Order Number 9114520

Electronic media audience behavior in the multichannel environment: Patterns of demographic homogeneity and time spent viewing

Barnes, Beth Ellyn, Ph.D.

Northwestern University, 1990

U·M·I
300 N. Zeeb Rd.
Ann Arbor, MI 48106

NORTHWESTERN UNIVERSITY

Electronic Media Audience Behavior in the Multi-Channel Environment: Patterns of Demographic Homogeneity and Time Spent Viewing

A DISSERTATION

SUBMITTED TO THE GRADUATE SCHOOL
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

for the degree

DOCTOR OF PHILOSOPHY

Field of Communication Studies

By

Beth Ellyn Barnes

EVANSTON, ILLINOIS

December 1990

ABSTRACT

Electronic Media Audience Behavior in the Multi-Channel Environment: Patterns of Demographic Homogeneity and Time Spent Viewing

Beth Ellyn Barnes

Both scholars and practitioners concerned with the television industry speculate on the future of the mass audience. In particular, debate persists as to the relative viability of broadcasting versus narrowcasting strategies in the television medium. Traditional over-the-air television channels are the chief practitioners of broadcasting strategies, while cable television channels are widely regarded as narrowcasters. This study is designed to assess how the audience behaves in a multi-channel environment, specifically that of cable television. It places that behavior in context by comparing cable channel audiences to those for radio and conventional over-the-air television. It then assesses the major determinants of channel audience composition and use in cable television.

The intermedia comparisons focus on two aspects of narrowcasting: demographic composition of a channel's audience and the amount of time the audience spends viewing the channel. This study provides documentation of audience composition and time spent viewing for radio stations and over-the-air television channels in the New York, Los

Angeles, and Denver markets and for twenty-one national cable television networks. Audience measurement data were obtained from syndicated reports.

The radio stations studied exhibited the greatest degree of demographic audience homogeneity while the over-the-air television channels were found to attract more heterogeneous audiences. The cable television networks attracted audiences which were more homogeneous than those for over-the-air television channels, but more heterogeneous than those for radio stations.

Time spent viewing was assessed in comparison to findings from a 1984 study by Barwise and Ehrenberg which focused on a behavioral phenomenon termed "The Law of Double Jeopardy." No Double Jeopardy effects were found for the radio stations studied, while a strong Double Jeopardy pattern was evident for the over-the-air television channels. The cable television networks studied fell between the extremes represented by radio stations and over-the-air television channels with regard to Double Jeopardy.

The study findings suggest that of the two forms of television examined, cable television bears a greater similarity to radio. Over-the-air television and radio appear to represent the end points of a continuum, with cable television falling between the two. As radio is acknowledged to be a largely narrowcast medium, the

similarities between it and cable television would seem to lend support to those who argue that cable television is leading the television medium into an age of narrowcasting.

ACKNOWLEDGEMENTS

Thanks are due to the following persons for their guidance and comments during the gestation and writing of this dissertation: Don E. Schultz, Ph.D., Northwestern University, for his insights on the advertising industry and human behavior; Michael White, DDB Needham Worldwide, for providing a media professional's point of view; and Lynne M. Thomson, Ph.D., DDB Needham Worldwide, my co-author on the paper that gave birth to the idea.

Special thanks are due the members of my committee: James R. Ettema, Ph.D., and Peter V. Miller, Ph.D., both of the Communication Studies Department, School of Speech, Northwestern University. Their guidance throughout my doctoral study was invaluable.

Lastly, and most importantly, I owe a deep debt of gratitude to my dissertation advisor, James G. Webster, Ph.D., Associate Dean, School of Speech, Northwestern University. While the work presented here is my own, it could not have been developed without his knowledge of media audience behavior, and his generosity in sharing that knowledge with me.

DEDICATION

Dedicated with love to my mother, who has given me a love for teaching, for learning, and for living; and to the memory of my father, who taught me the value of maintaining personal standards while not forgetting that "there's such a lot of world to see."

TABLE OF CONTENTS

CHAPTER PAGE

CHAPTER PAGE

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

RATIONALE AND REVIEW OF LITERATURE

Introduction

Electronic media in the United States have changed dramatically in recent years. Nowhere has this change been more evident than in television. The number of channels available to the viewer has increased at all levels: there are now four national broadcast over-the-air networks (ABC, CBS, FOX, NBC) rather than three; local market over-the-air television is now characterized by independent channels as well as network affiliates, and the continuing increase in cable television penetration makes even more channels available to those viewers who opt to pay for them. As of September 1989, the average U.S. television household received 30.5 channels (Nielsen Media Research [NMR], 1989), up from just 14.6 as recently as 1983 (Seagren, 1988). The viewing environment has clearly changed. But what about the viewing audience? How is the electronic media audience, and specifically, the audience for cable television channels, responding to the choices now available to it?

While it is apparent that the multi-channel environment "fragments" the mass audience, relatively little research has considered other key aspects of television audience

behavior, leaving both scholars and practitioners to speculate on the future of the mass audience. Some look at other "demassified" media, like magazines and radio, and argue that the fragmentation of television denotes the growth of "small-but-loyal" audiences who are relatively heavy consumers of rather specialized content. Others insist that television is fundamentally different from other media and that small audiences are evidence of disloyal or infrequent viewing. Whichever form of audience behavior ultimately emerges will play an important role in determining how television evolves, and so should be of interest to academics, advertisers, programmers, and policy makers.

This study is designed to assess how the audience behaves in a multi-channel environment, specifically that of cable television. It places that behavior in context by comparing cable channel audiences to those for radio and conventional over-the-air television. It then assesses the major determinants of cable channel audience composition and use.

Media Demassification

Media scholars have commented on the pattern of audience and media demassification observed in many U.S. media, particularly radio and magazines (Maisel, 1973; Anderson & Meyer, 1975). Both of these media have

experienced a structural change from a relatively limited number of available options that were largely undifferentiated in content and audience appeal to a much greater number of options that are highly differentiated in content and that attract and hold specialized audiences. The evolutionary processes these media have undergone are briefly outlined below.

Demassification in the Magazine and Radio Media

There were 530 audited general and farm (non-business) magazines in the United States in 1985, an increase of 88% from 20 years earlier (Magazine Publishers Association, 1987). Wilson and Gutierrez have observed that "a visit to the magazine section of a supermarket or convenience store reveals a plethora of magazines, all vying for the attention of potential readers with predefined interests" (1985, p. 223). In the same vein, Rosse noted that today, "magazines tend to seek a well-defined demographic profile in their readership so as to attract an advertising clientele interested in marketing to a particular age-income-education-sex-race-occupation group" (1981, p. 43).

Rosse's linkage of magazine audience definition and advertiser interest is an important element in media demassification in the United States. All of the major media depend heavily on advertiser support for revenue, and thus are engaged in the business of selling audiences to

advertisers. Barnes and Thomson have postulated that an enabling factor in the growth in specialized magazine titles during the 1970s (and a contributing factor to the "death" of the mass circulation magazines, e.g. Life, Look, and The Saturday Evening Post) was the growing availability of demographically-detailed magazine audience data. These data made it possible for advertising agencies to evaluate the viability of particular titles as vehicles for the agencies' clients' advertising messages. The growth in magazine content diversity also followed closely on the heels of growing advertiser interest in the concept of market segmentation, or developing products and promotional messages for subsegments of the mass market (Barnes & Thomson, 1988a).

Advertiser appeal and audience appeal are closely tied. McQuail has attributed the continuing success of the differentiated magazine industry to each publication's focus on "establishing and maintaining an identity or 'persona' to which a certain kind of audience has been drawn" (1987, p. 239). A magazine industry spokesperson stated the case more strongly, asserting that "magazines serve special interests and, in so doing generate tremendous reader commitment" (Rehm, 1985, p. 94). Researchers at DDB Needham Worldwide, a major U.S. advertising agency, have labeled a magazine's committed readers as the "core audience," and

hypothesize that this group "bring[s] more than just a superficial interest in subject matter to the medium" (DDB Needham, 1983, p. 2), enhancing the likelihood of their responding favorably to advertising messages in that medium.

Radio has undergone a similar evolutionary pattern. Changes in that medium actually began earlier than in magazines, as radio moved from a national to a local focus forced by the advent of television.

In the 20 years between 1964 and 1984, the number of U.S. radio stations increased by 61% (Bogart, 1985, p. 26). Peterson and Davis have charted the evolution of radio from the "Golden Age" (1928-48) of three networks who practiced "vertical programming," where program types varied across the network schedule but were very similar to the programming on the other two networks at any given time, to today's multiplicity of local stations and formats. They identified four stages in the evolutionary process: (1) an increase in the number of independent (non-network) stations; (2) an increase in the number of stations in a given local market area; (3) differentiation in station programming formats; and (4) a move to the use of recorded rather than live music (Peterson & Davis, 1974).

Today, radio stations practice "a policy of concentrating on distinct slivers of the population through particular styles of music or talk" (Bogart, 1985, p. 26),

which Peterson and Davis have labelled "horizontal programming," that is, maintaining the same programming style throughout the broadcast day (1974), which, in essence, creates a 'persona' for the station.

As was the case with magazines, advertiser appeal of the demassified radio medium was an important element in its evolution. Peterson and Davis reported that when "faced with a large number of diverse radio stations in a market area, potential radio advertisers began to place their ads only on those stations which garnered the parts of the audience which were potential purchasers of their products" (1974, p. 171).

Similarly, a recent report provided to its member stations by the National Association of Broadcasters recommends that "carving out a long-term identity that meets their [the audience's] psychological needs will be the most cost-effective approach to winning the RADIO WARS in your market," (National Association of Broadcasters, p. 7) that is, capturing "core" listeners and, consequently, advertising dollars.

The result of the structural changes experienced by these two media has been clearly articulated by Hirsch, who claims that evolution in the magazine and radio media has reached a point today where "radio and magazine formats ... have become so specialized in targeting homogeneous segments

of the population that they may no longer even fit the traditional definitional requirement that mass-media channels appeal to a heterogeneous mass audience" (1981, p. 198).

Demassification in Television

Given the demassification experienced by both magazines and radio in the United States, is a similar pattern of programming and audience fragmentation likely for television? As noted earlier, this is the subject of debate. Those who argue in favor of demassification point to the proliferation in channel availability cited above, and particularly to the promise of cable television. This group would probably agree that television in the United States today has passed through the evolutionary stages identified by Peterson and Davis. Those opposed would likely agree that the first two stages, those dealing with an increase in options, have been met. However, they would label the growing number of options as simply more of the same type of programming, rather than differentiated programming. Finally, this second group points to well-documented patterns of television audience behavior as proof that television is inherently different from other media and will resist attempts at demassification. Both sets of arguments will be addressed below.

The demassification parallel is most easily drawn between television and radio, as both are electronic media. Head has noted that both radio and television employ similar management and audience attraction strategies. These include the use of "dayparting"[1] to improve compatibility with the audience's scheduled daily activities; control of audience flow through scheduling practices and program timing issues; the use of program repetition to conserve resources; and attempted audience attraction through either broadcasting or narrowcasting (Head, 1989). Other observers have also noted that "cable is more like radio than [it is like] broadcast TV" (Verklin, 1988, p. S22) because of its narrowcasting possibilities.

Narrowcasting has been defined in a number of ways. Eastman, Head, and Klein have identified it as "targeting programming, usually of a restricted type, to a non-mass audience, usually of a defined demographic or ethnic group" (1989, p. 539). DDB Needham has referred to narrowcasting as "the delivery of TV programming, with real sponsor identification, to a relatively small group of consumers who are intensely interested in that specialized program" (1983,

---

[1]Dayparting is a strategy of arranging program content in blocks to match the audience's changing needs and composition throughout the day. Television dayparts include daytime, early news, primetime, and late night. Radio dayparts include morning drivetime, daytime, and afternoon drivetime.

p. 26). Two British television audience researchers, Barwise and Ehrenberg, are a bit more prosaic, having defined narrowcasting as "a specialist channel addressing a small audience that is relatively interested in its narrow topic" (1988, p. 71). Two primary components of narrowcasting emerge from these definitions: specialized programming content and a specialized audience. The narrowcast audience is further characterized as small, homogeneous in some way, and more interested in or involved with the narrowcast option than would be expected of the typical television audience.

Programming Specialization

As noted earlier, those who believe television will resist demassification identify problems inherent in programming specialization. Barwise and Ehrenberg view the cost of creating differentiated television programming as prohibitive, particularly "the high cost of producing programs with enough appeal to compete with well-made programs on other [non-narrowcast] channels" (1988, p. 71). Additionally, commentators on the organizational structure of the television industry suggest that a move to increasingly specialized programming might meet with management resistance. As DiMaggio has pointed out, "most items of popular culture ... are produced by profit-making firms operating under the constraints of the marketplace"

(1977, p. 437). One of those constraints is that management tends to place a high value on predictability, not on change (DiMaggio, 1977). Further, Hirsch has noted that "distributor organizations [e.g., television networks] speak in terms of format and genre, providing formulaic and predictable symbolic content to vast numbers of anonymous people comprising a heterogeneous mass audience" (1981, p. 189).

Conversely, researchers who look at television from an economic perspective have provided consistent support for increased program content specialization in the medium. Owen, Beebe, and Manning (1974) have modeled the likelihood of increased specialization as a viable programming option, noting that as channel capacity increases, minority-appeal programming becomes more likely. They pointed out not only that this is more satisfactory for the audience, but also that "advertisers who seek out minority groups would find the television medium more attractive as an advertising vehicle whether or not these viewers are worth inherently more than mass audience viewers" (1974, p. 77). These advertisers tend to avoid purchasing advertising time on television stations that attract a broad audience because, while the members of the minority group(s) the advertiser wants to reach with the message may be part of the broad audience, the cost of the advertising time reflects the size

of the overall audience, not just the minority group members.

Wildman and Lee also predicted that an increase in the number of options should lead to greater likelihood of viewer satisfaction through "better matches between programs available and [viewers'] own particular preferences" (1989, p. 7). They predicted that in the future, "networks will be more clearly differentiated according to program type and the diversity available to audience members will reflect the degree of diversity among programmers, as is the case in local radio markets today" (1989, p. 27). Wildman and Lee also identified a positive effect of repeated programming (1989), which might be used to ameliorate the cost constraint issues raised by Barwise and Ehrenberg.

Lastly, Rust and Donthu, combining economic modeling and a marketing positioning approach, proposed that "if [cable] programmers position efficiently, the important market niches will be covered ... providing highly heterogeneous media options" (1988, p. 7). They further stated that "it seems inevitable that the trend of the last ten years toward fragmentation of programming will increase" (1988, p. 8).

Established cable television networks relying on narrowcast content include ESPN (all sports programming), Financial News Network, and Cable News Network, among

others. These options have recently been joined by two all-comedy programming networks that debuted in 1990. In addition, plans have been announced for a science-fiction network, a "cowboy channel" (TV Entertainment, 1990), and a regional channel focusing on the Chicago area (Buckman, 1990), among others. These recent and proposed additions to the cable television network roster suggest that content narrowcasting is continuing to occur in fact as well as theory.

How may these divergent views on the likelihood of programming specialization be reconciled? One possibility is that the U.S. television industry is in the midst of a period of competition and creativity similar to that identified by Peterson and Berger as having occurred in popular music. These researchers examined patterns of competition and concentration in the popular music sector, finding that periods of intense competitive activity characterized by diversity often follow periods of content homogeneity (Peterson & Berger, 1975). More recently, Hirsch has stated that "within culture-producing industries, no trend towards decreased competition can be observed" (1977, p. 447). The current proliferation of channel availabilities brought about by widespread cable television penetration may be forcing changes on the television industry despite cost considerations and in spite of the

traditional goal of risk avoidance. This is in keeping with the importance of market structure in leading industry changes identified by Peterson and Davis (1974), Peterson and Berger (1975), and DiMaggio (1977).

One additional problem in the area of program specialization arises when trying to identify and characterize programming strategies for research purposes. Webster and Wakshlag (1983) have noted the difficulty that occurs when attempting to categorize program types, suggesting that program type designations used by the television industry do not always seem to match audience perceptions and viewing preferences. Bowman and Farley (1972) have used factor analysis in an attempt to identify program types from the audience's perspective through comparing available programs to an estimated viewer "ideal" program. Their model, while supporting the idea that viewers tend to select programs most similar to their "ideal" program, was weak in its explanatory power. Wildman and Lee relied on a program type-based analysis to assess relative content diversity in over-the-air and cable television networks. They noted in their analysis that "there is little, if any, agreement among researchers as to what constitutes the best program [typology]" (Wildman & Lee, 1989, p. 21).

Because of the difficulty of realistically identifying program types, a view of narrowcasting that relied solely on programming specialization could mask important differences in channel specialization. For example, in Wildman and Lee's assessment, the Nickelodeon cable network scored below the overall cable network average on a diversity index, as did the Lifetime cable network (Wildman & Lee, 1989, p. 23). However, most members of the cable television audience would be quick to identify Nickelodeon as "the children's channel" and Lifetime as "the women's channel." This underscores the importance of including audience specialization in an assessment of narrowcasting. Further, audience specialization is a critical concern for advertisers, who must be "sold" on the viability of specialized channels for television demassification to occur.

Audience Specialization

Behavioral data illustrate a trend in viewing away from the broadcast over-the-air networks, who Rust and Donthu characterize as "making no attempt to specialize to any specific type of programming" (1989, p. 6). Instead, these networks have followed the vertical programming strategy identified during the "Golden Age" of radio. The three over-the-air networks' primetime (8-11 p.m., Monday-Friday) share of audience fell from 80% in the 1981-82 television season to 66% in the 1987-88 season (Cabletelevision

Advertising Bureau [CAB], 1989), and during the April-May 1990 "sweeps" period[2], their combined share was 62% (Broadcasting, 1990, p. 32). This means that 36% of all television viewing during that period went to non-broadcast network programming. Audience fragmentation has occurred, but do the fragmented audiences exhibit the characteristics identified with narrowcasting: smallness, homogeneity, and greater interest/involvement with the media vehicle?

Audience size. The audience for cable television networks must necessarily be smaller than that for over-the-air broadcast networks because the audience "pie" for over-the-air networks is larger to begin with (98% U.S. household penetration versus 56% penetration for cable television (NMR, 1989, p. 2), and the audience "pie" in cable television households is cut into more pieces because of the greater number of channels available. Both sides in the debate agree that audiences for television channels have become smaller. The composition and viewing behavior of these small audiences are the critical elements.

Audience composition. Some difference of opinion exists on the makeup of today's audiences for smaller

---

[2]Sweeps periods are times when ratings are collected nationally (from an expanded sample). The broadcast networks typically employ programming strategies to maximize audience sizes during sweeps periods in order to generate high ratings and thus justify the prices charged to advertisers.

television channels. McQuail has suggested that "in general, greater channel capacity and/or societal diversity are associated with the persistence or emergence of audiences for television [channels] which have more of the characteristics of social groups or publics" (1987, p. 220). Those characteristics include a self-consciousness, sense of group identity, and inclination toward group member interaction (McQuail, 1987), all of which suggest a degree of audience homogeneity.

Similarly, Rosse seems to have assumed channel audience homogeneity would be present in asserting that "it seems likely that pay TV [cable] will greatly increase the variety television offers by making it possible to cater to specialized audiences" (1981, p. 39-40).

While the observations of these scholars would suggest that specialized programming content would attract a specialized audience, an extensive program of research conducted by Barwise and Ehrenberg has demonstrated that "the television audiences for current 'minority-taste' programs typically have a composition similar to those for mass programs" (1988, p. 155). (These researchers' work in this area merits particular attention, and will be reviewed more fully later in this chapter.) Similarly, Barry Cook, then Vice President of Media Research for NBC, said: "Cable promised a narrow-casting and all they ended up with is a

small-casting" (Barnes & Thomson, 1988a, p. 23). In other words, an audience that is small but not specialized or homogeneous.

Audience behavior. There is also a difference of opinion regarding the behavior of the audience, the final characteristic of a narrowcast audience. As with audience composition, scholars have suggested that the audience for specialized programming would exhibit a greater-than-usual interest in and involvement with that programming. Hirsch described such an audience as "more knowledgeable ... with more articulate, self-conscious, and shared critical standards" (1981, p. 189). Those active in the television industry have expressed similar views. Brown stated that "they'll [the audience] go anywhere on their dials for entertaining or informative programming ... people do their own searching for the shows they really want to watch, zipping through the array of options until they're persuaded to stay put" (1988). And, the DDB Needham researchers believed that "there is a greater qualitative intensity involved in core audience viewing behavior" (1983, p. 21).

In contrast, the Barwise and Ehrenberg research program mentioned earlier again suggests that audience involvement in or commitment to specialized programming options is not great: "Cable subscribers do not find the programs that

they watch more appealing or stimulating than non-cable viewers find theirs" (1988, p. 57).

In summary, the picture regarding audience specialization is less easily crystallized than that of programming specialization. The smaller audiences attracted by the multiple channels available to U.S. television viewers are believed to be homogeneous and heterogeneous, more involved and no more involved than a broadcast audience. That is, conflicting views exist on both the composition of the audiences for smaller television channels and the level of involvement with those channels' programming exhibited by those audiences. The current study is an attempt to resolve these conflicting views, and they will be examined in more detail shortly.

Advertiser Support for Demassification

One last element merits closer examination in this review of the arguments for and against the nature of demassification of the television medium. That is the viewpoint of the advertising community. As mentioned earlier, most television networks (pay cable and public television networks being the major exceptions) derive a substantial portion of their revenues from advertiser support. Media demassification cannot occur successfully unless advertiser support is gained for the increased number of options (Barnes & Thomson, 1988a). Several recent

developments and on-going trends in the advertising industry suggest that such support is likely.

The introduction of the peoplemeter system of audience measurement in the fall of 1986 and the expansion of the A. C. Nielsen Company's peoplemeter sample base in the fall of 1988 provided two important elements[3]. First, finer demographic descriptions of the audiences for particular television channels were made available to advertisers and their advertising agencies. Second, statistically reliable ratings for cable television networks also became available. If one accepts the premise identified by Barnes and Thomson (1988a) that such audience data is an enabling factor in media demassification, the introduction and industry acceptance of peoplemeters is an important element in the evolution of the television medium.

At the same time, there is growing evidence that advertisers are becoming increasingly dissatisfied with the "waste" inherent in broadcast media vehicles (Button, 1988). That is, advertisers are unwilling to pay to reach people who are not prospective purchasers of their product or service. As Wilson and Gutierrez noted, "rather than wanting to address an undefined mass audience, advertisers

---

[3]The peoplemeter measurement system differs from its predecessor, the audimeter, in that peoplemeters collect viewing data for individuals, rather than aggregated households.

prefer to target their messages to specific audiences whose demographic profiles are known to them" (1985, p. 225). This focus is unlikely to change. Dewar and Schultz have predicted that "specific markets consisting of groups of people or businesses with similar wants and needs are the future focus of marketing, not products and brands which have been developed for the most common denominator" (1989, p. 31).

How will this focus affect advertisers' media choices? A 1985 survey of management and marketing executives found that they "think that in 10 years' time it will be established practice for media planning to begin with specialized media and to treat mass audience media as a secondary buy" (Bogart, 1985, p. 28). Hal Katz, a media executive, concurs, stating "what we see happening in the future ... is more accountability for media buying required of the agencies and media buying services" (Button, 1988, p. 22).

With increasing pressure on media departments to eliminate waste in advertising schedules, and with the availability of more detailed audience data through the peoplemeter measurement system, narrowcast television channels should be viewed as an attractive option for advertisers, if they are able to deliver the specialized, involved audience promised by true narrowcasting.

The Audience for Narrowcast Channels

Having reviewed the historical trend toward demassification in the magazine and radio media and the current indicators of television demassification, we now more closely examine two characteristics of the narrowcast audience: audience homogeneity and audience involvement.

Audience Homogeneity

As has been noted earlier, there is debate over whether the smaller audiences of cable television channels are homogeneous or heterogeneous. The latter condition has been the traditional goal of television programmers. As Rust and Donthu have pointed out, "the [over-the-air] networks, as broadcasters, attempt to cover the audience, and program a wide variety of shows" (1988, p. 8). This "something for everyone" approach has also been adopted by some cable channels, most notably WTBS, the USA Network, and Turner Network Television, as well as the pay cable movie channels (Home Box Office and Showtime).

Other cable networks have adopted programming strategies intended to attract a relatively homogeneous audience. As mentioned earlier, Lifetime programs to appeal primarily to women, Nickelodeon tries to attract children to its audience, and Black Entertainment Television programs to members of that racial group. Further, cable networks such as MTV, VH-1, and the Financial News Network seem to be true

practitioners of narrowcasting, selectively programming to appeal to very well-defined demographic audiences. MTV, for example, programs for the 18-24 age group while VH-1 programs to attract 25-34 year old viewers.

As can be seen from the discussion above, television audience composition is traditionally defined in demographic terms, primarily on age and sex dimensions. Although additional descriptors are collected on peoplemeter sample members, including household size, income, and occupation of household head (Barnes & Thomson, 1988b), this information has yet to be used extensively in media buying.

Much scholarly research on audience composition has also focused on age and sex descriptors. The critical finding of this research stream is that these demographic descriptors do not appear to predict program type preferences. Barwise and Ehrenberg have found that "although audience sizes for different programs can vary greatly, the make-up of these audiences tends to be broadly similar" (1988, p. 28). Further, regardless of program type, "the audience generally reflects much the same broad cross-section of the population available at the time, with relatively small deviations" (Barwise & Ehrenberg, 1988, p. 31).

Although the audience composition research has focused primarily on program types rather than television channels,

it holds important implications for cable television networks. As Morley has pointed out, preferences for particular channels derive from preferences for program types (Morley, 1986, p. 166-67). The results of the program type studies suggest that a television network that specializes in a particular type of programming, such as the all-music format of MTV, would not attract a homogeneous audience.

There are, however, some researchers who argue that the findings of the program type studies reveal less about the audience than they do about the programming studied. Hirsch has argued that "it is quite possible that much of the American television audience appears medium- rather than content-loyal ... because the underlying or thematic structure and values presented across all programs are so constant" (1981, p. 198). This argument suggests that audience differentiation has been limited historically because content differentiation has been limited. Or, put another way, "people appear indifferent because the basic formulaic elements, plots, themes, and messages of so many programs are identical" (Hirsch, 1980, p. 96).

Demographics and Taste Cultures

The television industry's reliance on demographically-based audience descriptors may seem an oversimplified approach to analyzing the audience for programs and

channels. One might expect that an audience drawn to a channel by its programming content would share common interests, but not necessarily common demographic characteristics. However, the literature on taste cultures, which Gans has characterized as "the culture which results from choice" (1974, p. 12), suggests that demographics are an appropriate basis for audience identification, even for specialized audiences. Lewis has stated that "a taste culture is defined by its demographic and structural parameters and assumes common consumption patterns within those parameters" (1975, p. 229). More recently, Webster has noted that "while such individual traits [demographics] should not be thought of as simple causes of cultural competence, they nonetheless can reveal much about a person's place in the social structure, and so bear on their reading of the media" (1987, p. 6).

Gans described five distinct taste cultures or subcultures in the United States: the high culture group, the upper-middle group, the lower-middle group, the low group, and the quasi-folk group (Gans, 1974). These are occupation-based groupings, and consequently imply differing income and status levels. In Gans' view, U.S. television programming is primarily directed at the lower-middle group, who make up a large portion of the television audience and have the purchasing power advertisers desire (Gans, 1974).

If one accepts Gans' classifications, class and income descriptors of the television audience are set, allowing advertisers and television industry executives to turn their attention to age-sex distinctions within the lower-middle group.

The national broadcast networks have adopted a related concept known as "ideal demographics." Under this concept, one demographic group has been identified as the "ideal" audience segment for primetime programming. The initial "ideal" group was women 18-34 years of age, who were white, middle-class, and living in urban areas. The "ideal" audience for the 1990s has recently been defined as middle-class women (any race) aged 34-50 and living in urban areas (Lewine, Eastman, and Adams, 1989).

While the "ideal demographic" concept has its detractors, it seems roughly analogous to Gans' identification of the lower-middle taste culture as the primary audience for television. The lower-middle group is made up of people in white collar professions (excluding professionals, executives, and managers), a typical middle-class group. According to Gans' description, the lower-middle group has a preference for situation comedies, popular dramas, and variety programs (Gans, 1974).

The preceding discussion suggests some related issues. Several cable television networks, including the Arts and

Entertainment Network and the Discovery Channel, specialize in the type of programming that should appeal to the upper-middle taste culture group (Eastman, 1989a). In Gans' view, this group was traditionally served by public television, which does not carry advertising. The commercial cable networks mentioned above should offer marketers of upscale products a means of reaching the upper-middle group. This strategy of appealing to a "higher" taste culture than that normally served by television has been noted by Wilson and Gutierrez, who have asserted that "the segments that will be addressed are the ones that have the potential for returning advertising dollars back to the advertiser" (1985, p. 228). Consequently, they have warned that "audience segmentation can also mean that minorities become further separated and, possibly, distanced from the rest of society" (Wilson & Gutierrez, 1985, p. 233).

Wilson and Gutierrez's focus was on racial minority groups. Fejes has identified the same potential problem from a broader perspective. "The media act not only to maintain inequalities in the class structure, but to increase and amplify them. Lower classes remain information poor or even become poorer in a relative sense, while higher social class segments become information richer" (1984, p. 226). This is in line with the knowledge gap hypothesis developed by Tichenor, Donohue, and Olien (1970). Gans has

echoed this concern, and has suggested that government funding might be required to ensure that programming is provided to the lower groups, who hold little interest for advertisers and, consequently, for network operators (1974).

Culture Classes

While the audience data available for analysis in the present study include the demographic descriptors of age and sex, it should be noted that some media scholars have stated that demographics, while useful and much-used descriptors, do not always provide an adequate characterization of audiences. Lewis (1975) identified a distinction he termed a "culture class," which differs from a taste culture. "A culture class is defined by its common consumption patterns and does not assume common demographic and structural parameters" (1975, p. 229). Similarly, DiMaggio (1977) characterized the magazine and musical recording industries as operating in a pluralistic culture in which market segments are developed from tastes and interests rather than demographic commonalities.

Although the age/sex categories available for use in this analysis may not effectively define the basis of audience homogeneity for all the channels in the analysis, it should be kept in mind that such descriptors still play an important role in defining the station for advertisers. As they experiment with customer database development and

analysis, marketers are beginning to look at target segment definitions based on product consumption patterns (Block & Brezen, 1990). However, such approaches are very different from traditional demographically-based market definitions, and it will likely be some time before they are fully adopted and understood for product strategy purposes, let alone fully applied to media planning and purchasing. Thus, a demographically-based audience homogeneity measure is still an appropriate way of characterizing media audiences in general.

Determinants of Audience Homogeneity

Based on the preceding review, the element that most strongly supports the likelihood that the audience for a cable television network will be relatively homogeneous in demographic makeup is the presence of more homogeneous programming content on a channel. That is, because many cable networks have adopted a strategy of specialized programming, those networks would also be expected to attract a specialized (demographically homogeneous) audience. Such a pattern of channel choice behavior would be in line with Hirsch's sense that the audience's apparent indifference to programming options is due to the similarity of those options (Hirsch, 1980). If the programming options are dissimilar, the audience's behavior should reflect that dissimilarity.

Program Repetition. This structural variable might also be expected to contribute to an explanation of channel audience homogeneity. Webster and Wakshlag have noted that "program scheduling characteristics are among the few variables that have isolated clear patterns in program choice over time" (1983, p. 434). As noted earlier, many cable television networks have adopted a strategy of repeating programming frequently, which has been documented by Wildman and Lee (1989). This may be equated with the final stage in the radio demassification process identified by Peterson and Davis, the move from live to recorded music (1974). Both are programming strategies designed to conserve resources.

Program repetition should act to the benefit of a channel's audience. As Wildman and Lee have pointed out, "the more frequently a program is aired, the more likely it is that it will be convenient, or accessible, to a particular viewer, who must make time for activities other than watching television" (1989, p. 2). The important role of viewer availability in program (and, consequently, channel) choice has also been assessed by Webster and Wakshlag, who have identified it as "the single factor which is most responsible for the absence of content-based patterns of viewing" (1983, p. 438). Program repetition

should aid in overcoming constraints on viewing caused by availability.

Summary

Specialized audiences, operationalized as demographically homogeneous, are a critical component of successful narrowcasting. While it is clear that the accessibility of specialized audiences holds appeal for advertisers who are concerned with reducing media waste, at present there is no agreement as to whether specialized programming content will attract a specialized audience.

Nor is a specialized audience relevant only to advertisers. Homogeneous audiences should also be preferred by those who produce the programming. As Gans has noted, "when the audience is more homogeneous, the gap between the creator and the audience -- and the producer -- is much smaller, and in many cases, creators share the tastes of their audience" (1974, p. 25). The narrowing of the gap between creators and the audience may be both a benefit of and a contribution to successful narrowcasting. Looking at the traditional broadcast networks, Escarpit noted that audiences were not really masses, but they appeared that way to creators (1977). A change in the creators' perspective should act to both their advantage and that of the audience.

Lastly, the audience members themselves should benefit from increased audience homogeneity, if they are members of

desirable demographic segments. Gans has stated that "subcultural programming would enable audiences to find content best suited to their wants and needs, thus increasing their aesthetic and other satisfactions, and the relevance of their culture to their lives" (1974, p. 133). However, increased audience homogeneity through narrowcasting may limit the viewing alternatives available to members of less desirable demographic groups.

This inequity will be exacerbated if cable television is indeed the narrowcast channel delivery service, as is likely due to its relatively unlimited channel capacity. Cable television is not equally available to all members of our society (Webster, 1989). Unlike over-the-air television channels, cable television channels are only available to those audience members who (a) have access to the service and (b) are willing and able to pay for it. Many central city areas have yet to be cabled, restricting viewing opportunities for their residents. The same is true for many rural communities. Hence, members of the poorer low and quasi-folk taste cultures identified by Gans are unlikely to even have access to cable television. And, current cable television viewers appear to be members of the lower-middle and possibly the upper-middle taste cultures. Cable television subscribers tend to be found in relatively high income households, have at least some college

education, and are employed in white collar positions (CAB, 1989, p. 22). These are, not coincidentally, the demographic groups most in demand by advertisers because of their relatively high purchasing power.

Demassification of the television audience through narrowcasting raises even broader policy issues. Webster (1989) has argued that the differential availability of cable television and the expansion in channel alternatives may both lead to a less well-informed electorate because of the increased possibility of audience diversion from public interest and news programming. Those who argue for the public's right to universal access to information may well view the growth of cable television channel narrowcasting as a threat to that right.

Audience Involvement

Defining Involvement

The final characteristic of a narrowcast audience is their greater interest or involvement in the narrowcast option. Wide ranging assessment of the television audience's degree of interest in channel offerings is problematic. Webster has reviewed the conflict between qualitative methods of audience study, which would seem ideally suited to an analysis of audience involvement, and quantitative methods (1987). Qualitative audience studies are often quite expensive and time consuming, producing

telling insights, but at a high cost. For example, two of the most revealing pieces of qualitative audience research are Brunsdon and Morley's Everyday Television: Nationwide (1978) and Morley's Family Television: Cultural Power and Domestic Leisure (1986), which offer fascinating insights into individual audience members' use of and interaction with television programming and the medium itself. However, as Morley pointed out in the foreword to Family Television, "care must be taken in attempting to generalise from my findings. The research was of a preliminary nature ..." (p. 11). Such studies are limited in their predictive ability.

Relying on quantitative methods to assess audience involvement may appear questionable. However, quantitative data (in the form of ratings reports) can provide useful information on audience behavior, and behavioral tendencies that may be viewed as a surrogate for involvement. For example, DDB Needham's definition of core audience membership is behavioral: the core audience for a television program is made up of those viewers who watched either three or four of the last four episodes of the program (1983, p. 6). Thus, the tendency of a viewer to return to the same program over time is an indication of greater involvement with that program by that viewer than by others who watch it less often.

Behavioral consistency has also been identified as one of the components of brand loyalty, an important concept in marketing. Jacoby and Chestnut have defined brand loyalty as: "(1) the biased (i.e., nonrandom), (2) behavioral response (i.e., purchase), (3) expressed over time, (4) by some decision-making unit, (5) with respect to one or more alternative brands out of a set of such brands, and (6) is a function of psychological (decision-making, evaluative) processes" (1978, p. 80-81). This definition can be applied to a behavioral measure of audience involvement, time spent viewing. The amount of time the average viewer of a channel spends viewing that particular channel can be determined from ratings data.

Similar to the brand loyalty concept reviewed above, time spent viewing might be considered an indicator of channel loyalty, in that greater time spent viewing would indicate greater loyalty to a particular channel. Webster and Lichty have noted that "audience loyalty is difficult to define precisely, because it means different things to different people" (1990, p. 2-16). The term "channel loyalty" has historically been used by television researchers to describe the fact that "viewers on one channel are <u>somewhat</u> more likely to view that channel again than a specific other channel" (Goodhardt, Ehrenberg, & Collins, 1987, p. 19). Because of the prevalence of this

"audience overlap" use of "channel loyalty" in the audience research literature, the term will not be used here. However, it should be kept in mind that time spent viewing is an indicator of loyalty to a particular channel, and thus involvement with that channel.

