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# Deregulation and Regulation: Exploring the Diversity of Media Ownership In Small Media Markets

A Dissertation
Presented for the
Doctor of Philosophy
Degree
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Leslie Todd Chambers
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# DEDICATION

This dissertation is dedicated to Barbie and Emily.

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## ABSTRACT

The passage of the *Telecommunications Act of 1996* represented the culmination of the theoretical shift in the philosophy of broadcast ownership regulation. After decades of government regulations maintaining the structure of local broadcast markets, policies of deregulation slowly began to restructure local media markets under a marketplace approach to broadcast regulation. This dissertation explored the consequences of shifting from a managed structure of regulation to an open market structure of deregulation in small media markets. In particular, this dissertation sought to answer research questions and test hypotheses related to the public interest standards of ownership and content diversity under both types of regulatory philosophies. To answer the research questions and test the hypotheses, this dissertation operationalized the public interest concept of media ownership and content diversity at the local market level. Using data from industry yearbooks about daily newspapers, television stations and radio stations in small metropolitan statistical areas, a database of information related to the number of owners, type of owners, news content and numerous other variables was created for a time period from 1972 to 1998. Multiple regression analyses tested the hypotheses. Overall, the statistical analysis suggested that there was a limited impact on ownership and content diversity when considering the gradual change from regulation to deregulation. However, the data analysis suggested that there has been a negative impact on ownership and content diversity since the *Telecommunications Act of 1996* in the small markets. The results indicated that the Federal Communications Commission and other agencies should reconsider certain ownership policies in small media markets.

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# CHAPTER 1
# INTRODUCTION

A theoretical shift in the philosophy of broadcast regulation has created a rich atmosphere for testing the public interest assumptions related to the ownership of the mass media. The political concepts of localism and diversity, once heralded as cornerstones of public interest philosophy, have been replaced with the economic concepts of competition and efficiency. Has this philosophical change achieved the goal of deregulation: to allow the marketplace to satisfy the standards of the public interest, convenience and necessity? This study seeks to answer a part of this question by exploring the public interest in terms of media ownership and content diversity in smaller markets. Recent research in large media markets suggested that the policy shift decreased the amount of ownership diversity in the radio and television industries (Drushel, 1998; Howard, 1998). In smaller markets, where fewer outlets can be supported, the shift away from regulatory policies grounded in the restrictive nature of the spectrum scarcity principle to the policies of deregulation framed in the unlimited resources of the digital environment might have different public interest outcomes. This dissertation will test the validity of the assumptions of deregulation for smaller markets. In particular, it will explore the political economy of media diversity and test the propositions of the marketplace theory of deregulation. Overall, the goal of this study is to identify whether the policies of deregulation have increased or decreased media diversity in small markets.

The public interest theory guiding the regulation of the broadcast radio and television industries emphasizes the importance of a vibrant marketplace of ideas. Local

radio stations, television stations and newspapers contribute to this marketplace of ideas by providing local news and information. In the past, the Federal Communications Commission (FCC) managed the broadcast marketplace of ideas with various structural and content regulations designed to uphold the public interest, convenience and necessity. Local ownership policies such as the duopoly and cross-ownership rules were designed to prevent the monopolization of the local news and information marketplace. The development of cable television and other new media technologies, combined with a political atmosphere geared towards deregulation, drove Congress and the FCC to switch from a managed-structure regulatory paradigm to a market-driven deregulation paradigm. This theoretical shift from regulation to deregulation is based on the presumptions of free market economics that have led critics to question the effectiveness of using the principles of free market competition to sustain the marketplace of ideas instead of the various regulatory mechanisms. Most of the questions concern the effect of deregulation on the diversity of viewpoints within a local media market. According to critics of deregulation, it would appear that the increase in the level of local media consolidation would lead to a decrease in the number of viewpoints or media diversity available within a market (Bagdikian, 1985). On the other hand, proponents of deregulation suggest that increases in the availability of different media outlets (Loevinger, 1979) or the development of monopoly power (Steiner, 1952) leads to an increase in the level of media diversity within a market. Which scenario is more appropriate for the local marketplace of ideas – the managed structure (regulation) paradigm or the open market (deregulation) paradigm? To answer this question, this dissertation will evaluate the effectiveness of government regulation and deregulation in meeting various public

