).

5 Usually, the advertiser and network enter into a one-year contract for the exhibition of such a series. This "first-run" agreement does not constitute "network ownership" in the Commission's view, but apparently a five-year contract between supplying advertiser and the network would constitute network "ownership" of first-run rights.
sequent exploitation of episodes which are shown on the network. The advertiser and the producing company share in the risks and the financial rewards from such series, and the network’s only compensation is from sale of time for the exhibition of the series during its first run.

2. Independent producers. Instead of relying upon advertisers to arrange for their own entertainment programming, networks have begun to contract directly with independent producers or “packagers.” The networks then sell commercial minutes in these “packager-licensed” programs, varying the charge with the expected audience for the programs. Advertisers may purchase one or more commercial minutes in each of a large number of such packager-licensed shows as an alternative to supplying their own programs to the network.

The network’s role in packager-licensed programs is significantly different from that in advertiser-supplied shows. Usually, the network supplies at least part of the risk capital in developing the program format, producing the pilot, and producing the first few episodes. In addition, the network usually obtains the right to exhibit the program series over its facilities for at least five years while the typical agreement between advertiser and network for advertiser-supplied programs is only one year. Finally, the network and packager negotiate for shares in all ancillary revenues which may emerge from a successful series. Thus, a network exposes itself to considerable risk in procuring its programs directly from independent packagers, but in return it may reap very large returns from network exhibition and ancillary rights of the successful series.

3. Network production. Each network is capable of producing entertainment programming of its own although such activity has been diminishing in recent years. Obviously, in network-produced programs, the network underwrites the entire risk and reaps all of the consequent gains (or suffers all of the losses) from the successful (or unsuccessful) shows. As in packager-licensed programs, time is sold to advertisers in these shows by commercial minute, and the price is a function of the expected number of viewers.

Since 1957, the advertiser-supplied program has been declining in relative importance and has almost disappeared as networks have turned to licensing their shows directly from independent packagers. In 1957, advertisers sup-

6 “Packagers” are program-supplying companies. In the industry parlance, “producers” are creative agents employed by packagers.

7 The number of commercial minutes per hour of prime time programming is not controlled by the FCC, but an industry tradition limits the number to six for all prime time programs, except motion pictures, in which there are seven. Advertisers may purchase all of the commercial minutes in any series if they choose, but this form of complete sponsorship of an individual series is declining as advertisers spread their messages among a larger number of series.
plied 36.1 per cent of all prime-time hours of network entertainment programming. Networks produced 23.9 per cent of their own entertainment hours, licensed 39.3 per cent directly from packagers, and secured another 0.7 per cent in a combination of these ways. By 1968, the advertiser-supplied show had declined to only 3.4 per cent of prime-time entertainment hours while packager-licensed programs had risen to a 91.2 per cent share. Networks’ own production of these programs declined to only 4.8 per cent of prime-time hours; the remaining 0.6 per cent were obtained by combination of these means.8

Accompanying this trend toward direct licensing by the networks has been an expansion in their role in the financing, development, brokerage, and subsequent exploitation of programs in all markets. It is this expanded role which alarms the FCC and which requires further analysis.

Program brokerage. Central to the issue posed by the FCC is the networks’ program-broking function. It is this act of intermediation which the Commission sees as severely constraining program packagers and reducing program quality.

Actually, the network is both a broker of and dealer in entertainment programs. It contracts with packagers for nearly all of its prime-time entertainment series and resells time in these programs to advertisers. While it need not make a financial commitment in programs before advertisers indicate their preferences, the network finds it convenient to do so in order to assemble its season’s programs far in advance of their first appearance on the air. Therefore, the network is more than a mere broker of programs for it provides investment capital for program development and commits itself to procurement of programs in advance of sales to advertisers.

The brokerage function of a network has developed slowly over the past decade. In previous years, networks sold time in programs which they produced or procured from outside suppliers. Advertisers might also bring programs to the networks through their advertising agencies, but networks generally dissuaded advertisers from sharing advertising time with more than one other advertiser in any series. In 1957, only 14 per cent of all prime-time entertainment series were sponsored by more than two advertisers.9

Beginning in the early 1960’s, networks began to sell advertising time in series on a “participating” basis, allowing an advertiser to purchase a few one-minute commercial announcements in programs rather than a full season’s commitment to a given program. This development proceeded hand in hand

8 These data may be found in Arthur D. Little, Inc., Television Program Production, Procurement, Distribution, and Scheduling, 5 (1969) [hereinafter Little Report]. Prime time is defined as the hours between 6:00 p.m. and 11:00 p.m., Eastern Time.

9 Little Report, at 21.
with the continuing trend toward packager-licensed programs, for networks could more easily develop such flexibility in sale to sponsors by first obtaining their programming from suppliers. By 1967, networks were selling commercial minutes to three or more sponsors in series accounting for over 90 per cent of their prime-time hours.\textsuperscript{10} Series sponsored by twenty-five or more separate advertisers occupied more than half of the prime-time entertainment hours on the networks in 1967.\textsuperscript{11}

\textit{Program syndication.} All network programs which are recorded on film or videotape have extra-network revenue potential from resales to independent domestic television stations and foreign television networks or stations. Sales of these “reruns” of network programs are referred to as “syndication” sales. In addition, the successful program may be exploited by attaching some of its copyrighted features to merchandise. Licensing of copyrighted features of these programs in such a fashion gives rise to “merchandising” revenues in the parlance of the industry.

Since networks now obtain nearly all of their entertainment programs directly from independent packagers, they may negotiate \textit{ex ante} for a share of the revenues from any of the above sources. In practice, merchandising revenues are not very important, amounting to less than 5 per cent of the net revenues from syndication to the networks in 1967. Therefore, I shall ignore this rather heterogeneous merchandising market in the discussion which follows.

Networks and packagers may obtain income from syndicating network programs in two ways. First, either the networks or the producers may perform the actual distribution and promotion of the syndicated series for a percentage of the gross revenues. These syndication fees vary with the size of the transaction involved and are often different for domestic and foreign sales; but, as with most other parameters involved, the fees are agreed upon by packager and network before the program is ever shown on the network.

As the networks have obtained less of their programming from advertisers, they have had greater opportunity to bargain for the rights to engage in the syndication of programs. But the percentage of total network entertainment hours in which networks have the rights to future syndication has not risen. In 1957, networks had these rights in 30.2 per cent of the entertainment hours currently in network exhibition. This share rose to a high of 35.0 per cent in 1964, but it subsequently declined to 25.9 per cent in 1968.\textsuperscript{12} In practice, the networks claim that they usually forgo these rights if the packager has

\footnotesize{\textsuperscript{10} Id. at 17.}

\footnotesize{\textsuperscript{11} Id. Whether this change derived from advertisers' wishes or was instigated unilaterally by the networks is difficult to determine and irrelevant to the analysis which follows.}

\footnotesize{\textsuperscript{12} Id., at 46. These data may also be obtained from the FCC's Office of Network Study.}
his own syndication organization although some exceptions to this practice do exist.

