THE NEW MEDIA AND THE DEMAND FOR STUDIO PRODUCTION FACILITIES

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The entertainment industry is in the midst of dramatic changes in its economic environment. New technologies and a relaxed regulatory atmosphere are likely to stimulate a period of growth unequaled since television's inception in the early 1950s. As a result, an increased demand for cable programming and the associated impacts on existing media will no doubt strain the capacity of firms to provide sound stages for the creation of new product. This report will examine these changes and assess the probable consequences for the program supply industry as well as the derived demand for production facilities.

THE RENTAL MARKET FOR SOUND STAGES

With the growth of television, the movie industry began to decline along with the fortunes of major studios. The demand for stage facilities decreased significantly. This situation was aggravated by the changing technology of feature production. That is, the development of compact cameras and mobile equipment, as well as the increased use of videotape, created a severe excess capacity in stage production facilities. More and more shooting was done on location. As a result, a competitive rental market for studio space developed.

For the most part, stage space has been readily available from major studios. Independent producers have had easy access to stage facilities and entry into the industry has been uninhibited. Indeed, economic evidence suggests that program supply has been extremely

responsive to slight shifts in demand.[1] Surely, the ease of entry has been due, in large part, to the excess capacity in production facilities. This has served to encourage the increasing role of small, independent suppliers. Such firms, with small and volatile shares of the production business, depend on efficient access to the capital provided by the rental market.

The importance of independent producers and their increasing participation can be seen in data describing prime time programming shares for 1970 and 1978. To illustrate, Table One describes the market share distribution of action, adventure, and dramatic series. During the eight year period, the number of such programs increased from 27 to 60. During the same time, the number of suppliers increased to 33, almost double the total eight years ago. Clearly, the market shares of the largest firms have been falling. Perhaps most significantly, the share of dramatic programming for the six major film studios has fallen from 61.5 percent to 50.3 percent.[2] Table Two displays identical information for the supply of prime time comedy series. From 1970 to 1978, there was a 35 percent increase in the number of comedy programs broadcast. Again, the share distribution indicates that the largest firms are becoming less dominant. The share of the major film studios has fallen rather sharply. In 1970, the major film studios supplied 41 percent of the prime time hours devoted to comedy. By 1978, their share had fallen to only 26 percent.

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[1]See, for example, Crandall (1970) and Owen, Beebe, and Manning (1974). Also, for a description of the program supply industry in earlier years, see Arthur D. Little, Inc. (1966).

[2]For these data, the major studios are considered to be Universal, 20th Century Fox, Paramount, MGM, Warner, and Columbia.

Table 1

SUPPLY OF NETWORK PROGRAMS: PRIME TIME ACTION-ADVENTURE/DRAMATIC SERIES

	Market Shares (Percent of total hours)	
Distribution Among Firms	1970	1980
Leading Firm	27.9	28.8
Leading Four Firms	55.0	51.5
Leading Eight Firms	75.1	69.4
Leading Twenty Firms	100.0	94.8
Major Studios	61.5	50.3
Total Number of Series	27	60
Total Number of Suppliers	18	33

SOURCE: Federal Communications Commission, Network Inquiry Special Staff, 1980.

Table 2

SUPPLY OF NETWORK PROGRAMS: PRIME TIME COMEDY SERIES

	Market Shares (Percent of Total hours)	
Distribution Among Firms	1970	1980
Leading Firm	12.4	9.7
Leading Four Firms	46.5	37.4
Leading Eight Firms	66.6	66.6
Leading Twenty Firms	100.0	99.1
Major Studios	41.0	26.4
Total Number of Series	32	43
Total Number of Suppliers	20	23

SOURCE: Federal Communications Commission, Network Inquiry Special Staff, 1980.