interest standards by examining the diversity of media ownership in small and medium media markets. In addition, this dissertation will test specific hypotheses concerning the relationship between the concentration of ownership and the marketplace of ideas. Finally, this dissertation seeks to identify and evaluate effective government policies related to the ownership of media.

The relaxation of local radio and television ownership rules resulting from the passage of the *Telecommunications Act of 1996* led to unprecedented consolidation within local markets. Local Marketing Agreements (LMAs), duopolies, and local consolidation or 'clustering' in the local radio and television industries appear to contradict the goal of deregulation by limiting rather than maximizing the marketplace of ideas, and emphasizes the need to study the issues related to ownership deregulation in smaller markets. Industry statistics indicated that the radio industry has lost 981 owners since 1995 (BIAa, 1999). In the television industry, only 348 companies operate the 1,300 broadcast television stations (BIAb, 1999). By passing the *Telecommunications Act of 1996*, Congress and the FCC opened the door for testing the free market ideals of deregulation against the managed structure paradigm of broadcast regulation. The passage of broadcast deregulation policies such as those found in the *1996 Act* forced the FCC to utilize the economic ideals of marketplace competition to manage the market structure, conduct and performance of the local broadcast industry. As a result, the nature of broadcast station ownership in local media marketplaces changed raising numerous questions about the ability of free market competition to provide broadcast service that continues to serve "the public interest, convenience and necessity" (Communications Act, 1934, Section 309(a)). Organizations critical of broadcast

deregulation such as the Media Access Project claimed the broadcast deregulation policies both stifled broadcast media competition and limited the level of diversity within local media markets.

The growth of local marketing agreements (LMAs), duopolies, local station clusters, and various types of joint ventures in both the radio and television industries renewed interest in the study of the public interest and the marketplace of ideas (Irving, 1999, p.1). Initial evidence from industry sources (McConnell, 1998) and scholarly studies (Drushel, 1998; Howard, 1997; Bates & Chambers, 1996) indicated problems with marketplace theory, the current framework for broadcast deregulation. There is growing concern that the new deregulation policies initiated by the passage of the *Telecommunications Act of 1996* has led to a loss of competition and diversity in local media markets (Ness, 1996; Irving, 1999). In particular, the National Telecommunications and Information Administration (NTIA) voiced concern about the effect of deregulation on the smaller markets (Irving, 1999).

## Background of Problem

For years, the FCC managed local radio and television competition by tightly controlling the number and type of local competitors based on the number of available frequencies, the fulfillment of various public interest obligations and the characteristics of potential broadcast owners. The Commission regulated the public interest in media markets using structural rules controlling the number of broadcast properties and owners with uniform standards. In other words, every market, regardless of size and structure, would adhere to the same policies. With the passage of the *Telecommunications Act of 1996* (Telecommunications Act, 1996), Congress acknowledged the effect of market size

and type of competition on the amount of media diversity in local markets. In the larger markets, more properties could be controlled by one entity. At the same time, certain ownership allowances required the presence of a specific number of locally available media outlets. Despite this recognition of structural differences within markets, the unresolved problem related to deregulation is the use of a blanket policy to regulate the ownership structure of media markets.