It should be noted that reliance on a behavioral measure of involvement is not out of keeping with more traditional audience analyses. Advocates of the uses and gratifications stream of research have identified media exposure as a source of audience gratification (Katz, Blumler, & Gurevitch, 1974, p. 24), and media exposure is a behavioral response captured in ratings data. Further, a channel involvement measure as defined above goes beyond mere exposure to the television medium, reflecting a decision to select a particular channel over others. This interpretation is in keeping with the view expressed by Webster and Wakshlag, "that while the decision to use television is typically passive, once that commitment is made, viewers actively choose among the options before them" (1983, pp. 437-438). And as Gans has noted, "intentional usage ... implies high involvement" (1980, p. 62).

Again, this is not at odds with more qualitative approaches, including those applied to other spheres of audience study. For example, in her work on the functions of romance novel reading, Radway noted that "because the act

of picking up a book is a form of social behavior ... I think it essential to make a distinction between book reading itself and the text constructed as a consequence of it" (1985, p. 350). Similarly, time spent viewing makes a distinction between television viewing per se and the enduring choice of a specific channel to view.

Although not frequently discussed in advertising media planning, the use of time spent viewing as a measure of involvement does have applications in that sphere. DDB Needham views the core, or loyal, audience as being more receptive to advertising messages in "their" program:

> Media vehicles also have personalities. If we can marry the correct media vehicle with the correct product and then advertise that product frequently on that one program or in that one magazine, we can create a bond between the product and the consumer that will be hard to break (1983, p. 5).

Although the reference here is to specific programs, the same should hold for cable channels featuring specialized programming, or a differentiated "personality." And, in her review of the involvement literature, Zaichkowsky has also found evidence that advertising effectiveness is one of the results of increased involvement with the medium carrying the message (1986).

Knowledge of which channels generate greater viewing time from their audiences could also be used by advertisers to develop advertising exposure frequency schedules. If the

media strategy for a product calls for exposing the target audience to the promotional message repeatedly, advertisements could be placed on a channel known to generate relatively high time spent viewing from the desired audience. DDB Needham has successfully experimented with this approach on a program basis (1983).

Having identified time spent viewing as a viable measure of audience involvement, and having reviewed the implications of an involved audience, one must ask whether or not greater audience involvement actually does exist for narrowcast television channels. Cable television viewers selecting a channel to watch from the wide variety available to them must select that channel for a reason, and most likely, for an enduring reason that would bring them back to that same channel over a period of time. Both uses and gratifications theorists and the involvement literature would suggest that those reasons are derived from psychological needs (Katz et al, 1974; Zaichkowsky, 1986). Such needs would seemingly be better satisfied by specialized programming than by the generalized fare typical of broadcast channels.

Greenberg, Heeter, D'Alessio, and Sipes have identified the cable television audience's tendency to develop a channel repertoire (a subsegment of channels that are viewed regularly) as a means of simplifying channel choice in the

multi-channel environment, but have not been able to examine either the composition of that repertoire or the distribution of viewing time within repertoires due to data limitations (Greenberg, Heeter, D'Alessio, & Sipes, 1988). However, the formation of repertoires could be viewed as yet another indication of content choice and of channel involvement, indicating a preference for certain channels over others. Conversely, Barwise and Ehrenberg have labeled this tendency as further evidence of the cable television audience's lack of interest in the programming variety available to them (1988, p. 81).

The Law of Double Jeopardy

In what is perhaps the strongest statement of the argument against greater audience involvement for narrowcast channels, "The Reach of TV Channels," Barwise and Ehrenberg reported evidence of the effects of "The Law of Double Jeopardy" in U.S. television audience behavior (1984). First articulated by McPhee (1963), The Law of Double Jeopardy holds that within a given area, some alternatives (television stations, radio personalities, books, etc.) are doubly penalized in that they are (1) less well known than other alternatives, and also (2) less liked than the better known alternatives. That is, the comparatively small segment of the audience that is aware of the alternative

does not like it as well as they do the alternatives that are familiar to a larger group of audience members.

As McPhee noted, "This seems absurd. The number of other people who have not yet become familiar with an alternative should have nothing to do with whether or not those who have become familiar with it like it" (McPhee, 1963, p. 133). His explanation of the phenomenon was that the people who are familiar with a lesser known alternative are comparing it to a very large number of alternatives and finding it lacking in comparison. While they know of it, they find it to be inferior to the better known options, suggesting that those are better known because they are indeed "better." The only situations where McPhee found Double Jeopardy not to hold were those where the "unpublicized alternative has special merit" to the particular audience member (1963, p. 140).

In applying Double Jeopardy to television audience behavior, Barwise and Ehrenberg translated the two components of the rule (popularity and liking of the alternative) into two behavioral measures: channel reach and time spent viewing. Channel reach is the number of audience members who view the channel some time during the analysis period and is consequently used as a measure of channel popularity. Time spent viewing is the amount of time the average channel user spends watching that channel

during the analysis period and is used as a measure of "liking" or involvement. Audience members give a greater proportion of their viewing time to, and are therefore more involved with, those channels that they like best, and give less (or no) time to those that they do not like as much. Looking at over-the-air television stations in the New York, Los Angeles, and Denver markets (a total of 23 stations), Barwise and Ehrenberg found a clear pattern of Double Jeopardy. Those stations that had the highest reach also performed best on time spent viewing. The only exceptions were religious and foreign language stations, which had relatively low reach but extremely high time spent viewing. Because of the specialized nature of the programming on these channels, and presumably the audience they attracted, this difference from the expected pattern may have been evidence of the "special merit" mentioned by McPhee.

The relationship between the two variables was so strong that Barwise and Ehrenberg were able to predict time spent viewing based solely on knowledge of a station's reach. In a more recent study extending the application of Double Jeopardy to other situations, Ehrenberg, Goodhardt, and Barwise have stated that other than measures of popularity and liking, "no other marketing mix or consumer variables have to be invoked to explain Double Jeopardy" (Ehrenberg, Goodhardt, & Barwise, 1990, p. 1).

In considering the implications of the Double Jeopardy finding for cable television in the U.S. (which was at fairly low penetration levels at the time the data were collected), Barwise and Ehrenberg hypothesized that in a multi-channel environment, the audience would simply spread its viewing over more channels. Narrowcast channels would suffer from the Double Jeopardy effect, in that the already small portion of the audience that did watch them would only watch them occasionally. In other words, "small but loyal" audiences would not exist for narrowcast television alternatives. Instead, smallness would be associated with a lack of loyalty or involvement (low time spent viewing), hence the label "double jeopardy." Barwise and Ehrenberg went on to point out that this pattern of audience behavior would argue against the economic viability of narrowcast television stations, and that the only successful cable channels would be those that mimicked broadcast channel programming in order to attract relatively large audiences.

The implications of Barwise and Ehrenberg's findings on Double Jeopardy in television viewing are counterintuitive. If specialized programming attracts a specialized audience, that audience should be more involved in the channel regardless of whether the audience is relatively small or large. Ehrenberg et al have stated that "we would expect some major exceptions [to Double Jeopardy] when the

competitive items are not similar" (1990, p. 14). This was clearly the case in their findings for Spanish-language and religious channels. Are U.S. cable television networks sufficiently dissimilar to offer another exception to Double Jeopardy? The present study will attempt to answer that question.

Determinants of Audience Involvement

The definitions of narrowcasting reviewed earlier indicate that narrowcasting occurs through the combination of specialized content and a specialized audience. It therefore follows that the presence of those two factors should lead to greater involvement, operationalized as time spent viewing. Thus, the amount of time the average viewer of a channel allocates to viewing programming on that channel should be greater for channels with specialized programming and that also attract a demographically homogeneous audience.

Audience size. In keeping with Barwise and Ehrenberg's (1984) findings relative to Double Jeopardy, audience size and time spent viewing should also be related. Historical evidence demonstrates that channels that attract larger audiences will also generate greater involvement from those audiences, or greater time spent viewing. Although the preceding discussion of narrowcasting suggests that smaller audiences can also demonstrate relatively great involvement

in a channel's programming, the existing evidence of a relationship between audience size and time spent viewing cannot be ignored.

Program repetition. Program repetition should also have an impact on time spent viewing. Program repetition, while encouraging audience homogeneity, would likely depress time spent viewing. Having seen a program once, the viewer would be unlikely to allocate time to watching the same program again. Barwise and Ehrenberg have documented that with repeated programming, "the audience is usually smaller than for the initial screening" (1988, p. 46). Thus, while a practice of repeating programs eases access for the audience by ameliorating the problem of availability, it would also serve to decrease overall time spent viewing the channel.

Program length. Another structural variable, program length, should also aid in predicting time spent viewing. One of the characteristics of the range of cable television networks that clearly differentiates cable from traditional over-the-air broadcast television is the wide range of program lengths. Cable networks such as MTV, VH-1, and The Weather Channel offer very short programs of music videos and weather reports, each lasting only a few minutes. At the other extreme, Home Box Office and Showtime, the premium channels, program feature films that are generally one and

one-half to two hours in length. The importance of scheduling strategies, which include flow of programs in a network's schedule, has been identified as an important element in audience program choice (Webster & Wakshlag, 1983; Webster, 1985).

Networks whose programming is made up primarily of longer programs should generate greater time spent viewing simply because the longer programs should aid in increasing involvement and thus holding onto viewers, assuming that most viewers would not switch to or from a channel in the middle of a program. While this presumption seems logical, it is by no means a given. Gerken has documented that "generally, longer duration programs have a greater potential for people to enter and leave the telecast, generating greater turnover" (1989, p. 126). Whether the specialized nature of programming on cable channels will act to thwart this tendency remains to be seen.

Summary

Audience involvement, despite having psychological elements, may be operationalized through the behavioral construct of time spent viewing. This is a recognizable pattern of purposive behavior assessed over time, one that indicates conscious choice among alternatives. Narrowcast channels should engender greater audience involvement (greater time spent viewing) than broadcast channels.

This assertion contradicts a well-documented stream of research which has identified the existence of the Law of Double Jeopardy for television channels. As described above, the Law of Double Jeopardy holds that channels with smaller audiences will also be less "liked" by the audience attracted. As narrowcasting is defined in part by its small audience size, adherence to the Law of Double Jeopardy would predict that narrowcast audiences would be less involved than larger broadcast channel audiences.

Reconciliation of these divergent views is difficult. If Double Jeopardy does hold true for cable television channels, one of two possibilities might be operating. The first possibility would be that cable television channels, no matter how specialized in programming and audience, cannot attract involved audiences. While this condition would not necessarily decrease the appeal of those channels for either creators or audience members, whose needs would be satisfied through the mere existence of the channel, it would decrease the appeal for advertisers and consequently for channel management. That would occur because a small but relatively uninvolved channel audience would be made up of an ever-changing group of viewers who give the channel a relatively small proportion of their television viewing time. If that audience is demographically homogeneous, an advertiser might buy time on the channel as a means of

building exposure frequency within the demographic group, although this would be something of a hit-or-miss proposition, given the low time spent viewing. As far as an objective of building reach against the demographic group is concerned, the advertiser would be better off buying time on other channels that attract a greater proportion of the demographic group's viewing time. And, if a channel is unsuccessful in attracting advertiser support, channel management is unlikely to continue to put resources into the channel.

The second possibility, should Double Jeopardy be found to apply to cable television channels, is that present cable television channels do not meet the true definition of narrowcasting. That is, the channels' programming strategies are not sufficiently specialized to attract an audience which is not only small, but also demographically homogeneous and relatively involved. In this situation, the channels would not be differentiated to a degree sufficient to allow an exception to the Law of Double Jeopardy.

This second possibility places the onus on programming strategies. This is appropriate, as programming is a channel's means of defining itself and attracting an audience. "Programming ... starts with searching out and selecting materials appropriate to a particular market and a predefined target audience" (Head, 1989, p. 5). Or, put

more succinctly, "programming is war" (Haldi, 1989, p. 227). Programming is where narrowcasting begins, although an assessment of its role may be clouded by the difficulties in capturing programming strategies in audience research discussed earlier.

If this second situation is the case, it suggests the potential for improvement in programming strategies to better serve all concerned. Audience members' needs would be more closely met by more specialized programming, which would also work to the advantage of creators. The more involved audience thus generated would be more appealing to advertisers and, consequently, to channel management.

The foregoing discussion raises a critical question. If evidence of Double Jeopardy is found for cable television networks, the first possibility suggests that such a pattern is inevitable, and argues against the long-term viability of television narrowcasting, at least in commercial channels. The second possibility, however, suggests that Double Jeopardy is not inevitable, and that the problem does not lie in the concept of narrowcasting, but rather in its present realization in the U.S. television industry.

Research Questions

The preceding discussion suggests four major issues that invite investigation in order to begin to answer some of the questions raised. That is, is the pattern of

demassification followed by the magazine and radio media in the U.S. occurring in the television medium as well? Examination of some of the pertinent issues related to demassification may aid in answering this question.

Inter-Media Comparisons

Narrowcast programming principles have been applied in radio for a number of years. Traditional over-the-air television channels practice broadcast programming strategies. Cable television channels fall somewhere between these two extremes. Comparisons between these media should provide answers to the following questions regarding two characteristics of the narrowcast audience.

1. **To what extent is demographic homogeneity of individual channels' audiences associated with different forms of electronic media?**

   Demographic audience homogeneity has been identified as an important descriptor of the audiences for narrowcast channels. How homogeneous are the audiences for individual radio stations and the various types of television channels? Do some channels attract more homogeneous audiences than others? And, are those cable television channels that claim to appeal to a limited audience successful in attracting that audience?

2. **To what extent does audience involvement exist across different forms of electronic media? Does the pattern of audience involvement indicated by time spent viewing/listening fit that predicted by the Law of Double Jeopardy?**

As described above, Double Jeopardy is based on the relationship between two additional elements of narrowcasting: audience size and audience involvement, assessed behaviorally as time spent viewing/listening. Does the correlation between the two vary across radio stations, over-the-air television channels, and cable television channels? Or does the Double Jeopardy effect observed by Barwise and Ehrenberg hold equally for all?

Answers to these two questions should help to identify the extent to which the characteristics of narrowcasting exist today in the electronic media and whether the Double Jeopardy phenomenon holds across the electronic media.

Cable Television Audience Behavior

The earlier discussion has identified cable television as the most likely narrowcast carrier in the television medium. A closer examination of audience composition and audience involvement in cable television is therefore warranted to aid in better understanding this facet of the U.S. television medium.

3. **In a multi-channel television environment, what factors account for greater and lesser degrees of channel audience homogeneity?**

If the more narrowcast cable channels are found to be successful in attracting homogeneous audiences, what variables explain their ability to do so?

4. **In a multi-channel television environment, what factors account for greater and lesser degrees of audience involvement?**

Obviously, this question assumes that time spent viewing, and therefore, involvement, will vary across cable channels. As discussed earlier, the existing cable channels vary in their programming strategies. If the more narrowcast channels do indeed receive relatively greater time spent viewing than would be predicted under the Law of Double Jeopardy, what additional variables contribute to explaining that level of involvement?

Answers to these two questions will contribute to a deeper understanding of the viability of television narrowcasting and the means of successfully practicing such a strategy.

Research Hypotheses

Each of the research questions discussed above suggests accompanying hypotheses to be tested. These are outlined below.

Research Question 1: **To what extent is demographic homogeneity of individual channels' audiences associated with different forms of electronic media?**

H1: Audiences for radio stations are predicted to display the greatest degree of demographic audience homogeneity, followed by the audiences for cable television channels, and then by the audiences for over-the-air television channels.

Research Question 2: **To what extent does audience involvement exist across different forms of electronic media? Does the pattern of audience involvement indicated by time spent viewing/listening fit that predicted by the Law of Double Jeopardy?**

H2: The correlation between audience size (operationalized as channel reach) and audience involvement (operationalized as time spent listening for radio stations and time spent viewing for television channels) is predicted to vary across the electronic media. Over-the-air television channels are predicted to show the greatest correlation, and, therefore, the greatest

degree of Double Jeopardy. Cable television channels should show the next greatest correlation, followed by radio stations.

Research Question 3: **In a multi-channel television environment, what factors account for greater and lesser degrees of channel audience homogeneity?**

H3: Homogeneous program content will be positively related to demographic audience homogeneity. The over-the-air networks build audience heterogeneity through offering diverse programming. Channels that offer homogeneous content should attract much less diverse audiences.

H4: Program repetition will also be positively related to audience homogeneity. Repeating programs facilitates audience homogeneity through reducing the problem of audience availability.

Research Question 4: **In a multi-channel television environment, what factors account for greater and lesser degrees of audience involvement?**

H5: Audience homogeneity will be positively related to audience involvement. Channels that are able to attract a homogeneous audience should also be able to generate higher time spent viewing.

H6: Content homogeneity will be positively related to audience involvement. Channels that offer

homogeneous content should generate greater audience involvement.

H7: Audience size will also be positively related to audience involvement. This assertion is supported by historical evidence.

H8: Program repetition will be negatively related to audience involvement. High degrees of program repetition should depress time spent viewing.

H9: Average program length will be positively related to audience involvement. Longer programs encourage greater time spent viewing.

CHAPTER II

METHODOLOGY

This chapter reviews the methodology used to answer the research questions and test the hypotheses outlined in the previous chapter. Included are descriptions of the data sources; the operationalization of the dependent variables, channel audience demographic homogeneity and audience involvement; the operationalization of the independent variables; and the statistical analysis techniques which were used to test the hypotheses.

Data Sources

Syndicated Sources

Audience measurement data from syndicated sources was used to assess audience size, demographic composition, and time spent viewing/listening for the radio stations and television channels included in the analysis. The syndicated reports used were Arbitron Ratings: Radio (Spring 1987), Nielsen Station Index: Viewers in Profile (February 1989), Nielsen Homevideo Index: Cable Activity Report (first quarter 1989), and Nielsen Homevideo Index: Cable Network Audience Composition Report (first quarter 1989). The Arbitron and Nielsen companies are major suppliers of electronic media audience data whose reports are widely used in the media industry (Wimmer, Eastman, & Meyer, 1989).

In order to facilitate a historical comparison with the Barwise and Ehrenberg study of Double Jeopardy effects reviewed in the previous chapter, the decision was made to examine audience behavior and composition for local market radio stations and over-the-air television channels in the same three markets studied by those researchers: New York, Los Angeles, and Denver. During the period covered in the syndicated reports, there were 49 measured radio stations and 9 reportable[4] over-the-air television stations in the New York market. The Los Angeles market had 45 measured radio stations and 10 reportable over-the-air television stations. In the Denver market, there were 29 measured radio stations and 8 reportable over-the-air television stations, for a total of 123 radio stations and 27 over-the-air television stations.

The radio listening data were collected through weekly listener diaries, a measurement system in which respondents keep a log of what stations they listen to throughout the day for a seven-day period. The combined in-tab[5] sample for the three markets was 26,343 persons (Arbitron, 1987).

---

[4]Television stations must meet minimum audience size standards in order for audience data to be reported for the station. Only stations meeting this requirement are analyzed in the present study.

[5]"In-tab" refers to usable responses in a measurement firm's survey; that is, returned diaries, functioning meters, etc.

The viewing data for over-the-air television channels was collected through a combined metered and diary sample. (Household level viewing data collected through metering equipment is combined with audience composition data from diaries.) The total in-tab sample for the three markets was 12,220 persons (Nielsen, 1989a).

The national cable television network audience data was for a national in-tab sample of 9,323 persons in 3,697 households (Nielsen, 1989c). These data were collected through the national peoplemeter measurement system. Data were available for 21 cable television networks, which are listed in Table 1 (programming descriptions for each network are located in Appendix 1). While this does not represent the universe of cable television networks available to viewers, it does represent the universe of cable networks measured by the Nielsen system.

Other Data Sources

Three other sources of data were used in the analysis of cable television audience behavior. These included diversity and repetition measures developed by Wildman and Lee (1989), a categorical programming typology described by Eastman (1989b), and program guides for January 1989. Two types of program guides were used: guides provided by specific cable television networks for their own programming, and a weekly guide printed in the Chicago

TABLE 1: Cable Television Networks Included in the Analysis

Arts & Entertainment Daytime	Lifetime
Arts & Entertainment Nighttime	MTV (Music Television)
Black Entertainment Television	The Nashville Network
Cable News Network	Nickelodeon
The Discovery Channel	Nick at Nite
ESPN	Showtime
Financial News Network	Turner Network Television
The Family Channel	USA Network
Headline News Network	VH-1 (Video Hits One)
Home Box Office	The Weather Channel
	WTBS (Superstation)

Tribune covering programming on the Chicago affiliates of the three broadcast networks as well as a number of cable networks (TV Week, 1989).

Time Periods

All analyses were conducted for two separate time periods during an average week of viewing/listening. The average week is a distinction used by the syndicated services in their reporting of audience behavior. The time periods studied were the total programming day (as defined by the syndicated service in conjunction with the station) and a second period, drivetime/primetime. Due to patterns of audience availability, morning drivetime (6-10 a.m.) is the daypart when the radio audience is largest (Bovee & Arens, 1989, p. 479), while the primetime daypart (8-11 p.m. EST) is the peak viewing period in television (Bovee & Arens, 1989, p. 459). Stations program accordingly, usually scheduling the programs they believe have the highest audience appeal during these time periods (Lewine, Eastman, & Adams, 1989, p. 137). This shorter analysis period was selected in addition to the full programming day to explore whether any differences in audience behavior existed between the two periods in recognition of the differences in programming strategy.

The Dependent Variables

The two dependent variables, channel audience demographic homogeneity and audience involvement (time spent viewing/listening) were developed from data reported in the syndicated sources discussed above.

Audience Homogeneity

A measure of channel audience demographic homogeneity was calculated for each radio station, over-the-air television channel, and cable television network in the analysis through comparing the demographic makeup of the channel's actual (reported) audience to the demographic makeup of the potential audience, that is, the demographic makeup of the market sample. Separate measures were calculated for the two time periods studied.

The syndicated sources report audience composition, categorized into age and sex breaks, for each station measured. In addition, the demographic composition of the sample population is reported. The audience homogeneity measure for the inter-media comparison was developed as follows:

1. Where necessary, data were transformed so that each station's audience could be profiled against the same seven demographic categories (see Table 2).
2. A percentage breakout across the seven categories was computed for each station's audience.

TABLE 2: Demographic Categories Used for Inter-Media Comparison of Audience Homogeneity

Teens 12-17
Men 18-34
Men 35-49
Men 50+
Women 18-34
Women 35-49
Women 50+

3. The percentage breakout for each station was subtracted from the percentage breakout for the appropriate population sample.
4. The absolute values of the differences were summed to arrive at an audience homogeneity score.

Thus, a channel whose actual audience's demographic composition exactly matched that of the potential audience would receive a score of -0-, indicating minimal audience homogeneity. Higher scores therefore indicate greater demographic audience homogeneity.

For radio and over-the-air television stations, the demographic composition of the potential audience was defined by the makeup of the unweighted in-tab sample for the market studied, which did not vary within each medium across stations within a market.

The goal of the audience homogeneity measure was to assess channel audience composition relative to the potential audience available to that channel. Due to the differential availability of cable television networks, which is determined through the network carriage strategies of individual cable systems, the demographic composition of the potential audience for each cable network was determined individually. For example, a cable television operator in a community made up primarily of retired people might choose not to carry MTV, feeling that it would hold little appeal

for potential subscribers to his system. Because each channel confronts a different universe of viewers, selecting a common universe or potential audience profile for all cable networks might introduce bias into the audience homogeneity measure. Instead, the potential audience for each cable network was determined from the composition of the in-tab sample for each network, which is reported in the Nielsen Homevideo Index: Cable Network Audience Composition Report. Exceptions were made for the two premium channels in the analysis, Home Box Office and Showtime. Since cable television subscribers must make a decision whether or not to pay an additional fee to receive these channels, which is itself a type of choice, the potential audience for these two services was defined as a cable television "average" audience, based on the sample demographic composition of the three largest cable networks, WTBS, ESPN, and the Cable News Network.

Audience homogeneity values and breakouts of the potential and actual audiences for each radio station and all television channels in the study are in Appendix 2.

Audience Involvement

Audience involvement, operationalized as time spent viewing (TSV) for over-the-air television and cable television channels and time-spent-listening (TSL) for radio

stations, was computed using the following formula (Wimmer, Eastman, & Meyer, 1989, p. 74):

$$\text{TSV/L in quarter hrs} = \frac{\text{QHs X AQH Audience}}{\text{Cume Audience}}$$

where QHs = number of quarter hours in the time period

AQH Audience = number of viewers/listeners in the channel's audience during an average quarter hour in the time period

Cume Audience = total number of persons in the channel's audience during the time period

The resulting figure, the number of quarter hours the average viewer/listener of the channel spent with the channel, was then divided by four, resulting in a measure of TSV/L in hours. Higher TSV indicates greater audience involvement. Note that TSV will be higher in situations where the size of the average quarter hour audience is large relative to the cume audience, that is, in situations where there is little audience turnover. TSV and TSL values for each station in both dayparts are in Appendix 3.

The Independent Variables

Independent variables in the analysis include audience size, program content homogeneity, average program length, and program repetition.

Audience Size

In keeping with the methodology used by Barwise and Ehrenberg (1984), audience size was operationalized as cume rating, and is taken directly from the syndicated audience measurement reports. It is a measure of the number of households that listen to/watch the channel during the time period in an average week expressed as a percentage of total households. Audience size figures for each station are also found in Appendix 3.

Program Content Homogeneity

Due to the difficulties in assessing program content discussed in the previous chapter, two separate measures of content homogeneity for cable television channels were developed, a ratio level measure and a nominal level measure.

Ratio level measure of content homogeneity. Values for this measure were computed based on the program diversity index developed by Wildman and Lee (1989). Wildman and Lee identified twenty-seven distinct program types, using both a typology developed by Nielsen and their own analysis of cable television programming. (See Table 3 for a listing of

the program types.) If each channel allocated equal programming time to each program type (maximum content heterogeneity), each program type would account for 3.7 percent of the channel's total programming time. Using this fact as a baseline, a channel's content homogeneity was determined as follows:

1. Programming on the channel was classified into the appropriate program type(s).
2. The percentage of total programming time on the channel accounted for by each program type was computed.
3. The actual program type content distribution was subtracted from the baseline distribution (3.7% in each of 27 categories).
4. The absolute values of the differences were summed for a ratio level measure of content homogeneity.

Higher values indicate greater homogeneity, with a maximum possible value of 193 for a channel which uses only one program type (Wildman & Lee, 1989).

Wildman and Lee's analysis looked only at the full programming period, and included twelve of the twenty-one cable networks examined in the present study. Content homogeneity scores were computed for the full programming period for those networks not studied by Wildman and Lee and for all networks during the primetime programming period. Program guide descriptions were used to make program type

TABLE 3: Program Type Categories

Adventure	Mystery/Suspense
True-to-Life Adventure	News
Audience Participation	Performance
Biography	Game/Quiz
Children	Science Fiction
Situation Comedy	Shorts
Devotional	Sports
Documentary	Talk & Educational
Drama	Travel
Feature Film	Comedy Variety
How-to-do/Unclassified	General Variety
Interview	Musical Variety
Magazine	Western
Miniseries	

Source: "Program Choice in a Broadband Environment," by Steven S. Wildman and Nancy Y. Lee. Northwestern University, Center for Telecommunications and Information Studies, 1989.

classifications. Program type distributions for each network during both time periods are detailed in Appendix 4.

Nominal level measure of content homogeneity. The twenty-one cable television networks in the analysis were each assigned to one of four categories based on a typology discussed by Eastman (1989b, p. 270-271), which classifies cable television networks based on both the range of program types offered and the diversity of the audience sought by the network. The four categories are: (1) broad content/broad audience, where the network's programming consists of a wide range of program types and the audience sought is heterogeneous (for example, the strategy followed by the USA Network); (2) broad content/narrow audience, where programming is heterogeneous but the desired audience is homogeneous (the strategy followed by the Lifetime network); (3) narrow content/broad audience, where the channel specializes in a limited number of program types while trying to attract a heterogeneous audience (for example, the strategy used by The Weather Channel); and (4) narrow content/narrow audience, where programming is limited to a few types and the desired audience is homogeneous (for example, the strategy used by the Financial News Network).

It should be noted that while this classification scheme employs a consideration of audience composition, it differs from the audience homogeneity measure discussed

earlier in that the audience here is the audience desired by the network, while the audience homogeneity measure is based on the audience delivered by the network.

Classifications were made based on network programming and audience attraction strategies as identified by Eastman (1989b) and by Reiss (1989), and are shown in Table 4.

Program Repetition

The degree of program repetition for each cable television network was determined using a repetition measure developed by Wildman and Lee (1989). This measure is a percentage expression of the proportion of total programming hours during a time period consisting of repeated programming, that is, programming which has already aired during the time period.

Wildman and Lee examined January 1989 programming schedules for twelve of the twenty-one networks included in this analysis. For those networks, the full programming period repetition proportion is that reported by Wildman and Lee, with the exception of the Cable News Network [CNN]. The Wildman and Lee repetition figure reflects the fact that CNN runs separate news programs throughout the day, each of which is separately produced, resulting in additional costs for the station (the focus of Wildman and Lee's analysis). However, as the present analysis has a focus of audience behavior, it was deemed more appropriate to recognize the

TABLE 4: Nominal Level Content Homogeneity Categorization

Category 1:	Broad Content/Broad Audience
	The Family Channel
	Home Box Office
	Showtime
	Turner Network Television
	WTBS
	USA Network
Category 2:	Broad Content/Narrow Audience
	Arts & Entertainment Daytime
	Arts & Entertainment Nighttime
	Black Entertainment Television
	The Discovery Channel
	ESPN
	Lifetime
	The Nashville Network
	Nickelodeon
Category 3:	Narrow Content/Broad Audience
	Cable News Network
	Headline News Network
	Nick At Nite
	The Weather Channel
Category 4:	Narrow Content/Narrow Audience
	Financial News Network
	MTV
	VH-1

fact that news is only "new" once, resulting in greater repetition than identified by Wildman and Lee. The same principle was applied to programming on the Headline News Network, and is detailed in Appendix 5.

Program repetition measures for the full programming period were calculated for those cable television networks not studied by Wildman and Lee and for all networks for the primetime programming period using the same methodology employed by Wildman and Lee. In cases where it was not possible to determine program repetition directly from a network's programming schedule, the network was contacted to arrive at an estimation of repetition. While repetition values for these networks may not be as exact as those calculated directly from program schedules, the relative level of repetition is believed to be accurate and appropriate for the present analysis. These exceptions are also detailed in Appendix 5.

Average Program Length

Average program length during the full programming period and the primetime programming period was calculated for each network by counting the number of programs aired during the period and dividing that number into the total number of minutes in the programming period, resulting in average program length in minutes. Program counts for each

network in the analysis during each time period are given in Appendix 6.

Because the syndicated service reports for cable television focus on an average week, both program repetition and average program length were calculated across the month of January 1989 for each network in recognition of some networks' practice of varying programming from week to week.

Statistical Analysis

Three forms of statistical analysis were employed to answer the research questions and test the hypotheses outlined in the previous chapter.

Research Question One

The first research question and its accompanying hypothesis predicted a difference in mean audience homogeneity across the three electronic media types: radio stations, over-the-air television stations, and cable television networks. This comparison was assessed using oneway analysis of variance (ANOVA).

Research Question Two

The second research question and its accompanying hypothesis predicted a difference in the size of the correlation between audience size (channel reach) and audience involvement (time spent viewing/listening) across the three electronic media types. This comparison was made in two stages. First, the correlation between the two

variables within each media type for both time periods was determined using the SPSSPC+ correlation procedure. Second, the significance of the difference between the pairs of correlations (radio--cable, cable--over-the-air television, and radio--over-the-air television) was calculated using a correlation difference test, which is appropriate for testing the difference between two correlations from independent populations (Bohrnstedt & Knoke, 1982, p. 274).[6]

Research Questions Three and Four

Multiple regression was employed to answer the third and fourth research questions and to test their accompanying hypotheses. Separate analyses were made using the two measures of content homogeneity, which were considered alternative measures of the same variable rather than measures of two different variables. Since no hypotheses were developed concerning the relative predictive power of each of the independent variables, the stepwise method was selected as most appropriate for this analysis.

All measures were assessed using the SPSSPC+ statistical package.

---

[6]In the correlation difference test, the correlation values are first transformed into Z scores. The significance of the difference in the correlations is determined using this equation:

$$Z = \frac{Z(1) - Z(2)}{\sqrt{\frac{1}{N(1) - 3} + \frac{1}{N(2) - 3}}}$$

CHAPTER III

RESULTS

This chapter presents the study findings, which are organized according to the research questions presented in Chapter I. Where applicable, results of the initial analyses are followed by results of post hoc analyses of the data.

Differential Demographic Audience Homogeneity

Initial Analysis

The first research question addressed the nature of demographic composition of the audience for radio stations, over-the-air television channels, and cable television channels, asking to what extent channel audience demographic homogeneity is associated with these different forms of electronic media. Table 5 illustrates the results of the analysis for both the full programming period and the primetime/drivetime period.

As was hypothesized, mean channel audience homogeneity for radio stations was greater than that for cable television channels, which was greater than that for over-the-air television channels in both time periods. In both cases, a Scheffé test indicated that the difference in means is significant ($p<.05$) for the radio--cable pair of means and the radio--over-the-air television pair of means. Mean

TABLE 5: Demographic Audience Homogeneity Group Means

Full Programming Period

Medium	N	$\bar{X}$	s.d.
Radio	123	69.46_{ab}	21.08
Cable Television	21	39.08_{a}	17.72
Over-the-Air Television	27	30.84_{b}	14.78

Note Means having the same subscript differ significantly at $p<.05$.

Primetime/Drivetime Programming Period

Medium	N	$\bar{X}$	s.d.
Radio	123	69.91_{ab}	20.98
Cable Television	21	42.57_{a}	18.79
Over-the-Air Television	27	29.30_{b}	17.00

Note Means having the same subscript differ significantly at $p<.05$.

channel audience demographic homogeneity for the two forms of television is not significantly different.

Post Hoc Analysis

Largely because of the audience measurement techniques used (i.e., personal diaries), audience measurement data for radio stations does not include information on audience members younger than twelve years of age. However, such data is available for television channel audiences. It was felt that the necessary exclusion of children twelve years and younger from the three-way comparison of audience composition might be masking existent demographic variation. Several cable television networks, particularly Nickelodeon, program to appeal primarily to children. An audience assessment that does not account for the presence of children would not provide an accurate characterization of the audience. Therefore, the data on children's viewing behavior available for the television channels in the present study was used in a post hoc analysis of channel audience demographic homogeneity for over-the-air and cable television channels.

The expanded demographic categorization scheme is shown in Table 6, and is believed to be more descriptive of the television audience than the categorization used for comparison across the three media types. The same procedure described in Chapter II was used to compute new audience

TABLE 6: Demographic Categories Used to Compare Audience Homogeneity Between Cable Television and Over-the-Air Television Channels

Children 2-5

Children 6-11

Teens 12-17

Men 18-34

Men 35-49

Men 50+

Women 18-34

Women 35-49

Women 50+

homogeneity values for each television channel. (Appendix 7 contains the expanded audience homogeneity values and demographic breakouts for each channel.)

The results of this post hoc analysis are shown in Table 7. The direction of findings is as reported earlier, in that mean demographic audience homogeneity for cable television channels is greater than that for over-the-air television channels. For the full programming period, the difference in means is significant at $p<.10$. The difference in means is more highly significant in the primetime programming period ($p<.01$).

The Double Jeopardy Phenomenon

Initial Analysis

The second research question focused on the relationship between audience size and audience involvement across electronic media forms, asking whether the pattern of the relationship fit that predicted by the Law of Double Jeopardy. Under Double Jeopardy, audience size, or channel reach, and audience involvement (TSV/L) will be highly correlated. The correlations found in this study are shown in Table 8.

As can be seen, all correlations were non-significant with the exception of the correlation for cable television

Table 7: Demographic Audience Homogeneity Group Means: Expanded Cable Television and Over-the-Air Television Comparison

Full Programming Period

Medium	N	$\bar{X}$	s.d.
Cable Television	21	44.36_a	19.96
Over-the-Air Television	27	35.40_a	13.93

Note Means having the same subscript differ significantly at $p<.10$.

Primetime Programming Period

Medium	N	$\bar{X}$	s.d.
Cable Television	21	47.95_b	19.92
Over-the-Air Television	27	32.96_b	17.22

Note Means having the same subscript differ significantly at $p<.01$.

Table 8: Pearson r's for the Relationship Between Channel Reach and Time Spent Viewing/Listening

Full Programming Period

Medium	N	r
Radio	123	.027
Cable Television	21	.264
Over-the-Air Television	27	-.025

Primetime/Drivetime Programming Period

Medium	N	r
Radio	123	.066
Cable Television	21	$.633_a$*
Over-the-Air Television	27	$-.143_a$

*p<.01

Note Correlations having the same subscript differ significantly at p<.01.