A second source of revenue from syndication derives from "profit shares" in the programs. These profit shares are obtained from the net revenues from syndication which are merely gross revenues less syndication fees, production "overages," and other costs. Overages are reimbursements to packagers for (unexpected) expenses incurred in production of the original episodes. Besides the networks and the packagers, participants in profits from syndication may include actors, directors, producers, or other creative personnel. In addition, fees for members of theatrical guilds must be deducted before the network and packager are able to claim their shares.

The percentage of all entertainment series currently being exhibited on network television in which networks have a share of syndication profits has risen substantially since 1957. In that year, networks had a profit share from domestic syndication in 36.5 per cent of prime-time hours and from foreign syndication in 37.2 per cent of prime-time entertainment hours. By 1966, these shares had risen to 67.8 for both markets, and they stood at 58.1 and 59.5, respectively, in 1968. Of those shows licensed directly to the networks by packagers, the networks obtained profit shares in nearly 60 per cent in 1968.\(^{13}\)

According to network data reproduced in the Little Report, the three networks' net gain from syndication rights rose from $893,000 in 1960 to $3,509,000 in 1967 while net gain from syndication profit shares rose from $1,054,000 to $4,282,000.\(^{14}\) These "net gains" reflect gross revenues less all costs incurred, including an unspecified allocation of joint administrative costs.

II. THE FCC'S COMPLAINT

In its Proposed Rule and the background studies which preceded it, the FCC took a dim view of the above developments. It saw them as inimical to competition in program supply, syndication, and network broadcasting. Specifically, the Commission argued that:

a) The vitality of competition in program supply has been reduced by the concentration of buyers of programming occasioned by the networks' shift to direct licensing of their prime-time series.

b) Competition has also been reduced in syndication markets as the networks now have "ownership" interests in all but four per cent of network entertainment program hours.

\(^{13}\) Id. at 48, 54.

\(^{14}\) Id. at 64-65.
c) The movement to packager-licensed programming has increased network control over programs.

d) Networks have used their monopsony power in licensing programs to obtain a financial interest in these programs, refusing to grant network exhibition for those programs in which the packager insists upon all syndication and merchandising rights and profit shares.

The Commission stated in the concluding section of the Notice of Proposed Rule-Making that:

We proposed to encourage and increase competitive forces—both creative and economic—in television production and procurement through limitations on the capacity of network corporations to confine network schedules to programs in which they have financial and proprietary interests and through divestiture of networks from domestic syndication and, to some extent, foreign distribution.  

The Commission's Proposed Rule stipulated that:

i. Networks be forbidden to obtain syndication rights or profit shares in any program not produced by them.

ii. Networks be forbidden to distribute programs which they produce to domestic syndication markets or to retain profit shares from domestic syndication. They would be forced to sell their rights to domestic syndication to another entity, but they would be permitted to distribute their own programs in foreign markets.

iii. During prime time, networks be required to obtain at least 50 per cent of their entertainment program hours from sources other than their own production facilities or direct licensing from packagers. (In terms of the discussion in Section I, above, this would require that at least 50 per cent of programs be advertiser-supplied or be placed through some other broker.)

The Commission did not adopt the "50-50" aspect of its Proposed Rule, because it apparently accepted ABC's argument that it would be disadvantaged by the requirement of obtaining fifty per cent of its prime-time entertainment programs from advertisers or other brokers. Instead, it chose to adopt a proposal first advanced by Westinghouse, a large supplier of syndicated television programs, which limits stations in three-station markets to three hours of network entertainment programs in prime time. Specifically, the "Prime Time Access Rule" states that after September 1, 1971:

... no television station, assigned to any of the top 50 markets in which there

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15 Notice of Proposed Rulemaking, supra note 2, at 4071.
16 The text of the Proposed Rule may be found in Notice of Proposed Rulemaking, supra note 2, at App. A, or in Arthur D. Little, Inc., Television Program Production, Procurement, and Syndication, App. A. (1966).
17 Report and Order, supra note 2, at 7418.
are three or more operating commercial television stations, shall broadcast network programs offered by any television network or networks for a total of more than three hours per day between the hours of 7:00 p.m. and 11:00 p.m. local time, except that in the central time zone the relevant period shall be between the hours of 6:00 p.m. and 10:00 p.m.\textsuperscript{18}

Stations are also forbidden from scheduling syndicated programs which are merely reruns of old network shows, and they are not permitted to schedule motion pictures previously shown on television. It is the Commission's desire that the stations procure their programs from the "first-run" syndication market.

The Commission adopted the proscriptions on network investment in syndication rights and profit shares (i. and ii. above) believing that these provisions will further strengthen independent producers of television programs. The logic (and even the language) which supports these aspects of the new policy is identical to that found in the Proposed Rule.

III. An Evaluation of the FCC Rule

The paucity of national television networks and the lack of diversity in programming which emanates from a three-network market are attributable to the FCC allocation of the electromagnetic spectrum. A large percentage of the nation's television homes are unable to receive four commercial signals; therefore, a fourth network cannot hope to compete with the existing three firms. Given that program costs dominate total network costs, a fourth network would be forced to incur costs per home greatly in excess of those of its rivals and considerably above average revenues per home.

Without a large number of national television services, the programs chosen for exhibition by the networks do not admit of great variety. Rivalry among the networks is focused upon maximization of audience share, and this cannot be achieved by catering to the interests of small minorities.\textsuperscript{19} Programs which might be chosen by a profit-maximizing network in the face of rivalry from, say, ten or twenty rivals will not be chosen when the networks are only three in number.

Given this widely-accepted structural explanation for the absence of program diversity, why has the FCC chosen to attack the route by which

\textsuperscript{18} \textit{Id.} at 7418.

\textsuperscript{19} There is a rather extensive literature on this subject. See, for example, Peter O. Steiner, Program Patterns and Preferences and the Workability of Competition in Radio Broadcasting, 66 Q.J. Econ. 194 (1952); Jerome Rothenberg, Consumer Sovereignty and the Economics of Television, 4 Studies in Public Communication 45 (1962); John J. McGowan, Competition, Regulation and Performance in Television Broadcasting, Wash. U.L.Q. 499 (1967).
programs reach the networks or stations rather than by examining means to
increase the number of channels available to most viewers? Will the FCC's
Rule have the effect of increasing program diversity and of making the syn-
dication markets more competitive?

Program diversity on the networks. The Commission's argument that net-
works' direct licensing of programs reduces the variety and "quality" of
entertainment programming derives largely from an illusion about the willing-
ness of advertisers to commit resources to inefficient promotion and from a
rather romantic and nostalgic view of times past. The Second Interim Report
is laced with allusions to the U.S. Steel Hour, Studio One, Armstrong Circle
Theater, and ALCOA Presents. 20 These programs have disappeared in part
because the advertisers are no longer able to obtain network time for them,
the Commission argues. Networks, driven by their desire to maximize profits,
are unwilling to schedule such quality programs themselves. The inescapable
conclusion, according to the Commission, is that diversity would be served by
forcing networks to rely heavily upon advertiser-supplied programs once
again.