Unlike large markets like New York, Los Angeles, Chicago, and Dallas-Fort Worth, small markets such as Great Falls, Montana, Texarkana, Texas and Jackson, Tennessee might have more to lose from a reduction in the number of competing voices through local media consolidation (Williams, 1998). Under the current ownership schemes, a company in the smallest market can control four radio stations and/or 50 percent of the audience. In markets where there may only be eight to ten radio stations, the loss of three or four owners could drastically impact the overall level of diversity within the market. Recent industry statistics revealed that 18 of the top 25 radio groups have made station purchases in small and medium markets (Rathbun, 1998, pp. 33-45). Some of the largest radio groups such as Clear Channel Communications, Citadel Communications and Cumulus Media have targeted markets outside the top 100 to grow their companies. For example, Cumulus Media, a company with 310 radio stations in 61 markets, has increased its number of radio properties by purchasing clusters of radio stations in small and medium-sized markets (Cumulus Enters California, 1999, p. 1). Likewise, Citadel Communications, a company with 123 radio stations in 37 markets, acquired Liggett Broadcasting, which owned stations in markets like Lansing, Michigan and Worcester, Massachusetts (Citadel Adds, 1999, p. 1). By clustering stations in these

small and medium markets, companies have been able to develop strategies for purchasing by the market instead of just the station. As a result, companies that previously had no ties with a local community have been able to acquire and operate multiple stations and dominate the marketplace of ideas.

The switch from structural regulation to free market deregulation has forced FCC Commissioners to re-evaluate the public interest standards related to ownership. In a speech before the National Association of Broadcasters, FCC Commissioner Susan Ness remarked:

> "At the heart of a public interest determination is the impact of a transaction on the diversity of voices and competition in the local market. Our democracy is strongest when ownership of broadcast licenses is widely held. Only through a diversity of voices can we nurture our shared freedom, our common bonds, our local and national communities. And excessive consolidation of a local market can drive out competition, reducing the diversity of voices" (Ness, 1996, p.4).

The very nature of media competition at the local level has changed dramatically since the dawn of broadcast deregulation in the early 1980s. Markets once characterized by a large number of different owners using various programming strategies to attract larger audiences transformed into a small group of similar owners using corporate programming strategies to maintain a large share of the audience. For example, in Honolulu, Hawaii, Raycom Media formed the first local television duopoly (Raycom, 2000, p. 1). Former competitors joined by various types of ownership arrangements are changing the structure and performance of the local media marketplace.

By passing the *Telecommunications Act of 1996* (Telecommunications Act, 1996), Congress assumed that legislating the free market ideals of marketplace theory would provide the necessary standards for meeting and maintaining the public interest in

all telecommunications markets. Although the goal of the *1996 Act* was to open up competition, early studies of individual industries indicated unprecedented consolidation of local properties for radio (Drushel, 1998) and an increase in merger activity among major television groups (Howard, 1997). The *1996 Act* revolutionized the structure of broadcast industries by relaxing the ownership rules preventing local consolidation of properties.

Initial reports of the radio industry indicated unprecedented consolidation of local properties in large and medium markets (Drushel, 1998). For television, the early effects of the *1996 Act* suggested large groups were buying up other groups (Howard, 1997). Unfortunately, without a clear definition of that public interest standard, the primary agency charged with administering the vague ideals of the *1996 Act*, the FCC, continued to arbitrarily regulate and/or deregulate the telecommunications industries on a case-by-case basis. One policy area that is beginning to become the proving ground for the ideals of marketplace theory is local broadcast ownership. After deregulating the radio and television industry's market structures, the FCC shifted the public interest pendulum away from regulating ownership diversity toward allowing the marketplace to determine the amount of ownership diversity. These decisions provide an excellent opportunity to evaluate these differing public interest approaches local media diversity.

The passage of the *Telecommunications Act of 1996* represented a watershed for media ownership deregulation. Using the ideals of marketplace theory, the federal government sought to expand the marketplace of ideas from both a political and economic perspective. Politically, the goal of the legislation was to provide the public with more diversity in terms of information choices. On the other hand, the Act of 1996