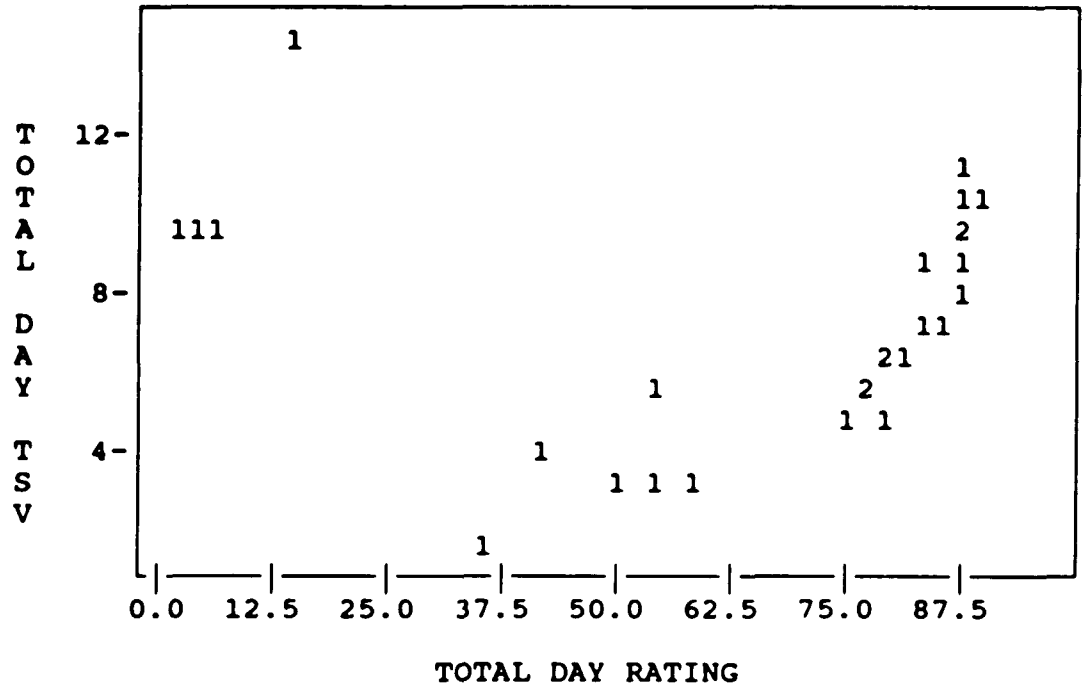
channels during the primetime programming period. The low correlation for radio stations was as predicted, and indicates the complete absence of Double Jeopardy effects in this medium. The correlation for cable television channels was greater than that for radio stations, also as predicted. However, the small correlation for over-the-air television stations was surprising, particularly when compared with the Barwise and Ehrenberg analysis (1984). Subsequent examination of scatterplots of the data suggested an explanation, which was explored in post hoc analysis.

Post Hoc Analysis

Barwise and Ehrenberg found that religious and foreign language channels provided exceptions to the Law of Double Jeopardy (1984). An examination of the scatterplot for the over-the-air television channels in the present analysis (shown in Figure 1) revealed four outlying data points. These four stations are each Spanish-language broadcasters, and fit the pattern of exceptions identified by Barwise and Ehrenberg. Table 9 shows the resulting correlations when these four channels are treated as outliers and consequently omitted from the analysis.

For the full programming period, the direction of the differences in the correlations is as hypothesized. That is, the Double Jeopardy effect is strongest for over-the-air television channels, then for cable television channels,

Figure 1: Scatterplot of Channel Reach and Channel TSV for Over-the-Air Television Channels



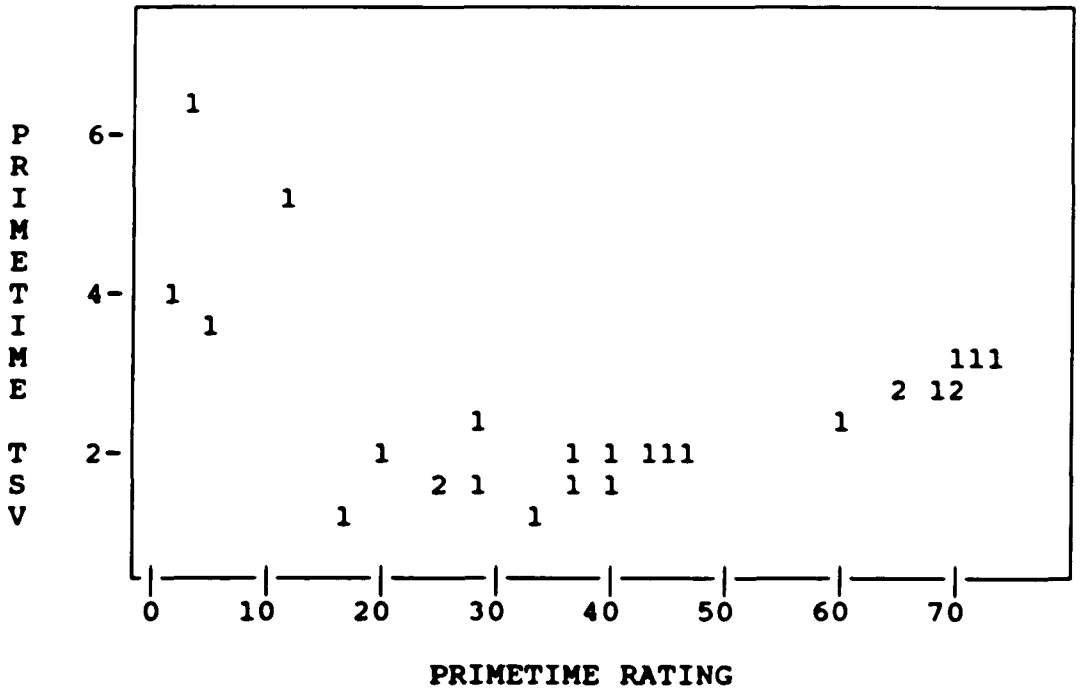


Table 9: Pearson r's for the Relationship Between Channel Reach and Time Spent Viewing/Listening Omitting Spanish-Language Channels

Full Programming Period

Medium	N	r
Radio	123	$.027_{a}$
Cable Television	21	$.264_{b}$
Over-the-Air Television omitting Spanish-language	23	$.846*_{ab}$

*p<.001

Note Correlations having the subscript (a) differ significantly at p<.001. Correlations having the subscript (b) differ significantly at p<.01.

Primetime/Drivetime Programming Period

Medium	N	r
Radio	123	$.066_{ab}$
Cable Television	21	$.633**_{ac}$
Over-the-Air Television omitting Spanish-language	23	$.910*_{bc}$

*p<.001 **p<.01

Note Correlations having the subscripts (a) and (b) differ significantly at p<.001. Correlations having the subscript (c) differ significantly at p<.05.

then for radio stations. The correlations for the two forms of television are significantly different ($p<.01$), as are the correlations for radio and over-the-air television ($p<.001$).

For the primetime/drivetime programming period, the direction of the differences in the correlations is again as hypothesized. The correlations for radio and both forms of television are significantly different ($p<.001$). While the cable correlation is itself significant ($p<.001$), the correlation for over-the-air television channels is still significantly larger ($p<.05$).

Coverage area ratings. In the preceding analysis, the audience size figure used for cable television networks was the rating the network received against a base of all television viewers. This method of audience assessment is the standard used in the advertising industry, where cable television networks are compared to one another and to non-cable networks on the basis of total audience delivery. However, Nielsen also reports a coverage area rating for each cable network. This figure represents the network's delivered audience as a percentage of a base of the potential audience. Thus, the coverage area rating accounts for differential availability of cable television networks. Table 10 shows the results of a comparison between cable television and over-the-air television when coverage area

rating is substituted for total rating. For the full programming period, the correlation for cable channels is greater than that for over-the-air channels. However, in the primetime programming period, the correlation for cable channels is significantly less than that for over-the-air channels ($p<.10$).

Determinants of Demographic Audience Homogeneity

The third research question and accompanying hypotheses sought to identify determinants of demographic audience homogeneity for cable television channels. In addressing this question, a third variation on the audience homogeneity measure discussed earlier was used. The available data on cable television audiences makes it possible to examine finer age breaks, as shown in Table 11. The resulting audience homogeneity values were used at this stage of the analysis. (Appendix 8 contains the demographic breakouts for each network for both time periods.)

Tables 12 and 13 show the resulting correlation matrices for the full programming period when the relevant independent variables are entered into a regression analysis where audience homogeneity is the dependent variable. Table 12 is the correlation matrix produced when the ratio level measure of content homogeneity is used, while Table 13 substitutes the nominal level measure, which was entered in

Table 10: Pearson r's for the Relationship Between Channel Reach and Time Spent Viewing/Listening in Cable Television and Over-the-Air Television Channels Using Coverage Area Channel Reach

Full Programming Period

Medium	N	r
Cable Television	21	.895*
Over-the-Air Television omitting Spanish-language	23	.846*

*p<.001

Primetime/Drivetime Programming Period

Medium	N	r
Cable Television	21	.745*$_a$
Over-the-Air Television omitting Spanish-language	23	.910*$_a$

*p<.001

Note Correlations having the same subscript differ significantly at p<.10.

TABLE 11: Demographic Categories Used to Assess Audience Homogeneity for Cable Television Networks

Children 2-5

Children 6-11

Teens 12-17

Men 18-34

Men 35-49

Men 50-64

Men 65+

Women 18-34

Women 35-49

Women 50-64

Women 65+

dummy variable form. Tables 14 and 15 show the corresponding values for the primetime programming period.

Full Programming Period

Content homogeneity. As hypothesized, the relationship between audience homogeneity and content homogeneity is positive (r=.377), though not significant, during this period when the ratio level measure is used. When the nominal level measure of content homogeneity is substituted, the relationship is negative and significant (r=-.613, $p<.01$) for the first category, which is composed of networks with broad program content and audience attraction strategies, and positive but not significant for the other three categories. Thus, H3 is supported directionally.

Program repetition. Audience homogeneity and program repetition are positively correlated in the full programming period, though the correlation is not significant. Greater program repetition appears to generate greater audience homogeneity, giving some support to H4.

Primetime Programming Period

Content homogeneity. During primetime, the ratio level measure of content homogeneity is negatively correlated with audience homogeneity, counter to the full programming period finding. This correlation is not significant. When the nominal level measure is used, the correlation is negative for the two categories identified as using broad content

TABLE 12: Correlation Matrix: Full Programming Period

Dependent Variable = Audience Homogeneity

Variables	2	3	$\bar{x}$	s.d.
1. Audience Homogeneity	.377	.189	44.48	19.88
2. Content Homogeneity	--	.477	159.05	22.59
3. Program Repetition		--	42.62	28.59

Note Variables are defined as follows:

1. Degree of demographic homogeneity within the audience for the network based on a comparison with the demographic composition of the overall sample for the network.

2. Degree of content homogeneity for the network based on a comparison between actual program type time allocation and predicted program type time allocation (measured on an interval scale).

3. Degree of program repetition on the network during the time period (determined by dividing hours of repeated programming by total programming hours).

TABLE 13: Correlation Matrix: Full Programming Period

Dependent Variable = Audience Homogeneity

Variables	2	3	4	5	6	$\bar{x}$	s.d.
1. Audience Homogeneity	-.613*	.169	.145	.394	.189	44.48	19.88
2. Content Category 1	--	-.496	-.307	-.258	-.290	.29	.46
3. Content Category 2		--	-.381	-.320	-.117	.38	.50
4. Content Category 3			--	-.198	.281	.19	.40
5. Content Category 4				--	.222	.14	.36
6. Program Repetition					--	42.62	28.59

*p<.01

Note Variables are defined as follows:

1. Degree of demographic homogeneity within the audience for the network based on a comparison with the demographic composition of the overall sample for the network.

2-5. Four level categorization scheme based on network programming practices (broad vs. narrow) and makeup of audience sought by the network (broad vs. narrow).

6. Degree of program repetition on the network during the time period (determined by dividing hours of repeated programming by total programming hours).

TABLE 14: Correlation Matrix: Primetime Programming Period

Dependent Variable = Audience Homogeneity

Variables	2	3	$\bar{x}$	s.d.
1. Audience Homogeneity	-.048	-.098	48.42	19.82
2. Content Homogeneity	--	.533*	178.43	11.41
3. Program Repetition		--	13.17	21.84

*p<.01

Note Variables are defined as follows:

1. Degree of demographic homogeneity within the audience for the network based on a comparison with the demographic composition of the overall sample for the network.

2. Degree of content homogeneity for the network based on a comparison between actual program type time allocation and predicted program type time allocation (measured on an interval scale).

3. Degree of program repetition on the network during the time period (determined by dividing hours of repeated programming by total programming hours).

TABLE 15: Correlation Matrix: Primetime Programming Period

Dependent Variable = Audience Homogeneity

Variables	2	3	4	5	6	$\bar{x}$	s.d.
1. Audience Homogeneity	-.493	.317	-.019	.218	-.098	48.42	19.82
2. Content Category 1	--	-.496	-.307	-.258	-.130	.29	.46
3. Content Category 2		--	-.381	-.320	-.473	.38	.50
4. Content Category 3			--	-.198	.705*	.19	.40
5. Content Category 4				--	.033	.14	.36
6. Program Repetition					--	13.17	21.84

*p<.001

Note Variables are defined as follows:

1. Degree of demographic homogeneity within the audience for the network based on a comparison with the demographic composition of the overall sample for the network.

2-5. Four level categorization scheme based on network programming practices (broad vs. narrow) and makeup of audience sought by the network (broad vs. narrow).

6. Degree of program repetition on the network during the time period (determined by dividing hours of repeated programming by total programming hours).

programming strategies. The correlation is positive for the two categories identified as using narrow content strategies, which may suggest further support for H3. None of these correlations are statistically significant.

Program repetition. In the primetime programming period, program repetition and audience homogeneity are negatively correlated, although the correlation is not significant. This is contrary to the finding for the full programming period.

Results of Regression Analysis

Tables 16 and 17 show the regression values generated through a stepwise analysis. It should be noted that when the ratio level measure of content homogeneity was used, no variables emerged as significant predictors of audience homogeneity. In both programming periods, membership in Category 1 (broad content, broad audience) of the nominal level measure of content homogeneity was a significant predictor of audience homogeneity. In both cases, membership in this category acted to depress audience homogeneity. The amount of explained variance was 38% ($F(1,19) = 11.42$, $p<.01$) for the full programming period, and 24% ($F(1,19) = 6.11$, $p<.05$) for the primetime programming period.

TABLE 16: Determinants of Audience Homogeneity During the Full Programming Period

Independent Variables:	Unstandardized Coefficients (T value) Step 1
Content Category 1	-26.32 (-3.38)*
Constant	52.00
R2	.38
Overall F	11.42
df	1,19

* significant at p<.01.
The overall F value is significant at p<.01.

TABLE 17: Determinants of Audience Homogeneity During the Primetime Programming Period

Independent Variables:	Unstandardized Coefficients (T value) Step 1
Content Category 1	-21.12 (-2.47)*
Constant	54.45
R2	.24
Overall F	6.11
df	1,19

* significant at p<.05.
The overall F value is significant at p<.05.

Determinants of Audience Involvement

The final research question and accompanying hypotheses sought to identify determinants of audience involvement (TSV) for cable television networks. Tables 18-21 detail correlation matrices produced in regard to this issue. Tables 18 and 19 respectively are the correlation matrices for the full programming period when the ratio and nominal level measures of content homogeneity are used. Tables 20 and 21 are the corresponding correlation matrices for the primetime programming period.

Full Programming Period

Audience homogeneity. As seen in Tables 18 and 19, TSV and audience homogeneity are negatively correlated in this time period, although the correlation is not significant. More homogeneous audiences do not appear to be more involved. Thus, H5 is not supported.

Content homogeneity. The ratio level measure of content homogeneity (Table 18) is also negatively (and non-significantly) correlated with TSV, contrary to the direction predicted by H6. When the nominal level measure of content homogeneity is substituted (Table 19), the correlation is positive and significant for Category 1 ($p<.001$) and negative for all other categories. H6 is not supported.

TABLE 18: Correlation Matrix: Full Programming Period

Dependent Variable = Time Spent Viewing (TSV)

Variables	2	3	4	5	6	$\bar{x}$	s.d.
1. Time Spent Viewing	-.299	-.171	.264	.659*	.205	2.98	1.94
2. Audience Homogeneity	--	.377	-.355	.189	-.376	44.48	19.88
3. Content Homogeneity		--	-.355	.477	-.346	159.05	22.59
4. Rating			--	-.320	.049	26.09	14.36
5. Program Repetition				--	-.301	42.62	28.59
6. Average Program Length					--	45.05	23.74

*p<.001

Note Variables are defined as follows:

1. Amount of time (in weekly hours) the average viewer of a network spent viewing that network during the time period.

2. Degree of demographic homogeneity within the audience for the network based on a comparison with the demographic composition of the overall sample for the network.

3. Degree of content homogeneity for the network based on a comparison between actual program type time allocation and predicted program type time allocation (measured on a ratio scale).

4. Average week cumulative rating during the time period for the network on a base of all television households.

5. Degree of program repetition on the network during the time period (determined by dividing hours of repeated programming by total programming hours).

6. Length in minutes of the average program on the network during the time period.

TABLE 19: Correlation Matrix: Full Programming Period

Dependent Variable = Time Spent Viewing (TSV)

Variables	2	3	4	5	6	7	8	9	$\bar{x}$	s.d.
1. Time Spent Viewing	-.299	.699#	-.286	-.190	-.293	.264	.205	.659#	2.98	1.94
2. Audience Homogeneity	--	-.613*	.169	.145	.394	-.355	.189	-.376	44.48	19.88
3. Content Category 1		--	-.496	-.307	-.258	.381	-.290	.670#	.29	.46
4. Content Category 2			--	-.381	-.320	-.102	-.117	-.020	.38	.50
5. Content Category 3				--	-.198	-.086	.281	-.353	.19	.40
6. Content Category 4					--	-.253	.222	-.442	.14	.36
7. Rating						--	-.320	.049	26.09	14.36
8. Program Repetition							--	-.301	42.62	28.59
9. Average Program Length								--	45.05	23.74

*p<.01 #p<.001

Note Variables are defined as follows:

1. Amount of time (in weekly hours) the average viewer of a network spent viewing that network during the time period.

2. Degree of demographic homogeneity within the audience for the network based on a comparison with the demographic composition of the overall sample for the network.

3-6. Four level categorization scheme based on network programming practices (broad vs. narrow) and makeup of audience sought by the network (broad vs. narrow).

7. Average week cumulative rating during the time period for the network on a base of all television households.

8. Degree of program repetition on the network during the time period (determined by dividing hours of repeated programming by total programming hours).

9. Length in minutes of the average program on the network during the time period.

Audience size (rating). As predicted, and in line with the Barwise and Ehrenberg thesis (1984), rating and TSV are positively correlated, although the correlation is not significant (see Tables 18 and 19). H7 is therefore supported directionally.

Program repetition. Program repetition and TSV are positively correlated in this time period (Tables 18 and 19). That is, greater program repetition does not appear to depress TSV. The correlation is not significant. Thus, H8 is not supported.

Average program length. Average program length and TSV are positively and significantly ($p<.001$) correlated in the full programming period (Tables 18 and 19). Hence, H9 is supported.

Primetime Programming Period

Audience homogeneity. Audience homogeneity and TSV are also negatively correlated in this time period (see Tables 20 and 21). The correlation is not significant. Once again, greater demographic audience homogeneity does not appear to generate greater audience involvement.

Content homogeneity. Content homogeneity and TSV are negatively (and nonsignificantly) correlated when the ratio level measure of content homogeneity is used (Table 20). When the nominal level measure is used (Table 21), the

TABLE 20: Correlation Matrix: Primetime Programming Period

Dependent Variable = Time Spent Viewing (TSV)

Variables	2	3	4	5	6	$\bar{x}$	s.d.
1. Time Spent Viewing	-.028	-.175	.633*	-.312	.518*	1.21	.35
2. Audience Homogeneity	--	-.048	-.257	-.098	-.260	48.42	19.82
3. Content Homogeneity		--	-.147	.533*	-.121	178.43	11.41
4. Rating			--	-.302	.467	10.14	6.52
5. Program Repetition				--	-.398	13.17	21.84
6. Average Program Length					--	52.56	28.41

*p<.01

Note Variables are defined as follows:

1. Amount of time (in weekly hours) the average viewer of a network spent viewing that network during the time period.

2. Degree of demographic homogeneity within the audience for the network based on a comparison with the demographic composition of the overall sample for the network.

3. Degree of content homogeneity for the network based on a comparison between actual program type time allocation and predicted program type time allocation (measured on a ratio scale).

4. Average week cumulative rating during the time period for the network on a base of all television households.

5. Degree of program repetition on the network during the time period (determined by dividing hours of repeated programming by total programming hours).

6. Length in minutes of the average program on the network during the time period.

TABLE 21: Correlation Matrix: Primetime Programming Period

Dependent Variable = Time Spent Viewing (TSV)

Variables	2	3	4	5	6	7	8	9	$\bar{x}$	s.d.
1. Time Spent Viewing	-.028	.568*	-.021	-.264	-.408	.633*	-.312	.518*	1.21	.35
2. Audience Homogeneity	--	-.493	.317	-.019	.218	-.257	-.098	-.260	48.42	19.82
3. Content Category 1		--	-.496	-.307	-.258	.460	-.130	.600*	.29	.46
4. Content Category 2			--	-.381	-.320	-.086	-.473	.103	.38	.50
5. Content Category 3				--	-.198	-.136	.705#	-.382	.19	.40
6. Content Category 4					--	-.321	.033	-.489	.14	.36
7. Rating						--	-.302	.467	10.14	6.52
8. Program Repetition							--	-.398	13.17	21.84
9. Average Program Length								--	52.56	28.41

*p<.01 #p<.001

Note Variables are defined as follows:

1. Amount of time (in weekly hours) the average viewer of a network spent viewing that network during the time period.

2. Degree of demographic homogeneity within the audience for the network based on a comparison with the demographic composition of the overall sample for the network.

3-6. Four level categorization scheme based on network programming practices (broad vs. narrow) and makeup of audience sought by the network (broad vs. narrow).

7. Average week cumulative rating during the time period for the network on a base of all television households.

8. Degree of program repetition on the network during the time period (determined by dividing hours of repeated programming by total programming hours).

9. Length in minutes of the average program on the network during the time period.

correlation is positive and significant ($p<.01$) for Category 1 and negative and nonsignificant for Categories 2-4.

Audience size (rating). As was the case in the full programming period, rating and TSV are positively correlated (Tables 20 and 21). In this time period, the correlation is significant ($p<.01$), more fully supporting H7.

Program repetition. Program repetition and TSV are negatively correlated during the primetime programming period, suggesting that greater repetition during this period does tend to depress TSV, which supports H8 directionally (Tables 20 and 21). The correlation is not significant.

Average program length. Average program length and TSV are again positively correlated (see Tables 20 and 21), offering further support for H9. The correlation is significant ($p<.01$).

Results of Regression Analysis

Table 22 shows the regression output for the full programming period when the ratio level measure of content homogeneity is used. Three variables are significant predictors of TSV ($p<.01$): average program length, program repetition, and rating. The combination of these variables explains 76% of the variance in TSV during this time period ($F(3,17) = 18.38$, $p<.001$).

Table 23 shows the regression output for the full programming period substituting the nominal level measure of content homogeneity. As before, average program length, program repetition, and rating are all significant predictors of TSV ($p<.05$). However, in this instance content homogeneity Category 1 also enters the equation ($p<.05$). The combination of these four variables explains 83% of the variance in TSV ($F(4,16) = 19.30$, $p<.001$).

Table 24 shows the regression output for the primetime programming period. Regardless of the content homogeneity measure used, rating (audience size) is the only significant predicator of TSV in this period ($p<.01$). It explains 40% of the variance in TSV ($F(1,19) = 12.70$, $p<.01$).

Post Hoc Analysis

The same series of regression analyses was run substituting coverage area rating for total audience rating. Resulting correlation matrices are shown in Tables 25-28. Tables 25 and 26 respectively are the matrices for the full programming period when the ratio and nominal level measures of content homogeneity are used. Tables 27 and 28 are the corresponding matrices for the primetime programming period.

Coverage area rating and TSV are positively correlated in both time periods, suggesting the Double Jeopardy effect, that is, channels with larger audiences also have greater TSV. The strength of this relationship is further

Table 22: Determinants of Time Spent Viewing During the Full Programming Period.

Independent Variables:	Unstandardized Coefficients (T value) Step 1	Step 2	Step 3
Average Program Length	.054 (3.82)	.065 (5.16)	.067 (6.59)
Program Repetition	--	.030 (2.89)	.040 (4.46)
Rating	--	--	.055 (3.30)
Constant	.547	-1.231	-3.155
R2	.43	.61	.76
Overall F	14.61	14.30	18.38
df	1,19	2,18	3,17

All figures in parentheses are T values significant at $p<.01$.

Each overall F value was significant at $p<.001$.

TABLE 23: Determinants of Time Spent Viewing During the Full Programming Period

Independent Variables:	Unstandardized Coefficients (T value)			
	Step 1	Step 2	Step 3	Step 4
Content Category 1	2.93 (4.26)	3.48 (5.85)	2.29 (3.50)	1.62 (2.44)
Program Repetition	--	.030 (3.15)	.034 (4.09)	.039 (4.99)
Average Program Length	--	--	.036 (2.83)	.046 (3.72)
Rating	--	--	--	.037 (2.22)
Constant	2.140	.695	- .750	-2.170
R2	.49	.67	.78	.83
Overall F	18.13	18.27	19.60	19.30
df	1,19	2,18	3,17	4,16

All figures in parentheses are T values significant at p<.05.
Each overall F value was significant at p<.001.

TABLE 24: Determinants of Time Spent Viewing During the Primetime Programming Period

Independent Variables:	Unstandardized Coefficients (T value) Step 1
Rating	.034 (3.56)*
Constant	.860
R2	.40
Overall F	12.70
df	1,19

* significant at p<.01.
The overall F value was significant at p<.01.

TABLE 25: Correlation Matrix: Full Programming Period Using Coverage Area Rating

Dependent Variable = Time Spent Viewing (TSV)

Variables	2	3	4	5	6	$\bar{x}$	s.d.
1. Time Spent Viewing	-.299	-.171	.895**	.205	.659**	2.98	1.94
2. Audience Homogeneity	--	.377	-.493	.189	-.376	44.48	19.88
3. Content Homogeneity		--	-.216	.477	-.345	159.05	22.59
4. Coverage Area Rating			--	.572*	.034	37.68	18.99
5. Program Repetition				--	-.301	42.62	28.59
6. Average Program Length					--	45.05	23.73

*p<.01 **p<.001

Note Variables are defined as follows:

1. Amount of time (in weekly hours) the average viewer of a network spent viewing that network during the time period.

2. Degree of demographic homogeneity within the audience for the network based on a comparison with the demographic composition of the overall sample for the network.

3. Degree of content homogeneity for the network based on a comparison between actual program type time allocation and predicted program type time allocation (measured on a ratio scale).

4. Average week cumulative rating during the time period for the network on a base of cable network coverage area.

5. Degree of program repetition on the network during the time period (determined by dividing hours of repeated programming by total programming hours).

6. Length in minutes of the average program on the network during the time period.

TABLE 26: Correlation Matrix: Full Programming Period Using Coverage Area Rating

Dependent Variable = Time Spent Viewing (TSV)

Variables	2	3	4	5	6	7	8	9	$\bar{x}$	s.d.
1. Time Spent Viewing	-.299	.699#	-.286	-.190	-.293	.895#	.205	.659#	2.98	1.94
2. Audience Homogeneity	--	-.613*	.169	.145	.394	-.493	.189	-.376	44.48	19.88
3. Content Category 1		--	-.496	-.307	-.258	.761#	-.290	.670#	.29	.46
4. Content Category 2			--	-.381	-.320	-.305	-.117	-.020	.38	.50
5. Content Category 3				--	-.198	-.216	.281	-.353	.19	.40
6. Content Category 4					--	-.318	.222	-.441	.14	.36
7. Coverage Area Rating						--	.037	.572*	37.68	18.99
8. Program Repetition							--	-.301	42.62	28.59
9. Average Program Length								--	45.05	23.74

*p<.01 #p<.001

Note Variables are defined as follows:

1. Amount of time (in weekly hours) the average viewer of a network spent viewing that network during the time period.

2. Degree of demographic homogeneity within the audience for the network based on a comparison with the demographic composition of the overall sample for the network.

3-6. Four level categorization scheme based on network programming practices (broad vs. narrow) and makeup of audience sought by the network (broad vs. narrow).

7. Average week cumulative rating during the time period for the network on a base of cable network coverage area.

8. Degree of program repetition on the network during the time period (determined by dividing hours of repeated programming by total programming hours).

9. Length in minutes of the average program on the network during the time period.

TABLE 27: Correlation Matrix: Primetime Programming Period Using Coverage Area Rating

Dependent Variable = Time Spent Viewing (TSV)

Variables	2	3	4	5	6	$\bar{x}$	s.d.
1. Time Spent Viewing	-.028	-.175	.750**	-.312	-.518*	1.21	.35
2. Audience Homogeneity	--	-.048	-.398	-.098	-.260	48.42	19.82
3. Content Homogeneity		--	-.154	.533*	-.121	178.43	11.41
4. Coverage Area Rating			--	-.133	.390	15.74	13.15
5. Program Repetition				--	-.398	13.17	21.84
6. Average Program Length					--	52.56	28.41

*p<.01 **p<.001

Note Variables are defined as follows:

1. Amount of time (in weekly hours) the average viewer of a network spent viewing that network during the time period.

2. Degree of demographic homogeneity within the audience for the network based on a comparison with the demographic composition of the overall sample for the network.

3. Degree of content homogeneity for the network based on a comparison between actual program type time allocation and predicted program type time allocation (measured on a ratio scale).

4. Average week cumulative rating during the time period for the network on a base of cable network coverage area.

5. Degree of program repetition on the network during the time period (determined by dividing hours of repeated programming by total programming hours).

6. Length in minutes of the average program on the network during the time period.

TABLE 28: Correlation Matrix: Primetime Programming Period Using Coverage Area Rating

Dependent Variable = Time Spent Viewing (TSV)

Variables	2	3	4	5	6	7	8	9	$\bar{x}$	s.d.
1. Time Spent Viewing	-.028	.568*	-.021	-.264	-.408	.750#	-.312	.518*	1.21	.35
2. Audience Homogeneity	--	-.493	.317	-.019	.218	-.398	-.098	-.260	48.42	19.82
3. Content Category 1		--	-.496	-.307	-.258	.667#	-.130	.600*	.29	.46
4. Content Category 2			--	-.381	-.320	-.244	-.473	.103	.38	.50
5. Content Category 3				--	-.198	-.210	.705#	-.382	.19	.40
6. Content Category 4					--	-.287	.033	-.489	.14	.36
7. Coverage Area Rating						--	-.133	.390	15.74	13.15
8. Program Repetition							--	-.398	13.17	21.84
9. Average Program Length								--	52.56	28.41

*p<.01 #p<.001

Note Variables are defined as follows:

1. Amount of time (in weekly hours) the average viewer of a network spent viewing that network during the time period.

2. Degree of demographic homogeneity within the audience for the network based on a comparison with the demographic composition of the overall sample for the network.

3-6. Four level categorization scheme based on network programming practices (broad vs. narrow) and makeup of audience sought by the network (broad vs. narrow).

7. Average week cumulative rating during the time period for the network on a base of cable network coverage area.

8. Degree of program repetition on the network during the time period (determined by dividing hours of repeated programming by total programming hours).

9. Length in minutes of the average program on the network during the time period.

demonstrated in Table 29, which shows the regression output for the full programming period. Coverage area rating is the only significant predictor of TSV ($p<.000$), and explains 80% of the variance ($F(1,19) = 76.63$, $p<.000$).

Table 30 shows the regression output for the primetime programming period. In this time period, coverage area rating, audience homogeneity, and average program length are all significant predictors of TSV ($p<.05$). Together, they explain 73% of the variance in TSV ($F(3,17) = 15.30$, $p<.001$).

Post Hoc Cluster Analysis

The discussion of narrowcasting in Chapter I highlighted the importance of content homogeneity and demographic audience homogeneity as necessary conditions for narrowcasting. However, the initial analyses demonstrate that neither of these variables (or at least, as operationalized in this study) are predictive of audience involvement, another important condition for narrowcasting. This finding is both puzzling and intriguing.

The nominal level measure of content homogeneity employed in this study does seem to provide some predictive ability. That measure is based on a loose assessment of content homogeneity (broad content vs. narrow content) combined with an assessment of the desired audience for the network (broad desired audience vs. narrow desired

TABLE 29: Determinants of Time Spent Viewing During the Full Programming Period Using Coverage Area Rating.

Independent Variables:	Unstandardized Coefficients (T value) Step 1
Coverage Area Full Day Rating	.092 (8.75)
Constant	-.473
R2	.80
Overall F	76.63
df	1,19

The T value is significant at p<.000.
The overall F value is significant at p<.000.

TABLE 30: Determinants of Time Spent Viewing During the Primetime Programming Period Using Coverage Area Rating

Independent Variables:	Unstandardized Coefficients (T value) Step 1	Step 2	Step 3
Coverage Area Primetime Rating	.020 (4.94)	.024 (5.76)	.021 (5.31)
Audience Homogeneity	--	.006 (2.11)	.006 (2.60)
Average Program Length	--	--	.004 (2.26)
Constant	.891	.559	.366
R2	.56	.65	.73
Overall F	24.38	16.63	15.30
df	1,19	2,18	3,17

All figures in parentheses are T values significant at $p<.05$.

Each overall F value was significant at $p<.001$.

audience). A cluster analysis was performed post hoc to further explore this method of classifying cable television networks. While the same two variables, content homogeneity and demographic audience homogeneity, were used to create the clusters, this categorization should be more precise, as actual observed values for each network were used in place of arbitrary (though informed) classifications.

Cable television networks differ in their programming strategies, and therefore in their audience attraction strategies. Norusis has stated that "the goal of cluster analysis is to identify homogeneous groups" (1986, p. B-71). The groups identified through cluster analysis can then be compared on characteristics of interest, and comparisons can be made between groups as well (Norusis, 1986). Cluster analysis is therefore an appropriate statistical technique to employ in studying a large group that is known to be made up of differing members.

Table 31 depicts the six cluster solution generated through the average linkage between groups clustering method. This clustering technique is one of the more thorough, in that it accounts for all pairs of cases in making clustering decisions (Norusis, 1986, p. B-83). The clusters in Table 31 are arranged in a two-by-two matrix based on broad vs. narrow content and broad vs. narrow audience to facilitate comparison. Table 32 shows the mean

value for each cluster on each of the variables included in this study. The implications of the cluster analysis will be discussed in Chapter IV.

TABLE 31: Composition of Cable Network Clusters Generated Based on Audience Homogeneity and Content Homogeneity (Ratio Level Measure)

AUDIENCE	CONTENT (Program Types) Broad	CONTENT (Program Types) Narrow
Broad	**Cluster 3** Black Entertainment Television Home Box Office Lifetime Showtime Turner Network Television **Cluster 5** USA Network WTBS	**Cluster 1** The Discovery Channel ESPN Headline News Network Nick at Nite VH-1 The Weather Channel
Narrow	**Cluster 4** Arts & Entertainment Daytime Arts & Entertainment Nighttime The Family Channel The Nashville Network	**Cluster 2** Cable News Network Financial News Network MTV **Cluster 6** Nickelodeon

TABLE 32: Comparison of Cable Television Network Cluster Means (Full Programming Period Measures)

Cluster	TSV	Rating	Audience Homogeneity	Content Homogeneity	Program Length	Program Repetition
1	1.94	24.4	45.3	181	27.9	55.6
2	2.33	24.4	70.8	179	33.1	56.3
3	4.83	20.4	33.0	157	71.6	43.4
4	2.30	21.1	41.8	133	46.4	40.5
5	3.73	55.8	11.8	131	52.2	5.1
6	3.10	30.5	94.1	140	35.0	14.8
All Cable	2.98	26.1	44.5	159	45.0	42.6

CHAPTER IV

DISCUSSION, LIMITATIONS, CONCLUSIONS AND IMPLICATIONS

This chapter is organized into three sections. First, the findings relevant to each of the four research questions and the post hoc cluster analysis are reviewed, interpreted, and discussed. Second, limitations of the present study are identified. Conclusions drawn from the research and the implications for future study are detailed in the third section.

Discussion

Research Question 1: Demographic Audience Homogeneity

The demographic makeup of the audience for a specific radio station or television channel carries important implications. It is reflected in the channel's programming strategy, and also determines commercial channels' ability to attract advertisers in sufficient numbers and at sufficient rates to insure financial viability. As discussed in Chapter I, a demographically homogeneous audience is a defining characteristic of narrowcasting. The results of the present analysis of demographic audience homogeneity for the radio stations and television channels in the study are revealing.