Unfortunately, the Commission's logic is faulty in a very elementary way.
If advertisers wish to subsidize "quality" programming through much higher
costs per viewer reached, why have they not made this demand felt from
among the networks' packager-licensed programs? If these quality shows
were remunerative to the networks, would they, in their quest for profits,
forgo them for mediocre westerns or situation comedies? For instance, why
did ABC fail to continue ABC Stage '67, a program which the Commission
must have found most appealing? The answer is to be found in advertisers'
demand for the show which averaged but 5.6 million homes, or 20 per cent
of those watching network television at the time, in the Fall of 1966. 21 No
large advertiser demonstrated its desire to support such a program by de-
fraying the networks' opportunity cost, not U.S. Steel, Armstrong Cork
Company, nor ALCOA. There are many similar examples which could be
listed, and they lead to the inescapable conclusion that advertisers are un-
willing to pay perhaps $6 or $7 per thousand homes per commercial minute
for "quality" entertainment when more common shows are available at $3.50
to $4 per thousand.

But if the Commission is correct in its assertion that the number of truly

20 Much of the 2nd Interim Report is devoted to summaries of the testimony obtained
from advertisers, producers, directors, and actors. Not surprisingly, many of these indi-
viduals placed the responsibility for the decline in "quality" programming upon the
networks (Chapters X through XII).

21 Amer. Research Bur., Network Television Target Audience, 1966 issues. Interest-
ingly, the FCC has acknowledged that this program, though of commendable quality,
resulted in a net loss of $4 million to ABC (P&F Radio Reg. 10 RR 2d 289).
fine dramatic shows has accompanied the decline in advertiser-supplied programs, how can such a trend be explained? The answer would appear to lie in the opportunity costs of the medium. It was not until 1953 that half of the nation’s homes were equipped with a receiver. At present more than 95 per cent have at least one set and another 30 per cent have at least two sets, but the number of networks has remained at three. As a result, the value of network time has increased enormously, and this fact in combination with increasing production costs makes philanthropy a very costly policy for an advertiser on today’s network television. In the early 1950’s such firms as U.S. Steel, ALCOA, and Reynolds Metals were among the nation’s largest television advertisers, but they have reduced their network advertising in recent years, perhaps realizing that nationwide network advertisements, purchased at a cost of $30,000 to $60,000 per minute, are not the most efficient means of promoting the sale of metal producers’ goods.

There may be a germ of validity in the Commission’s charge in the Proposed Rule. While advertiser-supplied shows could not reach the networks without network scrutiny and approval, networks did not oversee every production when advertisers supplied programs. Producers, writers, and actors are understandably uneasy about the current trend, for networks are likely to participate more in creative details when purchasing programs directly. Since there are but three networks, this possibility of informal censorship is a serious matter.

But no one should be deluded into thinking that the networks would agree to exhibit an advertiser-licensed program which promised to attract significantly less than one-third of the total network audience during prime time. The mere exhibition of such a series would reduce the value of all succeeding shows on that network during the same evening because of the carryover effect of audiences in television. Once a viewer turns from a given network’s program, it is difficult to attract him back to that network for the rest of the evening. As a result, advertisers would not only have to contribute more resources per viewer in order to place a “quality” show on a network, but they would have to promise the network greater net revenue than it could obtain from a typical western or situation comedy in order to compensate it for later lost revenues. It is for this reason that networks usually offer their programs.

22 Television Factbook, 1968.

23 Id.

24 In 1968, these three firms spent only $8.3 million—or less than the cost of the sponsorship of a single hour series for a season—on all television. Network expenditures were $5.9 million. Only Reynolds, accounting for $6.4 million of the above total, shows an increase in television advertising in recent years. U.S. Steel has completely abandoned this medium, and ALCOA spent but $1.9 million in 1968. Television Bureau of Advertising, 1968 Spot TV expenditures; and TVB News, Feb. 24, 1969.
sacrifices to the FCC's appetite for public service programming during the last hour of prime time.

_Competition in program supply._ Even more puzzling is the Commission's fear that program production is becoming concentrated as a result of networks' control of program brokerage. In its _Notice_, the Commission concludes:

...it is not desirable for so few entities (the networks) to have such a degree of power with respect to what the American public may see and hear over so many television stations. ...This intense concentration of power decreases the _competitive opportunity_ for independent program producers. ...25

At another point, the Commission cites the decline of new pilot films as a sign of decreasing competition in program supply due to the difficulty in dealing with network monopoly power.26 The Commission fears that a decline in the number of producers will reduce syndication programming, the staple of independent new UHF stations. Given the networks' purchasing power and their insistence upon syndication rights and/or profit shares, independent producers' viability is threatened.

Without anticipating examination of the question of bargaining for syndication interest in network programs, it might be useful to examine market concentration in the program-supplying industry. According to the Little Report, the number of producers of television programs increased from 91 to 108 in the period 1958-1967 but receded to 97 in 1968.27 Producers of network programs have declined from 75 to 57 in that period.28 Utilizing data derived from Broadcasting, I find that the number of suppliers of prime-time network entertainment programs declined from 54 to 49 from 1958 to 1967, but I would hardly interpret this reduction as an omen of declining competition.29 Moreover, rarely does one supplier have as much as 10 per cent of the market in a given year, and these market shares are extremely volatile over time.

Such a simple measurement of producer activity can be quite misleading since the sources of programming for network and syndication markets are those which supply films for any of a variety of entertainment media. A production organization is merely a collection of various creative agents, and

25 _Notice of Proposed Rulemaking, supra_ note 2, at 4070-71. [Emphasis supplied.]
26 _Id._ at 4067.
27 _Little Report, supra_ note 8, at 94.
28 _Id._
29 It is impossible to detect joint ownership or control of program-supplying companies; therefore, I cannot assert that these data reflect the number of independent sources of prime time programs. It should be noted, however, that the most important reason for the observed decline is the increasing average length of programs. There were fewer program series in 1967 than in 1958.
this organization need not have any sizable investment in tangible production capacity similar to that required for manufacturing firms. Companies may be organized for producing a single motion picture or television series in a few months and expire shortly after the completion of this single task. Production facilities can be leased from a wide variety of sources in any of a number of countries for the particular property to be filmed or taped. Creative inputs exist and thrive regardless of whether the network licenses its product directly or relies upon advertiser-supplied programs. The number of hours of programming produced for television is not so much a function of network decisions as of FCC decisions regarding the number and distribution of licensed stations, CATV systems, and pay-TV outlets.

But even if the degree of competition among producers were a function of some parameter which the network can control, why should any network wish to concentrate its purchases among a few producers or to act in such a way as to drive others from the industry? Does the Commission seriously believe that the networks would create market power—even if that were possible—among the suppliers of their most important input?