sought to provide traditional media owners with economic relief by relaxing the rules of local ownership. The Act revolutionized the structure of local media and the performance of the marketplace of ideas. In addition, its passage highlighted the need to reconsider the traditional measurement -- or non-measurement -- of vague public interest standards. The evaluation of the public interest provides researchers with unique problems of definition and measurement. Typically, past research in the area of media ownership deregulation has defined the public interest on a national level (Bagdikian, 1983; Compaine, 1982) or at the intra-industry level (Drushel, 1998; Lacy & Davenport, 1994). Although the FCC sets a national policy for local markets, little research has operationalized the concept of the public interest of local media ownership or has explored the issues of media ownership in the smaller markets. Therefore, this dissertation will examine media ownership at the local level in the smallest metropolitan statistical areas as measured by the U.S. government, using multiple measures for the public interest. By analyzing the public interest by defining it in terms of both a political and economic marketplace of ideas, this dissertation will make a valuable contribution to the scholarship of media economics and public interest research.

The stated goal of communications deregulation is to allow the actual public to determine public interest standards. Vague public interest goals such as ownership and content diversity, it was argued, would be better served by the economic realities of the local media marketplace. However, recent deregulatory policy decisions implementing the ideals of marketplace theory have created questions concerning the diversity of media ownership in local markets. In fact, the FCC sought comments concerning the effect of new ownership policies on the diversity within media markets (Federal Communications

Commission, 1998a). Recent research of the television (Howard, 1995), radio (Drushel, 1998), newspaper (Lacy & Davenport, 1994) and cable (Waterman & Weiss, 1997) industries reported trends of concentration of ownership. Instead of the marketplace providing competition and diversity of ownership, it appears that deregulation policies are allowing existing local media companies to consolidate properties and stifle competition and diversity.

This dissertation seeks to fill a theoretical and empirical void in the literature regarding media concentration. Several studies have explored the issues associated with media ownership; however, most of these studies focused on the largest markets. Olien, Donohue and Tichenor (1978) argued that community structure affected the media use within a market. Economic theory suggests that as the number of competitors increases, the amount of competition increases. By examining the new ownership rules for radio, the FCC's ownership policy favors the largest markets. In the small markets where an owner can control up to five stations, two companies can control 70 percent of the stations in the marketplace. This dissertation seeks to benchmark the current trends of small market media ownership. At the same time, there has been an empirical question related to the measurement of diversity within a local market. Most of the literature focused on concentration ratios to determine the level of competition within a marketplace. Although these types of ratios provide rigor, not all markets have audience share information readily available. Therefore, it is important to consider alternatives to traditional concentration measurement.

Overall, the dissertation focused on the question of whether the theoretical justification for regulation or deregulation provided an effective framework for

determining media ownership diversity in smaller media markets. In addition, the dissertation tests various relationships between the major variables related to media diversity and regulatory philosophy. Specifically, media diversity was treated as a dependent variable and different periods of media ownership regulation as the independent variables. Media diversity was defined from both a source and content perspective. Overall, source diversity was defined in terms of voice diversity where a media voice represented the ownership of media outlets. The measure for source diversity included a relative measure of diversity where a ratio of voices to outlets determined the degree of diversity within a market. Other factors included in source diversity were ownership type and commercial status. Content diversity measures included the presence of a local news programming and the number of wire services. Further, a local news outlet was determined by the existence of a daily newspaper and the number of news directors in a smaller media market. Assuming that news programming is an important public interest standard associated with a rich marketplace of ideas, a ratio of the number of media outlets with news content to the total number of potential news outlets in the market will be calculated to provide another measure of media diversity.

Based on these definitions, specific hypotheses tested the relationships between the regulatory philosophies and the various measures of media diversity. To test these relationships, multiple regression analysis was used to determine if the trends found in the data were due to a natural function of the marketplace or affected by deregulation. T-tests were used to test whether the differences in the levels of the diversity measures between the periods of regulation and deregulation were real or due to chance. Chi-

square tests of association tested the differences in diversity among markets with low, moderate and high diversity. Finally, correlation was used to determine the degree of the relationship between various media diversity measures and the impact of population, retail sales, and total personal income within a smaller media market.