Differential Audience Composition

In today's multi-channel environment, people choosing to listen to the radio or watch television can select from a large number of options. The outcome of the present analysis of channel audience composition suggests that the selections made vary with the age/sex characteristics of the individual audience members. In each of the three forms of electronic media included in this study, there are individual channels which attract "distinct slivers of the population" (Bogart, 1985, p. 26). This is particularly evident in radio stations, which, as a group, display the greatest demographic audience homogeneity, followed by the group of cable television networks and then by the over-the-air television channels in the analysis.

This evidence of differences in the demographic composition of audiences for individual channels would seem to refute the Barwise and Ehrenberg (1988) assertion that all channels tend to attract similar audiences. Clearly, that is not the case here: there are dissimilarities in channel audience composition, both between electronic media types and within each medium.

As mentioned, there is a great deal of variability within each of the media types studied. All of the radio stations do not score high on the audience homogeneity measure, and all of the over-the-air television channels do

not score low. The ranges of audience homogeneity values for each media type and in each market are shown in Table 33.

The variability within media and within markets has several implications. It was hypothesized in Chapter I that radio stations would display the greatest degree of demographic audience homogeneity because the radio medium is acknowledged to have undergone demassification, moving from broadcasting to narrowcasting, and specialized audiences are an essential aspect of narrowcasting. As a group, the radio stations in the analysis do attract more demographically homogeneous audiences than either form of television. But, as Table 33 shows, in each market and in both time periods there are radio stations which attract audiences that are demographically heterogeneous.

It is possible that the stations attracting less homogeneous audiences are not successful commercially and may be about to leave the market, or that they are new stations still in the process of differentiating themselves and thus have yet to find "their" audience. The snapshot nature of the syndicated data captures audience behavior at one moment in time, and a longitudinal assessment that would examine the issue is beyond the range of the present study. However, a quick examination of the ratings (audience sizes) for the stations with low demographic audience homogeneity

Table 33: Audience Homogeneity Value Ranges

(7 category composition)

Radio Stations

	Minimum	Maximum
Total Radio		
Full Programming Period	28.3	116.8
Drivetime Programming Period	28.0	138.2
Los Angeles Market		
Full Programming Period	29.2	116.8
Drivetime Programming Period	28.4	127.3
Denver Market		
Full Programming Period	32.6	103.9
Drivetime Programming Period	28.0	98.4
New York City Market		
Full Programming Period	28.3	107.4
Drivetime Programming Period	32.0	138.2

Over-the-Air Television Channels

	Minimum	Maximum
Total Over-the-Air Television		
Full Programming Period	10.1	71.9
Primetime Programming Period	10.5	69.3
Los Angeles Market		
Full Programming Period	10.1	55.2
Primetime Programming Period	12.7	65.6
Denver Market		
Full Programming Period	13.4	71.9
Primetime Programming Period	15.0	60.4
New York City Market		
Full Programming Period	12.9	51.7
Primetime Programming Period	10.5	69.3

National Cable Television Channels

	Minimum	Maximum
Full Programming Period	7.8	85.0
Primetime Programming Period	23.0	87.0

values indicates that audience attraction is not a problem for all of them (see Appendices 2 and 3).

This suggests two possibilities. First, it may be that both narrowcast and broadcast options can successfully coexist within a market. Perhaps the individuals making up the media audience move back and forth between targeted and general stations, using each to satisfy different needs.

A second explanation might be that those stations with low demographic audience homogeneity values are indeed attracting homogeneous audiences, but the homogeneity is not captured by the age/sex based measure used here. In the discussion of taste cultures in Chapter I, the mass television audience was identified as being primarily lower-middle class in composition. That determination removes a great deal of variability in the audience, and the assumed socio-economic status of the bulk of the audience members can then be overlaid with age/sex descriptors to fine-tune audience definitions. Radio may not be as class-structured as television, and perhaps stations whose audiences are not homogeneous with regard to age/sex distinctions attract audiences which are homogeneous with regard to social class or some other determinant factor. Or, it may be that those radio stations in the present analysis which do not attract demographically homogeneous

audiences are attracting homogeneous culture classes as discussed in Chapter 1, in keeping with cultural pluralism.

Many of the observations made regarding radio stations are also applicable to the two types of television channels studied. When compared to radio stations through the seven-category measure of demographic audience homogeneity, cable and over-the-air television channels did not differ significantly in terms of channel audience homogeneity. However, when the audience homogeneity variable was adjusted to account for the importance of the measurable presence of children in the television audience, the difference between the two forms of television was significant ($p<.10$ for the full programming period; $p<.01$ for the primetime programming period). The relevant ranges of demographic audience homogeneity values under this nine-category scheme are shown in Table 34.

While the ranges are not as wide as those for the radio stations in the analysis, there are again clear differences in demographic audience homogeneity for the television channels examined here. Variability in the degree of audience homogeneity was expected for cable television: as noted in Chapter I, some cable channels practice broadcasting while others have adopted strategies closer to narrowcasting. The range of audience homogeneity values for the over-the-air television channels in the analysis is more

Table 34: Audience Homogeneity Value Ranges for Television Channels (9 category composition)

Over-the-Air Television Channels

	Minimum	Maximum
Total Over-the-Air Television		
Full Programming Period	21.5	83.1
Primetime Programming Period	11.6	81.2
Los Angeles Market		
Full Programming Period	21.9	58.8
Primetime Programming Period	11.6	43.6
Denver Market		
Full Programming Period	25.8	83.1
Primetime Programming Period	21.1	54.6
New York City Market		
Full Programming Period	21.5	59.2
Primetime Programming Period	17.3	81.2

National Cable Television Channels

	Minimum	Maximum
Full Programming Period	10.5	94.0
Primetime Programming Period	22.7	94.2

surprising. Over-the-air channels are generally assumed to practice broadcasting, and hence should attract heterogeneous audiences (Rust & Donthu, 1988). While this analysis shows that over-the-air television channels do attract less homogeneous audiences than do either radio or cable television channels, some over-the-air television channels do attract fairly homogeneous audiences. Somewhat different from the situation in radio, however, the over-the-air channels with the greatest audience homogeneity in each of the three markets are also relatively unsuccessful, that is, channels with comparatively small audiences. This suggests that these channels may be employing more narrowcast audience attraction strategies, resulting in small but homogeneous audiences, as a way to differentiate themselves from the broadcast options in their respective markets. The data also support the assumption that the network affiliate channels in each market are using broadcast strategies, as shown in Table 35. In each case, the network affiliates' values on the audience homogeneity measure fall toward the lower end of the range for channels in their respective markets (although it is interesting to note that the CBS affiliate consistently attracts a more homogeneous audience in primetime than the other two network affiliates).

Table 35. Demographic Audience Homogeneity Values for Network-Affiliated Over-the-Air Television Channels (9 category composition)

	Programming Period	
	Full	Primetime
Los Angeles Market		
KABC	25.3	15.9
KCBS	39.6	29.6
KNBC	30.9	17.1
Denver Market		
KUSA (ABC)	30.6	16.1
KMGH (CBS)	29.7	24.6
KCNC (NBC)	33.7	15.0
New York City Market		
WABC	27.0	17.3
WCBS	41.7	28.7
WNBC	29.8	18.3

The eleven-category analysis of demographic audience homogeneity developed for the cable television channels in the analysis provides a comprehensive means of comparing relative audience composition for the range of cable television channels. Those values are shown in Table 36, along with a comparative value for the combined national audience of the broadcast networks. The cable television channels are listed in order from greatest audience homogeneity to least audience homogeneity during the full programming period.

As anticipated, some cable channels attract much more homogeneous audiences than do others. However, the relative demographic audience homogeneity values are not entirely consistent with the audience attraction strategies practiced by the various cable networks as described by Eastman (1989b) which were used to develop the nominal-level measure of content homogeneity. Based on that classification scheme, the following cable channels were expected to display greater-than-average audience homogeneity: Arts & Entertainment (day and night), Black Entertainment Television, The Discovery Channel, Financial News Network, ESPN, Lifetime, The Nashville Network, Nickelodeon, MTV, and VH-1.

Looking at audience homogeneity values for the full programming period, Nickelodeon, Financial News Network,

Table 36: Demographic Audience Homogeneity Values for Cable Television Channels (11 category composition)

	Programming Period	
	Full	Primetime
National Broadcast Networks	**13.2**	**17.5**
Cable Television Channels		
Nickelodeon	94.1	94.2
Financial News Network	79.8	80.4
MTV	67.6	62.6
Cable News Network	65.0	72.7
The Discovery Channel	50.9	48.4
The Nashville Network	50.8	86.9
Headline News Network	49.9	39.8
The Weather Channel	48.8	38.6
Arts & Entertainment Nighttime	46.1	49.7
ESPN	42.4	47.0
VH-1	42.2	33.3
Black Entertainment Television	38.2	46.9
Nick at Nite	37.4	39.6
Showtime	36.7	36.0
Arts & Entertainment Daytime	36.7	39.4
The Family Channel	33.6	38.1
Turner Network Television	32.6	47.5
Lifetime	30.1	37.3
Home Box Office	27.6	22.7
WTBS	12.0	29.5
USA Network	11.6	26.2
Cable Channel Average	**44.5**	**48.4**

MTV, The Discovery Channel, The Nashville Network, and Arts & Entertainment Nighttime all do have values above the cable channel mean. ESPN and VH-1 are both slightly below the mean. While Black Entertainment Television is further below the mean, it should of course be noted that that network's homogeneity is assumed to be racially-based, and the measure of audience composition used here does not include a racial factor. Arts & Entertainment Daytime also has a value below the mean, indicating that it attracts a more diverse audience than does its evening partner. Most surprising is the finding that Lifetime apparently attracts a fairly heterogeneous audience relative to other cable channels (although still more homogeneous than the broadcast network average). As mentioned in Chapter I, Lifetime bills itself as "The Network for Women," and that sex-based distinction should have been revealed in the audience homogeneity measure used here. Instead, the analysis suggests that Lifetime attracts a number of men to its audience as well as women. This phenomenon will be examined more closely presently.

Just as some of the cable channels which were assumed to attract narrow audiences proved to have more diverse audience appeal, some channels expected to attract a diverse audience instead appear to attract a relatively narrow audience. This was true for all three news-based channels

in the analysis: Cable News Network, Headline News Network, and The Weather Channel, all of which have audience homogeneity values above the cable channel mean for the full programming period. Apparently, 24-hour news programming does not have universal appeal, but instead attracts a relatively homogenous audience.

Differences Between Programming Periods

There are small differences in channel audience homogeneity between the two programming periods studied in each of the three electronic media forms. However, the degree of demographic homogeneity does not change dramatically from one period to the other in any of the media. There are, though, some striking differences within the cable channels in the analysis.

A review of Table 35 shows that demographic homogeneity decreased during primetime for each of the national broadcast affiliates. This is not unexpected, since the primetime programming period offers the greatest audience availability and is the time when television networks program to maximize audience sizes, a strategy which generally increases heterogeneity. As shown in Table 36, several of the cable networks in the analysis showed the same pattern. Those networks include Headline News Network, The Weather Channel, VH-1, and to a lesser extent, MTV and Home Box Office.

This pattern of lesser audience homogeneity during primetime may be evidence of the effects of group viewing. Group viewing would be more likely during primetime, in line with greater overall audience availability. Webster and Wakshlag have noted that "certain program types may be conducive to group viewing" (1982, p. 454). This may be true for the comparatively brief programs on the two news-based channels and the two music channels, in that a member of a viewing group may be able to convince other group members to turn to one of these channels for a few minutes during primetime to "catch" a news or weather update or a music video. While Home Box Office offers much longer programming than the other channels in this group, feature films are likely also conducive to group viewing. Group viewing may also provide the explanation for the relatively low degree of audience homogeneity for Lifetime, as the women the network seeks to attract may be viewing in the company of men.

Conversely, several other cable television channels displayed the opposite pattern. That is, their primetime audience was more homogeneous than their audience during the full programming period. This is true for The Nashville Network, WTBS, Turner Network Television, USA Network, and to a lesser extent, Cable News Network and Lifetime. The finding of greater channel audience homogeneity during

primetime is more difficult to interpret, but is again likely due to programming strategies. WTBS, Turner Network Television, and USA Network are all practitioners of broadcast strategies. However, while they offer a wide variety of program types during the full programming period, their primetime programming is much more concentrated. All three rely far more heavily on feature films during primetime than during the full programming period (see Appendix 4). This may help to explain the difference between their audiences in the full and primetime periods.

The other member of this group, The Nashville Network [TNN], is more of a narrowcast programmer. Actually, this channel's high degree of demographic homogeneity during both programming periods is somewhat surprising. The "country" lifestyle extolled on TNN might easily be expected not to fit with age/sex distinctions, but instead might have resembled a culture class. However, the data suggest otherwise. TNN's primetime audience is mainly older and female (see Appendix 8), while males are somewhat better represented in the audience during the full programming period. This may be due to programming differences between the two periods (for example, TNN programs a number of sporting and outdoor shows on weekends), or perhaps the older women attracted by TNN's primetime programming also

live alone, reducing the possibility of group viewing and subsequent heterogeneity.

Summary

As hypothesized, the evidence clearly supports the premise that the three forms of electronic media differ in their attraction of demographically homogeneous audiences. As a group, radio station audiences are most homogenous, followed by the audiences for cable television channels and those for over-the-air television channels. As demographic audience homogeneity is an important characteristic of narrowcasting strategies, the evidence is consistent with the depiction of radio as a narrowcast medium. The findings of the present analysis also suggest that cable television displays a greater degree of narrowcasting than does traditional over-the-air television.

Further, the results contradict a common belief that television channels cannot attract demographically distinct audiences (Barwise & Ehrenberg, 1988). It is clear that one cannot speak in terms of "the television audience" as if it were some monolithic, unchanging group. This is particularly true for cable television, where "the MTV audience" differs from "the Nickelodeon audience," which differs from "the ESPN audience," and so on.

Lastly, the results also indicate that there is variability not only between media types but within them.

The wide ranges of audience homogeneity values may be due to differential programming strategies (broadcast vs. narrowcast). Or, they may indicate the limitations on audience definition imposed by relying solely on demographic characteristics, despite their popularity in the television industry.

Research Question 2: The Double Jeopardy Phenomenon

The Double Jeopardy phenomenon discussed in Chapter I, that is, the situation in which alternatives which are relatively unknown are also less liked by those familiar with them, holds important implications for narrowcast options since those options are, by definition, relatively unknown. Narrowcast options are expected to attract comparatively small audiences. If those smaller audiences also find the narrowcast option less appealing than they do larger available alternatives, the long-term viability of the narrowcast option may be called into question.

Ehrenberg and others have devoted considerable attention to examining evidence of Double Jeopardy in a number of applications, but particularly in the electronic media. In a recent working paper, Ehrenberg (1990) stated that:

> Although Double Jeopardy looks simple enough, the Journal of Marketing has devoted getting on for 10,000 words to it. This is because the pattern is near-universal [emphasis added], yet was virtually unknown and totally unexpected to most

> marketing people, academics and practitioners alike. (p. 1)

The findings of the present analysis contradict this assertion of "near-universality." Double Jeopardy, as indicated by a significant positive correlation between a station's reach (audience size) and time spent viewing or listening to the station, was not found for the radio stations in the analysis during either programming period. In addition, there was no evidence of the Double Jeopardy pattern in cable television channel viewing during the full programming period. Further, while cable television viewing during primetime and viewing of non-Spanish-language over-the-air television channels during both programming periods did show evidence of Double Jeopardy, the effect varied in its intensity, again suggesting something less than "universality."

Ehrenberg, Goodhardt, and Barwise have suggested situations where Double Jeopardy might not hold. These include instances where there is clear market segmentation, differentiation among the available alternatives, or where the characteristics of an alternative "specifically or even uniquely fitted its particular users or usages" (1990, p. 19). However, in discussing the television medium, the only exception Ehrenberg et al have ever acknowledged is that of the foreign language or religious channel, a

difference that has been characterized as "radical but interpretable" (Ehrenberg & Bound, 1990, p. 28). This group of exceptions is "interpretable" because of the "fairly strong motivations" (Barwise & Ehrenberg, 1988, p. 71) attributed to the viewers of such channels.

Ehrenberg et al's expectation of the continued applicability of the Double Jeopardy effect to all television viewing is not surprising when considered with the same researchers' belief that audiences are similar for all television programming (Barwise & Ehrenberg, 1988). Audience similarity suggests that the audience members do not perceive differences in the program offerings on the range of available channels. And, if there is no differentiation, or, more importantly, perceived differentiation, there can be no exception to Double Jeopardy.

The findings relevant to the first research question raised in this study document that channel audiences do differ in composition. Consequently, it is not surprising that the medium with the greatest degree of audience differentiation, radio, also displays the least degree of Double Jeopardy. Over-the-air television channels, which were shown to have the least audience differentiation, display the greatest degree of Double Jeopardy. And cable

television channels, which fall between the two extremes in terms of audience differentiation, also fall between them in terms of the evidence of Double Jeopardy effects. Differentiation of alternatives does exist, and its effects are documented in both the relative degree of channel audience homogeneity and the presence (or absence) of the Double Jeopardy phenomenon.

It should, however, be noted here that the results for radio do not indicate the presence of a reverse Double Jeopardy, that is, that all, or even most, of the stations with small audiences also have intensely involved audiences (audiences with high time spent listening). Such a condition would have led to a significant negative correlation between audience size and time spent listening. Hence, the "small but loyal" audience, even for this most segmented of electronic media, is a fiction. The current results merely demonstrate that audience size and time spent listening are not significantly related to one another for the group of radio stations in the analysis.

Differential Double Jeopardy in Television Options

As shown in Table 9 in Chapter III, cable television and over-the-air television do not display the same degree of Double Jeopardy. The difference between the two correlations is significant during both the full programming period ($p<.01$) and during primetime ($p<.05$), even though the

correlation for cable television channels is itself significant during the latter period. This suggests that audience viewing behavior associated with cable television channels is different than that associated with over-the-air channels.

The results are somewhat different when cable channel coverage area ratings (audience sizes) are substituted for total audience ratings. As explained in Chapter III, coverage area ratings take into consideration the differential availability of cable television networks. The more widely available cable networks include ESPN, Cable News Network, WTBS, USA Network, MTV, and Nickelodeon. Less widely available networks include Black Entertainment Television, Turner Network Television, Financial News Network, and Arts & Entertainment Daytime.

Webster has discussed a coverage-related phenomenon he termed "de facto polarization" (1989, p. 207). Polarization itself is "the tendency of viewers to move to the extremes of either watching or not watching some class of programs" (1989, p. 206). While polarization may be content-based, as theorized in the present analysis, cable television delivery structures are another contributing factor. According to Webster:

> To the extent that new media [i.e., cable] channels are differentially available to substantial segments of the audience, the potential for a kind of de facto polarization is

> considerable. That is, audiences would move to the extremes of channel use and nonuse, not for reasons of preference, but because they are physically precluded from membership in the channel's audience. (1989, pp. 207-208)

Because of differences in availability, certain cable channels would have lower total audience ratings relative to coverage area ratings than would be expected. If those same channels happened to generate relatively high audience involvement (time spent viewing), the difference in the two ratings might operate to artificially suppress the Double Jeopardy effect in the total audience analysis. However, it is unlikely that that is occurring in the present analysis, since those channels identified as being relatively unavailable all also generate comparatively low time spent viewing (with the exception of Turner Network Television).

It is, however, possible that the opposite effect is operating, that is, that the presence of the Double Jeopardy pattern for the total audience is being artificially inflated by those channels which are more widely available. Under Double Jeopardy, high time spent viewing is expected to be associated with high ratings. Channels which are widely available are likely to have relatively high total ratings, while channels which are less readily available would have relatively low total ratings. Most of the cable channels included in this analysis which are widely available also have relatively high time spent viewing

(exceptions are ESPN in the full programming period and MTV in primetime). This pattern of high total rating and high time spent viewing is reflected in the correlation between those two variables. Because the magnitude of the total rating for the cable networks is affected by their availability on cable systems as well as by audience behavior, it is more likely that Double Jeopardy is being overstated than understated in the results related to the total audience, which are the more widely used audience size estimates.

Although the Double Jeopardy pattern is much more evident in the coverage rating-based analysis, the correlation between audience size and time spent viewing for cable television networks is still significantly lower than that for the over-the-air television networks in the analysis ($p<.10$) during primetime. As television channels are assumed to attempt to capitalize on their popularity during primetime through practicing audience maximization strategies, the Double Jeopardy effect should be at its strongest during that time period. The fact that this is not the case for cable television channels further supports the belief stated earlier that audience behavior with regard to cable television options is different from behavior with regard to traditional (i.e., broadcast) options, even when

the cable channels are put on the even playing field provided by coverage area ratings.

Summary

Contrary to the findings of Ehrenberg et al's stream of research relative to the Double Jeopardy phenomenon, Double Jeopardy was not found to be a pervasive feature of electronic media audience behavior. The results of the present study document a number of exceptions to the Law of Double Jeopardy. These exceptions are in keeping with the conditions described by Ehrenberg, Goodhardt, and Barwise (1990) where Double Jeopardy would not be expected. However, Barwise and Ehrenberg (1988) have stated that the television medium, including both cable and over-the-air options, does not meet the necessary conditions. The present study suggests otherwise.

The Double Jeopardy pattern shows up clearly for the over-the-air television channels in the analysis, with the exception of Spanish-language channels. This replicates the earlier finding by Barwise and Ehrenberg (1984), and suggests that audience behavior relative to traditional, broadcast-based television channels has not changed in the past decade.

The presence or absence of the Double Jeopardy effect in cable television channel viewing behavior is not as easily summarized. When total audience ratings are used as

the basis for analysis, there is little evidence of Double Jeopardy during the full programming period, but greater evidence during primetime. However, the extent of Double Jeopardy in primetime for the cable channels in the analysis is significantly less than for over-the-air television channels. It is also possible that the extent of Double Jeopardy is overstated due to the pattern of time spent viewing found for those cable networks in the analysis which are relatively widely available.

The evidence of Double Jeopardy is much greater when cable television channel coverage area ratings are used. However, the effects of Double Jeopardy are significantly lower for cable television channels than for over-the-air television channels during primetime.

Double Jeopardy is not apparent in the relationship between audience size and audience involvement relative to the radio stations in the analysis. When considered in conjunction with the greater demographic audience homogeneity found for radio stations, this finding lends strong support to the characterization of radio as a medium comprised of narrowcast station options. As defined in Chapter I, a narrowcast channel is one which attracts an audience which is small, homogeneous, and interested and involved with the channel.

The above suggests that while cable television is not as much of a narrowcast medium as is radio, it is more of a narrowcast medium than is traditional over-the-air television. Because a number of the cable television networks in the analysis would, by their own programming and audience attraction descriptions, be classified as broadcasters, the lack of clarity in the findings for cable channels is not surprising. As is the case for radio, the evidence here supports the contention raised in Chapter I that narrowcast options can effectively "beat" the Double Jeopardy effect.

Having established the existence of differential audience composition and varying degrees of Double Jeopardy in the electronic media, the discussion now turns to a focus on cable television, the medium which straddles the two extremes exemplified by radio stations and over-the-air television channels.

Research Question 3: Determinants of Cable Channel Audience Homogeneity

Two variables were hypothesized to be predictors of greater demographic audience homogeneity for the cable channels in the analysis. Each will be reviewed below before examining their effect on demographic audience homogeneity.

Independent Variables

Content homogeneity. Content homogeneity is a defining characteristic of narrowcasting. In recognition of the difficulties inherent in developing a comprehensive measure of content homogeneity, this variable was operationalized in two ways, through both a ratio-level measure and a nominal-level measure. The categorization of the cable channels in the analysis under the nominal-level measure was shown in Chapter II, Table 4. As noted in the earlier discussion of differential demographic audience homogeneity, the results of the present study suggest that cable networks are not always successful in attracting the audience they claim to desire.

Content homogeneity values for each network in both the full and primetime programming periods under the ratio-level measure are given in Table 37 (as are comparable values for the national broadcast networks). The cable channels are listed in order from greatest content homogeneity (100% of programming accounted for by one program type) to least content homogeneity during the full programming period.

Several inferences can be drawn from this table, and should be kept in mind during the discussion of determinants of audience homogeneity. First, the group of cable television networks considered here clearly practice more concentrated programming strategies than do the national

broadcast networks. This is particularly apparent during the full programming period. This finding lends further support to the assertion that cable television is more of a narrowcast medium than is over-the-air television.

Secondly, as noted earlier in this chapter, programming strategies are more concentrated during primetime than during the full programming period. The only cable network which experienced a decrease in content homogeneity between the two periods was VH-1, and that decrease was minor (nine points). More concentrated programming should be an indicator of greater narrowcasting during primetime.

Lastly, although the values associated with this measure do indicate a range of content homogeneity values, no network, over-the-air or cable, comes close to complete content heterogeneity. While the twenty-seven program types identified by Wildman and Lee (1989) are all existent in television programming during the period studied, no network programs all of those types. (NBC, which has the lowest overall content homogeneity value, programmed 16 of the 27 program types identified (Wildman & Lee, 1989). This illustrates one of the problems associated with program type-based measures of content homogeneity: in attempting to precisely categorize the variety of television programming, measures may be handicapped by the minutiae of multiple program categories.

Table 37: Cable Network Content Homogeneity, Ratio-Level Measure

	Programming Period	
	Full	Primetime
National Broadcast Networks		
ABC	123	160
CBS	113	157
NBC	107	156
Broadcast Network Average	**114**	**158**
Cable Television Networks		
Headline News Network	193	193
The Weather Channel	193	193
Financial News Network	193	193
VH-1	184	178
MTV	179	186
ESPN	176	188
Nick At Nite	171	185
The Discovery Channel	167	178
Cable News Network	165	185
Showtime	165	177
Turner Network Television	164	191
Home Box Office	159	173
Black Entertainment Television	152	163
Lifetime	146	176
The Nashville Network	143	178
Nickelodeon	140	156
Arts & Entertainment Daytime	136	170
USA Network	133	170
WTBS	129	175
Arts & Entertainment Nighttime	126	154
The Family Channel	126	185
Cable Network Average	**159**	**178**

In assessing program-type based typologies, including the one used here, one cannot help but wonder if such measures capture the essence of the content variable from the perspective of the audience. That is, do television viewers think in terms of the categories of program types developed by the television industry and academic researchers? Some more qualitatively-oriented researchers have suggested otherwise. Gans has supported an audience member-based categorization, stating that "everyday viewing is itself a form of content analysis, in which people select and categorize what they see in order to make cognitive and emotional sense for themselves out of what they see" (1980, p. 57). Similarly, Janis (1980) has hypothesized that audience members use television program content as a form of personal script, seeking out recurrent themes that have meaning for the individual. Such notions of content definition are fascinating, yet further underscore the difficulties inherent in juxtaposing qualitative and quantitative methods. Individualized definitions of content cannot be incorporated into regression equations, forcing television researchers to fall back on quantitative measures, limiting though they may be. The nominal-level measure of content homogeneity included in the present analysis was an attempt to somehow bridge the gap between qualitative and quantitative definitions of content.

Program repetition. The second variable hypothesized to contribute to greater demographic audience homogeneity for cable television channels was program repetition, a structural variable. As discussed in Chapter I, many cable networks rely on repeated programming to help reduce their operating costs. It should be noted here that the ratio-level measure of content homogeneity and program repetition are significantly correlated in the primetime period ($r=.53$, $p<.01$), and positively, though not significantly, correlated in the full programming period ($r=.48$). The strength of the correlation is due to the nature of the ratio-based content measure. As noted by Wildman and Lee, "the more frequently programs are repeated within a channel's schedule, the less diverse is the programming" (1989, p. 21). Consequently, the shared variance between the two measures may hamper the predictive ability of each individually.

Program repetition is also significantly correlated with the "narrow content, broad audience" category under the nominal-level measure of content homogeneity ($r=.71$, $p<.001$). This category includes the three news-based cable channels and Nick at Nite. The significant correlation here is likely due to the high level of repeat programming on Headline News Network, Cable News Network, and The Weather Channel during this time period. The two measures are less

highly correlated during the full programming period (r=.28).

Program repetition values for each cable network (and for the national broadcast networks for comparison purposes) are given in Table 38. The cable networks are ordered from greatest to least degree of program repetition during the full programming period.

As was the case with the content homogeneity measure, several observations are in order. First, it is clear that cable television networks, as a group, do engage in much greater program repetition than do the over-the-air broadcast networks. To the extent that program repetition facilitates viewing opportunities for a channel's audience, this should lead to greater demographic audience homogeneity.

Second, there is much less program repetition during primetime than during the full programming period, although the all-news networks continue to engage in greater-than-average repetition. Since audience availability is greater during primetime than during other dayparts, the networks do not have to be as concerned with facilitating viewing opportunities.

Predicting Audience Homogeneity

As may be recalled from Chapter III, neither the ratio-level measure of content homogeneity nor program repetition

Table 38: Cable Television Network Program Repetition Values (Repeat Hours/Total Hours)

	Programming Period	
	Full	Primetime
National Broadcast Networks		
ABC	1.6	0.0
CBS	2.8	0.0
NBC	6.6	0.0
Broadcast Network Average	**3.7**	**0.0**
Cable Television Networks		
Headline News Network	91.7	83.3
Home Box Office	79.1	12.5
VH-1	73.4	14.5
Showtime	71.4	20.0
MTV	65.4	11.5
The Nashville Network	63.4	0.0
The Weather Channel	60.0	60.0
Cable News Network	57.7	33.3
The Discovery Channel	55.4	0.0
Arts & Entertainment Nighttime	50.0	0.0
Black Entertainment Television	47.0	0.0
Arts & Entertainment Daytime	32.7	2.5
ESPN	27.5	0.0
Nick at Nite	25.7	0.0
Lifetime	17.0	0.0
The Family Channel	16.0	17.0
Financial News Network	15.7	15.0
Nickelodeon	14.8	0.0
USA Network	6.3	0.0
WTBS	3.8	0.0
Turner Network Television	2.3	3.3
Cable Network Average	**41.7**	**13.0**

were significant predictors of demographic audience homogeneity for the cable television channels examined. During the full programming period, the direction of the relationship between both of these variables and audience homogeneity was positive, as hypothesized. However, during primetime, the relationship between audience homogeneity and each of the two variables was negative. While mean audience homogeneity increases only slightly from the full programming period to primetime, mean content homogeneity undergoes a greater increase (from 159 to 178), and mean program repetition declines from 41.7% to 13.0%.

When the nominal-level measure of content homogeneity is substituted, membership in the "broad content, broad audience" category is significantly (and negatively) correlated with audience homogeneity during the full programming period ($r=-.61$, $p<.01$). The correlation was also negative, but nonsignificant, during primetime ($r=-49$). This relationship is not surprising, since that category includes The Family Channel, Home Box Office, Showtime, Turner Network Television, WTBS, and the USA Network, all of which were found to attract relatively heterogeneous audiences (see Table 36). In addition, both of the "narrow audience" content homogeneity categories were positively correlated with audience homogeneity in both time periods.

The other "broad audience" category was positively correlated with audience homogeneity during the full programming period and negatively correlated during primetime. As noted earlier, this is the category including the news-based networks and Nick At Nite. This group of networks apparently attracts a relatively less homogeneous audience during primetime while attracting a relatively more homogeneous audience during the full programming period. As was discussed earlier, this may be due to the influence of group viewing factors during primetime, particularly as far as the news-based channels are concerned.

The only variable in the analysis which emerged as a significant predictor of audience homogeneity during the full programming period was the "broad content, broad audience" category of the nominal-level measure of content homogeneity. Membership in this group decreases audience homogeneity, and explains 38% of the variance in audience homogeneity among the cable networks in the analysis. The same variable is a significant predictor during primetime, again acting to decrease audience homogeneity, but only explains 24% of the variance in audience homogeneity during this programming period.

The predictive ability of the "broad content, broad audience" category of the nominal-level content homogeneity measure documents that the cable networks in that category

are successful in attracting relatively heterogeneous audiences, which is their programming strategy.

Overall, the present analysis offers little explanation as to what factors determine demographic audience homogeneity for cable television channels. The earlier discussion of narrowcasting suggested that content characteristics should provide the basis for audience homogeneity. However, that contention is not strongly supported by the results presented here. While the direction of the relationship between audience homogeneity and content homogeneity is, as hypothesized, positive, the relationship is not significant. This situation may be due to the problems in assessing content homogeneity noted earlier. While the audience homogeneity measure was developed from observations of actual audience member behavior, both content homogeneity measures were developed without audience member input.

Alternatively, the relatively weak relationship may indicate that while the cable television networks studied have, as a group, been successful in attracting homogeneous audiences, that audience attraction has little to do with programming strategies. This possibility is more difficult to accept, since programming is the product a television channel offers to its audience. Other means of audience attraction do not come easily to mind.

Finally, the present finding may suggest that the choice of a channel to view is not strongly related to the program content on that channel, which would be in keeping with the contentions of Barwise and Ehrenberg (1988) and of other researchers who have also found little evidence of program type effects. Frank and Greenberg (1980) developed an interest segmentation scheme to try and account for viewing behavior with regard to program types, but were unable to explain much variation in program choice behavior. Program type was also found to have little impact on audience inheritance effects, that is, audience carryover between adjacent programs (Webster, 1985). However, it is difficult to reconcile an apparently minimal effect of program content with the finding of differential demographic audience homogeneity discussed earlier. If content does not matter, there is no reason for the audiences of the various cable channels to be dissimilar.

Research Question 4: Determinants of Time Spent Viewing

Time spent viewing is a measure of channel audience involvement in the channel, indicating how much time the typical viewer of a channel spends watching that channel. Table 39 shows time spent viewing in weekly hours for each of the cable television channels in the analysis during both time periods studied. The cable networks are listed in order from greatest to least time spent viewing during the

full programming period. Time spent viewing figures for the national broadcast networks (in cable television households) are also given for comparison.

Several observations should be made. First, time spent viewing in both time periods is greater for the national broadcast networks than for any cable network. Barwise and Ehrenberg would undoubtedly attribute this to the effects of Double Jeopardy: the national broadcast networks have larger audiences than any cable network, so the Law of Double Jeopardy would predict that they would also receive greater viewing time.

An alternative explanation would be channel familiarity. Barwise and Ehrenberg have noted that "we often choose a program that we are used to seeing... we do find it easier to watch that which is already familiar" (1988, p. 124). Most American television viewers are likely to be more familiar with the programming strategies of the national broadcast networks than those of the variety of cable television channels, at least at present. This is because cable television penetration was only at 20% of all U.S. television households as recently as 1980 (Nielsen, 1989d, p. 2). The explosive growth in cable television penetration has only occurred in the last decade. Heeter (1988) has found a great deal of variability among cable

Table 39: Cable Network Time Spent Viewing in Weekly Hours

	Programming Period	
	Full	Primetime
National Broadcast Networks		
ABC	9.9	2.7
CBS	10.2	2.5
NBC	10.5	3.0
Broadcast Network Average	**10.2**	**2.7**
Cable Television Networks		
Home Box Office	8.6	2.0
Showtime	7.8	1.7
WTBS	4.2	1.4
Turner Network Television	3.3	1.3
USA Network	3.2	1.5
The Family Channel	3.2	1.2
Cable News Network	3.2	1.3
Nickelodeon	3.1	1.4
MTV	3.0	.9
ESPN	2.8	1.5
Arts & Entertainment Nighttime	2.6	.9
Headline News Network	2.3	.9
Lifetime	2.3	1.2
The Nashville Network	2.1	1.9
Black Entertainment Television	2.1	1.1
The Discovery Channel	2.0	.9
The Weather Channel	1.9	.8
Nick At Nite	1.5	1.1
Arts & Entertainment Daytime	1.3	.8
VH-1	1.1	.9
Financial News Network	.8	.8
Cable Network Average	**3.0**	**1.2**

television subscribers in terms of their familiarity with the channels available on their cable system.

If familiarity is the explanation for the substantially greater time spent viewing enjoyed by the broadcast networks, the difference between those channels and the cable television networks would be expected to decrease over time as cable television subscribers become more familiar with the programming on the range of channels available to them.

It should also be noted that there is much less variability in cable channel time spent viewing during primetime than during the full programming period. Of course, there are fewer hours for potential viewing during primetime, but the narrow variability in the dependent variable during this time period might be expected to complicate the regression analysis.

Independent Variables

Five variables were hypothesized to be significant predictors of differential time spent viewing for the cable channels in the analysis. These included two characteristics of narrowcasting, demographic audience homogeneity and content homogeneity; channel reach (audience size), which Barwise and Ehrenberg (1984) found to be the only variable needed to predict time spent viewing; and two structural variables, program repetition and average program

length. The nature of each variable's relationship to time spent viewing as revealed in this study is discussed below.

Demographic audience homogeneity. Contrary to the hypothesis stated in Chapter I, the relationship between audience homogeneity and time spent viewing was negative in both of the time periods studied. The correlation was non-significant in both cases. Those cable networks with more homogeneous audiences do not engender greater involvement among those audiences. While logical statistically, this finding conflicts with the previously stated belief that audiences for narrowcast options will demonstrate greater-than-usual involvement in those options.