Telephone interviews with several production studio staff members confirmed the historical existence of significant excess capacity.[3] Although the recent collective bargaining problems have resulted in a short-term decline in studio utilization, the unanimous opinion was that stage space is becoming more and more difficult for independent producers to rent. Before the strike, sound stage use had been running at between 85 and 100 percent of capacity. Expectations are that future demand will easily exceed current levels. Space is so tight in some

[3]Discussions were held with officials of 7 major studios, including all those that do significant business with independent producers. The studios contacted included Universal City Studios, TBS Burbank studios, Zoetrope Studios, Producers Studio, Laird International Studios, MGM Studios, and Walt Disney Productions.

studios that there have been internal conflicts over the optimal allocation of facilities.

The market changes can be linked directly to the increased production schedules of the major studios. Before the recent work stoppage, a dramatically rising number of movies were being planned for release. For example, MGM, Warner, MCA, and 20th Century were increasing combined movie production by an aggregate of 60 percent over a one year period.[4] The impetus for these increased production plans was the demand for programming by cable networks as well as the rising use of movies for prime time television. Increased demands for movies have been reflected in astounding rises in the prices earned for both cable and television rights. Fees have more than tripled over the last year.[5] The increased demand for studio space will certainly escalate in the near future. The major cable companies such as HBO and Showtime have already started to scramble for programming. As the major studios take up more and more of their sound stage space to meet this demand, the independent producers, with lower priority in the queue for rental facilities, are bound to suffer.

TECHNOLOGY, REGULATION, AND THE GROWTH OF CABLE

The programming boom has been fed, in large part, by the growth of the cable television industry. Table Three documents the dramatic increase in cable penetration. As of 1980, 15 million homes had cable television, about 20 percent of the total. This represents a steady

[4] The Wall Street Journal, June 27, 1980.
[5] Dun's Review, July 1980.

rise since 1955. Recent estimates place the figure at just over 27 percent, representing a remarkable rise of about 35 percent in less than a year.[6] Since 1975, the penetration has more than doubled and is expected to surpass the critical threshold of 30 percent this year, a level which, media experts maintain, will establish the industry as a viable advertising medium as well as a source of entertainment.

The recent cable boom is not surprising given recent relaxation of Federal Communications Commission regulations. As late as 1972, several restrictions served to inhibit the growth of cable, especially in major markets.[7] In particular, in 1976 the FCC ended the "leapfrogging" pro-

Table 3

THE GROWTH OF CABLE TELEVISION INDUSTRY

	Number of Systems	Number of Subscribers
1955	400	150,000
1960	640	650,000
1965	1325	1,275,000
1970	2490	4,500,000
1975	3506	9,800,000
1980	4225	15,500,000
1981*	4300	21,000,000

SOURCE: Television Factbook, 1980.

*Estimated.

[6] Television Digest, September 7, 1981.

[7]There are several excellent summaries of FCC regulations and the role they played in stifling cable growth. The best of these include Besen and Crandall (1981), MacAvoy (1977), and Rosse and Dertouzos (1978).

vision which required that systems in large markets import signals only from nearby cities. In 1977, the pay cable rules which restricted the use of feature films were eliminated. In addition, cable networks were, for the first time, allowed to bid on programming usually shown on broadcast channels.[8] Next, public access provisions were overturned, thereby freeing more channel space. Last year, the FCC finally eliminated remaining restrictions on distant signal carriage and exclusivity rules which barred the use of syndicated material for one full year after such programming had been sold anywhere in the United States. The upshot of these regulatory changes is that the infant cable industry can now achieve its vast potential.

Technological changes have also played a pivotal role in the development of cable television. First, in 1977, the FCC authorized the use of 4.5 meter satellite earth station receivers. This development vastly altered the economics of distant signal importation and has prompted rapid satellite development. Such transmission technology has changed the role of cable from one of signal enhancement to new program supply. There now exist nine domestic satellites each with about 24 transponders. The current shortage of space will probably be ameliorated with the tripling of capacity by 1984.[9] The expected boom in programming demand is documented by the fact that over 95 percent of the future transmission capacity approved by the FCC is already leased or purchased.