In sum, media diversity proved to be a concept that was difficult to measure and analyze. Despite its vagueness, this dissertation outlined the relevant literature related to source and content diversity. Using a secondary analysis methodology, data was collected from yearbooks associated with the newspaper and broadcasting industries. Based on the data, various statistical tests were used to determine the degree of the relationship between the independent and dependent variables. Finally, the dissertation summarized the results of the statistical tests and made recommendations as to the impact of deregulation policies on smaller media markets.

# CHAPTER 2
# LITERATURE REVIEW

The regulatory foundation for local media ownership changed with the passage of the *Telecommunications Act of 1996*. The relaxation of national ownership limits and the re-structuring of local radio and television ownership rules that resulted from the passage of the *1996 Act* altered the structure, conduct and performance of local media markets. The public interest standard that once governed the local media marketplace had maintained the structure, conduct and performance with regulations limiting the size and number of media competitors. The ownership policies of deregulation, beginning with the 1984 changes to the Multiple Ownership Rules, shifted the public interest standard away from government regulation of the structure of local media markets to the natural mechanisms of free market competition. Based on this shift in policy, the nature of local media market structure changed in terms of the number and type of electronic media owners. Markets once maintained by strict guidelines limiting the number and type of owners changed with the relaxation of various ownership rules and policies. The revolutionary changes in ownership regulation created new local media market structures where the marketplace, not government regulation, determined the public interest standards. Based on these changes, the new market structures challenge the traditional interpretation of the public interest standards for media ownership. Markets once limited by the number of available radio and television frequencies have now become markets filled with an abundance of media outlets. Cable systems, Internet Service Providers, low power television stations, and additional television and radio stations have created new types of competition for the traditional newspaper and broadcasting industries. Future

policies related to the ownership of local media outlets require new research in the effect of ownership deregulation and its effect on market performance.

Any study of local media ownership must deal with the concept of the public interest, convenience and necessity. According to Section 302 of the Communications Act of 1934, "[t]he Commission may, consistent with the public interest, convenience and necessity, make reasonable regulations governing the interference potential of devices which in their operation are capable of emitting radio frequency energy" (47, U.S.C.A.). Although Congress required the FCC to regulate in the public interest, convenience and necessity, the legislation did not include a clear definition of this cornerstone of communication policy. In historical studies about the public interest standard, researchers painted different pictures of the adoption and application of the standard. Many researchers such as Creech (1993) traced the public interest standard to the railroad industry and the Federal Transportation Act of 1920. Although most researchers would agree on the historical background of the public interest standard, some researchers have argued that the application of the standard has favored the industry rather than the public (Rowland, 1997; Corn-Revere & Carveth, 1998). Corn-Revere and Carveth (1998) concluded the FCC had to represent the best interest of the industry because "broadcasting is a business and it generally can provide greater service to the public when business is good" (p. 71). For the most part, the FCC's ownership policies have attempted to balance the industry's 'public interest' with the public's public interest.

**Research about the public interest**

Overall, the literature about the public interest focused on the various political and economic dimensions of the marketplace of ideas (Levin, 1954; Coase, 1974; Baxter,

1974; Owen, 1975; Fowler & Brenner, 1982; Entman & Wildman, 1992; Hopkins, 1996; Krasnow, 1997; Napoli, 1999a). The marketplace of ideas metaphor developed from a dissent by Justice Oliver Wendell Holmes in *Abrams v. United States*. The Holmes vision of a marketplace of ideas was grounded in the ideals of free speech and expression as stated in political treatises such as Milton's *Areopagitica* and Mills' *On Liberty*. The *Abrams* case centered around Abrams and other Russian immigrants who had been charged, tried and convicted under the Espionage Act for publishing and distributing 5,000 pamphlets that were critical of the U.S. government during World War I. Specifically, the pamphlets called President Wilson a 'coward' and encouraged resistance to the war. The Supreme Court upheld the convictions based on the clear and present danger test. In his dissent, Holmes offered to clarify the application of the clear and present danger test and its balance with the First Amendment freedom of free speech:

> "But when men have realized that time has upset many fighting faiths, they may come to believe even more than they believe the very foundations of their own conduct that the ultimate good desired is better reached by a free trade in ideas -- that the best test of truth is the power of thought to get itself accepted in the competition of the market, and that truth is the only ground upon which their wishes safely can be carried out. That at any rate is the theory of our Constitution" (cited in *Abrams v. United States*, 250 U.S. 630 (1919).