Content homogeneity. Also contrary to the hypothesized relationship, correlations between time spent viewing and content homogeneity were largely negative in both time periods. The only exception was in the case of the "broad content, broad audience" category of the nominal-level measure of content homogeneity. This was positively and significantly correlated with time spent viewing in both the full ($r=.70$, $p<.001$) and primetime ($r=.57$, $p<.01$) periods. Since the cable channels in that category are those that practice broadcasting rather than narrowcasting strategies, this finding also contradicts the belief that narrowcasting should engender greater audience involvement.

Audience size. Audience size, expressed as total rating, was positively correlated with time spent viewing during the full programming period (r=.26), but contrary to the expectations relative to Double Jeopardy, the relationship was not significant. The two variables were more strongly correlated during primetime, and in this instance the relationship was significant (r=.63, p<.01). When coverage area ratings were substituted, the correlation with time spent viewing was positive and significant in both the full programming period (r=.90, p<.001) and primetime (r=.75, p<.001). Clearly, audience size or channel popularity continues to be a powerful correlate of time spent viewing, consistent with the Barwise and Ehrenberg (1984) finding.

The total rating variable is not significantly correlated with any of the other variables in the analysis. However, it is interesting to note that audience size is negatively correlated with both audience homogeneity and the ratio-level measure of content homogeneity in both time periods. Since greater audience homogeneity and content homogeneity are assumed to be indicators of narrowcasting, and since smaller audiences are yet another defining characteristic of narrowcast options, this relationship is not surprising. Audience size is also negatively correlated with all but the "broad content, broad audience" category of

the nominal-level measure of content homogeneity. The same pattern of relationships holds for coverage area rating.

Coverage area rating is positively and significantly correlated with average program length in the full programming period ($r=.57$, $p<.01$). This suggests that channels which air longer programs on average also tend to attract larger audiences. The implications of average program length will be explored in more detail presently.

While audience size does emerge as a significant predictor of time spent viewing, it is in no case the only significant predictor. This finding is at odds with the assertions made by Ehrenberg et al in their discussions of Double Jeopardy, and suggests once again that the cable television medium differs from traditional television in terms of viewer behavior.

Program repetition. Program repetition was positively correlated with time spent viewing during the full programming period ($r=.21$), but the two variables were negatively correlated during primetime ($r=-.31$). Neither correlation was significant. The difference in the direction of the relationship between the two time periods is likely due to the dramatic decrease in program repetition from the full programming period to primetime. While a high degree of program repetition does not negatively impact a

network overall, a great deal of program repetition during primetime will tend to depress time spent viewing.

This finding underscores the impact of audience availability on television viewing behavior. In the full programming period, program repetition acts to enhance opportunities to see, effectively tailoring programming schedules to audience needs. Audience availability is much greater in primetime, so a repetition strategy is not valued in that time period.

Average program length. As hypothesized, the structural variable of average program length was positively and significantly correlated with time spent viewing in both the full ($r=.66$, $p<.001$) and primetime ($r=.52$, $p<.01$) programming periods. Average program length was negatively correlated with audience homogeneity, content homogeneity, and program repetition, but there is no theoretical basis for those relationships.

The strong positive relationship between average program length and time spent viewing would seem to contradict the beliefs of many observers of television audience behavior who feel that the audience loses interest in programming quickly. For example, Morgan has claimed that "there's a twitchiness to the younger generation that has half-hour sitcoms taxing their attention spans" (1990, p. 2). While it does appear that many of those cable

networks which program to attract a younger audience (Nickelodeon, Nick At Nite, MTV) do air shorter programs, this analysis suggests that networks which schedule longer programs do not suffer from lack of viewer involvement.

There is a great deal of variability in average program length among the cable television networks in the analysis. Table 40 shows the average program length in minutes during both programming periods for each network, along with comparative figures for the national broadcast networks. The cable networks are listed in order from longest to shortest average program length during the full programming period.

As can be seen in Table 40, virtually every network airs longer programs during the primetime period. The only major exceptions are the two movie channels, Showtime and Home Box Office. While both air feature films during primetime, they tend to fill the time between films with comedy shorts or with original situation comedies, which are shorter program forms. As this observation suggests, program length differences among the cable television networks are content-based, although this is not captured in the content homogeneity measures used in the present analysis.

Another means of exploring the relationship between average program length and time spent viewing is through a

Table 40: Cable Network Average Program Length in Minutes

	Programming Period	
	Full	Primetime
National Broadcast Networks		
ABC	56.6	47.4
CBS	51.4	58.1
NBC	46.7	53.7
Broadcast Network Average	**51.6**	**53.1**
Cable Television Networks		
Showtime	94.4	62.2
Turner Network Television	87.9	90.0
Home Box Office	81.0	70.6
WTBS	55.9	90.5
Arts & Entertainment Nighttime	51.9	54.8
ESPN	51.2	80.5
The Family Channel	49.9	90.0
Lifetime	49.7	90.0
Financial News Network	49.4	45.0
USA Network	48.4	69.9
Arts & Entertainment Daytime	45.4	42.1
Black Entertainment Television	45.0	69.2
Cable News Network	44.2	60.0
The Discovery Channel	39.1	37.9
The Nashville Network	38.4	45.0
Nick At Nite	35.6	30.0
Nickelodeon	35.0	30.0
Headline News Network	30.0	30.0
The Weather Channel	6.5	7.0
MTV	5.6	7.3
VH-1	5.0	5.8
Cable Network Average	**45.2**	**52.8**

measure which assesses the average number of programs watched by a channel viewer. Table 41 shows the results of such an analysis for the full programming period. The "programs watched" figure was obtained by dividing time spent viewing (in minutes) by average program length for each cable network. The networks are listed in descending order of number of programs watched weekly by the average viewer of the network.

The "programs watched" treatment of time spent viewing and program length may be an appropriate way of looking at involvement in a channel's programming from the audience's view. For example, a person who watches almost 38 forecasts on The Weather Channel in the course of a week may consider themselves to be a regular or frequent viewer of that channel, even though that viewing accounted for less than two hours in total. Time spent viewing has greater applicability throughout the television industry than does "programs watched," but similar to the earlier discussions of program type definitions, time spent viewing may have less meaning for audience members than it does for researchers. A thorough exploration of "programs watched" is beyond the scope of the present study. The concept is presented here as a point of interest.

Table 41: Average Weekly Number of Programs Watched by Cable Channel Viewers During the Full Programming Period

	Programs Watched
National Broadcast Networks	
ABC	10.5
CBS	11.9
NBC	13.5
Broadcast Network Average	**12.0**
Cable Television Networks	
The Weather Channel	37.8
MTV	32.6
VH-1	12.6
Home Box Office	6.4
Nickelodeon	5.3
Showtime	5.0
Headline News Network	4.7
WTBS	4.5
Cable News Network	4.3
USA Network	4.0
The Family Channel	3.9
ESPN	3.3
The Nashville Network	3.3
The Discovery Channel	3.1
Arts & Entertainment Nighttime	3.0
Black Entertainment Television	2.8
Lifetime	2.7
Nick At Nite	2.6
Turner Network Television	2.3
Arts & Entertainment Daytime	1.7
Financial News Network	.9
Cable Network Average	**7.0**

Predicting Time Spent Viewing

When total audience ratings are the measure of audience size and the ratio-level measure of content homogeneity is used, three of the independent variables discussed above emerged as significant predictors of time spent viewing during the full programming period. They were average program length, program repetition, and total audience rating. Each has the effect of increasing time spent viewing, indicating that audience involvement is greater for those cable channels which air longer programs, repeat programs more frequently, and attract larger audiences. The combination of these three variables explains 76% of the variance in time spent viewing during the full programming period for the cable networks in the analysis.

When the nominal-level measure of content homogeneity is used, the "broad content, broad audience" category joins program repetition, average program length, and total audience rating as a significant predictor of time spent viewing. Membership in that content category also increases time spent viewing. The combination of the four variables explains 83% of the variance in time spent viewing during the full programming period.

In both cases, while total audience rating is a significant predictor of time spent viewing, it is the last variable to enter the regression equation. This again

contradicts the Ehrenberg, Goodhardt, and Barwise (1990) assertion that audience size is the only variable needed to predict audience involvement.

In contrast with the findings relevant to the full programming period, the effects of Double Jeopardy are evident in primetime. Here, total audience rating is the only significant predictor of time spent viewing. However, that variable explains only 40% of the variance in time spent viewing.

When coverage area ratings are used, Double Jeopardy effects are evident for the full programming period. Coverage area rating is the only significant predictor of time spent viewing, explaining 80% of its variance.

In primetime, coverage area rating is again a significant predictor of time spent viewing. However, audience homogeneity and average program length are also significant predictor variables. Each has the effect of increasing time spent viewing; that is, channels with more homogeneous audiences generate greater time spent viewing, as do those channels that air longer programs. The combination of the three variables explains 73% of the variance in time spent viewing during primetime.

The significance of the audience homogeneity variable during primetime suggests that contrary to the findings discussed earlier, audience composition <u>is</u> a determinant of

audience involvement, which supports the narrowcasting concept. Earlier in the discussion, the primetime programming period was characterized as a sort of showcase for network programming strategies, as it is the time of greatest audience availability. The finding that greater audience homogeneity during this time period leads to increased time spent viewing is therefore particularly revealing, as it suggests that greater audience homogeneity provides a means for channels with smaller audiences (lower ratings) to compensate for the effects of Double Jeopardy.

The results of the analysis of time spent viewing indicate that structural variables are the most powerful predictors of time spent viewing for cable television networks. Barwise and Ehrenberg (1988) have identified programming cost constraints as a major barrier to successful narrowcast channels. The finding that program repetition is positively related to time spent viewing suggests that the practice of repeating programming used by many cable networks as a cost-reduction measure is a viable solution to the programming cost problem. Program repetition practices also recognize the importance of audience availability in television viewing behavior.

Contrary to the beliefs of many television industry observers (Gerken, 1989; Morgan, 1990), channels are not penalized for airing longer programs. The viewing measure

used here looks at viewing over a week-long period, and does not account for switching into or out of programs in progress on a channel. However, the results strongly suggest that channels which air longer programs are more successful in generating audience involvement than are those which air shorter programs.

Audience size is positively related to time spent viewing, but in this study it is hardly the all-encompassing predictor described by Barwise and Ehrenberg (1984). While the effects of the Double Jeopardy phenomenon are evident in cable television audience behavior, it is not as pervasive here as in other situations.

The two distinguishing characteristics of narrowcasting, audience homogeneity and content homogeneity, are not significant predictors of time spent viewing for the cable television channels in the analysis with the one exception mentioned earlier. That these two variables do not contribute to predicting time spent viewing is puzzling, particularly in light of the other findings in the study. A number of the cable television networks examined here do exhibit these characteristics of narrowcasting (specialized audiences and specialized content). It seems reasonable to expect that those networks would also exhibit the third characteristic of narrowcasting, greater audience

involvement. That expectation is not supported by the results reported here.

Post Hoc Cluster Analysis

The post hoc cluster analysis described in Chapter III was performed to attempt to more accurately group the cable television networks in the study. As has been noted throughout the preceding discussion, there is a great deal of variability among cable television networks in terms of their programming and audience attraction strategies. The six-cluster solution generated through comparing the various networks on the basis of audience homogeneity and content homogeneity (ratio-level measure) seems to have produced meaningful combinations of networks.

Cluster 1 is made up of six networks which attract a relatively broad audience through a narrow range of program types. This cluster includes The Discovery Channel, ESPN, Headline News Network, Nick at Nite, VH-1, and The Weather Channel. As a group, these networks generate relatively low audience involvement. They also tend to air shorter programs than the cable network average, and to repeat programming more often.

Cluster 2 is made up of three networks which practice true narrowcasting, attracting relatively homogeneous audiences through a narrow range of program types. This cluster includes Cable News Network, Financial News Network,

and MTV. These networks generate greater audience involvement than those in Cluster 1, although the average time spent viewing for this group is below the cable network average. Similar to Cluster 1, the networks in Cluster 2 air shorter-than-average programs and repeat programming frequently.

Cluster 3 is made up of five networks which attract heterogeneous audiences through programming a wide range of content. The networks in this cluster are Black Entertainment Television, Home Box Office, Lifetime, Showtime, and Turner Network Television. These networks have the greatest overall time spent viewing, although their mean audience size is below the cable network norm (contrary to expectations based on Double Jeopardy). The networks in this cluster air the longest programs of any of the groups, and are near the cable network mean in terms of program repetition.

Cluster 4 contains four networks which attract relatively homogeneous audiences through relatively heterogeneous content. These four networks are Arts and Entertainment Daytime and Nighttime, The Family Channel, and The Nashville Network. While the networks in this cluster may program a variety of program types, their content is somewhat specialized in terms of topical areas. These networks generate relatively low audience involvement, and

are near the cable network average for both program length and program repetition.

Cluster 5 is composed of two networks, USA Network and WTBS. The programming and audience attraction strategies of these two networks are similar to those networks in Cluster 3, but these two are separated from that cluster because they are far more heterogeneous in terms of both audience and content. The two networks generate greater-than-average time spent viewing, and air longer programs than the cable network average. USA Network and WTBS repeat programs far less frequently than the other cable networks, in keeping with their apparent strategy of mimicking the national broadcast networks.

Nickelodeon makes up Cluster 6. This cable network stands alone because of its extremely high audience homogeneity. Nickelodeon enjoys higher than average audience involvement, and has the second largest audience of any of the clusters of networks. It airs programs which are shorter than the cable network average, and is below average in program repetition.

There are clearly differences among cable television networks. Earlier, it was pointed out that because of audience composition differences, it was not fruitful to speak in terms of "the television audience." The cluster analysis findings indicate that it is also misleading to

speak in terms of "the cable audience," or even "cable networks," as if the available options comprised a unified group. Observers of the television industry, both practitioners and academicians, are accustomed to thinking of television networks and television viewers as single entities with easily identified characteristics. Clearly, this is an oversimplification. As documented here, there are distinct groupings within the universe of cable channels and cable channel audiences. In order to better understand current audience behavior with regard to the available cable television options, it is important to acknowledge those distinctions. The audience demographic composition and programming strategy delineations presented here offer one useful means of distinguishing among the various cable options.

Limitations

Internal Validity

This analysis has suggested that both demographic homogeneity of the audience for a television channel and time spent viewing a channel result from a combination of structural and theoretical variables associated with television viewing. In assessing the direction of causation between the variables examined here, a basic distinction should be kept in mind. Both audience composition and time spent viewing are characteristics created through the

behavior of audience members. That is, people choose what channel to watch, and they choose how long to watch that channel. On the other hand, content homogeneity, average program length, and program repetition are all things done to audiences rather than by them. That is, they result from programming decisions made by channel management. As a result of this distinction, the direction of causality should be as hypothesized here.

Audience size, operationalized as either total rating or coverage area rating, is more problematic. In one sense, audience size is determined by the audience, in that the rating for a television channel is a measure of aggregate audience behavior. However, channel management also determines audience size in making the decision to adopt a broadcast or a narrowcast programming strategy. That is, in opting for a narrowcast strategy, channel management is in a sense choosing a lower rating. And, the total rating measure is further constrained by cable television system operators, who choose whether or not to include particular cable television networks as offerings on their system. Despite the somewhat confusing nature of this variable, audience size has been treated as an independent variable in this study because of the role it has historically played in analyses of the Double Jeopardy effect (Barwise & Ehrenberg,

1984; Ehrenberg, Goodhardt, & Barwise, 1990; Ehrenberg, 1990).

Measurement Validity

This study relied on several data sources. To the extent that programming guides provided by cable television networks and local newspapers can be assumed to be accurate, the measures of average program length, program repetition, and the ratio-level measure of content homogeneity should provide realistic approximations of the actual programming practices of the cable television channels included in the study. While the nominal-level measure of content homogeneity involved making categorization decisions, those decisions utilized information from expert sources (Eastman, 1989a, 1989b).

Audience size values and the information used to determine both demographic audience homogeneity and time spent viewing/listening for all of the electronic media channels examined in this study were reported by syndicated audience measurement sources. These sources are widely used in the media industry and represent the best approximations of audience behavior available. However, some limitations of these sources should be kept in mind.

Wimmer, Eastman, and Meyer (1989) have reviewed the major limitations of the local market measurements. These include problems related to sample size, lack of

representation of persons whose viewing or listening takes place in group areas including nursing homes, hotels, etc., lack of ethnic representation, low cooperation rates among those initially selected for inclusion in the sample, and varying definitions of what constitutes viewing or listening (Wimmer, Eastman, & Meyer, 1989, pp. 80-82). In addition, smaller stations in markets may not meet inclusion criteria, as few members of the sample may report viewing/listening to these stations. In the present analysis, all stations which did not meet minimum reporting standards were excluded from the study. However, audience composition estimates for some of the smaller stations which met minimum reporting standards are still based on very small numbers of viewers within the sample.

The audience estimates for the cable television networks in the study were collected through the national peoplemeter measurement system. Poltrack (1988) has discussed problems inherent in this measurement system, including cooperation bias (use of the people meter requires a fair amount of effort on the part of the audience member), low sample turnover (resulting in potential testing bias), and low in-tab samples relative to the overall sample size.

Construct Validity

As has been discussed earlier, measures of content homogeneity are problematic. Program type-based measures

such as the ratio-level measure of content homogeneity employed here have the benefit of being both easily replicable and generalizable. However, there is some question as to how accurately they represent the audience's view of programming differences. A second, nominal-level measure of content homogeneity was introduced in an attempt to overcome the limitations of the program type-based measure. However, neither was particularly predictive of either dependent variable. It is not clear whether the low level of predictive power is due to actual conditions operating in the cable television marketplace or problems with the measures themselves. Perhaps a different measure of content homogeneity would have produced different results.

Statistical Conclusion Validity

As the cluster analysis suggests, one of the greatest limitations of the present study is the small number of cable networks available to include in the analysis. With only twenty-one cable networks in total, subsequent analyses based on subdivisions of that group are subject to statistical error. While there are a number of other cable networks in operation, the twenty-one examined here are the only networks whose audiences are regularly assessed through Nielsen's national peoplemeter measurement system. Until additional cable networks join the Nielsen service, any

analysis of cable networks which is based on that data will be hampered by the same population size problem.

There is also a degree of correlation among some of the independent variables in the study, most notably the ratio-level measure of content homogeneity and program repetition. While each of these variables is, in theory, measuring a different phenomenon, the actual measurement techniques used result in some shared variance, although the correlations are not high enough to suggest multicollinearity (Bohrnstedt & Knoke, 1982, p. 384).

External Validity

Finally, how generalizable are the results of the present study? The findings related to cable television networks represent conditions prevalent in the universe of measured cable networks, but may not be applicable to non-measured networks. In particular, it should be noted that measured cable networks tend to be among the more successful networks, successful in the sense that they attract large enough audiences to produce statistically reliable estimates from the peoplemeter sample universe. While virtually all of the cable networks which practice a broadcasting strategy are included here, most of those networks which are not represented are more narrowcast options. These include Country Music Television, American Movie Classics, GalaVision (a Spanish-language entertainment

channel), The Learning Channel, Univision (another Spanish-language channel), Trinity Broadcasting Network (a religious channel), and Cable Value Network (a home-shopping channel) (Eastman, 1989a). Inclusion of more narrowcast cable options relative to broadcast options might have produced different results than those reported here.

The results relative to differential audience homogeneity and the Double Jeopardy effect reported for local market radio stations and television channels reflect the conditions in the three markets studied, Los Angeles, Denver, and New York City. These three are large markets, and results may differ for smaller markets. However, selection of these three markets made possible comparisons to the findings reported by Barwise and Ehrenberg (1984).

Conclusions and Implications

This study sought to answer a series of research questions developed in response to a debate which has arisen among media scholars and practitioners: Will broad-based appeal or narrowcasting survive as the focus of programming strategies for cable television networks? Other media in the United States, most notably magazines and radio, have undergone demassification through content and audience specialization and an increase in the number of available options. The present study has focused on two of the elements related to the demassification issue: audience

specialization and audience involvement. While a definitive answer to the question of whether the same pattern of demassification will occur in the television medium is premature, the results of the analyses reported here do provide an indication of the direction in which the medium is moving.

This study has documented the existence of differential audience composition for media channels. Channel audiences vary both within and across the electronic media. This finding contradicts assertions made by media scholars (Barwise & Ehrenberg, 1988) while supporting the beliefs expressed by a number of industry observers (Rosse, 1981; McQuail, 1987).

The radio stations in the analysis, as a group, exhibited the greatest degree of audience homogeneity, which may be taken as confirmation that station audience specialization is both a cause and an effect of media demassification. As additional station options develop in a market, audience attraction strategies become more finely tuned in order to differentiate the options from one another. The finding that cable television channels attract more homogeneous audiences than do traditional, over-the-air television channels may be viewed as an indication that this new form of television is moving the medium toward demassification. When presented with the range of channel

options offered by cable television, audience behavior changes.

This study also presents evidence that refutes the assertion that the Double Jeopardy is "near-universal" (Ehrenberg, 1990, p. 1). No evidence of Double Jeopardy was found for the radio stations in the study, suggesting that the content and audience specialization that accompany a move to narrowcasting are sufficient to overcome the audience involvement implications of relatively small audience size.

The strong pattern of Double Jeopardy found for the over-the-air television channels in the study replicates the findings of Barwise and Ehrenberg (1984). Spanish-language channels were found to provide an exception to the pattern of small audience size being associated with low time spent viewing, which was again consistent with the Barwise and Ehrenberg study results.

While some evidence of Double Jeopardy was found in the analysis of cable television channels, the effect was not as strongly pronounced as in over-the-air channels. When considered in conjunction with the findings on audience homogeneity for cable television channels, this again suggests that audience behavior relative to cable television options is different from the behavior associated with over-the-air options. If one imagines continuums of

audience homogeneity and Double Jeopardy effects with radio at one end and over-the-air television at the other, cable television is located closer to over-the-air television than it is to radio, but clearly falls between the two extremes. While this one study, documenting audience behavior at a particular point in time, cannot be taken as evidence that cable television is moving toward radio on the continuums, it does indicate that cable television is more like radio than is over-the-air television. Subsequent studies may document a movement ever-closer to the radio end of both continuums.

While the study documented greater demographic audience homogeneity for the group of cable television channels than for over-the-air television channels, it was not successful in identifying variables that would predict the extent of audience homogeneity among channel audiences. Audiences are attracted to a particular channel through the channel's programming strategies, but neither of the content homogeneity measures used in this study were strongly correlated with audience homogeneity. It is the belief of this researcher that the lack of correlation is a reflection of problems with the content measures themselves, rather than an indication of faulty theoretical reasoning. A measure of content homogeneity which reflects audience perceptions of content differences might well produce

different results, but such a measure has yet to be developed.

The study results indicate that audience involvement, operationalized as time spent viewing a channel, is determined largely by structural considerations. This finding should be viewed positively by channel management, as it indicates that airing longer programs and repeating programming do not penalize a channel. This is contrary to the expectations of several industry observers, who assume a negative effect for such programming strategies (Barwise & Ehrenberg, 1988; Gerken, 1989; Morgan, 1990).

In the discussion of audience involvement in Chapter I, two possibilities were raised regarding the existence of the Double Jeopardy effect for cable television channels. The first possibility suggested that cable channels might not be capable of attracting involved audiences regardless of programming and audience specialization. The results of this study show that some cable channels are successful in generating audience involvement, but that involvement is apparently unrelated to either specialization strategy. As all three of those characteristics are defining features of narrowcasting, this finding is puzzling.

The second possibility raised in Chapter I was that present cable television channels might not meet the true definition of narrowcasting. While the audience homogeneity

and content homogeneity variables were positively correlated, the relationship was not significant. However, it is not clear whether the relatively weak statistical relationship is an accurate reflection of the true relationship between the two constructs. Neither of the measures of content homogeneity employed here is satisfactory, and it is possible that the operationalizations used are disguising a stronger link between audience specialization and content specialization. Nevertheless, while the present study may not offer explanations for the greater audience homogeneity and relatively weak effects of Double Jeopardy found for cable television options, it has documented their existence. Consequently, it makes a contribution toward better understanding of the ways in which cable television options differ from other media forms in terms of audience behavior.

Two broader implications can also be drawn from the results presented here. First, there is some evidence to suggest that broadcast and narrowcast options can successfully coexist within a medium. Recall that not all radio stations in the analysis attracted a homogeneous audience, at least in the sense of demographic homogeneity applied here. Similarly, several of the cable channels studied attract very heterogeneous audiences, while others attract audiences which are far more homogeneous. This

suggests that the answer to the debate on which will survive, broadcast or narrowcast options, may be "both."

The second implication is related to the first. A long stream of television audience research holds that television audiences are relatively uninvolved audiences. Krugman (1966) was among the first to depict television as a low involvement medium. While his argument relies on physiologically-based psychological reactions to the medium, others have suggested different antecedents of the same end result. Barwise and Ehrenberg (1988) have described television viewing as a "filler" activity, something done when there is nothing else to do. As discussed in Chapter I, Hirsch (1980) has blamed the similarity of programming content for apparent audience indifference.

In contrast, narrowcasting would, by definition, seem to assume greater audience involvement. Audience members must not only decide to watch television, but choose what to watch. The choice of what to watch is made based on which of the available options most closely matches the viewer's needs and interests. This is a different way of using television than that to which the U.S. television audience is accustomed. In studying British television viewers' behavior with regard to "demanding" programs (information programs and "high" drama), Barwise and Ehrenberg (1988) have found that those programs tend to attract small but

substantial audiences, who like the demanding program better than non-demanding programs are liked by their viewers. Viewers of demanding programs also watch non-demanding programs; in fact, the demanding programs are an exception to regular viewing patterns (Barwise & Ehrenberg, 1988).

This pattern of behavior may explain why broadcast and narrowcast options can apparently coexist. That is, they may promote different viewing styles, with the former being used as a "filler" while the latter is more demanding and involving. And, since high-involvement television viewing is a departure from the norm for the U.S. television audience, viewer involvement relative to narrowcast cable channels might be expected to increase over time, as television audience members become more comfortable with new patterns of behavior.

In conclusion, one of the most compelling implications of the present study is the need to replicate such analyses over time. The results reported here document that at one point in time, January 1989, audience behavior with regard to cable television channels differed from behavior with regard to over-the-air television channels, and that difference suggests that cable television might be moving in the direction taken by radio. Future analyses will be required to provide longitudinal documentation of this pattern, and to further develop our understanding of the

nature of audience behavior relative to electronic media options in the multi-channel environment.

REFERENCES

Anderson, J. A. & Meyer, T. P. (1975). Functionalism and the mass media. Journal of Broadcasting, 19(1), 11-22.

Arbitron Ratings Company. (1987, Spring). Arbitron Ratings: Radio for Denver-Boulder, Los Angeles, and New York markets. New York: Author.

Barnes, B. E. & Thomson, L. M. (1988a, May). How will networks respond to the advent of peoplemeters? Paper presented at the meeting of the International Communication Association, New Orleans, LA.

Barnes, B. E. & Thomson, L. M. (1988b). The impact of audience information sources on media evolution. Journal of Advertising Research, 28(5), RC9-RC14.

Barwise, P. & Ehrenberg, A. (1984). The reach of TV channels. International Journal of Research in Marketing, 1, 37-49.

Barwise, P. & Ehrenberg, A. (1988). Television and its audience. London: Sage.

Block, M. P. & Brezen, T. S. (1990). Using database analysis to segment general media audiences. Journal of Media Planning, 5(1), 1-14.

Bogart, L. (1985). War of the words: Advertising in the year 2010. Across the Board, 22(1), p. 20-28.

Bohrnstedt, G. W. & Knoke, D. (1982). Statistics for social data analysis. Itasca, IL: F. E. Peacock.

Bovee, C. L. & Arens, W. F. (1989). Contemporary Advertising, 3rd ed. Homewood, IL: Irwin.

Bowman, G. & Farley, J. (1972). Television viewing: Application of a formal choice model. Applied Economics, 4, 245-259.

Brunsdon, C., & Morley, D. (1978). Everyday television: Nationwide. London: British Film Institute.

Buckman, A. (1990, May 28). Tribune plans Chicago cable TV news service. Electronic Media, p. 8.

Button, G. (1988, May 16). The big picture. View, p. 22.

Cabletelevision Advertising Bureau. (1989). Cable television handbook 1989. New York: Author.

DDB Needham Worldwide. (1983). The core audience concept: A media position (DDB Needham Media Bulletin). Chicago: Author.

Dewar, R. and Schultz, D. E. (1989). An idea whose time has gone? Marketing Communications, 14(5), p. 28-35.

DiMaggio, P. (1977). Market structure, the creative process, and popular culture: Toward an organizational reinterpretation of mass culture theory. Journal of Popular Culture, 11, 436-452.

Eastman, S. T. (1989a). Basic cable networks. In S. T. Eastman, S. W. Head, & L. Klein (Eds.), Broadcast/cable programming: Strategies & practices (3rd ed.) (pp. 282-318). Belmont, CA: Wadsworth.

Eastman, S. T. (1989b). Cable system programming. In S. T. Eastman, S. W. Head, & L. Klein (Eds.), Broadcast/cable programming: Strategies & practices (3rd ed.) (pp. 252-287). Belmont, CA: Wadsworth.

Eastman, S. T., Head, S. W., & Klein, L. (1989). Broadcast/cable programming: Strategies & practices (3rd ed.). Belmont, CA: Wadsworth.

Ehrenberg, A. S. C. (1990). Brand loyalty: The double jeopardy effect. Unpublished manuscript, London Business School and New York University.

Ehrenberg, A. S. C. & Bound, J. A. (1990). Predictability and prediction: A case discussion. Unpublished manuscript, London Business School.

Ehrenberg, A. S. C., Goodhardt, G. J., & Barwise, T. P. (1990). Double jeopardy revisited. Unpublished manuscript, London Business School and City University Business School.

Escarpit, R. (1977). The concept of "mass." Journal of Communication, 27(2), 44-47.

Fejes, F. (1984). Critical mass communications research and media effects: The problem of the disappearing audience. Media, Culture, and Society, 6(3), 219-232.

Gans, H. J. (1974). Popular culture and high culture: An analysis and evaluation of taste. New York: Basic Books.

Gans, H. J. (1980). The audience for television -- and in television research. In S. B. Withey & R. P. Abeles (Eds.), Television and social behavior: Beyond violence and children (pp. 55-81). Hillsdale, NJ: Erlbaum.

Gerken, S. J. (1989). Total audience/average audience relationships. Television Audience 1989. New York: Nielsen Media Research, 125-129.

Goodhardt, G., Ehrenberg, A., & Collins, M. (1987). The television audience: Patterns of viewing (2nd ed). Hants, UK: Gower.

Greenberg, B. S., Heeter, C., D'Alessio, D., & Sipes, S. (1988). Cable and noncable viewing style comparisons. In C. Heeter & B. Greenberg (Eds.), Cableviewing (pp. 207-225). Norwood, NJ: Ablex.

Haldi, J. A. (1989). Affiliated station programming. In S. T. Eastman, S. W. Head, & L. Klein (Eds.), Broadcast/cable programming: Strategies & practices (3rd ed.) (pp. 202-228). Belmont, CA: Wadsworth.

Head, S. W. (1989). A framework for programming strategies. In S. T. Eastman, S. W. Head, & L. Klein (Eds.), Broadcast/cable programming: Strategies & practices (3rd ed.) (pp. 4-43). Belmont, CA: Wadsworth.

Heeter, C. (1988). The choice process model. In C. Heeter & B. Greenberg (Eds.), Cableviewing (pp. 11-32). Norwood, NJ: Ablex.

Hirsch, P. M. (1980). An organizational perspective on television (Aided and abetted by models from economics, marketing, and the humanities). In S. B. Withey & R. P. Abeles (Eds.), Television and Social Behavior (pp. 83-102). Hillsdale, NJ: Erlbaum.

Hirsch, P. M. (1981). Institutional functions of elite and mass media. In E. Katz and T. Szecsko (Eds.), Mass media and social change (pp. 187-200). London: Sage.

Jacoby, J., & Chestnut, R. W. (1978). Brand loyalty: Measurement and management. New York: John Wiley & Sons.

Janis, I. (1980). The influence of television on personal decision-making. In S. B. Withey & R. P. Abeles (Eds.), Television and social behavior: Beyond violence and children (pp. 161-189). Hillsdale, NJ: Erlbaum.

Katz, E., Blumler, J., & Gurevitch, M. (1974). Utilization of mass communication by the individual. In J. G. Blumler & E. Katz (Eds.), The uses of mass communications (pp. 19-32). Beverly Hills: Sage.

Krugman, H. E. (1966). The impact of television advertising: Learning without involvement. Public Opinion Quarterly, 30, 583-596.

Lewine, R. F., Eastman, S. T., & Adams, W. J. (1989). Prime-time network television programming. In S. T. Eastman, S. W. Head, & L. Klein (Eds.), Broadcast/cable programming: Strategies & practices (3rd ed.) (pp. 134-172). Belmont, CA: Wadsworth.

Lewis, G. H. (1975). Cultural socialization and the development of taste cultures and culture classes in American popular music: Existing evidence and proposed research directions. Popular Music and Society, 4(4), 226-241.

Magazine Publishers' Association. (1987, May). Number of U.S. Magazines. New York: Author.

Maisel, R. (1973). The decline of mass media. Public Opinion Quarterly, 37, 159-170.

McPhee, W. N. (1963). Formal theories of mass behavior. New York: The Free Press of Glencoe.

McQuail, D. (1987). Mass communication theory: An introduction. Beverly Hills: Sage.

Morley, D. (1986). Family television: Cultural power and domestic leisure. London: Comedia.

Morgan, R. (1990, June 18). In network guarantee standoff, no one wins, except maybe Nintendo. Adweek, p. 2.

National Association of Broadcasters. (1985). RADIO WARS II: How to push listeners' 'hot buttons'. New York: Author.

NBC squeaks by CBS to another sweeps win. (1990, May 28). Broadcasting, p. 32.

Nielsen Media Research. (1989a, First Quarter). Nielsen homevideo index: Cable activity report. New York: Author.

Nielsen Media Research. (1989b, First Quarter). Nielsen homevideo index: Cable network audience composition report. New York: Author.

Nielsen Media Research. (1989c). Nielsen station index: Viewers in profile for the Denver, Los Angeles, and New York markets. New York: Author.

Nielsen Media Research. (1989d). The television audience: 1989. New York: Author.

Norusis, M. J. (1986). SPSS/PC+ for the IBM PC/XT/AT: Advanced statistics. Chicago: SPSS.

Owen, B., Beebe, J., & Manning, W. (1974). Television economics. Lexington, MA: Lexington Books, (49-90).

Peterson, R. A., & Davis, R. B., Jr. (1974). The contemporary American radio audience. Popular Music and Society, 3(4), 299-313.

Peterson, R. A., & Berger, D. G. (1975). Cycles in symbol production: The case of popular music. American Sociological Review, 40(April), 158-173.

Poltrack, D. (1988). Living with people meters. Journal of Advertising Research, 28(3), RC8-RC10.

Radway, J. (1985). Interpretative communities and variable literacies: The functions of romance reading. Mass communication review yearbook, Beverly Hills: Sage, 337-361.

Rehm, J. (1985). Magazines are a better buy than television. Madison Avenue, 27(9), p. 92-94.

Reiss, J. C. (1989). Premium programming services. In S. T. Eastman, S. W. Head, & L. Klein (Eds.), Broadcast/cable programming: Strategies & practices (3rd ed.) (pp. 319-346). Belmont, CA: Wadsworth.

Rosse, J. N. (1981). Mass media: The economic setting. In E. Abel (ed.), What's News. San Francisco: Institute for Contemporary Studies.

Rust, R. T., & Donthu, N. (1988). A programming and positioning strategy for cable television networks. Journal of Advertising, 17(4), 6-13.

Seagren, S. (1988). Stations and channels: Receivable vs. actually viewed. Television Audience 1988. (New York: Nielsen Media Research), 55-62.

Tichenor, P. J., Donohue, G. A., and Olien, C. N. (1970). Mass media and differential growth in knowledge. Public Opinion Quarterly, 34, 158-70.

TV Week, weeks of January 1-7, January 8-14, January 15-21, and January 22-28, 1989. Chicago: Chicago Tribune.

Verklin, D. R. (1988). Media outlook: Merely more channels on the tube. Advertising Age, 59(51), pp. S7, S22.

The Weather Channel. (1986). Getting the most out of The Weather Channel. Atlanta: Author.

Webster, J. G. (1985). Program audience duplication: A study of television inheritance effects. Journal of Broadcasting and Electronic Media, 29, 121-133.

Webster, J. G. (1986, Summer). Audience behavior in the new media environment. Journal of Communication, 77-91.

Webster, J. G. (1987). Audience research and the study of popular culture. Northwestern University, Institute of Modern Communications Working Paper, Evanston, IL.

Webster, J. G. (1989). Television audience behavior: Patterns of exposure in the new media environment. In J. L. Salvaggio & J. Bryant, Eds, Media Use in the Information Age: Emerging Patterns of Adoption and Consumer Use (pp. 197-216). Hillsdale, NJ: Erlbaum.