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[8]The motive for these regulations was the protection of traditional broadcasting networks and outlets. These policies were misguided attempts to serve the public interest.

[9] Business Week, September 14, 1981.

Even though the entertainment industry has already been affected by the growth in cable, it is clear that the impacts on program supply and producers are only just beginning. Transmission costs via satellite are less than five percent of the costs associated with telephone and microwave transmission. Also, the cost of earth stations has fallen by an average annual rate of over 12 percent over the last six years.[10] Finally, the emergence of over 20 cable networks and program brokers has further lowered the costs of reaching the growing numbers of cable subscribers. It is no small wonder that firms in several diverse industries have established cable programming divisions. It is a glamour industry with a spectacular future.

THE FUTURE OF THE NEW MEDIA AND IMPACTS ON PROGRAM DEMAND

The rise in cable penetration and programming activity has been rapid indeed. However, the future is still quite uncertain. Industry projections are understandably speculative and must be interpreted cautiously. It is clear, however, that past studies have severely understated the ultimate reach and impact of this medium.[11] It is certain

[10]FCC Network Inquiry Staff (June 1980)

[11]Early studies predicted that cable would ultimately penetrate anywhere between 30 and 50 percent of television households. See, for example, Comanor and Mitchell (1971) and Park (1972). However, Crandall and Fray (1974) showed that, for individual markets, these models imparted a significant downward bias and, in fact, failed to predict even current levels of cable penetration. These failures certainly limit their credibility in viewing the future. Their failures are not surprising, however. To begin with, the econometric models were applied to data which were generated in an economic environment marked by limited programming options, restrictive regulations, and extremely high costs of transmission. Thus, past estimates of cable's potential can no longer be taken seriously. However, they are useful in that they suggest that the recent estimates, though more optimistic, remain based upon market assumptions which are also likely to become obsolete as the industry matures and technological change slows.

that the current level of penetration, just over 27 percent, significantly understates the future penetration of cable. Penetration has exceeded 70 percent in some small markets. Most larger cities, as they become wired, will contribute to the aggregate penetration level. Table Four indicates the rather slow growth experienced in the cable penetration of the top 20 markets. As suggested earlier, this is probably due to the more severe FCC restrictions imposed on systems in these markets. The average penetration in these markets is a mere 13 percent, significantly below the industry average. Cable penetration in Chicago, Detroit, Washington, Dallas, St. Louis, Houston, Miami, and Baltimore is, on average, below five percent. These markets sum to 20 percent of all television households. Clearly, the wiring of these markets will have a significant impact on the overall importance of cable television.

Table Five presents data on market penetration projections for a variety of broadcast media and electronic accessories likely to have impacts on the demand for programming. Cable television is expected to penetrate about one out of two households by the end of the current decade. As suggested earlier, this estimate ignores the potential impact of developing technology, falling transmission costs, and limitless role of ancillary services being created for cable. Much higher levels of penetration are more than a possibility. In addition, major independent television stations like WGN in Chicago and WOR in New York will penetrate additional markets. Household penetration will, according to the projections, achieve 80 percent by 1990. With a larger potential audience for independent stations, they will be able to compete more effectively with the network affiliates, potentially creating

Table 4

MAJOR MARKET CATV PENETRATION, FALL 1979

Market	Television Households (000)	CATV Penetration (%)
New York	6,398	15
Los Angeles	4,051	15
Chicago	2,850	3
Philadelphia	2,399	20
Detroit	1,600	2
Boston	1,807	12
San Francisco	1,884	30
Cleveland	1,349	16
Washington	1,398	9
Dallas	1,175	7
Pittsburgh	1,137	35
Houston	1,104	6
St. Louis	980	3
Miami	944	6
Atlanta	936	11
Minneapolis	994	5
Tampa	889	16
Baltimore	807	2
Seattle	915	25
Indianapolis	745	17
Top 20 Markets	34,362	13

SOURCE: Television Factbook, 1980.