Holmes used an economic analogy to explain the political importance of a free trade of ideas. As the period of communication policy regulation ended and deregulation began, the political nature of the marketplace of ideas focused on the economic aspects.

Like the public interest, the marketplace of ideas metaphor has been used in several different applications. In a study about Supreme Court usage of the metaphor in various decisions, Hopkins (1996) found that the Court has recognized several, not just

one, marketplaces of ideas. "Indeed, the Court has identified broadcasting, local communities, commercial speech, political speech, mail systems, school class rooms and libraries, state fairs, scholarly conferences and lectures, and picketing as marketplaces of ideas" (Hopkins, 1996, p. 48). For the electronic media, the welfare of the public interest resided in a robust marketplace of ideas; however, scholars and policymakers have struggled with the application and interpretation of such a standard.

From ownership rules to content regulations, the FCC has attempted to equate the public interest with diversity within the marketplace of ideas. In theory, the link between the public interest and the marketplace of ideas centers on the ideal of viewpoint diversity. Owen (1975) characterized the marketplace of ideas as an economic market "in which information and entertainment, intellectual 'goods,' are bought and sold" (p. 5). He emphasized the balance between the demands of the audience and the social responsibility of the press. Further, Owen stressed the importance of preventing the monopolization of access to the transmitters of information (p. 5). Unfortunately, the evaluation of diversity within the information marketplace has been problematic. Entman and Wildman (1992) argued that "a marketplace of ideas is problematic normatively and appears to be misleading empirically" (p. 6). From an analytical perspective, concepts such as idea and product diversity are ideal as political constructs, but difficult to quantify. For example, in the radio industry, it is not difficult to imagine a market rich in idea and product diversity: a wide variety of radio formats. From country to rock music, there are dozens of different radio formats. The problem for the radio industry is not the number of different overall formats but the number of undifferentiated niches within the format. In other words, a radio market of six stations might include a new country

station, a traditional country station, a news/talk station, an adult contemporary station, a contemporary hit music station and a sports/talk station. Although it appears that each station has a different format, there may be content overlap for the country stations, the contemporary stations and the talk stations. How can you measure diversity between these station types? In theory, a vibrant marketplace of ideas is served by a diversity of opinions. Practically, diversity within the marketplace of ideas is difficult to gauge.

*Media Diversity*

In a media context, diversity is a multi-faceted concept ranging from issues related to the practical issues related to employment to the theoretical issues associated with the marketplace of ideas (Entman & Wildman, 1992; McQuail, 1992; Iosifides, 1999; Napoli, 1999b). McQuail (1992) outlined five aspects of media diversity: source, channel, content as sent, content as received, and audience diversity. Of these aspects, the most popular areas for scholarly study have been those focussing on the channel and content as sent diversity. In particular, McQuail's (1992) diversity descriptions can be defined in terms of media ownership and content as sent. Several scholars have studied issues of media diversity in terms of media ownership (Nixon & Ward, 1961; Sterling, 1975; Loevinger, 1979; Compaine, 1982; Bagdikian, 1983, 1997; Busterna, 1988c; Powers, 1990; Waterman, 1991; Lacy & Davenport, 1994; Howard, 1998; Drushel, 1998) and media content as sent (Besen & Johnson, 1985; Hale, 1988; Lacy, 1988; Picard, 1989; Riffe & Shaw, 1990; De Jong & Bates, 1991; Lacy & Riffe, 1994). For the majority of these studies, there is a distinct linkage between ownership and content diversity.