Webster, J. G. & Lichty, L. W. (in press). Ratings analysis: Theory and practice. Hillsdale, NJ: Erlbaum.

Webster, J. G. & Wakshlag, J. J. (1982). The impact of group viewing on patterns of television program choice. Journal of Broadcasting, 26(1), 445-455.

Webster, J. G., & Wakshlag, J. (1983). A theory of television program choice. Communication Research, 10, 430-446.

What do you want to watch? (1990, July). TV Entertainment, p. 3.

Wildman, S. S. & Lee, N. Y. (1989). Program choice in a broadband environment. Unpublished manuscript, Northwestern University, Center for Telecommunications and Information Studies, Evanston, IL.

Wilson, C. II & Gutierrez, F. (1985). Minorities and media: Diversity and the end of mass communication. Beverly Hills: Sage.

Wimmer, R. D., Eastman, S. T., & Meyer, T. P. (1989). Program and audience research. In S. T. Eastman, S. W. Head, & L. Klein (Eds.), Broadcast/cable programming: Strategies & practices (3rd ed.) (pp. 44-86). Belmont, CA: Wadsworth.

Zaichkowsky, J. L. (1986). Conceptualizing involvement. Journal of Advertising, 15(2), 4-14, 34.

APPENDIX 1

Cable Television Network Programming Descriptions (January 1989 Programming)

ARTS & ENTERTAINMENT

A&E programming consists of pretaped presentations of performing and visual arts programs, including everything from standup comedy to feature films to documentaries. It sells advertising time. Nielsen makes a distinction between A&E Daytime (8 a.m.-8 p.m., Monday-Sunday) and A&E Nighttime (8 p.m.-4 a.m., Monday-Sunday) in reporting ratings and audience composition.

BLACK ENTERTAINMENT TELEVISION

BET programs a wide variety of program types, although its primetime programming focuses primarily on music videos. All programming is selected for its appeal to a black audience, either because of subject matter or performers. BET accepts advertising.

CABLE NEWS NETWORK

CNN carries live news reports as well as special features on sports, entertainment, finance, etc. CNN accepts advertising.

THE DISCOVERY CHANNEL

DISC is an educational channel and programs documentaries and other fact-based features. It airs programming between 9 a.m. and 3 a.m., Monday-Sunday, and accepts advertising.

ESPN

ESPN carries a wide range of sports programming, including live sports events, taped performances, and special features on all sorts of sports. It is advertiser-supported.

THE FAMILY CHANNEL

Formerly known as CBN, FAM airs a wide variety of programming aimed at the entire family. It also airs the "700 Club," a religious program hosted by Pat Robertson. FAM is advertiser-supported.

FINANCIAL NEWS NETWORK

FNN airs Monday-Friday, 6 a.m.-8 p.m. and features all financial-related programming, including constantly updated stock market prices. It also sells time blocks to advertisers.

HEADLINE NEWS NETWORK

HLN is a sister station of CNN. It programs cycles of 30 minute long news summaries and is advertiser-supported.

HOME BOX OFFICE

HBO is a premium network, meaning that cable television subscribers must pay an extra fee to receive its programming in addition to their basic cable service. HBO programs movies, entertainment specials, situation comedies, and some children's programming. It does not carry advertisements.

LIFETIME

Lifetime airs a wide variety of programs, all targeted at women. It produces a number of talk and information shows in addition to programming dramas, films, and other pre-produced content. It accepts advertising.

MTV

MTV is "music television" for teens and young adults. Much of its programming is made up of music videos, primarily rock, pop, and rap. It also produces a game show, "Remote Control," and other music-related programming. MTV accepts advertising.

THE NASHVILLE NETWORK

TNN is an advertiser-supported network specializing in programming related to a "country" lifestyle, including country music videos, talk shows featuring country stars, and game shows. It airs between 9 a.m. and 3 a.m., Monday-Sunday.

NICK AT NITE

NAN airs between 8 p.m. and 6 a.m. Monday-Sunday, sharing a channel with Nickelodeon (see below). Its programming consists almost entirely of old situation comedies and other comedy programming aimed at young adults. NAN is advertiser-supported.

NICKELODEON

NICK is the network for children. All of its programming, which airs between 6:30 a.m. and 8 p.m. Monday-Sunday, is directed at children. NICK is advertiser-supported.

SHOWTIME

SHOW is another premium network. It also specializes in feature films, but programs dramatic and comedy specials as well. It does not accept advertising.

TURNER NETWORK TELEVISION

TNT is a full-service cable network, competing for a mass audience. It programs a wide variety of shows, but specializes in feature films from the MGM library (owned by Ted Turner). It is advertiser supported.

USA NETWORK

USA is another mass audience appeal network which also offers a variety of programming. USA runs a number of off-broadcast network drama programs and also programs feature films and specials. It accepts advertising.

VH-1

VH-1 is a sister station to MTV and has similar programming. VH-1 is designed to appeal to a slightly older group than MTV, and so features more pop and easy listening videos rather than rock and rap. It accepts advertising.

THE WEATHER CHANNEL

TWC is an all-weather station. It carries both national and local weather reports which are updated hourly. It is advertiser supported.

WTBS

WTBS is considered a superstation, that is, an independent local station that is carried nationally. It broadcasts out of Atlanta, and carries a wide variety of programming, including a great deal of sports programming. It is advertiser supported.

Sources:

Eastman, S.T. (1989). Basic cable networks. In Broadcast/Cable Programming Strategies and Practices, 3rd ed. (pp. 282-318), by S.T. Eastman, S.W. Head, and L. Klein (eds.). Belmont, CA: Wadsworth.

Reiss, J.C. (1989). Premium programming services. In Broadcast/Cable Programming Strategies and Practices, 3rd ed. (pp. 317-346), by S.T. Eastman, S.W. Head, and L. Klein (eds.). Belmont, CA: Wadsworth.

APPENDIX 2

Inter-Media Comparisons of Audience Homogeneity

Los Angeles Radio Stations
Full Programming Period
(Monday-Sunday 6 a.m.-midnight)

Station	Audience Homogeneity
KABC	86.1
KACE	57.1
KALI	43.4
KBIG	41.2
KBRT	85.1
KDAY	84.2
KEZY	79.8
KFAC	103.1
KFAC-FM	76.9
KFI	45.3
KFSG	53.5
KGFJ	65.6
KFWB	77.7
KIEV	80.5
KIIS	66.8
KIIS-FM	65.5
KIQQ	41.0
KJLH	51.9
KJOI	88.6
KKGO	66.8
KKLA	49.8
KLAC	66.7
KLOS	84.7
KLSX	84.7
KLVE	58.5
KMAX	29.2
KMPC	107.7
KNAC	116.8
KNOB	41.1
KNX	80.9
KNX-FM	65.5
KOST	59.9
KPWR	85.7
KRLA	35.8
KROQ	90.1
KRTH	41.2
KRTH-FM	58.8

Los Angeles Radio Stations
Full Programming Period
(Monday-Sunday 6 a.m.-midnight)
(continued)

Station	Audience Homogeneity
KSKQ	44.3
KTNQ	28.7
KTWV	67.0
KUTE	62.2
KWIZ	57.9
KWIZ-FM	83.9
KWKW	49.4
KZLA	47.3

Los Angeles Radio Stations
Audience Composition
Full Programming Period
(Monday-Sunday 6 a.m.- midnight)

Station	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**9.7%**	**19.0%**	**19.8%**	**4.7%**	**18.3%**	**30.6%**	**7.8%**
KABC	0.7	6.0	14.7	27.3	3.4	6.2	41.7
KACE	4.4	25.7	9.2	5.8	37.9	14.6	2.4
KALI	7.5	10.2	11.6	4.8	40.1	11.6	14.3
KBIG	1.4	10.7	9.1	15.7	17.4	20.4	25.2
KBRT	0.0	2.6	7.7	30.8	6.4	19.2	33.3
KDAY	45.8	24.1	2.4	1.4	19.2	6.3	0.7
KEZY	18.8	24.6	1.4	0.0	43.5	11.6	0.0
KFAC	0.0	10.0	10.0	30.0	0.0	0.0	50.0
KFAC-FM	0.5	3.3	20.0	24.3	8.1	9.0	34.8
KFI	0.7	8.0	15.0	16.3	15.7	19.0	25.3
KFSG	0.0	10.0	7.5	12.5	15.0	25.0	30.0
KFWB	0.6	7.7	11.5	27.3	26.3	10.3	40.0
KGFJ	7.9	36.8	7.9	0.9	33.3	7.0	6.1
KIEV	5.0	1.3	11.3	26.3	2.5	11.3	42.5
KIIS	12.2	22.0	2.4	2.4	39.0	19.5	2.4
KIIS-FM	20.3	26.0	8.8	1.3	33.4	8.8	1.2
KIQQ	1.6	13.5	18.7	7.8	21.3	23.3	13.7
KJLH	15.7	24.8	14.2	0.9	27.7	15.1	1.6
KJOI	0.7	2.7	9.2	29.4	2.8	11.8	43.3
KKGO	0.5	9.6	16.2	38.9	9.6	15.2	10.1
KKLA	0.0	13.1	18.0	4.9	16.4	26.2	21.3
KLAC	0.8	11.5	13.7	33.2	5.3	8.4	27.1
KLOS	5.5	60.0	10.0	1.6	19.7	2.4	0.8
KLSX	3.1	48.5	12.8	0.2	30.6	4.3	0.5
KLVE	3.5	31.4	8.5	2.9	28.3	19.2	6.2
KMAX	5.3	19.7	13.2	5.3	30.3	9.2	17.1
KMPC	0.4	3.4	9.7	45.8	0.2	3.0	37.4
KNAC	11.2	76.0	2.1	0.9	9.0	0.0	0.9
KNOB	1.0	10.0	14.7	14.7	15.7	19.6	24.5
KNX	1.0	8.7	14.6	27.6	2.4	6.8	38.9
KNX-FM	0.6	35.2	17.6	4.0	29.5	8.0	5.1
KOST	9.1	13.8	8.5	2.9	44.5	16.1	5.1
KPWR	33.9	26.8	2.7	0.9	29.2	5.2	1.3
KRLA	6.2	30.0	14.8	3.7	18.9	16.0	10.3
KROQ	30.6	38.1	3.4	0.8	23.3	2.8	0.8
KRTH	7.7	16.5	24.5	7.7	7.3	20.7	15.7
KRTH-FM	2.0	29.2	21.4	3.5	25.6	15.0	3.2
KSKQ	2.7	18.9	8.1	1.4	33.8	16.2	18.9
KTNQ	4.5	28.0	16.0	10.1	15.6	13.8	11.9
KTWV	1.7	23.9	26.4	3.8	25.6	14.5	4.2
KUTE	1.6	21.2	39.4	4.7	19.7	12.6	0.8

Los Angeles Radio Stations
Audience Composition
Full Programming Period
(Monday-Sunday 6 a.m.- midnight)
(continued)

Station	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
KWIZ	0.0%	21.4%	7.1%	0.0%	42.9%	14.3%	14.3%
KWIZ-FM	7.8	7.8	0.0	0.0	45.1	27.5	11.8
KWKW	6.1	4.1	12.2	17.9	12.2	25.2	22.4
KZLA	0.3	11.4	20.7	17.9	11.7	13.9	24.1

Los Angeles Radio Stations
Drivetime Programming Period
(Monday-Friday 6-10 a.m.)

Station	Audience Homogeneity
KABC	87.7
KACE	62.3
KALI	31.7
KBIG	43.6
KBRT	71.0
KDAY	87.3
KEZY	76.4
KFAC	49.6
KFAC-FM	78.2
KFI	45.3
KFSG	66.3
KFWB	72.2
KGFJ	63.2
KIEV	70.0
KIIS	78.8
KIIS-FM	52.8
KIQQ	56.6
KJLH	52.6
KJOI	85.2
KKGO	77.2
KKLA	51.2
KLAC	73.9
KLOS	81.8
KLSX	89.4
KLVE	64.7
KMAX	35.6
KMPC	127.3
KNAC	107.1
KNOB	63.1
KNX	82.7
KNX-FM	65.1
KOST	65.7
KPWR	84.6
KRLA	45.4
KROQ	80.0
KRTH	46.8
KRTH-FM	57.6
KSKQ	63.7
KTNQ	28.4
KTWV	55.2

Los Angeles Radio Stations
Drivetime Programming Period
(Monday-Friday 6-10 a.m.)
(continued)

Station	Audience Homogeneity
KUTE	65.5
KWIZ	56.5
KWIZ-FM	71.7
KWKW	57.6
KZLA	40.0

Los Angeles Radio Stations
Audience Composition
Drivetime Programming Period
(Monday-Friday 6-10 a.m.)

Station	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**9.7%**	**19.0%**	**19.8%**	**4.7%**	**18.3%**	**30.6%**	**7.8%**
KABC	.6	4.5	9.4	28.7	3.9	9.3	43.6
KACE	3.0	21.7	6.0	1.8	44.6	14.5	8.4
KALI	7.5	13.2	12.3	7.5	33.8	12.7	13.2
KBIG	0.6	7.7	10.8	15.7	18.3	20.2	26.6
KBRT	0.0	2.3	14.9	24.1	9.2	24.1	35.3
KDAY	39.9	29.0	2.1	0.0	21.8	5.7	1.5
KEZY	18.2	21.6	1.1	0.0	45.5	11.4	2.3
KFAC	11.1	11.1	11.1	22.2	7.4	7.4	29.6
KFAC-FM	0.0	3.5	23.8	28.2	8.4	8.4	27.8
KFI	0.8	7.7	13.0	13.7	15.9	25.7	23.2
KFSG	0.0	6.6	14.8	9.8	9.8	26.2	32.8
KFWB	0.4	8.0	11.8	27.2	3.2	12.1	37.4
KGFJ	6.8	46.6	14.3	0.0	20.3	5.3	6.8
KIEV	12.2	1.2	31.7	11.0	2.4	13.4	28.0
KIIS	8.2	37.0	1.4	1.4	23.3	28.8	0.0
KIIS-FM	13.7	24.4	12.9	2.0	34.6	10.8	1.5
KIQQ	1.4	11.6	22.1	6.7	18.0	30.8	9.5
KJLH	17.1	19.8	14.7	2.1	29.9	16.3	0.0
KJOI	0.5	1.4	12.2	27.2	2.6	13.1	43.1
KKGO	0.6	6.3	8.6	40.2	12.6	23.0	8.6
KKLA	1.4	11.5	15.1	4.3	16.5	30.2	20.9
KLAC	0.5	6.1	14.2	31.7	4.1	11.7	31.7
KLOS	4.1	58.5	13.2	1.1	18.7	3.7	0.6
KLSX	1.4	52.6	15.0	0.3	26.7	3.3	0.8
KLVE	2.6	30.5	8.3	3.2	27.1	24.4	3.9
KMAX	8.7	15.7	6.3	4.7	34.6	13.4	16.5
KMPC	0.0	0.8	3.6	51.7	0.1	3.4	40.4
KNAC	7.1	72.6	3.6	0.5	15.2	0.0	1.0
KNOB	0.0	10.4	13.9	9.6	7.8	26.1	32.2
KNX	0.5	7.6	15.0	28.6	2.5	7.4	38.4
KNX-FM	0.5	31.0	19.2	3.3	31.9	5.6	8.5
KOST	5.2	10.5	12.8	2.6	43.2	19.7	6.0
KPWR	30.8	26.0	1.4	0.7	32.5	6.9	1.6
KRLA	6.9	23.7	25.0	0.7	19.1	16.8	7.9
KROQ	25.5	37.0	5.5	2.0	24.6	4.2	1.3
KRTH	6.8	22.1	22.1	12.1	4.6	22.8	9.6
KRTH-FM	0.8	26.5	21.6	4.7	27.0	15.6	3.9
KSKQ	3.4	14.4	13.0	5.5	24.0	8.2	31.5
KTNQ	4.2	31.0	14.4	9.7	17.0	11.7	11.9
KTWV	0.8	24.1	25.2	6.6	24.4	15.8	3.2
KUTE	1.1	18.6	42.9	0.6	22.6	13.6	0.6

Los Angeles Radio Stations
Audience Composition
Drivetime Programming Period
(Monday-Friday 6-10 a.m.)
(continued)

Station	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
KWIZ	0.0%	5.0%	10.0%	10.0%	35.0%	15.0%	25.0%
KWIZ-FM	12.7	11.1	0.0	0.0	39.7	23.8	12.7
KWKW	4.8	6.5	9.3	18.9	9.9	25.1	25.6
KZLA	0.0	13.6	21.5	15.1	13.4	17.5	18.8

Denver Radio Stations
Full Programming Period
(Monday-Sunday 6 a.m.-midnight)

Station	Audience Homogeneity
KADX	73.0
KAZY	93.4
KBCO	92.5
KBCO-FM	79.6
KBPI	89.9
KBRQ	102.7
KBRQ-FM	45.2
KDEN	99.8
KDKO	61.0
KEZW	103.9
KHIH	78.7
KHOW	40.9
KIMN	32.6
KLZ	54.1
KMJI	57.2
KMVP	73.7
KNUS	78.7
KOA	65.6
KOAQ	67.7
KOSI	84.5
KQKS	69.2
KRKS	51.8
KRXY	79.4
KRZN	52.7
KSYY	78.3
KTCL	79.1
KVOD	56.2
KYBG	91.1
KYGO	32.7

Denver Radio Stations
Audience Composition
Full Programming Period
(Monday-Sunday 6 a.m.- midnight)

Station	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**9.9%**	**20.9%**	**12.8%**	**10.4%**	**20.1%**	**12.7%**	**13.2%**
KADX	0.0	33.3	23.3	16.7	0.0	20.0	6.7
KAZY	4.9	62.6	4.4	0.0	25.1	2.5	0.5
KBCO	0.0	30.8	23.1	0.0	46.2	0.0	0.0
KBCO-FM	3.1	50.9	11.6	0.0	29.9	4.5	0.0
KBPI	18.9	52.5	1.8	0.0	24.4	2.3	0.0
KBRQ	0.0	18.8	6.3	37.5	0.0	0.0	37.5
KBRQ-FM	0.0	20.8	33.3	12.5	16.7	6.3	10.4
KDEN	0.0	5.9	11.8	44.1	0.0	8.9	29.4
KDKO	6.4	17.0	4.3	0.0	25.5	8.5	38.3
KEZW	0.0	4.9	7.8	37.3	2.9	8.8	38.2
KHIH	0.0	49.3	15.1	1.4	28.8	5.5	0.0
KHOW	3.7	18.5	23.7	5.9	14.8	22.2	11.1
KIMN	6.9	24.1	14.9	3.4	31.0	12.6	6.9
KLZ	1.4	14.9	20.3	18.9	10.8	9.5	24.3
KMJI	1.5	26.8	17.1	1.5	37.6	13.7	2.0
KMVP	0.0	29.4	41.2	5.9	11.8	11.8	0.0
KNUS	0.0	13.7	17.9	21.1	1.1	9.5	36.8
KOA	0.4	7.5	15.5	22.6	10.2	12.8	31.0
KOAQ	2.4	24.3	5.9	0.6	47.9	15.4	3.6
KOSI	0.7	4.7	9.7	22.7	5.8	15.9	40.4
KQKS	2.9	26.5	5.9	0.0	35.3	26.5	2.9
KRKS	0.0	30.0	10.0	10.0	10.0	10.0	30.0
KRXY	37.2	18.6	4.8	1.7	32.5	3.5	1.7
KRZN	5.4	25.0	21.4	0.0	28.6	17.9	1.8
KSYY	33.7	19.3	3.6	0.0	35.9	6.0	2.4
KTCL	4.4	40.0	22.2	0.0	31.1	2.2	0.0
KVOD	2.0	12.9	17.8	16.8	7.9	19.8	22.8
KYBG	0.0	12.5	37.5	31.3	0.0	12.5	6.3
KYGO	4.7	18.6	20.9	11.0	15.1	20.3	9.3

Denver Radio Stations
Drivetime Programming Period
(Monday-Friday 6-10 a.m.)

Station	Audience Homogeneity
KADX	74.0
KAZY	89.7
KBCO	81.8
KBCO-FM	76.9
KBPI	91.1
KBRQ	86.1
KBRQ-FM	41.8
KDEN	98.3
KDKO	66.0
KEZW	98.4
KHIH	71.2
KHOW	49.4
KIMN	41.6
KLZ	66.4
KMJI	62.3
KMVP	77.0
KNUS	82.7
KOA	62.3
KOAQ	59.0
KOSI	89.6
KQKS	62.3
KRKS	77.4
KRXY	74.8
KRZN	52.9
KSYY	79.2
KTCL	82.6
KVOD	72.9
KYBG	93.4
KYGO	28.0

Denver Radio Stations
Audience Composition
Drivetime Programming Period
(Monday-Friday 6-10 a.m.)

Station	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**9.9%**	**20.9%**	**12.8%**	**10.4%**	**20.1%**	**12.7%**	**13.2%**
KADX	3.1	34.4	21.9	15.6	0.0	21.9	3.1
KAZY	4.4	59.6	4.9	0.0	26.2	4.4	0.4
KBCO	5.3	21.1	36.8	0.0	36.8	0.0	0.0
KBCO-FM	2.7	49.5	13.5	0.0	29.3	5.1	0.0
KBPI	14.9	49.4	1.6	0.0	32.2	2.0	0.0
KBRQ	0.0	14.3	4.8	23.8	9.5	4.8	42.9
KBRQ-FM	0.0	17.9	28.4	14.9	20.9	7.5	10.4
KDEN	0.0	4.5	12.1	43.9	1.5	9.1	28.8
KDKO	4.4	35.6	6.7	0.0	33.3	17.8	2.2
KEZW	0.0	4.4	10.1	38.0	3.2	9.5	34.8
KHIH	0.0	53.1	12.2	4.1	23.5	6.1	1.0
KHOW	3.5	17.4	24.1	5.8	13.0	26.1	10.1
KIMN	4.4	30.9	15.5	4.4	26.0	14.9	3.9
KLZ	0.7	10.6	16.3	20.6	6.4	23.4	22.0
KMJI	0.3	28.5	18.3	1.9	38.1	10.6	2.2
KMVP	5.6	27.8	44.4	0.0	11.1	11.1	0.0
KNUS	0.0	8.6	18.1	24.8	1.0	15.2	32.4
KOA	0.4	10.3	18.9	21.1	9.0	13.8	26.4
KOAQ	2.4	22.8	7.6	2.4	42.8	17.6	4.4
KOSI	0.0	5.8	8.5	24.9	4.6	15.8	40.4
KQKS	1.9	22.6	7.5	1.9	35.8	26.4	37.7
KRKS	0.0	16.7	0.0	16.7	8.3	25.0	33.3
KRXY	37.4	18.2	5.7	1.3	30.0	3.7	3.7
KRZN	5.9	20.6	20.6	0.0	26.5	25.0	1.5
KSYY	31.2	15.2	5.6	0.8	38.4	8.0	0.8
KVOD	0.0	8.6	17.8	17.8	5.9	19.7	30.3
KYBG	0.0	4.3	39.1	30.4	4.3	13.0	8.7
KYGO	1.9	21.0	18.3	10.3	20.2	21.0	7.3
KTCL	1.8	51.8	23.2	1.8	19.6	1.8	0.0

New York Radio Stations
Full Programming Period
(Monday-Sunday 6 a.m.-midnight)

Station	Audience Homogeneity
WABC	62.6
WADO	71.4
WALK	105.5
WALK-FM	60.4
WBAB	90.8
WBLI	47.7
WBLS	54.4
WCBS	70.3
WCBS-FM	56.0
WCTC	85.1
WCTO	88.8
WDHA	107.4
WEVD	43.7
WEZN	74.8
WFME	96.9
WGSM	92.0
WHLI	103.1
WHN	48.8
WHTZ	63.4
WHUD	70.2
WINS	53.1
WJIT	76.8
WKDM	49.3
WKJY	53.6
WLIB	28.3
WLIR-FM	97.5
WLTW	33.6
WMCA	95.9
WMGQ	87.7
WNBC	51.4
WNCN	53.2
WNEW	86.4
WNEW-FM	88.5
WNJR	45.8
WNSR	39.2
WOR	103.0
WPAT	102.0
WPAT-FM	89.2
WPIX	45.5
WPLJ	70.0
WQHT	96.6
WQXR	104.0

New York Radio Stations
Full Programming Period
(Monday-Sunday 6 a.m.-midnight)
(continued)

Station	Audience Homogeneity
WQXR-FM	81.7
WRKS	76.1
WSKQ	63.7
WWDJ	58.9
WWRL	64.6
WXRK	82.8
WYNY	58.4

New York Radio Stations
Audience Composition
Full Programming Period
(Monday-Sunday 6 a.m.-midnight)

Station	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**10.1%**	**15.6%**	**11.6%**	**14.4%**	**16.3%**	**12.7%**	**19.3%**
WABC	2.5	11.0	12.9	29.4	2.8	7.1	34.3
WADO	0.0	2.1	9.5	19.0	6.3	17.2	45.9
WALK	0.0	0.0	33.3	0.0	33.3	0.0	33.3
WALK-FM	1.5	6.5	17.5	9.0	12.5	37.0	16.0
WBAB	11.8	50.0	4.2	1.5	25.6	6.1	0.8
WBLI	14.1	18.8	15.0	2.8	24.4	17.8	7.0
WBLS	15.7	26.5	13.2	3.9	25.4	12.2	3.1
WCBS	0.5	7.6	10.8	29.8	4.1	8.2	39.1
WCBS-FM	1.3	16.3	30.0	8.0	14.9	21.6	7.9
WCTC	0.0	3.8	10.0	26.3	2.5	7.5	50.0
WCTO	0.0	3.1	5.1	45.9	1.0	17.3	27.6
WDHA	2.3	69.3	2.3	6.8	15.9	1.1	2.3
WEVD	3.1	19.8	11.5	31.3	6.3	13.5	14.6
WEZN	0.9	1.8	9.8	34.9	3.7	13.1	35.8
WFME	0.0	1.3	0.4	27.0	3.4	24.0	43.8
WGSM	0.0	0.9	7.4	26.9	0.9	11.1	52.8
WHLI	1.1	1.1	2.3	42.0	1.1	9.1	43.2
WHN	2.7	6.8	17.5	26.3	8.1	15.6	23.0
WHTZ	27.2	19.1	9.6	1.0	27.5	12.5	3.3
WHUD	0.4	2.2	13.7	31.4	4.3	15.9	32.1
WINS	1.8	5.7	11.5	29.3	9.1	11.7	31.0
WJIT	0.0	15.0	10.2	2.0	38.1	29.3	5.4
WKDM	6.7	14.6	14.3	4.6	25.9	25.0	8.8
WKJY	0.9	3.6	8.0	25.9	14.3	27.7	19.6
WLIB	4.3	18.6	9.9	7.8	26.1	12.8	20.6
WLIR-FM	21.5	38.8	0.4	0.4	35.4	3.4	0.0
WLTW	1.6	14.6	12.8	11.6	19.3	25.3	14.8
WMCA	0.0	0.8	8.0	32.2	1.5	7.6	50.0
WMGQ	0.0	5.2	25.0	0.9	43.1	16.4	9.5
WNBC	2.8	20.1	28.3	10.9	8.7	17.2	12.0
WNCN	0.7	11.7	18.3	32.1	6.5	14.9	15.8
WNEW	0.2	4.5	5.8	27.6	3.6	9.0	49.3
WNEW-FM	8.4	51.9	8.1	0.8	24.3	3.5	3.1
WNJR	13.4	10.3	18.6	7.2	28.9	8.2	13.4
WNSR	3.7	15.5	14.7	8.3	29.0	16.5	12.3
WOR	0.1	2.0	4.9	23.0	1.8	6.1	62.3
WPAT	0.0	1.2	5.2	34.5	1.2	7.7	50.2
WPAT-FM	0.9	2.3	7.2	36.0	4.7	6.6	42.3
WPIX	2.3	12.4	14.9	10.4	25.5	23.0	11.6
WPLJ	23.8	21.8	6.7	1.1	31.4	11.1	4.1
WQHT	36.4	25.2	2.4	0.1	28.7	4.5	2.7
WQXR	0.0	0.0	10.2	34.7	0.0	4.1	51.0

New York Radio Stations
Audience Composition
Full Programming Period
(Monday-Sunday 6 a.m.-midnight)
(continued)

Station	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
WQXR-FM	0.3%	1.6%	6.6%	40.5%	7.7%	9.3%	34.1%
WRKS	26.5	26.2	2.2	3.0	27.4	11.1	3.7
WSKQ	0.4	7.0	14.4	21.8	20.3	25.4	10.8
WWDJ	1.0	2.9	18.3	22.1	8.7	20.2	26.9
WWRL	6.3	0.8	10.0	7.1	11.8	23.5	40.8
WXRK	8.3	51.3	15.2	0.7	18.4	4.4	1.7
WYNY	4.0	16.9	18.0	4.7	35.5	15.1	6.0

New York Radio Stations
Drivetime Programming Period
(Monday-Friday 6-10 a.m.)

Station	Audience Homogeneity
WABC	66.0
WADO	56.1
WALK	138.2
WALK-FM	59.8
WBAB	92.8
WBLI	48.6
WBLS	55.5
WCBS	65.6
WCBS-FM	53.3
WCTC	79.3
WCTO	87.0
WDHA	105.1
WEVD	110.5
WEZN	71.5
WFME	91.8
WGSM	108.6
WHLI	96.9
WHN	46.1
WHTZ	57.0
WHUD	72.2
WINS	41.7
WJIT	66.5
WKDM	46.6
WKJY	40.2
WLIB	42.1
WLIR-FM	112.3
WLTW	32.0
WMCA	102.6
WMGQ	81.4
WNBC	59.0
WNCN	51.7
WNEW	86.3
WNEW-FM	88.7
WNJR	80.5
WNSR	51.9
WOR	101.4
WPAT	94.3
WPAT-FM	94.2
WPIX	38.2
WPLJ	66.8
WQHT	94.3
WQXR	91.8

New York Radio Stations
Drivetime Programming Period
(Monday-Friday 6-10 a.m.)
(continued)

Station	Audience Homogeneity
WQXR-FM	70.0
WRKS	69.1
WSKQ	44.4
WWDJ	68.5
WWRL	77.0
WXRK	81.4
WYNY	75.5

New York Radio Stations
Audience Composition
Drivetime Programming Period
(Monday-Friday 6-10 a.m.)

Station	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**10.1%**	**15.6%**	**11.6%**	**14.4%**	**16.3%**	**12.7%**	**19.3%**
WABC	0.5	6.3	13.3	28.8	4.6	10.3	36.2
WADO	0.0	5.0	12.3	18.4	9.0	14.8	40.6
WALK	0.0	0.0	44.4	0.0	0.0	0.0	55.6
WALK-FM	0.6	7.0	18.7	7.6	13.5	35.5	17.1
WBAB	13.3	49.2	4.9	0.3	25.9	6.1	0.3
WBLI	13.7	18.4	14.9	4.7	22.4	21.2	4.7
WBLS	11.2	25.9	14.7	4.0	24.8	17.5	2.0
WCBS	0.5	8.2	11.6	29.1	4.9	8.3	37.4
WCBS-FM	1.8	14.6	28.7	8.0	16.9	21.7	8.4
WCTC	0.0	6.8	10.4	22.9	3.2	6.3	49.5
WCTO	9.0	7.1	3.5	56.5	0.0	14.1	18.8
WDHA	2.1	59.8	2.1	6.2	24.7	2.1	3.1
WEVD	5.9	1.5	4.4	25.0	1.5	57.4	4.4
WEZN	0.5	2.1	10.9	38.6	4.4	13.5	30.1
WFME	0.0	2.3	1.5	30.1	3.9	25.5	36.7
WGSM	0.0	2.0	2.0	20.0	1.0	7.0	68.0
WHLI	3.3	4.6	1.3	34.4	0.7	7.9	47.7
WHN	0.8	7.0	16.1	23.5	11.2	18.0	23.5
WHTZ	22.6	18.2	13.9	1.3	25.3	14.8	3.9
WHUD	0.0	1.6	18.4	26.9	4.3	14.1	34.7
WINS	2.2	7.2	13.2	24.4	11.8	14.5	26.8
WJIT	0.0	15.9	12.0	0.0	37.9	23.7	10.6
WKDM	6.3	10.9	16.7	3.4	28.2	19.0	15.5
WKJY	2.2	4.5	13.5	13.5	20.2	27.0	19.1
WLIB	0.0	9.7	13.6	29.5	20.2	12.8	14.3
WLIR-FM	26.3	24.4	0.5	0.9	47.5	4.6	0.0
WLTW	1.5	13.8	13.1	11.3	18.8	24.7	16.8
WMCA	0.0	0.3	2.8	24.9	0.6	11.3	60.1
WMGQ	0.0	9.0	27.7	0.0	31.0	22.6	9.7
WNBC	1.8	18.5	31.3	10.6	10.6	19.6	7.6
WNCN	0.8	20.2	17.9	28.8	6.3	13.3	12.8
WNEW	0.2	3.8	6.0	31.3	4.4	8.8	45.6
WNEW-FM	7.3	47.5	8.5	0.3	28.8	3.0	4.7
WNJR	7.8	2.2	22.2	4.4	14.4	0.0	48.9
WNSR	2.9	8.3	15.0	7.7	34.9	16.6	14.5
WOR	0.2	1.7	5.2	24.1	1.2	7.3	60.3
WPAT	0.0	2.7	6.4	36.4	0.2	9.8	44.4
WPAT-FM	1.2	1.4	6.3	35.9	3.0	7.3	44.9
WPIX	2.1	9.8	16.1	9.1	19.3	24.1	19.5
WPLJ	18.5	23.3	7.1	1.5	34.1	12.5	3.0
WQHT	31.3	26.8	2.4	0.0	31.0	5.8	2.6
WQXR	0.0	0.0	14.3	51.6	0.0	8.8	25.3

New York Radio Stations
Audience Composition
Drivetime Programming Period
(Monday-Friday 6-10 a.m.)
(continued)

Station	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
WQXR-FM	0.0%	1.9%	11.1%	40.0%	6.8%	11.5%	28.7%
WRKS	24.7	24.8	2.8	5.5	27.1	11.8	3.4
WSKQ	0.6	7.2	17.2	19.4	15.9	24.3	15.4
WWDJ	1.4	0.7	15.1	21.6	23.0	29.5	8.6
WWRL	8.0	0.6	12.2	2.8	6.5	37.2	32.7
WXRK	7.0	51.7	16.2	1.2	16.1	5.9	1.9
WYNY	3.7	9.6	23.2	1.3	37.2	17.9	7.0

Los Angeles Television Channels
Full Programming Period
(Sunday-Saturday 7 a.m.-1 a.m.)

Channel	Audience Homogeneity
KABC	25.8
KCBS	41.5
KCET	55.2
KCOP	10.1
KHJ	32.4
KMEX	32.7
KNBC	33.0
KTLA	13.2
KTTV	16.6
KVEA	36.2

Los Angeles Television Channels
Audience Composition
Full Programming Period
(Sunday-Saturday 7 a.m.-1 a.m.)

Channel	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**9.5%**	**18.3%**	**12.7%**	**12.6%**	**17.9%**	**12.9%**	**16.1%**
KABC	6.6	12.2	8.8	13.9	19.6	15.4	23.5
KCBS	4.7	10.9	9.2	18.3	13.3	12.4	31.1
KCET	2.8	8.5	11.3	25.4	8.5	12.7	31.0
KCOP	12.3	17.0	10.4	11.8	17.5	12.7	18.4
KHJ	9.2	11.0	8.7	15.0	13.3	13.9	28.9
KMEX	12.9	20.7	6.0	6.0	23.8	12.1	13.8
KNBC	6.3	12.0	9.4	17.0	14.2	12.9	28.2
KTLA	14.9	17.4	9.6	11.7	19.1	12.1	15.2
KTTV	14.7	17.5	9.1	10.7	21.0	12.3	14.7
KVEA	7.3	25.4	10.9	7.3	27.3	14.5	7.3

Los Angeles Television Channels
Primetime Programming Period
(Monday-Friday 8-11 p.m.)

Channel	Audience Homogeneity
KABC	14.0
KCBS	27.8
KCET	65.6
KCOP	26.6
KHJ	37.2
KMEX	31.0
KNBC	14.4
KTLA	12.7
KTTV	17.9
KVEA	41.4

Los Angeles Television Channels
Audience Composition
Primetime Programming Period
(Monday-Friday 8-11 p.m.)

Channel	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**9.5%**	**18.3%**	**12.7%**	**12.6%**	**17.9%**	**12.9%**	**16.1%**
KABC	9.0	15.9	11.0	10.2	21.3	15.6	17.0
KCBS	5.8	11.4	10.3	15.1	17.0	15.2	25.2
KCET	2.5	8.0	15.3	27.0	4.9	10.4	31.9
KCOP	6.3	15.2	9.8	18.1	13.8	13.2	23.6
KHJ	5.9	11.3	11.3	17.2	11.3	13.4	29.6
KMEX	14.0	21.6	6.8	3.8	25.4	13.1	15.3
KNBC	7.2	14.8	11.3	13.2	18.1	14.6	20.8
KTLA	9.1	16.6	13.2	17.0	14.0	12.6	17.6
KTTV	6.0	17.3	11.3	18.2	15.5	12.2	19.4
KVEA	9.6	28.9	13.3	5.2	26.7	13.3	29.6

Denver Television Channels
Full Programming Period
(Sunday-Saturday 7 a.m.-1 a.m.)