a demand for higher quality programming. The rise in pay cable, from under 8 percent to 35 percent by 1990, will have a dramatic impact on the type of programming demanded. Revenues per viewer will far exceed the few cents per television household that advertisers currently pay for audiences at prime time.[12]

Also, the FCC has lifted restrictions previously imposed on subscription television (STV). Penetration is expected to increase in the future, especially in areas not served by cable. The prediction for direct broadcast satellites must be interpreted with care since there exists no experience with their operation. There remain questions concerning the costs of transmission. However, as the technology develops and costs become manageable, new and exciting outlets for programming may develop. Finally, the markets for video cassettes and disks are expected to expand. Prices have already started to fall and market penetration is expected to be significant in the not too distant future.

Table 5

PROJECTIONS OF BROADCAST PENETRATION, 1979-1990

	Household Penetration	
	1979	1990
Network	100	100
Independent Stations	71	80
Public Broadcasting System	90	92
Cable	20	50
Pay Cable	8	35
Subscription TV	1	8
Direct Broadcast Satellite	--	5
Video Cassette Recorder	2	17
Video Disk	--	28
Telex View Data	--	33

SOURCE: RCA Electronic Business Development Committee
Television Digest, September 7, 1981

[12]One need only witness the prices charged for receiving recent prize fights.

COMPETITIVE MEDIA AND THE THREAT TO BROADCASTING

It is clear that consumers will have considerably more program choices in the future. Not only will more households have access to cable, but channel capacities are also increasing. Table Six illustrates the growth in capacity of existing CATV systems between 1977 and 1979. The increase in the largest category of channel capacity was by far the greatest. Newest technologies permit almost unlimited channels. There will be no dearth of outlets for creative programmers.

What impact will these changes have on traditional broadcast television? As suggested earlier, the FCC policy to restrict cable was largely geared towards protecting free commercial television. Policy makers feared that audience fragmentation would make advertiser supported broadcasting less viable. However, several studies suggest that the networks will continue to be profitable despite some degree of audi-

Table 6

CHANNEL CAPACITY OF EXISTING CATV SYSTEMS: 1977, 1979

Channels	1977	1979	Percent Change
13+	966	1219	+26
6-12	2759	2793	+ 1
1-5	176	151	-14
Total	3901	4163	+ 7

SOURCE: Television Digest, 1978 and 1980.

ence diversion to cable.[13]

Although the networks may withstand the cable onslaught, the changes will necessitate some competitive responses. For one, network packagers will have to extend beyond the 26 weeks of the current seasons for first run programming. In the past, broadcasters have taken advantage of audience inertia. That is, aggregate television audiences are, for the most part, unresponsive.[14] People watch television regardless of whether or not reruns or first time programming is on. As long as all three networks operate under the same calendar, they are all better off having short seasons, thereby reducing programming costs.[15] However, with increased competition from cable, networks will have to supply better quality and first run programming all year around to avoid significant losses to cable. Thus, production companies will have to supply more and better programming to networks in the face of cable competition.

CONCLUSIONS

Several developments in the entertainment industry suggest that the future holds vast promise for the suppliers of programming. Recent technological advances in program transmission and reception have created a multiplicity of outlets where there once existed only a few. The relaxed regulatory atmosphere has permitted this technology to advance rapidly after years of stagnation. Cable development is

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[13]See Park (1979), for example.

[14]Noll, Peck, and McGowan (1973)

[15] In essence, industry standards and conventions are implicit (or explicit via the National Association of Broadcasters' Codes) methods of collusion to maximize the profits of a few oligopolists!

exceeding even the most optimistic of predictions. In addition, the competitive response of the networks will likely create further demands for creative program development. At the same time, the boom in programming will affect rental markets for studios. Sound stage facilities, once inflicted with severe excess capacity, are already becoming fully utilized. Independent producers who are supplying an increasing percentage of prime time programming will be the first to be squeezed out unless studios are developed to meet the growing demand.

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