The link between ownership and content diversity has been described in policy decisions and research. In the *Associated Press v. U.S.* (326 U.S. 1 (1945), the Supreme Court related the number of information sources with the public welfare. Recently, the FCC defined diversity as:

> "Diversity, particularly diversity of viewpoints, is the other important part of the Commission's public interest mandate. The Commission's viewpoint diversity objective promotes a goal the Supreme Court has stated underlies the First Amendment. As the Court has said, the First Amendment "rests on the assumption that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public...." Promoting diversity in the number of separately owned outlets has contributed to our goal of viewpoint diversity by assuring that the programming and views available to the public are disseminated by a wide variety of speakers. Moreover, our diversity concerns are separate from our goal of promoting competition" (Federal Communications Commission, 1998a, p.1).

Likewise, Levin (1954) suggested that the diversity of expression "may result from diverse ownership..." (p. 63). The link between ownership and content diversity has been used during different phases of electronic media policy.

Most of the research dichotomized the application of various public interest standards for obtaining media diversity in terms of government regulation or deregulation. Under both of these models of policy, diversity in the marketplace of ideas has been the primary goal; the change occurred in the theoretical justification of the policy. Coase (1974) suggested that if "in the market for goods, government regulation is desirable, whereas, in the market for ideas, government regulation is undesirable and should be strictly limited" (p. 384). Researchers have dichotomized periods of regulation and deregulation as social value or market economics (Entman & Wildman, 1992), democratic theory or economic theory (Napoli, 1999a), and public policy or free market (Iosifides, 1999). Each set of dichotomies represented the policy model used by the FCC

to manipulate various aspects of the electronic media. From an ownership perspective, these dichotomies have been classified as the political and economic school of thought.

Media Diversity From the Political School of Thought

The tenets of the American democratic system focus on the marketplace of ideas where individuals seek out information from a diversity of viewpoints in order to make informed decisions about the political process. During the 20th century, the marketplace of ideas expanded as the print and electronic mass media developed into important information sources for the American public. Realizing the role of newspapers and broadcast stations, government agencies used various regulatory policies to safeguard the marketplace of ideas.

Overall, the Supreme Court and the FCC recognized the importance of maintaining diversity through ownership regulations. According to the Supreme Court, the First Amendment "rests on the assumption that the widest dissemination of information from diverse and antagonistic sources is essential to the welfare of the public" (Associated Press v. United States, 326 U.S. 1, (1945). Using diversity of sources as a regulatory guideline, the FCC devised various ownership policies to ensure the diversity within the marketplace of ideas.

The FCC managed the marketplace of ideas by regulating the structure of local media markets. The ownership philosophy emphasized the importance of a local and diverse media owner base. Policies such as the 1941 *Report on Chain Broadcasting* (Federal Communications Commission, 1941), 1970's *One to a Market Rule* (Federal Communications Commission, 1970) and the 1975 Cross-Media Ownership (Federal Communications Commission, 1975) rule restricted the number of properties and the type

of properties one owner could operate within a local media market. In *Rules Relating to Multiple Ownership* (Federal Communications Commission, 1970), the FCC argued that the "proper objective is the maximum diversity of ownership that technology permits in each area. We are of the view that 60 different licensees are more desirable than 50, and even that 51 are more desirable than 50" (cited in Carter, Franklin & Wright, 1993, p. 166). This emphasis on the structure of media markets influenced ownership decisions until the period of deregulation.

Media Diversity From the Economic School of Thought

Until the 1980s, the government regulated the broadcast media as individual industries where the development of market power needed to be restricted. National and local ownership policies such as the *Multiple Ownership Rules*, the *Duopoly Rule*, and the *One-To-A-Market Rule*, attempted to prevent the development of market power within both the national and local marketplace. By controlling the number and type of broadcasting properties one owner could control, the FCC developed an economic regulatory regime maintaining both the public and the industries' interests. During the period of regulation, the combination of inter- or intra-media properties was viewed as a detriment to the economic health of individual media industries. Regulatory policies restricting the structure of media markets sought to maintain a level of diversity from an economic perspective.