Channel	Audience Homogeneity
KBDI	71.9
KCNC	33.7
KDVR	24.7
KMGH	29.7
KRMA	54.7
KTVD	16.8
KUSA	30.6
KWGN	13.4

Denver Television Channels
Audience Composition
Full Programming Period
(Sunday-Saturday 7 a.m.-1 a.m.)

Channel	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**9.5%**	**20.6%**	**13.3%**	**10.5%**	**19.8%**	**13.1%**	**13.1%**
KBDI	0.0	25.0	0.0	25.0	25.0	0.0	25.0
KCNC	6.0	13.8	7.8	16.4	19.0	12.9	24.1
KDVR	16.1	16.1	12.9	6.5	22.6	16.1	9.7
KMGH	4.8	13.1	10.7	15.5	20.2	13.1	22.6
KRMA	0.0	14.3	14.3	21.4	14.3	7.1	28.6
KTVD	7.1	21.4	14.3	14.3	21.4	7.1	14.3
KUSA	5.1	14.5	8.5	12.8	20.5	15.4	23.1
KWGN	11.9	20.3	10.2	10.2	23.7	13.6	10.2

Denver Television Channels
Primetime Programming Period
(Monday-Friday 8-11 p.m.)

Channel	Audience Homogeneity
KBDI	60.4
KCNC	15.0
KDVR	17.5
KMGH	24.6
KRMA	56.4
KTVD	42.6
KUSA	16.1
KWGN	19.0

Denver Television Channels
Audience Composition
Primetime Programming Period
(Monday-Friday 8-11 p.m.)

Channel	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**9.5%**	**20.6%**	**13.3%**	**10.5%**	**19.8%**	**13.1%**	**13.1%**
KBDI	0.0	15.4	7.7	23.1	15.4	7.7	30.8
KCNC	8.7	16.7	10.6	11.4	21.2	14.8	16.7
KDVR	10.3	17.2	15.5	12.1	17.2	17.2	10.3
KMGH	6.5	13.1	11.6	12.1	22.6	15.6	18.6
KRMA	2.3	14.0	14.0	23.3	9.3	9.3	27.9
KTVD	3.0	30.3	15.2	18.2	9.1	9.1	15.2
KUSA	7.8	17.9	10.1	10.1	22.9	15.6	15.6
KWGN	7.5	18.9	11.3	16.0	16.0	13.2	17.0

New York Television Channels
Full Programming Period
(Sunday-Saturday 7 a.m.-1 a.m.)

Channel	Audience Homogeneity
WABC	23.9
WCBS	40.1
WNBC	28.2
WNET	51.7
WNJU	37.0
WNYW	12.9
WPIX	22.0
WWOR	23.5
WXTV	21.1

New York Television Channels
Audience Composition
Full Programming Period
(Sunday-Saturday 7 a.m-1 a.m.)

Channel	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**9.7%**	**15.4%**	**12.2%**	**14.1%**	**16.2%**	**13.4%**	**19.0%**
WABC	6.9	10.2	9.3	13.0	18.2	16.8	25.5
WCBS	4.3	9.8	8.5	19.3	11.8	13.4	32.9
WNBC	6.7	10.5	9.4	16.5	13.8	14.1	29.1
WNET	3.0	7.0	11.0	23.0	10.0	11.0	35.0
WNJU	3.9	9.8	7.8	13.7	27.5	19.6	17.6
WNYW	12.6	14.2	9.5	14.9	15.6	12.4	20.8
WPIX	13.5	18.2	9.4	11.2	19.7	12.5	15.6
WWOR	8.7	12.6	9.6	19.1	13.5	11.7	24.8
WXTV	8.5	12.8	6.4	17.0	21.3	14.9	19.1

New York Television Channels
Primetime Programming Period
(Monday-Friday 8-11 p.m.)

Channel	Audience Homogeneity
WABC	14.3
WCBS	22.0
WNBC	13.9
WNET	69.3
WNJU	40.3
WNYW	29.6
WPIX	10.5
WWOR	29.6
WXTV	32.4

New York Television Channels
Audience Composition
Primetime Programming Period
(Monday-Friday 8-11 p.m.)

Channel	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**9.7%**	**15.4%**	**12.2%**	**14.1%**	**16.2%**	**13.4%**	**19.0%**
WABC	9.9	12.7	10.2	11.6	18.4	16.6	20.5
WCBS	5.7	10.9	10.2	15.0	15.7	16.5	26.0
WNBC	8.3	12.2	10.3	14.5	15.8	15.6	23.4
WNET	0.4	4.5	12.2	27.3	6.1	9.0	40.4
WNJU	2.7	12.4	6.5	13.5	25.9	23.8	15.1
WNYW	4.3	11.5	11.7	21.7	13.3	11.3	26.2
WPIX	10.9	17.1	10.4	15.1	15.9	10.3	20.4
WWOR	5.7	13.6	12.2	22.8	10.4	10.2	25.1
WXTV	7.9	7.9	5.3	17.1	19.7	18.4	23.7

Cable Television Channels
Full Programming Period
(Monday-Sunday 24 hours)

Channel	Audience Homogeneity
AED*	26.8
AEN*	32.4
BET	41.1
CNN	60.8
DISC*	45.4
ESPN	39.1
FAM	32.4
FNN*	85.0
HBO	28.1
HLN	38.2
LIFE	25.8
MTV	73.0
NAN*	37.7
NICK*	35.7
SHOW	33.9
TNN*	48.8
TNT	35.4
TWC	40.5
USA	7.8
VH-1	42.4
WTBS	10.3

*These networks do not air programming during the entire 24-hour, 7-day period. Data reflect the following time periods:
AEN Monday-Sunday, 8 p.m.-4 a.m.
AED Monday-Sunday, 8 a.m.-8 p.m.
DISC and TNN Monday-Sunday, 9 a.m.- 3 a.m.
FNN Monday-Friday, 6 a.m.-8 p.m.
NAN Monday-Sunday, 8 p.m.-6 a.m.
NICK Monday-Sunday, 6:30 a.m.-8 p.m.

Cable Television Channels
Audience Composition
Full Programming Period

Channel	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
AED	4.8%	18.0%	13.0%	22.8%	10.7%	13.0%	17.8%
AEN	2.9	18.5	17.9	20.5	10.5	12.2	17.5
BET	26.7	18.2	8.4	5.1	21.9	12.3	7.5
CNN	3.0	9.0	9.8	28.9	6.7	10.9	31.8
DISC	3.5	15.0	14.4	29.9	9.2	8.2	20.0
ESPN	8.2	22.2	17.2	22.2	9.7	7.5	13.1
FAM	5.6	9.6	11.4	19.6	13.3	14.5	26.0
FNN	3.8	8.7	5.0	46.6	8.4	2.7	24.8
HBO	11.5	19.9	16.2	8.4	22.0	14.6	7.5
HLN	3.2	12.3	16.4	24.0	10.7	13.6	19.7
LIFE	7.0	11.1	10.8	14.9	16.5	17.0	22.8
MTV	30.1	29.0	5.4	3.3	22.0	6.3	3.8
NAN	7.9	23.4	13.5	6.8	27.6	13.6	7.3
NICK	15.8	14.2	8.1	7.9	30.2	12.0	11.8
SHOW	11.1	24.5	17.2	7.1	19.7	14.6	5.9
TNN	4.3	10.9	10.6	20.8	8.4	11.7	33.2
TNT	4.5	10.4	12.6	20.4	12.8	12.7	26.6
TWC	3.2	11.9	17.2	20.4	8.9	14.1	24.3
USA	9.4	16.0	12.3	14.3	15.9	13.0	1.91
VH-1	11.8	25.0	11.5	3.7	30.0	12.0	6.0
WTBS	8.4	16.6	13.3	16.7	17.8	12.2	15.0

Cable Television Channels
Primetime Programming Period
(Monday-Friday 8-11 p.m.)

Channel	Audience Homogeneity
AED*	28.4
AEN	36.2
BET	47.0
CNN	71.4
DISC	44.3
ESPN	41.8
FAM	39.0
FNN*	87.9
HBO	23.6
HLN	31.1
LIFE	31.0
MTV	66.8
NAN	33.7
NICK*	42.5
SHOW	36.7
TNN	83.0
TNT	46.8
TWC	29.6
USA	23.0
VH-1	35.6
WTBS	23.1

*These networks do not air programming during the 8-11 p.m. period. Figures reflect the 4:30-7:30 p.m. time period.

Cable Television Channels
Audience Composition
Primetime Programming Period

Channel	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
AED	5.9%	18.0%	12.0%	26.3%	8.6%	13.8%	15.5%
AEN	3.1	16.8	19.5	21.7	7.7	12.9	18.4
BET	30.9	16.7	6.9	3.6	22.1	13.7	6.1
CNN	2.5	8.1	7.4	27.9	7.0	9.9	37.2
DISC	3.5	14.8	14.7	28.6	8.9	9.1	20.4
ESPN	6.7	20.2	17.8	24.9	8.5	7.2	14.7
FAM	5.2	8.7	12.1	20.4	12.5	11.9	29.2
FNN	4.4	5.5	5.4	44.4	10.3	1.6	28.4
HBO	11.6	20.9	14.8	9.9	20.5	14.1	8.2
HLN	3.6	12.6	18.6	20.6	14.2	13.0	17.4
LIFE	5.3	11.5	9.3	17.6	15.0	16.0	25.3
MTV	27.0	28.8	6.2	5.0	22.3	5.5	5.2
NAN	8.8	21.8	13.2	6.7	25.4	15.9	8.1
NICK	21.6	12.7	8.0	9.0	27.8	11.3	9.6
SHOW	10.1	25.4	16.8	6.3	20.2	15.2	6.1
TNN	2.6	5.1	7.5	24.0	5.9	7.7	47.2
TNT	3.2	11.3	12.5	25.9	7.7	12.5	26.9
TWC	5.3	15.5	17.3	18.3	9.2	13.5	21.0
USA	7.8	13.3	12.7	17.2	12.1	13.5	23.4
VH-1	13.0	23.4	11.8	5.8	27.0	11.7	7.3
WTBS	7.2	18.2	15.1	20.1	12.3	11.5	15.6

Cable Television Channels
Potential Audience Composition (Baseline)

Channel	Teens 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
AED	10.5%	16.8%	12.1%	13.5%	17.8%	13.6%	15.8%
AEN	10.5	16.8	12.0	13.4	17.7	13.5	16.0
BET	11.9	16.4	12.2	12.8	17.9	13.7	15.1
CNN	10.8	16.2	12.1	13.8	17.1	13.6	16.5
DISC	11.0	16.5	12.1	13.4	17.4	13.6	16.1
ESPN	10.8	16.3	12.0	13.7	17.3	13.6	16.3
FAM	11.2	15.8	12.2	13.8	16.9	13.8	16.3
FNN	10.4	17.0	12.4	13.0	17.9	13.5	15.9
HBO	10.9	16.3	12.0	13.7	17.3	13.7	16.3
HLN	11.0	16.6	12.0	13.3	17.4	14.0	15.8
LIFE	11.0	16.3	12.3	13.5	17.0	13.8	16.1
MTV	10.9	16.5	12.4	13.4	17.3	12.8	15.7
NAN	11.0	16.3	12.0	13.6	17.3	13.9	15.9
NICK	10.9	16.5	12.1	13.5	17.3	13.8	16.0
SHOW	10.9	16.3	12.0	13.7	17.3	13.7	16.3
TNN	11.2	16.1	12.1	13.7	17.1	13.9	16.0
TNT	10.3	16.2	12.0	13.5	18.0	13.6	16.4
TWC	11.1	15.9	12.0	13.7	17.3	14.0	16.1
USA	10.9	16.5	12.1	13.5	17.4	13.5	16.3
VH-1	10.5	16.8	12.3	12.8	18.3	13.7	15.6
WTBS	11.0	16.3	12.0	13.6	17.4	13.8	16.0

APPENDIX 3

Inter-Media Comparisons Of Audience Size and Time Spent Viewing

Los Angeles Radio Stations
Full Programming Period
(Monday-Sunday 6 a.m.-midnight)

Station	Audience Size (Reach)	TSL in weekly hours
KABC	12.7%	9.02
KACE	3.2	8.72
KALI	2.6	8.19
KBIG	10.2	8.24
KBRT	1.0	7.70
KDAY	4.9	8.45
KEZY	2.0	4.86
KFAC	1.1	2.62
KFAC-FM	4.3	5.99
KFI	4.9	5.83
KFSG	1.3	5.41
KFWB	12.1	5.48
KGFJ	2.1	7.98
KIEV	2.3	4.84
KIIS	1.5	3.78
KIIS-FM	20.9	7.66
KIQQ	8.2	7.87
KJLH	5.6	8.10
KJOI	9.4	11.61
KKGO	3.2	7.67
KKLA	1.6	4.86
KLAC	5.2	6.47
KLOS	8.7	7.72
KLSX	8.6	8.55
KLVE	5.8	11.64
KMAX	1.6	6.85
KMPC	8.0	7.76
KNAC	2.4	12.89
KNOB	2.8	5.07
KNX	10.9	6.19
KNX-FM	4.0	5.16
KOST	12.8	7.38
KPWR	17.1	9.02
KRLA	4.4	7.33
KROQ	10.8	8.59
KRTH	5.0	7.25
KRTH-FM	11.4	8.15

Los Angeles Radio Stations
Full Programming Period
(Monday-Sunday 6 a.m.-midnight)
(continued)

Station	Audience Size (Reach)	TSL in weekly hours
KSKQ	1.8%	6.13
KTNQ	5.0	13.78
KTWV	7.5	7.79
KUTE	3.3	5.17
KWIZ	.5	4.41
KWIZ-FM	.9	7.98
KWKW	3.1	11.35
KZLA	4.8	8.47

Los Angeles Radio Stations
Drivetime Programming Period
(Monday-Friday 6-10 a.m.)

Station	Audience Size (Reach)	TSL in weekly hours
KABC	6.8%	4.55
KACE	1.3	3.08
KALI	1.3	4.12
KBIG	5.0	3.24
KBRT	.6	2.42
KDAY	2.4	3.19
KEZY	1.0	1.87
KFAC	.5	1.30
KFAC-FM	1.8	2.53
KFI	2.5	3.68
KFSG	.6	2.15
KFWB	8.0	2.99
KGFJ	.8	3.92
KIEV	.7	2.59
KIIS	.9	1.77
KIIS-FM	13.9	3.45
KIQQ	3.9	3.00
KJLH	3.1	2.77
KJOI	5.1	4.35
KKGO	1.3	2.65
KKLA	1.0	2.85
KLAC	1.8	4.14
KLOS	4.2	3.14
KLSX	4.6	3.14
KLVE	3.6	4.15
KMAX	.7	4.16
KMPC	3.4	4.76
KNAC	1.2	3.56
KNOB	1.3	2.06
KNX	7.2	3.33
KNX-FM	1.9	2.10
KOST	5.6	2.82
KPWR	10.7	2.93
KRLA	2.1	3.11
KROQ	6.1	2.85
KRTH	2.4	2.63
KRTH-FM	5.9	3.42
KSKQ	1.0	3.54
KTNQ	3.2	6.70
KTWV	3.7	2.80
KUTE	1.3	2.82

Los Angeles Radio Stations
Drivetime Programming Period
(Monday-Friday 6-10 a.m.)
(continued)

Station	Audience Size (Reach)	TSL in weekly hours
KWIZ	.2%	2.17
KWIZ-FM	.4	3.47
KWKW	1.6	4.93
KZLA	3.0	3.17

Denver Radio Stations
Full Programming Period
(Monday-Sunday 6 a.m.-midnight)

Station	Audience Size (Reach)	TSL in weekly hours
KADX	2.3%	10.30
KAZY	13.1	10.25
KBCO	1.9	5.37
KBCO-FM	15.6	10.46
KBPI	17.7	8.23
KBRQ	2.2	5.19
KBRQ-FM	4.3	8.12
KDEN	3.8	7.16
KDKO	2.5	9.45
KEZW	5.7	13.56
KHIH	7.0	7.00
KHOW	9.3	9.01
KIMN	8.8	6.01
KLZ	5.1	7.67
KMJI	17.2	8.87
KMVP	2.0	6.37
KNUS	6.9	9.23
KOA	15.5	7.66
KOAQ	13.0	8.15
KOSI	19.1	9.84
KQKS	3.4	6.76
KRKS	1.0	6.77
KRXY	17.8	9.64
KRZN	5.2	7.65
KSYY	10.8	5.61
KTCL	3.7	6.75
KVOD	9.1	7.89
KYBG	2.0	4.53
KYGO	13.0	9.24

Denver Radio Stations
Drivetime Programming Period
(Monday-Friday 6-10 a.m.)

Station	Audience Size (Reach)	TSL in weekly hours
KADX	1.2%	3.50
KAZY	6.2	3.55
KBCO	1.0	2.47
KBCO-FM	10.0	3.48
KBPI	8.4	3.42
KBRQ	1.1	2.48
KBRQ-FM	2.1	3.84
KDEN	2.3	3.58
KDKO	1.4	4.11
KEZW	3.7	5.25
KHIH	4.2	2.42
KHOW	7.0	4.94
KIMN	5.2	3.33
KLZ	3.2	3.50
KMJI	10.2	3.78
KMVP	0.8	2.65
KNUS	3.3	3.31
KOA	10.1	3.81
KOAQ	7.1	3.27
KOSI	9.4	3.93
KQKS	1.7	3.43
KRKS	0.6	2.16
KRXY	11.5	2.99
KRZN	2.4	3.17
KSYY	6.1	2.49
KTCL	1.9	2.38
KVOD	5.0	3.55
KYBG	0.8	2.32
KYGO	7.5	4.01

New York Radio Stations
Full Programming Period
(Monday-Sunday 6 a.m.-midnight)

Station	Audience Size (Reach)	TSL in weekly hours
WABC	10.9%	6.68
WADO	2.7	14.35
WALK	.2	1.64
WALK-FM	1.9	8.82
WBAB	2.5	9.14
WBLI	2.2	8.37
WBLS	11.5	9.87
WCBS	13.0	6.15
WCBS-FM	11.3	8.22
WCTC	.8	8.73
WCTO	.9	10.17
WDHA	1.0	6.71
WEVD	1.7	5.13
WEZN	1.1	10.55
WFME	1.4	14.07
WGSM	.7	12.55
WHLI	1.1	13.64
WHN	9.0	7.71
WHTZ	17.2	8.30
WHUD	1.0	11.19
WINS	19.6	5.67
WJIT	1.0	13.09
WKDM	2.0	14.79
WKJY	1.1	9.50
WLIB	3.1	10.12
WLIR-FM	2.3	9.00
WLTW	11.0	9.27
WMCA	3.0	7.50
WMGQ	.8	12.48
WNBC	6.7	5.93
WNCN	4.6	8.40
WNEW	5.0	9.00
WNEW-FM	10.2	8.57
WNJR	1.6	5.49
WNSR	7.9	7.82
WOR	10.9	9.74
WPAT	4.5	8.32
WPAT-FM	9.7	12.18
WPIX	5.3	6.45
WPLJ	17.8	6.69
WQHT	9.8	10.97
WQXR	.9	4.48

New York Radio Stations
Full Programming Period
(Monday-Sunday 6 a.m.-midnight)
(continued)

Station	Audience Size (Reach)	TSL in weekly hours
WQXR-FM	4.5%	6.99
WRKS	10.8	9.97
WSKQ	2.7	18.39
WWDJ	1.2	7.60
WWRL	2.0	10.69
WXRK	9.8	8.56
WYNY	6.6	5.73

New York Radio Stations
Drivetime Programming Period
(Monday-Friday 6-10 a.m.)

Station	Audience Size (Reach)	TSL in weekly hours
WABC	3.3%	2.89
WADO	1.8	5.09
WALK	.1	2.40
WALK-FM	1.1	4.10
WBAB	1.2	3.70
WBLI	1.3	2.89
WBLS	5.9	3.75
WCBS	8.7	3.67
WCBS-FM	5.2	3.72
WCTC	.6	5.22
WCTO	.4	3.36
WDHA	.5	2.66
WEVD	.4	2.55
WEZN	.6	3.61
WFME	.8	4.51
WGSM	.3	4.60
WHLI	.6	3.32
WHN	3.5	3.59
WHTZ	10.1	3.44
WHUD	.4	4.93
WINS	14.1	3.68
WJIT	.6	8.08
WKDM	1.2	5.91
WKJY	.5	2.72
WLIB	.9	4.16
WLIR-FM	.9	3.29
WLTW	5.3	3.19
WMCA	1.1	4.46
WMGQ	.5	4.32
WNBC	4.1	4.21
WNCN	2.0	3.58
WNEW	2.9	5.02
WNEW-FM	5.1	3.53
WNJR	.5	2.69
WNSR	3.5	2.76
WOR	6.1	5.64
WPAT	1.5	4.10
WPAT-FM	4.8	4.32
WPIX	2.3	3.18
WPLJ	8.6	2.91
WQHT	5.1	3.58
WQXR	.4	2.98

New York Radio Stations
Drivetime Programming Period
(Monday-Friday 6-10 a.m.)
(continued)

Station	Audience Size (Reach)	TSL in weekly hours
WQXR-FM	1.9%	3.05
WRKS	5.5	3.53
WSKQ	2.1	7.15
WWDJ	.5	4.29
WWRL	1.3	3.95
WXRK	6.6	5.93
WYNY	2.4	2.58

Los Angeles Television Channels
Full Programming Period
(Sunday-Saturday 7 a.m.-1 a.m.)

Channel	Audience Size (Reach)	TSV in weekly hours
KABC	88%	8.75
KCBS	84	7.38
KCET	50	3.41
KCOP	75	5.44
KHJ	73	4.51
KMEX	15	13.75
KNBC	88	9.39
KTLA	78	6.05
KTTV	80	6.04
KVEA	10	9.54

Los Angeles Television Channels
Primetime Programming Period
(Monday-Friday 8-11 p.m.)

Channel	Audience Size (Reach)	TSV in weekly hours
KABC	67%	2.70
KCBS	59	2.44
KCET	24	1.45
KCOP	35	2.00
KHJ	32	1.24
KMEX	9	4.79
KNBC	70	2.90
KTLA	47	1.95
KTTV	40	1.61
KVEA	6	3.64

Denver Television Channels
Full Programming Period
(Sunday-Saturday 7 a.m.-1 a.m.)

Channel	Audience Size (Reach)	TSV in weekly hours
KBDI	34%	1.82
KCNC	89	10.29
KDVR	55	5.69
KMGH	87	7.84
KRMA	59	2.98
KTVD	41	4.18
KUSA	88	10.58
KWGN	77	6.39

Denver Television Channels
Primetime Programming Period
(Monday-Friday 8-11 p.m.)

Channel	Audience Size (Reach)	TSV in weekly hours
KBDI	16%	1.11
KCNC	74	3.14
KDVR	27	2.20
KMGH	64	2.84
KRMA	27	1.55
KTVD	19	1.83
KUSA	70	2.82
KWGN	43	2.19

New York Television Channels
Full Programming Period
(Sunday-Saturday 7 a.m.-1 a.m.)

Channel	Audience Size (Reach)	TSV in weekly hours
WABC	87%	10.89
WCBS	83	3.67
WNBC	88	9.81
WNET	54	3.33
WNJU	8	9.22
WNYW	83	7.16
WPIX	75	5.31
WWOR	77	4.97
WXTV	6	9.82

New York Television Channels
Primetime Programming Period
(Monday-Friday 8-11 p.m.)

Channel	Audience Size (Reach)	TSV in weekly hours
WABC	69%	3.25
WCBS	64	2.79
WNBC	71	3.28
WNET	23	1.63
WNJU	4	6.44
WNYW	46	1.88
WPIX	40	2.05
WWOR	36	1.55
WXTV	2	4.13

Cable Television Channels
Full Programming Period
(Monday-Sunday 24 hours)

Channel	Audience Size (Reach)	TSV in weekly hours
AED*	13.2%	1.27
AEN*	16.3	2.58
BET	7.9	2.13
CNN	36.9	3.19
DISC*	24.7	2.04
ESPN	48.2	2.79
FAM	31.3	3.22
FNN*	3.1	.77
HBO	31.1	8.64
HLN	21.5	2.34
LIFE	29.7	2.26
MTV	33.1	3.04
NAN*	18.3	1.53
NICK*	30.5	3.10
SHOW	12.9	7.81
TNN*	23.6	2.13
TNT	20.3	3.31
TWC	17.7	1.89
USA	52.0	3.23
VH-1	16.0	1.05
WTBS	59.6	4.23

*These networks do not air programming during the entire 24-hour, 7-day period. Data reflect the following time periods:
AEN Monday-Sunday, 8 p.m.-4 a.m.
AED Monday-Sunday, 8 a.m.-8 p.m.
DISC and TNN Monday-Sunday, 9 a.m.- 3 a.m.
FNN Monday-Friday, 6 a.m.-8 p.m.
NAN Monday-Sunday, 8 p.m.-6 a.m.
NICK Monday-Sunday, 6:30 a.m.-8 p.m.

Cable Television Channels
Primetime Programming Period
(Monday-Friday 8-11 p.m.)

Channel	Audience Size (Reach)	TSV in weekly hours
AED*	3.6%	.83
AEN	8.5	.88
BET	2.8	1.07
CNN	13.6	1.32
DISC	9.7	.93
ESPN	21.6	1.46
FAM	8.5	1.23
FNN*	1.8	.83
HBO	21.0	2.00
HLN	5.3	.85
LIFE	9.9	1.21
MTV	10.2	.88
NAN	10.7	1.12
NICK*	12.1	1.36
SHOW	8.2	1.65
TNN	7.3	1.85
TNT	7.0	1.28
TWC	3.8	.79
USA	20.6	1.53
VH-1	3.4	.88
WTBS	23.3	1.42

*These networks do not air programming during the 8-11 p.m. period. Figures reflect the 4:30-7:30 p.m. time period.

APPENDIX 4

Program Type Distributions

Full Programming Period

Over-the-Air Broadcast Networks

ABC*

23.4% feature film
16.1% news
14.6% interview
13.6% drama
7.8% how-to-do/unclassified
6.0% sports
5.4% situation comedy
4.4% game/quiz
2.5% children
1.8% mystery/suspense
1.6% talk & educational
1.5% magazine
1.0% general variety
.2% musical variety

CBS*

23.5% news
18.3% drama
10.8% interview
8.4% feature film
8.3% sports
6.4% comedy variety
5.8% game/quiz
4.9% mystery/suspense
3.1% children
2.8% audience participation
1.9% talk & educational
1.8% how-to-do/unclassified
1.6% magazine
1.5% situation comedy
.7% general variety
.3% adventure
.1% musical variety

NBC*

15.4% news
13.6% drama
11.0% game/quiz
10.5% feature film
10.2% interview
8.5% sports
7.2% comedy variety
6.2% mystery/suspense
4.0% situation comedy
4.0% how-to-do/unclassified
3.3% children
2.0% magazine
1.9% talk & educational
1.2% musical variety
.7% general variety
.3% documentary

Cable Television Networks

Arts & Entertainment Daytime

34.7% documentary
26.6% feature film
12.5% biography
6.5% drama
6.3% comedy variety
2.5% performance
2.4% shorts
2.4% mini-series
1.9% how-to-do/unclassified
1.2% true-to-life adventure
1.2% travel
.6% mystery
.3% situation comedy
.3% general variety
.3% musical variety
.3% magazine

Arts & Entertainment Nighttime
- 24.6% documentary
- 17.0% comedy variety
- 13.8% feature film
- 8.9% performance
- 7.6% shorts
- 7.1% biography
- 6.3% true-to-life adventure
- 6.3% situation comedy
- 4.5% mini-series
- 1.8% mystery
- .9% drama
- .9% musical variety
- .4% how-to-do/unclassified

Black Entertainment Television*
- 67.6% musical variety
- 15.2% devotional
- 4.3% sports
- 2.9% interview
- 2.6% situation comedy
- 2.6% feature film
- 2.5% travel
- 1.3% news
- .5% general variety
- .4% children

Cable News Network*
- 65.1% news
- 16.0% interview
- 9.3% talk/educational
- 6.8% sports
- 2.2% how-to-do/unclassified
- .4% travel
- .3% biography

The Discovery Channel*
- 45.9% documentary
- 42.3% true-to-life adventure
- 6.4% sports
- 3.9% news
- 1.0% travel
- .4% general variety
- .2% biography

ESPN*
86.6% sports
7.6% how-to-do/unclassified
4.8% news
.9% feature film

The Family Channel*
25.0% devotional
16.8% western
16.0% feature film
12.8% situation comedy
9.3% drama
4.7% children
4.2% mystery/suspense
3.8% adventure
3.2% interview
2.3% how-to-do/unclassified
.7% magazine
.7% talk & educational
.4% true-to-life adventure
.3% sports

Financial News Network
100.0% news

Headline News Network
100.0% news

Home Box Office*
79.8% feature film
7.3% children
3.2% comedy variety
2.4% sports
2.0% situation comedy
1.7% documentary
1.5% drama
.9% true-to-life adventure
.5% how-to-do/unclassified
.5% interview
.1% musical variety

Lifetime*
21.4% mystery/suspense
19.6% talk & educational
18.4% feature film
16.4% interview
12.4% situation comedy
6.5% how-to-do/unclassified
4.5% drama
.5% devotional
.5% general variety

MTV
93.4% musical variety
3.0% game/quiz
2.4% comedy variety
.6% magazine
.6% news

The Nashville Network*
27.2% musical variety
22.0% interview
14.8% sports
11.5% how-to-do/unclassified
9.3% general variety
6.6% game/quiz
5.9% feature film
2.7% travel

Nick At Nite
47.1% situation comedy
29.3% comedy variety
20.0% feature film
2.9% how-to-do/unclassified
.7% shorts

Nickelodeon
61.9% children
6.9% situation comedy
6.9% general variety
6.3% drama
6.3% comedy variety
3.7% interview
3.2% game/quiz
2.6% adventure
1.1% musical variety
1.1% shorts

Showtime*
84.0% feature film
6.1% children
3.2% drama
2.2% situation comedy
1.3% general variety
1.2% comedy variety
1.0% shorts
.5% musical variety
.2% how-to-do/unclassified
.2% mystery/suspense

Turner Network Television*
72.6% feature film
16.1% children
4.2% drama
1.7% adventure
1.5% documentary
1.5% comedy variety
1.1% western
.7% general variety
.5% mystery/suspense
.1% situation comedy

USA Network*
26.6% mystery/suspense
19.2% feature film
17.4% children
16.8% game/quiz
5.1% sports
3.8% musical variety
3.4% drama
2.3% situation comedy
2.2% general variety
1.8% interview
.8% western
.6% adventure

VH-1
95.8% musical variety
2.7% talk
1.5% magazine

The Weather Channel
100.0% news

WTBS*

39.3% feature film
20.9% situation comedy
9.5% children
6.7% musical variety
6.1% sports
4.2% devotional
3.0% drama
2.8% documentary
2.8% mystery/suspense
1.8% news
1.2% general variety
1.1% western
.4% interview
.3% talk & educational

Program Type Distributions
Primetime Programming Period

Over-the-Air Broadcast Networks

ABC

43.3% drama
33.3% situation comedy
10.0% feature film
6.7% magazine
5.0% sports
1.7% general variety

CBS

58.3% drama
16.7% feature film
11.7% situation comedy
6.7% magazine
3.3% general variety
1.7% comedy variety
1.7% musical variety

NBC

35.0% drama
25.0% situation comedy
23.3% feature film
8.3% mystery/suspense
5.0% sports
1.7% children
1.7% documentary

Cable Television Networks

Arts & Entertainment Daytime

45.0% feature film
33.3% documentary
16.7% biography
5.0% how-to-do/unclassified

Arts & Entertainment Nighttime

44.2% documentary
25.8% feature film
10.0% performance
7.5% shorts
6.7% biography
5.0% true-to-life adventure
.8% how-to-do/unclassified

Black Entertainment Television
73.3% musical variety
10.0% interview
6.7% travel
5.0% situation comedy
5.0% feature film

Cable News Network
66.7% news
33.3% interview

The Discovery Channel
80.8% documentary
12.5% true-to-life adventure
6.7% travel

ESPN
97.5% sports
1.7% news
.8% feature film

The Family Channel
66.7% feature film
33.3% devotional

Financial News Network
100.0% news

Headline News Network
100.0% news

Home Box Office
83.3% feature film
10.8% situation comedy
2.5% talk & educational
1.7% comedy variety
.8% interview
.8% how-to-do/unclassified

Lifetime
60.0% feature film
33.3% drama
.8% situation comedy
5.8% how-to-do/unclassified

MTV
96.7% musical variety
3.3% magazine

The Nashville Network
70.0% musical variety
15.0% magazine
15.0% interview

Nick At Nite
66.7% situation comedy
33.3% comedy variety

Nickelodeon
16.7% situation comedy
16.7% comedy variety
16.7% interview
16.7% general variety
16.7% game/quiz
16.7% children

Showtime
78.8% feature film
13.3% situation comedy
7.5% comedy variety
.4% interview

Turner Network Television
99.2% feature film
.8% documentary

USA Network
43.3% mystery/suspense
30.0% feature film
16.7% sports
10.0% drama

VH-1
86.7% musical variety
6.7% magazine
6.7% talk

The Weather Channel
100.0% news

WTBS
63.3% feature film
31.7% sports
3.3% magazine
1.7% interview

*These program type categorizations and percentages are from "Program Choice in a Broadband Environment," by Steven S. Wildman and Nancy Y. Lee. Northwestern University, Center for Telecommunications and Information Studies, 1989, pp. 39-40. All others derived from network programming guides.

APPENDIX 5

Calculation of Program Repetition

For most of the cable television networks in the analysis, program repetition was calculated simply by counting the number of hours of programming made up of repeated program airings and dividing that by the total number of hours of programming for the time period. Program repetition was examined for the January 1989 programming period. A program was considered repeated if it had already aired previously during the month. Program guides were used to make these assessments.

Exceptions to the above were the all-news stations (CNN and HLN), TWC, FNN, and the two stations specializing in music video programming, MTV and VH-1. For these networks, estimates of repetition were made based on conversations with network personnel, as reported below.

All-News Programming

According to Dave Willis, Programming Supervisor at the Headline News Network (personal communication, May 29, 1990), while the majority of each news segment on both HLN and CNN is produced live, the actual news content is fairly repetitive. "News" tends to happen either early in the morning or late in the afternoon, and while some stories may be updated throughout the day, the news items themselves

remain unchanged. Thus, a viewer who watched either news channel for several hours at one sitting would hear the same news items over and over.

HLN runs thirty minute news cycles. For this analysis, the news reporting day was split into two blocks, a 6 a.m.-4 p.m. block and a 4 p.m.-6 a.m. block. The splits were made on the basis of news occurring early morning and late afternoon. It was estimated that the first hour of each block would contain "new" news, while subsequent hours would be made up of stories on news items that had already aired. This would mean that in an average week, the full programming period on HLN would consist of 14 hours of "new" news and 154 hours of repeated programming, or a repeat programming/total programming percentage of 91.7%. For the shorter primetime period, it was estimated that 30 minutes daily of that period would be "new" news, or 2.5 hours per week, while 12.5 hours per week would be repeated programming, for a repeat programming/total programming percentage of 83.3%.

CNN's programming is not purely news reports, but instead includes special features, talk shows, and other programming. The CNN program guide indicates which of the feature programs are repeated. For the newscast periods, the same newsblock procedure described for HLN was used to estimate repeated versus "new" programming. Taking news

programming and feature programming together, the repeat programming/total programming percentage for the full programming period is 57.7%. For primetime, the percentage is 33.3%.

The Weather Channel

According to Dana Hanger, Viewer Services Representative (personal communication, May 29, 1990), TWC features eight weather "items" in each hour of programming, some of which are repeated during the hour. Each forecast item averages three minutes in length. All forecasts are updated hourly (from National Weather Service data).

Based on the above information, it was estimated that every hour of programming on TWC consists of 24 minutes of "new" weather information and 36 minutes of repeated information (8 items/hr. X 3 min. each = 24 minutes). This means that the repeat programming/total programming percentage for TWC is 60% during both the full programming period and primetime.

Financial News Network

According to Debbie Koehler, News Manager at FNN (personal communication, May 29, 1990), FNN broadcasts live throughout the day, and stock quotes are updated constantly. In the noon to 8 p.m. (EST) period, about 15% of the programming is made up of repeated programming from earlier in the day. Also, one hour of programming in the early

morning (6-8 a.m. EST) is repeated programming. For the full programming period, this means that the repeat programming/total programming ratio is 15.7%. In primetime, the ratio is 15.0%.