Network participation in syndication revenues. Perhaps of greater importance in the FCC's complaint is the assertion that networks use their buying power to obtain rights and profit shares in program syndication. In the Second Interim Report, the Commission's Office of Network Study argues:

Despite th[e] assertions by network managers, it seems unlikely that their financial or proprietary interest in a program series may not, in many cases, be a determining factor in its choice for network exhibition . . . But, assuming normal commercial motives on the part of network managers, this in and of itself might dictate an interested choice by network managers between programs of apparently similar worth as schedule components. It would seem . . . that strong economic motives exist to impel the choice by network managers of those programs for exhibition in which they have acquired financial interests, the ultimate value of which may be determined or enhanced merely by such a choice.\

The Commission's Notice makes the same argument:

While it has been contended that this [financial] interest is not a substantial factor in program choice, it must be recognized that financial participation by network corporations in any proposed program may well be the decisive factor in its selection for network exhibition.

The argument is a familiar one to students of industrial organization: firms with market power use their power, often through tying arrangements, to obtain power in an adjacent market. But the charge is even more extreme,

30 2nd Interim Report, at 741.
31 Notice of Proposed Rulemaking, supra note 2, at 4071.
for the network company not only insists upon "financial participation" in programs which it exhibits, but apparently succeeds in obtaining these interests at little or no cost. The Commission states that:

Direct sale to sponsors had economic advantages for independent producers. Sponsors only occasionally acquired or shared in syndication, foreign sales or other subsidiary rights. These rights usually were retained by independent producers and constituted valuable commercial assets which contributed to their economic stability and viability. The importance of the retention of these rights to the financial stability of independent producers is supported by the testimony of producers that in many, if not most, instances they do not recover their initial production costs from the network run of a program series but must look to syndication and foreign sales to "make them whole" and to show a profit.32

Thus, the Commission was proposing to allow these producers to sell a large share of their output to advertisers who generally forswear syndication interests and rescue the suppliers from their impoverishment.

The danger of network ownership of residual rights is thus seen to derive from two quite different phenomena:

1. Networks will gain control of an important source of supply of programs for struggling UHF stations. Since the Commission is relying upon the proliferation of these UHF outlets to provide the basis for the entry of new networks, it sees this control over the supply of syndicated programming as a threat to future network competition.33

2. The networks' insistence upon syndication interests is leading to the financial ruin of program suppliers—the very backbone of program diversity. If networks are not prohibited from exerting their monopsony power in dealing with program suppliers, viewers will suffer a further reduction in quality programming as suppliers are forced to exit from the industry.

1. The control of syndication programs. This aspect of the Commission's charge requires serious consideration, for if networks are gaining monopoly power in syndication markets, it is possible that the number of UHF stations able to operate profitably will decline. But once more the imprecision of the Commission's analysis leads it to unsupported conclusions.

As mentioned above, syndication interests take two forms—distribution rights and profit shares. Networks claim that they do not obtain distribution rights in cases in which the program supplier has a distribution subsidiary, but exceptions do exist. Nevertheless, the three networks' degree of market control is hardly staggering. The three network companies have obtained distribution rights in only 28 per cent of their prime-time entertainment-series

32 Id. at 4067.

33 Perhaps the recent change in FCC policy towards cable television systems will change this emphasis. See note 18, supra.
hours in ten years through 1968.34 As a result, the networks have accounted for less than one-fourth of all syndication sales in this period. If the Commission believes that this degree of market concentration is likely to lead to a reduction in syndicated-program supply, its decision to curtail network distribution activity is justified, but this does not imply that network ownership of profit shares must also be reduced.

The ownership of profit shares entitles networks to share in the residual gain from program syndication. There is no evidence that this investment allows the networks or other participants to exert control over the distribution of these programs. Since the average network profit share is considerably less than 50 per cent for those series in which it has interests, it seems unlikely that such control could be exercised. Nonnetwork distributors exist in large numbers, and they are not likely to be dissuaded from competing simply because the networks are entitled to a share of residual profits.35

From all appearances, the syndication market appears to be quite competitive. In addition to the old network series, there are “first-run” syndication programs which are distributed by perhaps forty or fifty firms. At least twelve distributors—including the network subsidiaries—actively compete in the sales of old network series. As long as networks avoid accumulating the distribution rights in a large share of their prime-time programs, they will not gain market power in syndication. The networks must realize this and it may be that their fear of antitrust action has led them to be cautious in this respect.

2. Program suppliers and network bargaining power. The Commission's notion that the networks exert monopsony power to a degree which imperils the financial stability of their suppliers is a curious one for several reasons. First, it seems contradictory to observe that the number of independently produced television series is increasing at a time when networks are setting prices too low for suppliers to cover their costs. Second, it is unlikely that networks would wish to see the number of program suppliers decline, given the importance of maintaining an uninterrupted flow of programs for exhibition. Finally, it is not clear how monopsony power can be exerted without reducing the quantity of programs demanded, but such a reduction has not occurred.36

34 Little Report, supra note 8, at 46.
35 The Commission may well be acting against the interests of program suppliers if it refuses to allow networks to include profit shares in their portfolios of income-earning assets. This restriction might restrict the ability of small program suppliers to defray some of the risk of producing programs by selling future, risky returns for guaranteed present payments.
36 The number of regularly-scheduled entertainment series hours in prime time has been increasing since 1958—rising from 69¾ hours to 74 hours in 1965, but dropping
An alternative and more likely explanation of the networks’ investment in ancillary interests in programming is that they simply buy such interests by paying higher costs per program. If networks pay suppliers for their syndication interests, what will be the effect of prohibiting such investments? Clearly, it will be to lower the prices paid by networks to producers for their programs. Will it lead to a change in network program decisions? The Commission charges that networks currently favor programs in which they (the networks) own syndication interests—apparently on the mistaken notion that these interests are obtained at prices below their present value. Can such a “preference” be proven? The Commission only asserts the hypothesis; it does not attempt to substantiate it. It is, however, possible to test this theory from evidence currently available to the Office of Network Study.