Music Video Programming

While both MTV and VH-1 include structured programming in their schedules, much of their programming consists of videos run in rotation with no underlying structured content (i.e., videos which are not run as part of a "Top 20 Countdown," a request hour, etc.). According to Marshall Cohen, Senior Vice President for Corporate Affairs and Communications, MTV Networks (personal communication, May 30, 1990), the normal active monthly rotation on VH-1 is 40 videos, while the MTV monthly rotation consists of 60-80 videos. Each video averages 4 minutes in length.

This information was used to estimate repetition for both networks. During a month, VH-1 runs about 7,830 videos which are not part of some program, or 31,320 minutes of videos. Given a rotation of 40 videos per month, this means that 160 minutes of that programming is non-repeated, while 31,160 minutes is repeated (519.3 hours repeated). At the same time, 38 hours per month of actual programming on VH-1 is repeated, for a total of 557.3 hours of repeated programming per month. This works out to a repeat programming/total programming percentage of 82.9%. Less

repetition takes place during primetime, when much of the programming is made up of structured programs. The repeat programming/total programming ratio in primetime is 16.5%.

Repetition on MTV was estimated in the same way, using an average of 70 videos per month as the rotation figure. Because of this greater number of different videos aired, the repeat programming/total programming ratio for MTV during the full programming period is 74.7%. The ratio during primetime is 13.2%.

APPENDIX 6

Average Program Length Calculations

Average Program Length
Full Programming Period

Arts & Entertainment Daytime

107 programs Week 1
112 programs Week 2
108 programs Week 3
118 programs Week 4

5,040 minutes of programming per week
5,040/107 = 47.1 minutes
5,040/112 = 45.0 minutes
5,040/108 = 46.7 minutes
5,040/118 = 42.7 minutes

(47.1+45.0+46.7+42.7)/4 = 45.4 minutes average program length

Arts & Entertainment Nighttime

64 programs Week 1
66 programs Week 2
70 programs Week 3
60 programs Week 4

3,360 minutes of programming per week
3,360/64 = 52.5 minutes
3,360/64 = 50.9 minutes
3,360/70 = 48.0 minutes
3,360/60 = 56.0 minutes

(52.5+50.9+48.0+56.0)/4 = 51.9 minutes average program length

Black Entertainment Television

224 programs per week

10,080 minutes of programming per week
10,080/224 = 45.0 minutes average program length

Cable News Network
228 programs per week

10,080 minutes of programming per week
10,080/228 = 44.2 minutes average program length

The Discovery Channel
194 programs Week 1
191 programs Week 2
194 programs Week 3
195 programs Week 4

7,560 minutes of programming per week
7,560/194 = 39.0 minutes
7,560/191 = 39.6 minutes
7,560/195 = 38.8 minutes

(39.0+39.6+39.0+38.8)/4 = 39.1 minutes average program length

ESPN
192 programs Week 1
190 programs Week 2
200 programs Week 3
206 programs Week 4

10,080 minutes of programming per week
10,080/192 = 52.5 minutes
10,080/190 = 53.1 minutes
10,080/200 = 50.4 minutes
10,080/206 = 48.9 minutes

(52.5+53.1+50.4+48.9)/4 = 51.2 minutes average program length

The Family Channel
201 programs per week

10,020 minutes of programming per week
10,020/201 = 49.9 minutes average program length

Financial News Network
85 programs per week

4200 minutes of programming per week
4200/85 = 49.4 minutes average program length

Headline News Network
All programming on HLN is 30 minutes in length (Eastman, p. 292)

Home Box Office
124 programs Week 1
126 programs Week 2
126 programs Week 3
122 programs Week 4

10,080 minutes of programming per week
10,080/124 = 81.3 minutes
10,080/126 = 80.0 minutes
10,080/122 = 82.6 minutes

(81.3+80.0+80.0+82.6)/4 = 81 minutes average program length

Lifetime
203 programs per week

10,080 minutes of programming per week
10,080/203 = 49.7 minutes average program length

MTV
The average video length is 4 minutes according to Marshall Cohen, Senior Vice President for Corporate Affairs and Communications, MTV Networks (personal communication, May 30, 1990). For those time periods when non-grouped (i.e., not "show" content) videos are run, the time was divided by 4 to estimate the number of separate videos (programs) shown.

1,899 programs per week

10,080 minutes of programming per week
10,080/1,899 = 5.3 minutes average program length

The Nashville Network
197 programs per week

7,560 minutes of programming per week
7,560/197 = 38.4 minutes average program length

Nick At Nite
118 programs per week

4200 minutes of programming per week
4200/118 = 35.6 minutes average program length

Nickelodeon
162 programs per week

5670 minutes of programming per week
5670/162 = 35 minutes average program length

Showtime
107 programs Week 1
106 programs Week 2
108 programs Week 3
106 programs Week 4

10,080 minutes of programming per week
10,080/107 = 94.2 minutes
10,080/106 = 95.1 minutes
10,080/108 = 93.3 minutes

(94.2+95.1+93.3+95.1)/4 = 94.4 minutes average program length

Turner Network Television
115 programs Week 1
115 programs Week 2
114 programs Week 3
115 programs Week 4

10,080 minutes of programming per week
10,080/115 = 87.7 minutes
10,080/114 = 88.4 minutes

(87.7+87.7+88.4+87.7)/4 = 87.9 minutes average program length

USA Network

210 programs Week 1
210 programs Week 2
209 programs Week 3
205 programs Week 4

10,080 minutes of programming per week
10,080/210 = 48.0 minutes
10,080/209 = 48.2 minutes
10,080/205 = 49.2 minutes

(48.0+48.0+48.2+49.2)/4 = 48.4 minutes average program length

VH-1

The average video length is 4 minutes according to Marshall Cohen, Senior Vice President for Corporate Affairs and Communications, MTV Networks (personal communication, May 30, 1990). For those time periods when non-grouped (i.e., not "show" content) videos are run, the time was divided by 4 to estimate the number of separate videos (programs) shown.

2,021 programs per week

10,080 minutes of programming per week
10,080/2,021 = 5 minutes average program length

The Weather Channel

The average time between local forecast updates is 5 minutes between 5-11 a.m. Monday-Friday and 7 minutes at all other times (The Weather Channel [TWC], 1986). Viewers are assumed to tune in primarily to receive their local forecast.

1,541 programs per week

10,080 minutes of programming per week
10,080/1,541 = 6.5 minutes average program length

WTBS

182 programs Week 1
183 programs Week 2
176 programs Week 3
181 programs Week 4

10,080 minutes of programming per week
10,080/182 = 55.4 minutes
10,080/183 = 55.1 minutes
10,080/176 = 57.3 minutes
10,080/181 = 55.7 minutes

(55.4+55.1+57.3+55.7)/4 = 55.9 minutes average program length

Average Program Length
Primetime Programming Period
(900 minutes of programming per week)

Arts & Entertainment Daytime
20 programs Week 1
22 programs Week 2
20 programs Week 3
24 programs Week 4

900/20 = 45.0 minutes
900/22 = 40.9 minutes
900/24 = 37.5 minutes

(45.0+40.9+45.0+37.5)/4 = 42.1 minutes average program length

Arts & Entertainment Nighttime
17 programs Week 1
16 programs Week 2
18 programs Week 3
15 programs Week 4

900/17 = 52.9 minutes
900/16 = 56.25 minutes
900/18 = 50.0 minutes
900/15 = 60.0 minutes

(52.9+56.25+50.0+60.0)/4 = 54.8 minutes average program length

Black Entertainment Television
13 programs per week

900/13 = 69.2 minutes average program length

Cable News Network
15 programs per week

900/15 = 60.0 minutes average program length

The Discovery Channel

24 programs Week 1
23 programs Week 2
24 programs Week 3
24 programs Week 4

900/24 = 37.5 minutes
900/23 = 39.1 minutes

(37.5+39.1+37.5+37.5)/4 = 37.9 minutes average program length

ESPN

12 programs Week 1
11 programs Week 2
12 programs Week 3
10 programs Week 4

900/12 = 75.0 minutes
900/11 = 81.8 minutes
900/10 = 90.0 minutes

(75.0+81.8+75.0+90.0)/4 = 80.5 minutes average program length

The Family Channel

10 programs per week

900/10 = 90.0 minutes average program length

Financial News Network

20 programs per week

900/20 = 45 minutes average program length

Headline News Network

All programming on HLN is 30 minutes in length (Eastman, p. 292).

Home Box Office

12 programs Week 1
11 programs Week 2
16 programs Week 3
13 programs Week 4

900/12 = 75.0 minutes
900/11 = 81.8 minutes
900/16 = 56.3 minutes
900/13 = 69.2 minutes

(75.0+81.8+56.3+69.2)/4 = 70.6 minutes average program length

Lifetime

10 programs per week

900/10 = 90 minutes average program length

MTV

The average video length is 4 minutes according to Marshall Cohen, Senior Vice President for Corporate Affairs and Communications, MTV Networks (personal communication, May 30, 1990). For those time periods when non-grouped (i.e., not "show" content) videos are run, the time was divided by 4 to estimate the number of separate videos (programs) shown.

126 programs per week

900/126 = 7.1 minutes average program length

The Nashville Network

20 programs per week

900/20 = 45 minutes average program length

Nick At Nite

30 programs per week

900/30 = 30 minutes average program length

Nickelodeon

30 programs per week

900/30 = 30 minutes average program length

Showtime

15 programs Week 1
15 programs Week 2
14 programs Week 3
14 programs Week 4

900/15 = 60.0 minutes
900/14 = 64.3 minutes

(60.0+60.0+64.3+64.3)/4 = 62.2 minutes average program length

Turner Network Television

10 programs per week

900/10 = 90 minutes average program length

USA Network

13 programs Week 1
14 programs Week 2
14 programs Week 3
11 programs Week 4

900/13 = 69.2 minutes
900/14 = 64.3 minutes
900/11 = 81.8 minutes

(69.2+64.3+64.3+81.8)/4 = 69.9 minutes average program length

VH-1

The average video length is 4 minutes according to Marshall Cohen, Senior Vice President for Corporate Affairs and Communications, MTV Networks (personal communication, May 30, 1990). For those time periods when non-grouped (i.e., not "show" content) videos are run, the time was divided by 4 to estimate the number of separate videos (programs) shown.

146 programs per week

900/146 = 6.2 minutes average program length

The Weather Channel

The average time between local forecast updates during primetime is 7 minutes (TWC, 1986). Viewers are assumed to tune in primarily to receive their local forecast.

7 minutes average program length

WTBS

9 programs Week 1
11 programs Week 2
10 programs Week 3
10 programs Week 4

900/9 = 100.0 minutes average program length
900/11 = 81.8 minutes average program length
900/10 = 90.0 minutes average program length

(100.0+81.8+90.0+90.0)/4 = 90.5 minutes average program length

APPENDIX 7

Expanded Audience Homogeneity Over-the-Air Television Channels and Cable Television Channels

Los Angeles Television Channels Audience Homogeneity (Nine category composition)

Channel	Full Period	Primetime Period
KABC	25.3	15.9
KCBS	39.6	29.6
KCET	58.8	70.0
KCOP	22.4	26.3
KHJ	28.1	37.4
KMEX	37.7	35.2
KNBC	30.9	17.1
KTLA	21.9	11.6
KTTV	36.4	17.7
KVEA	35.3	43.6

Los Angeles Television Channels
Demographic Composition
Full Programming Period
(Nine category composition)

Network	Child 2-5	Child 6-11	Teen 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**5.7%**	**8.4%**	**8.0%**	**13.4%**	**10.9%**	**12.4%**	**14.9%**	**12.2%**	**14.1%**
KABC	3.6	4.9	6.0	11.2	8.1	12.8	17.9	14.1	21.5
KCBS	2.5	3.9	4.4	10.2	8.6	17.2	12.5	11.6	29.1
KCET	15.1	2.3	2.3	7.0	9.3	20.9	7.0	10.5	25.6
KCOP	9.0	15.1	9.3	12.9	7.9	9.0	13.3	9.7	14.0
KHJ	3.7	5.8	8.4	9.9	7.9	13.6	12.0	12.6	26.2
KMEX	7.7	11.2	10.5	16.8	4.9	4.9	23.1	9.8	11.2
KNBC	2.4	4.7	5.9	11.2	8.7	15.8	13.2	12.0	26.2
KTLA	7.6	12.7	11.9	13.8	7.6	9.3	15.3	9.6	12.1
KTTV	13.3	16.7	10.3	12.2	6.4	7.5	14.7	8.6	10.3
KVEA	6.2	9.2	6.2	21.5	9.2	6.2	23.1	12.3	6.2

Primetime Programming Period

Network	Child 2-5	Child 6-11	Teen 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**5.7%**	**8.4%**	**8.0%**	**13.4%**	**10.9%**	**12.4%**	**14.9%**	**12.2%**	**14.1%**
KABC	3.4	7.2	8.1	14.2	9.8	9.1	19.1	14.0	15.2
KCBS	2.1	3.6	5.5	10.7	9.7	14.2	16.0	14.4	23.8
KCET	1.2	1.2	2.4	7.8	15.0	26.3	4.8	10.2	31.1
KCOP	2.1	4.8	5.9	14.2	9.1	16.8	12.8	12.3	21.9
KHJ	1.5	3.1	5.6	10.8	10.8	16.4	10.8	12.8	28.2
KMEX	7.0	10.8	11.5	17.8	5.6	3.1	20.9	10.8	12.5
KNBC	2.1	5.5	6.7	13.7	10.4	12.2	16.7	13.5	19.3
KTLA	4.1	8.0	8.0	14.6	1.6	14.9	12.3	11.0	15.5
KTTV	3.4	8.9	5.2	15.2	9.9	16.0	13.6	10.7	17.0
KVEA	9.3	7.4	8.0	24.1	11.1	4.3	22.2	11.1	2.5

Denver Television Channels
Audience Homogeneity
(Nine category composition)

Channel	Full Period	Primetime Period
KBDI	83.1	54.6
KCNC	32.7	21.1
KDVR	31.5	22.1
KMGH	29.0	26.4
KRMA	54.3	53.3
KTVD	25.8	47.3
KUSA	32.5	26.0
KWGN	33.4	22.0

Denver Television Channels
Demographic Composition
Full Programming Period
(Nine category composition)

Network	Child 2-5	Child 6-11	Teen 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**6.8%**	**9.0%**	**8.1%**	**12.3%**	**12.2%**	**11.7%**	**13.3%**	**12.2%**	**14.3%**
KBDI	20.0	0.0	0.0	20.0	0.0	20.0	20.0	0.0	20.0
KCNC	2.4	4.8	5.6	12.8	7.2	15.2	17.6	12.0	22.4
KDVR	7.5	15.0	12.5	12.5	10.0	5.0	17.5	12.5	7.5
KMGH	3.3	4.4	4.4	12.1	9.9	14.3	18.7	12.1	20.9
KRMA	25.0	5.0	0.0	10.0	10.0	15.0	10.0	5.0	20.0
KTVD	6.3	6.3	6.3	18.8	12.5	12.5	18.8	6.3	12.5
KUSA	3.2	4.0	4.8	13.5	7.9	11.9	19.0	14.3	21.4
KWGN	11.7	11.7	9.1	15.6	7.8	7.8	18.2	10.4	7.8

Primetime Programming Period

Network	Child 2-5	Child 6-11	Teen 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**6.8%**	**9.0%**	**8.1%**	**12.3%**	**12.2%**	**11.7%**	**13.3%**	**12.2%**	**14.3%**
KBDI	7.1	0.0	0.0	14.3	7.1	21.4	14.3	7.1	28.6
KCNC	3.4	6.2	7.9	15.1	9.6	10.3	19.2	13.4	15.1
KDVR	3.1	7.7	9.2	15.4	13.8	10.8	15.4	15.4	9.2
KMGH	3.3	3.3	6.1	12.2	10.8	11.3	21.1	14.6	17.4
KRMA	0.0	2.3	2.3	13.6	13.6	22.7	9.1	9.1	27.3
KTVD	2.9	2.9	2.9	28.6	14.3	17.1	8.6	8.6	14.3
KUSA	3.7	6.2	7.0	16.1	9.1	9.1	20.7	14.0	14.0
KWGN	3.5	4.3	7.0	17.4	10.4	14.8	14.8	12.2	15.7

New York Television Channels
Audience Homogeneity
(Nine category composition)

Channel	Full Period	Primetime Period
WABC	27.0	17.3
WCBS	41.7	28.7
WNBC	29.8	18.3
WNET	49.2	81.2
WNJU	37.6	43.6
WNYW	23.5	35.8
WPIX	21.5	17.4
WWOR	27.6	35.8
WXTV	29.2	45.4

New York Television Channels
Demographic Composition
Full Programming Period
(Nine category composition)

Network	Child 2-5	Child 6-11	Teen 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**4.6%**	**7.5%**	**7.8%**	**13.9%**	**11.0%**	**12.7%**	**15.1%**	**12.1%**	**15.4%**
WABC	2.7	4.7	6.4	9.5	8.6	12.1	16.9	15.6	23.6
WCBS	2.9	4.2	4.0	9.1	7.9	18.0	10.9	12.4	30.6
WNBC	2.8	5.0	6.1	9.6	8.7	15.2	12.7	13.0	26.8
WNET	17.7	5.4	2.3	5.4	8.5	17.7	7.7	8.5	26.9
WNJU	1.9	3.7	3.7	9.3	7.4	13.0	25.9	18.5	16.7
WNYW	8.2	12.1	9.9	11.2	7.5	11.7	12.3	9.8	16.3
WPIX	6.1	10.6	11.3	15.2	7.8	9.3	16.5	10.4	13.0
WWOR	6.8	11.1	7.1	10.4	7.9	15.7	11.1	9.6	20.4
WXTV	2.0	2.0	8.2	12.2	6.1	16.3	20.4	14.3	18.4

Primetime Programming Period

Network	Child 2-5	Child 6-11	Teen 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
Market	**4.6%**	**7.5%**	**7.8%**	**13.9%**	**11.0%**	**12.7%**	**15.1%**	**12.1%**	**15.4%**
WABC	2.8	8.2	8.9	11.3	9.1	10.4	16.4	14.8	18.3
WCBS	1.9	3.3	5.4	10.3	9.7	14.2	14.8	15.6	24.6
WNBC	2.7	5.1	7.6	11.2	9.5	13.4	14.6	14.3	21.6
WNET	0.0	.4	.4	4.5	12.2	27.2	6.1	8.9	40.2
WNJU	1.6	1.1	2.6	12.1	6.3	13.2	25.3	23.2	14.7
WNYW	1.7	2.7	4.1	11.0	11.1	20.8	12.7	10.8	25.0
WPIX	1.8	6.0	10.0	15.7	9.6	13.9	14.6	9.5	18.8
WWOR	1.5	3.7	5.4	12.8	11.5	21.6	9.9	9.7	23.8
WXTV	0.0	1.3	7.8	7.8	5.2	16.9	19.5	18.2	23.4

Cable Television Channels
Audience Homogeneity
(Nine category composition)

Channel	Full Period	Primetime Period
AED	36.7	39.4
AEN	46.2	49.6
BET	38.1	47.0
CNN	65.0	72.8
DISC	50.8	48.5
ESPN	42.5	46.5
FAM	33.4	38.9
FNN	79.7	80.3
HBO	27.7	22.7
HLN	49.1	39.8
LIFE	30.0	37.2
MTV	67.8	62.6
NAN	37.7	40.0
NICK	94.0	94.2
SHOW	36.8	36.1
TNN	40.7	87.2
TNT	32.8	47.6
TWC	48.8	37.4
USA	10.5	26.0
VH-1	41.3	33.2
WTBS	11.9	28.8

Cable Television Channels
Demographic Composition
Full Programming Period
(Nine category composition)

Network	Child 2-5	Child 6-11	Teen 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
AED	3.8%	2.6%	4.5%	16.9%	12.1%	21.4%	10.0%	12.1%	16.7%
AEN	1.7	1.5	2.8	17.9	17.3	19.9	10.1	11.8	17.0
BET	4.4	10.4	22.7	15.5	7.2	4.3	18.6	10.5	6.4
CNN	1.2	3.0	2.9	8.6	9.3	27.6	6.4	10.4	30.5
DISC	2.5	3.2	3.3	14.1	13.5	28.2	8.7	7.7	18.9
ESPN	2.6	5.0	7.6	20.5	15.9	20.4	9.0	6.9	12.1
FAM	4.0	6.2	5.0	8.6	10.3	17.6	11.9	13.0	23.3
FNN	7.6	3.9	3.4	7.7	4.4	41.2	7.5	2.4	21.9
HBO	4.5	8.4	10.0	17.3	14.1	7.3	19.2	12.7	6.5
HLN	1.5	2.0	3.1	11.9	15.9	23.2	10.3	13.1	19.0
LIFE	3.1	3.7	6.5	10.3	10.0	13.8	15.3	15.9	21.3
MTV	3.6	8.0	26.7	25.6	4.8	3.0	19.4	5.6	3.3
NAN	9.1	14.8	6.1	17.8	10.2	5.2	21.0	10.3	5.6
NICK	35.6	26.8	5.9	5.3	3.0	3.0	11.3	4.5	4.5
SHOW	5.3	5.3	9.9	21.9	15.4	6.4	17.6	13.1	5.3
TNN	3.0	3.7	4.0	10.2	9.9	19.4	7.8	10.9	31.0
TNT	9.6	8.7	3.7	8.5	10.3	16.7	10.4	10.4	21.7
TWC	1.7	4.0	3.0	11.2	16.2	19.3	8.4	13.3	22.9
USA	8.5	9.5	7.7	13.1	10.1	11.7	13.0	10.6	15.7
VH-1	6.1	5.5	10.4	22.1	10.2	3.3	26.5	10.6	5.3
WTBS	5.6	7.3	7.3	14.5	11.5	14.6	15.5	10.6	13.0

Cable Television Channels
Demographic Composition
Primetime Programming Period
(Nine category composition)

Network	Child 2-5	Child 6-11	Teen 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
AED	3.7%	2.3%	5.5%	16.9%	11.3%	24.8%	8.0%	12.9%	14.6%
AEN	2.2	1.8	2.9	16.1	18.7	20.8	7.4	12.4	17.6
BET	3.4	13.4	25.7	13.9	5.7	3.0	18.4	11.4	5.0
CNN	1.4	3.3	2.4	7.7	7.1	26.6	6.7	9.4	35.5
DISC	2.8	3.6	3.3	13.9	13.7	26.8	8.4	8.5	19.1
ESPN	2.2	4.3	6.3	18.9	16.7	23.3	7.9	6.8	13.8
FAM	3.8	6.5	4.7	7.8	10.8	18.3	11.2	10.7	26.2
FNN	8.6	5.7	3.8	4.7	4.6	38.1	8.8	1.4	24.3
HBO	5.0	8.6	10.0	18.1	12.8	8.5	17.7	12.2	7.1
HLN	2.1	2.4	3.4	12.0	17.8	19.7	13.6	12.4	16.7
LIFE	2.7	3.1	5.0	10.8	8.7	16.6	14.1	15.1	23.8
MTV	3.8	7.7	23.9	25.5	5.5	4.4	19.7	4.9	4.6
NAN	12.4	19.1	6.0	14.9	9.1	4.6	17.4	10.9	5.6
NICK	27.4	35.2	8.1	4.8	3.0	3.4	10.4	4.2	3.6
SHOW	5.9	6.0	8.9	22.3	14.8	5.6	17.8	13.4	5.3
TNN	1.4	2.2	2.5	5.0	7.2	23.1	5.7	7.5	45.5
TNT	4.8	5.1	2.9	10.2	11.2	23.3	6.9	11.2	24.2
TWC	1.9	5.1	5.0	14.4	16.1	17.0	8.5	12.5	19.5
USA	3.8	6.4	7.0	11.9	11.4	15.4	10.9	12.2	21.0
VH-1	7.0	6.8	11.2	20.2	10.2	5.0	23.3	10.1	6.3
WTBS	3.4	4.9	6.6	16.7	13.9	18.5	11.2	10.5	14.3

Cable Television Channels
Baseline Demographic Composition
(Nine category composition)

Network	Child 2-5	Child 6-11	Teen 12-17	Men 18-34	Men 35-49	Men 50+	Women 18-34	Women 35-49	Women 50+
AED	6.5%	8.8%	8.9%	14.2%	10.3%	11.5%	15.1%	11.5%	13.4%
AEN	6.5	8.8	8.9	14.3	10.2	11.4	15.0	11.4	13.6
BET	6.3	9.1	10.0	13.9	10.4	10.8	15.1	11.6	12.7
CNN	6.2	9.0	9.1	13.8	10.3	11.7	14.5	11.5	14.0
DISC	6.2	9.0	9.3	13.9	10.2	11.4	14.8	11.5	13.7
ESPN	6.4	8.8	9.2	13.8	10.2	11.6	14.7	11.6	13.8
FAM	6.2	9.0	9.5	13.4	10.3	11.7	14.3	11.7	13.8
FNN	6.5	9.1	8.8	14.4	10.4	11.0	15.1	11.4	13.4
HBO	6.3	8.9	9.2	13.8	10.2	11.6	14.7	11.6	13.8
HLN	6.3	9.0	9.3	14.1	10.1	11.3	14.7	11.9	13.4
LIFE	6.2	8.8	9.4	13.9	10.4	11.5	14.4	11.8	13.7
MTV	6.4	9.0	9.2	14.0	10.5	11.4	14.7	11.7	13.3
NAN	6.6	8.8	9.3	13.8	10.2	11.6	14.7	11.7	13.5
NICK	6.6	8.8	9.2	13.9	10.2	11.4	14.6	11.7	13.5
SHOW	6.3	8.9	9.2	13.8	10.2	11.6	14.7	11.6	13.8
TNN	6.4	9.0	9.5	13.7	10.2	11.6	14.4	11.8	13.6
TNT	6.9	9.3	8.7	13.6	10.0	11.3	15.1	11.4	13.7
TWC	6.2	9.0	9.4	13.5	10.2	11.6	14.6	11.9	13.6
USA	6.3	8.7	9.2	14.0	10.3	11.4	14.8	11.5	13.8
VH-1	6.7	9.0	8.8	14.1	10.4	10.8	15.4	11.5	13.2
WTBS	6.4	9.0	9.3	13.8	10.2	11.5	14.8	11.6	13.6

APPENDIX 8

Cable Television Channel Audience Homogeneity 11 Category Composition

Network	Total Programming Day	Primetime	Difference
OTA Broadcast Networks	**13.2**	**17.5**	**4.3**
Nickelodeon	94.1	94.2	0.1
Financial News Network	79.8	80.4	0.6
MTV	67.6	62.6	- 5.0
Cable News Network	65.0	72.7	7.7
The Discovery Channel	50.9	48.4	- 2.5
The Nashville Network	50.8	86.9	36.1
Headline News Network	49.9	39.8	-10.1
The Weather Channel	48.8	38.6	-10.2
Arts & Entertainment Nighttime	46.1	49.7	3.6
ESPN	42.4	47.0	4.6
VH1	42.2	33.3	- 8.9
Black Entertainment Television	38.2	46.9	8.7
Nick At Nite	37.4	39.6	2.2
Showtime	36.7	36.0	- 0.7
Arts & Entertainment Daytime	36.7	39.4	2.7
The Family Channel	33.6	38.1	4.5
Turner Network Television	32.6	47.5	14.9
Lifetime	30.1	37.3	7.2
Home Box Office	27.6	22.7	- 4.9
WTBS	12.0	29.5	17.5
USA Network	11.6	26.2	14.6
Cable Network Average	**44.5**	**48.4**	**3.9**

Cable Television Channels
Demographic Composition
Full Programming Period
(Eleven category composition)

Network	Child 2-5	Child 6-11	Teen 12-17	Men 18-34	Men 35-49	Men 50-64	Men 65+	Women 18-34	Women 35-49	Women 50-64	Women 65+
AED	3.8%	2.6%	4.5%	16.9%	12.1%	15.1%	6.3%	10.0%	12.1%	9.6%	7.1%
AEN	1.7	1.5	2.8	17.9	17.3	13.3	6.6	10.1	11.8	9.6	7.4
BET	4.4	10.4	22.7	15.5	7.2	3.1	1.2	18.6	10.5	3.9	2.4
CNN	1.2	3.0	2.9	8.6	9.3	13.6	14.0	6.4	10.4	12.4	18.1
DISC	2.5	3.2	3.3	14.1	13.5	17.8	10.4	8.7	7.7	9.7	9.2
ESPN	2.6	5.0	7.6	20.4	15.9	10.5	9.9	9.0	6.9	7.1	5.0
FAM	4.0	6.2	5.0	8.6	10.3	8.1	9.5	11.9	13.0	11.5	11.8
FNN	7.6	3.9	3.4	7.7	4.4	23.1	18.1	7.5	2.4	13.5	8.4
HBO	4.5	8.4	10.0	17.3	14.1	5.5	1.9	19.2	12.7	4.9	1.6
HLN	1.5	2.0	3.1	11.1	15.9	11.3	11.9	10.3	13.1	9.8	9.2
LIFE	3.1	3.7	6.5	10.3	10.0	8.2	5.7	15.3	15.9	12.9	8.3
MTV	3.6	8.0	26.7	25.6	4.8	2.0	1.0	19.4	5.6	2.7	.7
NAN	9.1	14.8	6.5	17.8	10.2	3.5	1.7	21.0	10.3	3.6	1.9
NICK	35.6	26.8	5.9	5.3	3.0	1.7	1.3	11.3	4.5	2.6	1.8
SHOW	5.3	5.3	9.9	21.8	15.4	4.7	1.7	17.6	13.1	4.1	1.1
TNN	3.0	3.7	4.0	10.2	9.9	10.7	8.8	7.8	10.9	16.4	14.6
TNT	9.6	8.7	3.7	8.5	10.3	9.6	7.0	10.4	10.4	12.8	8.9
TWC	1.7	4.0	3.0	11.2	16.2	10.4	8.9	8.4	13.3	10.0	12.9
USA	8.5	9.5	7.7	13.1	10.1	6.3	5.5	13.0	10.6	8.8	6.9
VH-1	6.1	5.5	10.4	22.1	10.2	2.7	.6	26.5	10.6	3.3	2.1
WTBS	5.6	7.3	7.3	14.5	11.5	9.2	5.3	15.5	10.6	8.2	4.8

Cable Television Channels
Demographic Composition
Primetime Programming Period
(Eleven category composition)

Network	Child 2-5	Child 6-11	Teen 12-17	Men 18-34	Men 35-49	Men 50-64	Men 65+	Women 18-34	Women 35-49	Women 50-64	Women 65+
AED	3.7%	2.3%	5.5%	16.9%	11.3%	18.1%	6.7%	8.0%	12.9%	9.2%	5.4%
AEN	2.2	1.8	2.9	16.1	18.7	14.5	6.4	7.4	12.4	9.3	8.3
BET	3.4	13.4	25.7	13.9	5.7	2.0	1.0	18.4	11.4	2.7	2.4
CNN	1.4	3.3	2.4	7.7	7.1	12.1	14.5	6.7	9.4	12.7	22.7
DISC	2.8	3.6	3.3	13.9	13.7	15.7	11.0	8.4	8.5	11.4	7.7
ESPN	2.2	4.3	6.3	18.9	16.7	11.6	11.6	7.9	6.8	8.4	5.4
FAM	3.8	6.5	4.7	7.8	10.8	8.5	9.9	11.2	10.7	12.6	13.6
FNN	8.6	5.7	3.8	4.7	4.6	23.2	14.9	8.8	1.4	17.7	6.6
HBO	5.0	8.6	10.0	18.1	12.8	6.6	1.9	17.7	12.2	5.2	1.9
HLN	2.1	2.4	3.4	12.0	17.8	13.4	6.3	13.6	12.4	9.1	7.6
LIFE	2.7	3.1	5.0	10.8	8.7	9.1	7.5	14.1	15.1	13.7	10.1
MTV	3.8	7.7	23.9	25.5	5.5	2.9	1.5	19.7	4.9	4.0	.6
NAN	12.4	19.1	6.0	14.9	9.1	2.7	1.9	17.4	10.9	3.6	2.4
NICK	27.4	35.2	8.1	4.8	3.0	1.5	1.9	10.4	4.2	2.0	1.6
SHOW	5.9	6.0	8.9	22.3	14.8	4.4	1.2	17.8	13.4	4.0	1.4
TNN	1.4	2.2	2.5	5.0	7.2	9.5	13.6	5.7	7.5	20.7	24.8
TNT	4.8	5.1	2.9	10.2	11.2	12.1	11.2	6.9	11.2	13.6	10.6
TWC	1.9	5.1	5.0	14.4	16.1	8.3	8.7	8.5	12.5	7.5	12.0
USA	3.8	6.4	7.0	11.9	11.4	8.6	6.9	10.9	12.2	10.9	10.2
VH-1	7.0	6.8	11.2	20.2	10.2	3.6	1.4	23.3	10.1	2.8	3.4
WTBS	3.4	4.9	6.6	16.7	13.9	11.3	7.2	11.2	10.5	9.1	5.2

Cable Television Channels
Baseline Demographic Composition
(Eleven category composition)

Network	Child 2-5	Child 6-11	Teen 12-17	Men 18-34	Men 35-49	Men 50-64	Men 65+	Women 18-34	Women 35-49	Women 50-64	Women 65+
AED	6.5%	8.8%	8.9%	14.2%	10.3%	7.0%	4.5%	15.1%	11.5%	8.4%	5.0%
AEN	6.5	8.8	8.9	14.3	10.2	6.9	4.5	15.0	11.4	8.5	5.1
BET	6.3	9.1	10.0	13.9	10.4	7.0	3.8	15.1	11.6	7.8	4.9
CNN	6.2	9.0	9.1	13.8	10.3	7.0	4.7	14.5	11.5	8.2	5.8
DISC	6.3	9.0	9.3	13.9	10.2	6.9	4.5	14.8	11.5	8.4	5.3
ESPN	6.4	8.8	9.2	13.8	10.2	6.9	4.7	14.7	11.6	8.1	5.7
FAM	6.2	9.0	9.5	13.4	10.3	7.1	4.7	14.3	11.7	8.3	5.5
FNN	6.5	9.1	8.8	14.4	10.4	6.6	4.3	15.1	11.4	8.1	5.3
HBO	6.3	8.9	9.2	13.8	10.2	6.9	4.7	14.7	11.6	8.1	5.7
HLN	6.3	9.0	9.3	14.1	10.1	6.9	4.4	14.7	11.9	8.2	5.2
LIFE	6.2	8.8	9.4	13.9	10.4	7.0	4.5	14.4	11.8	8.3	5.3
MTV	6.4	9.0	9.2	14.0	10.5	6.8	4.6	14.7	11.7	8.0	5.2
NAN	6.6	8.8	9.3	13.8	10.2	6.9	4.7	14.7	11.7	8.0	5.5
NICK	6.6	8.8	9.2	13.9	10.2	6.9	4.5	14.6	11.7	8.0	5.5
SHOW	6.3	8.9	9.2	13.8	10.2	6.9	4.7	14.7	11.6	8.1	5.7
TNN	6.4	9.0	9.5	13.7	10.2	6.9	4.7	14.4	11.8	8.1	5.5
TNT	6.9	9.3	8.7	13.6	10.0	6.9	4.4	15.1	11.4	8.6	5.2
TWC	6.2	9.0	9.4	13.5	10.2	7.0	4.6	14.6	11.9	8.1	5.5
USA	6.3	8.7	9.2	14.0	10.3	6.8	4.6	14.8	11.5	8.1	5.7
VH-1	6.7	9.0	8.8	14.1	10.4	6.7	4.1	15.4	11.5	8.0	5.2
WTBS	6.4	9.0	9.3	13.8	10.2	6.9	4.6	14.8	11.6	8.0	5.5

VITA

NAME: Beth Ellyn Barnes

BORN: Los Angeles, California, September 24, 1959

EDUCATION:

Ph.D. Northwestern University, 1990
Major: Communication Studies

M.S.A. Northwestern University, 1981
Major: Advertising

B.A. The College of William and Mary in Virginia, 1980
Major: English Language and Literature

PUBLICATIONS:

Instructor's Manual to accompany Strategic Advertising Campaigns, 3rd edition, by D. E. Schultz. (Lincolnwood, IL: NTC Business Books, 1990). Also wrote case studies included in text.

"The Impact of Audience Information Sources on Media Evolution," with L. M. Thomson, Journal of Advertising Research, 28(5), RC9-RC14.

Strategic Advertising Campaigns, 2nd edition, by D. E. Schultz, D. Martin, and W. Brown. (Chicago: Crain Books, 1984) Wrote case studies to complement textual material.

EXPERIENCE:

Instructor, School of Communications, The Pennsylvania State University, 1990-present.

Instructor, Medill School of Journalism, Northwestern University, Evanston, IL, 1987-1990.

Product Marketing Manager, United Air Specialists, Cincinnati, OH, 1985-1986.

Instructor, School of Business Administration, Miami University, Oxford, OH, 1983-1986.

Researcher/Case Writer, Nestle Technical Products Assistance Co., Ltd., Chicago, IL and Vevey, Switzerland, 1981-1982.