Each fall, the networks launch a new season of prime-time programs. Some of these programs are retained from previous years while others are new series. With the data on each program series which the networks submit to the FCC, it should be possible to discern if ownership of syndication interests affect the networks’ retention decision.\(^\text{37}\) These data include:

\[ X_1 = \text{average number of homes viewing the program during the year, expressed as a percentage of total television homes.} \]

\[ X_2 = \text{a dummy variable indicating network ownership of distribution rights. } X_2 = 1 \text{ if the network owns the foreign or domestic distribution right or both. } X_2 = 0 \text{ if the network owns neither distribution right.} \]

\[ X_3 = \text{the percentage of profits from syndication (“profit shares”) which accrue to the network company.} \]

Observations are available for all regularly-scheduled prime-time series scheduled for exhibition in the November Composite Week in 1960-1965. I have divided the programs for each year into two categories: “retained”—those programs which were continued into the next fall season; and “dropped”—those programs dropped by the network before the next year’s fall season. The purpose of the statistical analysis which follows is to detect the effect of \( X_2 \) (distribution rights) and \( X_3 \) (profit shares) upon program-series

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\( \text{slightly to } 73\% \text{ in } 1968. \text{ Some of these hours (approximately } 20\% \text{) are now given to exhibition of motion pictures, but these films are bought from a subset of the entire program-supplying industry. Moreover, some of these motion pictures are produced for initial exhibition on television, and other prime-time series are similar to motion pictures in length and artistic nature.} \)

\( \text{37 These data were supplied to the author by the networks for the purpose of this study since information on program ownership is proprietary in nature and could not be released by the FCC to outside persons.} \)
survival. If the Commission’s hypothesis is valid, a program is more likely to appear in the “retained” category if \( X_2 = 1 \) or if \( X_3 \) is large than if \( X_2 = 0 \) or \( X_3 \) is small or zero.

The first statistical test utilized is simple analysis of variance in order to discover if an hypothesis of equal average values of \( X_3 \) for retained and dropped series may be rejected. The test is performed upon each network’s data for each year (18 comparisons) and for the three networks’ pooled data for each year (6 comparisons). Only the latter results are reproduced in Table 1; the individual-network results appear in the Appendix.

As might be expected, the average audience size for retained series is significantly larger than that for series which were dropped the following season. The results for profit shares are quite different, reflecting little significant difference in average network ownership in the two classes of programs. In only one year (1961) is the network profit share difference significant at the five per cent level, and in this instance the average network profit share in the dropped series is larger.

The appropriate test for difference in distribution rights is the Chi-square test on the relative frequency of network ownership of domestic or foreign distribution rights (or both) in the retained versus the dropped series. These results appear in Table 2.

Once more, the results do not confirm the Commission’s hypothesis. In only one of six comparisons is it possible to reject the hypothesis that the relative frequency of network ownership of rights was equal for both categories, and in that year (1960) the proportion of programs in which the networks owned distribution rights was higher for dropped shows than for retained shows.

These results augur poorly for the hypothesis that network syndication interests affect network retention decisions but it is still possible that ownership of rights or profit shares affect the retention decisions for programs of given audience acceptance. In order to investigate this possibility, it is necessary to introduce all three variables into an analysis of covariance or to utilize discriminant analysis.

Our choice for this more sophisticated task is linear discriminant analysis. The object is to obtain from the data that function

\[
Y = l_1X_1 + l_2X_2 + l_3X_3
\]

which discriminates best between retained and dropped series. The \( X \)’s have been defined above and the \( l \)’s are coefficients to be estimated from the inverse of the pooled dispersion matrix of the values of the \( X \)’s. The measure of the discriminating power of each function is the Mahalanobis \( D^2 \) which is defined as the square of the difference between the mean value of \( Y \) for retained shows, and the mean value of \( Y \) for dropped shows:

\[
D^2 = [\overline{Y}_r - \overline{Y}_d]^2 = [l_1(\overline{X}_{1r} - \overline{X}_{1d}) + l_2(\overline{X}_{2r} - \overline{X}_{2d}) + l_3(\overline{X}_{3r} - \overline{X}_{3d})]^2
\]
| Year | Retained Series Mean X1 | Dropped Series Mean X1 | Difference X1 | F Value | Mean X3 Retained Series | Mean X3 Dropped Series | Difference | F Value |
|------|-------------------------|------------------------|---------------|---------|--------------------------|------------------------|------------|---------|
| 1960 | 21.45                   | 15.07                  | 6.38          | 40.6**  | 22.67                    | 26.96                  | -4.29      | 0.7     |
| 1961 | 21.35                   | 15.43                  | 5.92          | 54.0**  | 17.58                    | 27.26                  | -9.68      | 4.3*    |
| 1962 | 21.69                   | 14.51                  | 7.18          | 41.0**  | 20.36                    | 25.67                  | -5.31      | 1.0     |
| 1963 | 21.58                   | 15.07                  | 6.50          | 46.5**  | 19.00                    | 25.65                  | -6.65      | 1.7     |
| 1964 | 21.51                   | 15.49                  | 6.02          | 66.3**  | 21.61                    | 21.27                  | 0.33       | 0.0     |
| 1965 | 21.29                   | 15.29                  | 6.00          | 64.6**  | 25.28                    | 25.09                  | 0.18       | 0.0     |

* Significant at 5 per cent level.
** Significant at 1 per cent level.
where the bars over the variables denote mean values and the subscripts \( r \) and \( d \) denote retained and dropped series, respectively. A test of the significance of each discriminant requires the construction of the following \( F \) statistic:\(^{38}\)

\[
F_{k,n_r+n_d-k-1} = D^2 \cdot \left[ \frac{n_r n_d (n_r + n_d - k - 1)}{k (n_r + n_d) (n_r + n_d - 2)} \right]
\]

where \( n_r \) = number of observations in the sample of retained programs
\( n_d \) = number of observations in the sample of dropped programs
\( k \) = number of variables in the discriminant.

In order to measure the incremental contribution of \( X_2 \) or \( X_3 \), holding constant, it is necessary first to estimate the discriminant which utilizes \( X_1 \) only and then to add \( X_2 \) and \( X_3 \) separately and, finally, together. Table 3 contains the results for the pooled three-network sample for each of the six years 1960-1965.

Once more, it appears that the network retention decision is not influenced greatly by the ownership of distribution rights or profit shares. In none of the six years does \( X_3 \) add significantly to the discriminating power of the linear discriminant. Distribution rights, \( X_2 \), contribute significantly to this discriminating power in four of six years—two at the one per cent level and two at the five per cent level—but in three instances the sign of the coefficient of \( X_2 \) is negative, implying that the program is more likely to be dropped, \textit{ceteris paribus}, if the network owns the distribution right.

The individual network discriminant results, appearing in detail in Ap-

\(^{38}\) See, Calyampudi Radhakrishna Rao, Advanced Statistical Methods in Biometric Research 252 (1952), for a detailed presentation of this technique.
# TABLE 3
L**E**AR **D**ISCRIMINANT **A**NALYSIS—**P**ROGRAM **R**ETENTION **D**ECISION

| Year | Discriminant No. | Variable | Coefficient | Mahalanobis D² | F Value |
|------|------------------|----------|-------------|----------------|---------|
| 1960 | 1                | X1       | 0.4206      | 7.193          | 112.2** |
|      |                  | X2       | -1.531      | 9.712          | 74.6**  |
|      |                  | X3       | -0.01020    |                |         |
|      | 2                | X1       | 0.4302      |                |         |
|      | X2               | -1.531   | 9.712       | 74.6**         |         |
|      | X3               | -0.01020 |             | 95.8**         |         |
|      | 3                | X1       | 0.4202      | 7.415          |         |
|      |                  | X3       | 7.415       | 95.8**         |         |
|      | 4                | X1       | 0.4298      | 9.873          | 49.7**  |
|      |                  | X2       | -1.507      | 9.873          | 49.7**  |
|      |                  | X3       | -0.008086   | 95.8**         |         |
| 1961 | 1                | X1       | 0.5530      | 10.730         | 182.2** |
|      |                  | X2       | -1.523      | 13.403         | 112.1** |
|      | X3               | 0.1510   |             | 112.1**        |         |
|      | 2                | X1       | 0.6065      | 13.403         |         |
|      |                  | X2       | -1.523      | 13.403         | 112.1** |
|      |                  | X3       | 0.1510      | 112.1**        |         |
|      | 3                | X1       | 0.5428      | 11.460         |         |
|      |                  | X3       | -0.01760    | 11.460         |         |
|      | 4                | X1       | 0.5968      | 13.638         | 74.87** |
|      |                  | X2       | -1.407      | 13.638         | 74.87** |
|      |                  | X3       | -0.009829   | 13.638         |         |
| 1962 | 1                | X1       | 0.3778      | 7.350          | 114.7** |
|      |                  | X2       | 0.1510      | 7.374          | 56.6**  |
|      |                  | X3       | -0.003044   | 7.371          |         |
|      | 2                | X1       | 0.3769      | 7.374          |         |
|      |                  | X2       | 0.1510      | 7.374          |         |
|      |                  | X3       | -0.003044   | 7.371          |         |
|      | 3                | X1       | 0.3761      | 7.371          |         |
|      |                  | X3       | -0.003044   | 7.371          |         |
|      | 4                | X1       | 0.3726      | 7.437          | 37.4**  |
|      |                  | X2       | 0.2870      | 7.437          | 37.4**  |
|      |                  | X3       | -0.006035   | 7.437          |         |
| 1963 | 1                | X1       | 0.4095      | 9.442          | 147.4** |
|      |                  | X2       | -0.07632    | 9.450          | 72.6**  |
|      |                  | X3       | -0.01390    | 9.450          | 72.6**  |
|      | 2                | X1       | 0.4096      | 9.450          |         |
|      |                  | X2       | -0.07632    | 9.450          | 72.6**  |
|      |                  | X3       | -0.01390    | 9.450          |         |
|      | 3                | X1       | 0.4074      | 9.922          | 76.2**  |
|      |                  | X3       | -0.004223   | 9.922          |         |
|      | 4                | X1       | 0.4062      | 10.022         | 50.5**  |
|      |                  | X2       | 0.3207      | 10.022         |         |
|      |                  | X3       | -0.01766    | 10.022         |         |
| 1964 | 1                | X1       | 0.7342      | 19.551         |         |
|      |                  | X2       | -0.9829     | 21.434         |         |
|      |                  | X3       | -0.004223   | 21.434         |         |
|      | 2                | X1       | 0.7388      | 21.434         |         |
|      |                  | X2       | -0.9829     | 21.434         |         |
|      |                  | X3       | -0.004223   | 21.434         |         |
|      | 3                | X1       | 0.7352      | 19.594         |         |
|      |                  | X3       | -0.004223   | 19.594         |         |
|      | 4                | X1       | 0.7384      | 21.442         |         |
|      |                  | X2       | -0.9966     | 21.442         |         |
|      |                  | X3       | 0.001762    | 21.442         |         |
TABLE 3 (Continued)
LINEAR DISCRIMINANT ANALYSIS—PROGRAM RETENTION DECISION

| Year | Discriminant No. | Variable | Coefficient | Mahalanobis $D^2$ | $F$ Value |
|------|------------------|----------|-------------|------------------|----------|
| 1965 | 1                | X1       | 0.5986      | 12.886           |          |
|      | 2                | X1       | 0.6108      | 13.906           |          |
|      |                  | X2       | 0.8140 #    |                  |          |
|      | 3                | X1       | 0.6048      | 13.168           |          |
|      |                  | X3       | 0.01033     |                  |          |
|      | 4                | X1       | 0.6127      | 13.9614          |          |
|      |                  | X2       | 0.7528      |                  |          |
|      |                  | X3       | 0.004728    |                  |          |

**Significant at 1 per cent level.

# Addition of new variable significantly increases discriminating power at 5 per cent level.

## Addition of new variable significantly increases discriminating power at 1 per cent level.

pendix Table 3, lead to a similar conclusion. A summary of these results appears as Table 4 below.

Of 72 separate additions of either $X_2$ or $X_3$, only 6 provide a significant increase in the explanatory power of the linear discriminant and possess the positive sign required to support the Commission's hypothesis. Ten additional comparisons provide a significant increase in $D^2$ but with a negative coefficient. Fifty-six of the seventy-two additions provide no significant increase in explanatory power, providing strong support for the theory that the value of residual rights is capitalized into program purchase prices and that these rights do not affect the retention decision.

In both the pooled and individual-network results, the coefficients of $X_2$ and $X_3$ are more frequently negative than positive. This slight inverse rela-

TABLE 4
SUMMARY OF LINEAR DISCRIMINANT ANALYSIS OF THE RETENTION DECISION—INDIVIDUAL NETWORKS

| Discriminant Number | Variable Added | Number of Comparisons | Number of Significant Additions to $D^2$ |
|---------------------|----------------|-----------------------|----------------------------------------|
|                     |                |                       | Positive Coefficient @5% @1% Negative Coefficient @5% @1% |
| 2                   | $X_2$ to $X_1$ | 18                    | 2 0 0 2                                 |
| 3                   | $X_3$ to $X_1$ | 18                    | 1 0 1 2                                 |
| 4                   | $X_2$ to $X_1$ and $X_3$ | 18                | 1 2 0 1                                 |
| 4                   | $X_3$ to $X_1$ and $X_2$ | 18                | 0 0 2 2                                 |
tionship between syndication interests and the probability of retention, particularly for X2 in the early years of the sample, is somewhat puzzling. A possible explanation might lie in the magnitude of the network's investment in these rights as reflected in the prices per network episode paid to suppliers. The value of the distribution right in a marginal program may not be sufficiently large for the network to view continued investment in the program series as an attractive alternative. In the 1960-1963 period, the profits from distribution fees were quite small, and the present value of distributing a mediocre series in syndication markets might have been less than the cost of these rights which was built into the networks' program payments.

The discriminant analysis should be rather conclusive evidence that network ownership of profit shares or distribution rights did not increase the likelihood of annual renewal of a program series. This is not surprising if networks pay for these syndication interests through higher initial program prices. A program of average success on the network and in which the network has syndication interests is not likely to be more attractive than another program of equal success in which the network has no interests because the former's cost per episode shown on the network is likely to be higher than that of the latter. Indeed, the above results show that in some instances ownership of the syndication right may upon occasion increase the chance of a program's rejection. The Commission's theory of supplier exploitation simply is not supported by the evidence.

The limitation of network prime time programming. If a fourth network cannot survive due to the spectrum allocations made by the FCC, might the Commission's "Prime Time Access Rule" be the answer to creating greater competition among program sources? The answer is decidedly in the negative.

The effect of limiting "network" offerings to stations to three hours in prime time is quite predictable. There will be approximately ten and one-half hours of prime time per week available to the syndication market on the three network affiliates in each market. These hours will be filled by program matter which is fairly similar to that offered by the networks at present, but it will involve slightly lower production costs per hour of programming. Since there are obvious economies to distributing the same program to a large number of outlets, the programs broadcast across the nation's major television markets during these hours will be virtually identical. The ten and one-half hours available will be filled by not much more than ten and one-half hours of syndicated programs during any season. Production costs dominate the total costs of distributing television programs on networks or off, and the economies of large scale available from simply distributing the same film or tape across several hundred markets will inevitably lead to the same type of market "control" so decried by the Commission. An interesting question will
arise when a syndicator discovers that he can more economically distribute his one-hour program via microwave than by printing several hundred prints of it. Will the Commission deem him to have become a “network”? Or will they be forced by their own logic to require him to use the more expensive form of distribution?

That the Commission may be diverting resources from production of entertainment programs to more costly means of distribution is not the only disturbing possibility. National sale of programs through networks allows considerable economies in selling commercial time to sponsors. If advertisers must now arrange their purchases for these ten and one-half hours through regional or local brokers, their transactions costs will certainly rise. The combined effect of both of these phenomena can only be to lower the marginal value of program material broadcast by the stations which are governed by the new policy.

Will the increase in the number of separate programming transactions among suppliers and stations increase diversity? It is difficult to see how such a result can be obtained as long as the policy does not provide additional outlets in most markets. Station managers will be subject to the same market forces which faced network executives, who merely provided brokerage for them. As long as there are no more than three stations in most markets, the most profitable programming will continue to be similar to that provided by three networks.

Unfortunately, what the Commission has done is simply to divide prime time among two groups of “networks”—the current three networks and the new syndication “networks” which will fill the hours vacated by the current brokers. Is this an effective means of dealing with market power? If so, the Commission might consider the possibility of limiting each network to the distribution of one prime time hour per week. There could then be 75 “competing” networks.

Perhaps the Commission’s notion of “competition” was formed from reading an early antitrust case decided in Great Britain in 1815. Two coachmasters agreed to divide their market temporally, each offering service on different days of the week. The court found that the agreement was not in restraint of trade, for it argued that the division of custom in this fashion was

39 As this paper is being published, the FCC is faced with the embarrassing situation of having prescribed a maximum of three hours of network broadcasting during a three and one-half hour period. This provides a real possibility of increased network concentration during one hour. Two networks may broadcast from 7:30 to 10:30 p.m. and the third may broadcast from 8:00 to 11:00 p.m. Informed of this possibility (or probability), the FCC is now trying to persuade all three networks to broadcast from 8:00 to 11:00 p.m. daily except Sunday.

40 Hearn v. Griffin, 2 Chit. 407 (1815).
merely a convenient means of ordering the market. Of course, each coach-
master had a monopoly during a particular period, but travelers could
choose to substitute against his service by simply waiting for a day or two to
pass. In the case of network television, dividing prime time up among separate
groups of three oligopolists would have a similar effect. The only alteration in
network programming practices would derive from the absence of effects of
programming decisions in given hour upon audiences in other hours, but this
would only lead to less diverse programming. Networks would not be con-
cerned that their additional hour of situation comedy might reduce the au-
diences for other networks’ situation comedies.

IV. SUMMARY AND CONCLUSIONS

The failure of the F.C.C. to understand the economic rationale for the
shift in network programming practices has led it to formulate a prime-time
rule which can have no beneficial effect upon program quality or diversity.
The networks have turned to direct licensing of their programs in order to
serve as brokers for advertisers so that small and large advertisers alike may
obtain national network exposure. In doing so, the network companies have
simply increased the demand for their services.

The Commission foresees a variety of dangers in these developments which
are based upon fundamental misconceptions of the nature of large buyer-
small seller transactions. The large networks cannot avoid paying the op-
portunity costs of program inputs even if these inputs are purchased from
small firms, but the myth of large-firm exploitation looms large in the Com-
misson’s rhetoric.

The promulgation of the “Prime Time Access Rule”—requiring networks to
limit direct licensing of program series and to forewarn domestic syndication
interests in programs—will have little beneficial effect upon the parameters
which the Commission deems important: network program diversity, com-
petition among program suppliers, and competition in syndication.

The most likely effect of the Commission’s new policy will be to make pro-
gram distribution more expensive, advertising sales more cumbersome, and
program production expenditures lower. The effect of such changes upon
economic welfare would be difficult to assess, but it is a safe prediction that
diversity in network programming will not increase until networks are more
numerous. In this respect, the Commission’s recent decision to encourage
cable antenna television companies to originate their own programming may
be the single most important step along the road to greater competition in
network broadcasting and increased diversity in programming.
| Mean X1 Retained Series | Mean X3 Retained Series | Mean X1 Dropped Series | Mean X3 Dropped Series | F-Value | Difference | F-Value |
|------------------------|-------------------------|------------------------|------------------------|---------|-----------|---------|
| Year                   |                         |                        |                        |         |           |         |
| 1960                   | 20.14                   | 4.40                   | 15.74                  | 6.75*   | 27.15     | 6.75*   |
|                         | 19.43                   | 4.66                   | 14.77                  | 8.84**  | 28.40     | 8.84**  |
| 1961                   | 19.36                   | 6.37                   | 12.99                  | 19.05** | 25.12     | 19.05** |
|                         | 20.57                   | 7.07                   | 13.50                  | 24.85   | 29.16     | 24.85   |
| 1962                   | 20.67                   | 4.40                   | 16.27                  | 10.19** | 27.92     | 10.19** |
|                         | 19.69                   | 3.99                   | 15.70                  | 14.89** | 31.59     | 14.89** |
| 1963                   | 22.46                   | 16.14                  | 6.32                   | 12.13** | 16.81     | 12.13** |
|                         | 22.59                   | 15.70                  | 6.89                   | 12.49** | 25.12     | 12.49** |
| 1964                   | 22.45                   | 15.04                  | 7.41                   | 12.49** | 19.89     | 12.49** |
|                         | 22.62                   | 16.37                  | 6.25                   | 14.89** | 21.89     | 14.89** |
| 1965                   | 22.45                   | 15.70                  | 6.75                   | 12.13** | 27.92     | 12.13** |
|                         | 22.62                   | 16.37                  | 6.25                   | 14.89** | 21.89     | 14.89** |

*significant at 5 per cent level.
**significant at 1 per cent level.
| Year | Proportion of Retained Series in which Network Owned Syndication Rights | Proportion of Dropped Series in which Network Owned Syndication Rights | Difference |
|------|-----------------------------|-----------------------------|------------------|
|      |                             |                             |                  |
| 1960 | 0.000                       | 0.333                       | -0.333*          |
| 1961 | 0.083                       | 0.067                       | 0.016            |
| 1962 | 0.273                       | 0.154                       | 0.119            |
| 1963 | 0.200                       | 0.250                       | -0.050           |
| 1964 | 0.250                       | 0.300                       | -0.050           |
| 1965 | 0.222                       | 0.167                       | 0.055            |

| Year | Proportion of Retained Series in which Network Owned Syndication Rights | Proportion of Dropped Series in which Network Owned Syndication Rights | Difference |
|------|-----------------------------|-----------------------------|------------------|
|      |                             |                             |                  |
| 1960 | 0.250                       | 0.600                       | -0.350           |
| 1961 | 0.167                       | 0.500                       | -0.333           |
| 1962 | 0.294                       | 0.200                       | 0.094            |
| 1963 | 0.375                       | 0.250                       | 0.125            |
| 1964 | 0.308                       | 0.636                       | -0.328           |
| 1965 | 0.533                       | 0.300                       | 0.233            |

| Year | Proportion of Retained Series in which Network Owned Syndication Rights | Proportion of Dropped Series in which Network Owned Syndication Rights | Difference |
|------|-----------------------------|-----------------------------|------------------|
|      |                             |                             |                  |
| 1960 | 0.400                       | 0.417                       | -0.017           |
| 1961 | 0.444                       | 0.300                       | 0.144            |
| 1962 | 0.333                       | 0.333                       | 0.000            |
| 1963 | 0.333                       | 0.364                       | -0.031           |
| 1964 | 0.143                       | 0.333                       | -0.190           |
| 1965 | 0.231                       | 0.444                       | -0.213           |

* Difference significant at 5 per cent level.
### TABLE 3-A
#### Retention Decision
**Linear Discriminant Analysis**

| Discriminant Number | Variable | 1960   | 1961   | 1962   | 1963   | 1964   | 1965   |
|----------------------|----------|--------|--------|--------|--------|--------|--------|
| **Network #1**        |          |        |        |        |        |        |        |
| 1                    | X1       | 0.2827 | 0.3073 | 0.5474 | 0.9942 | 0.4673 | 0.6719 |
|                      | D2       | 1.545**| 2.050**| 12.166**| 49.456**| 4.221**| 7.183**|
| 2                    | X1       | 0.4701 | 0.3158 | 0.5463 | 1.015  | 0.5308 | 0.6909 |
|                      | X2       | -6.911# | -0.6604 | 0.07030 | -1.096 | -1.399 | 0.9282 |
|                      | D2       | 19.100**| 2.134**| 12.172**| 52.321**| 5.777**| 7.882**|
| 3                    | X1       | 0.2891 | 0.3098 | 0.5486 | 1.018  | 0.4685 | 0.6656 |
|                      | X2       | -0.01103| 0.004310| 0.02350 | -0.02738| -0.002088| 0.009755|
|                      | X3       | -0.01408| 0.006666| 0.02478 | -0.02290| -0.01780| 0.01000|
|                      | D2       | 1.649* | 2.066**| 13.616**| 53.522**| 4.225**| 7.341**|
| 4                    | X1       | 0.4791 | 0.3209 | 0.5427 | 1.071  | 0.5492 | 0.6846 |
|                      | X2       | -6.943# | -0.7533 | -0.2384 | -0.7544 | -1.582 | 0.9337 |
|                      | X3       | -0.01408| 0.006666| 0.02478 | -0.02290| -0.01780| 0.01000|
|                      | D2       | 19.691**| 2.170* | 13.678**| 59.496**| 6.033**| 8.055**|
| **Network #2**        |          |        |        |        |        |        |        |
| 1                    | X1       | 0.6165 | 0.9168 | 0.3314 | 0.3187 | 0.9444 | 0.4217 |
|                      | D2       | 15.174**| 36.856**| 5.704**| 6.522**| 48.8436**| 6.946**|
| 2                    | X1       | 0.5962 | 1.161 | 0.3299 | 0.3166 | 0.9562 | 0.4572 |
|                      | X2       | -0.4985| -4.287# | 0.2519 | 0.2262 | -1.718 | 1.632# |
|                      | D2       | 15.536**| 83.174**| 5.764**| 6.579**| 58.385**| 10.480**|
Table 3-A (Continued)

| Discriminant Number | Variable | 1960   | 1961   | 1962   | 1963   | 1964   | 1965   |
|---------------------|----------|--------|--------|--------|--------|--------|--------|
| 3                   | X1       | 0.6084 | 1.124  | 0.3365 | 0.3244 | 1.074  | 0.4239 |
|                     | X3       | -0.006128 | -0.1226# | -0.03927# | -0.01621 | -0.07817# | 0.02242 |
|                     | D²       | 15.261** | 94.732** | 8.698** | 6.944** | 70.010** | 8.020** |
| 4                   | X1       | 0.5960 | 1.230  | 0.3169 | 0.3202 | 1.066  | 0.4643 |
|                     | X2       | -0.4918 | -2.773 | 5.196# | 2.702# | -0.2978 | 2.017  |
|                     | X3       | -0.0003567 | -0.09131# | -0.1389# | -0.07705# | -0.07245 | -0.01276 |
|                     | D²       | 15.536** | 115.993** | 21.426** | 9.438** | 70.215** | 10.685** |

Network #3

| 1                   | X1       | 0.5475 | 1.543  | 0.4480 | 0.6008 | 1.157  | 1.544  |
|                     | D²       | 20.818 | 97.092** | 3.731** | 13.483** | 49.179** | 137.066** |
| 2                   | X1       | 0.5548 | 1.576  | 0.4496 | 0.7358 | 1.386  | 1.539  |
|                     | X2       | 0.4719 | -0.7023 | 0.1723 | 2.040# | 2.564  | -0.2347 |
|                     | D²       | 21.304** | 99.228** | 3.756** | 19.674** | 62.597** | 137.329** |
| 3                   | X1       | 0.5521 | 1.541  | 0.4472 | 0.6260 | 1.320  | 1.533  |
|                     | X3       | -0.01376 | -0.01795 | -0.01443 | -0.03650 | 0.0723# | -0.02674 |
|                     | D²       | 21.655** | 99.675** | 4.055** | 17.784** | 70.650** | 141.945** |
| 4                   | X1       | 0.5587 | 1.566  | 0.4517 | 0.9396 | 1.433  | 1.534  |
|                     | X2       | 0.4399 | -0.5400 | 0.5459 | 4.227# | 1.606  | 0.03348 |
|                     | X3       | -0.01323 | -0.01476 | -0.02012 | -0.08519# | 0.05889 | -0.02698 |
|                     | D²       | 22.085** | 100.873** | 4.272** | 42.5973** | 75.870** | 141.950** |

* Significant at 1 per cent level.
# Addition of new variable significantly increases discriminating power at 5 per cent level.
## Addition of new variable significantly increases discriminating power at 1 per cent level.