As the number of media competitors increased and the economics of the individual media industries became more interdependent, the FCC changed its policy rationale from regulation to deregulation. The FCC used marketplace theory to implement policies of deregulation. Marketplace theory links the economics of

competition to the diversity of viewpoints found within a local market. The basic premise of this theory is that an increase in the number of media outlets promotes service to narrower segments of the community. Additionally, this approach to regulation "emphasizes the role of new competitors, and new competition among existing firms to ensure service to the public interest" (Fowler & Brenner, 1982, p. 231). By recognizing the impact of new types of media firms such as cable, satellite delivery and other new technologies, the FCC changed its focus from the source diversity to the amount of content diversity found within the marketplace of ideas.

Between 1980 and 1992, the FCC initiated policies of deregulation. Using the assumptions of marketplace theory and realizing the growth of competition across various media types, the FCC revised the *Multiple Ownership Rules* for broadcast media in 1984. During this period of deregulation, the FCC changed its philosophy regarding the marketplace of ideas. By focusing on the number of choices available to the public instead of the number of owners, the FCC reasoned that the public interest would be met by marketplace standards rather than government rules and regulations. The public would actually determine 'the public interest' standards.

Since 1992, the development of new technologies such as the Internet forced the FCC to enter a second phase of deregulation. This current period of deregulation recognizes the multi-channel media environment where individual audience members have hundreds of available information choices. Policies ranging from the 1992 decision to allow radio duopolies to the 1996 Telecommunications Act attempted to maintain the marketplace of ideas by fostering new competition among the choices available to consumers. These policies of deregulation relaxed local ownership rules where fewer

owners could control more media properties. The revolutionary ownership rules changed the structure of the industry and the marketplace of ideas.

Overall, both the political and economic schools of thought attempted to manage the degree of diversity within the marketplace of ideas. The main problem with both schools of thought has been the inability to develop an effective evaluative framework for establishing and maintaining acceptable benchmarks of diversity within the marketplace of ideas. Part of the problem rests with the development of broad, macroeconomic ownership policies that have been unable to account for the uniqueness of local media markets. Most of the problem lies with the uncertainty of the theoretical and practical implications of media concentration on the marketplace of ideas. For years, the structure of local broadcast markets was managed with strict rules preventing the development of monopoly power for the local broadcasting industries (Owen, 1975). However, new rules have created new types of structures that have not been studied theoretically or practically. In light of these new markets, researchers must explore the historical trends of ownership regulation and its impact on the public interest standard of ownership diversity within the marketplace of ideas.

**The public interest and ownership regulations**

The public interest theory governing the electronic media industries evolved from a set of political regulations aimed at implementing certain democratic ideals into a set of deregulated economic policies attempting to safeguard specific electronic media industries. Horwitz (1989) defined the public interest theory of regulation as "regulation … established in response to the conflict between private corporations and the general public" (p. 23). Since 1927, the Federal Radio Commission and later, the FCC attempted

to balance the wants of the electronic media industry with the needs of the audience. Foley (1990) explained that "many of the FCC's actions is a generally shared value which holds that the public should have access to diverse sources of information" (p. 282). Based on this interpretation of the public interest, the FCC attempted to manage the marketplace with various structural regulations. Furthermore, the Commission linked its ownership rules with the assumptions of industrial organization theory to justify the regulation or deregulation of broadcast markets.

*A History of Multiple Ownership Rules: A National and Local Perspective*

The FCC's public interest philosophy toward the regulation of the broadcast marketplace evolved from a primary focus on the national implications of broadcast ownership to an emphasis on the local diversity of the mass media marketplace. Overall, the history of multiple ownership rules for broadcast properties centered on the application of a national public interest standard applied to unique, local markets. Issues of chain ownership, common ownership, group ownership and cross-media ownership caused the FCC to attempt regulating local ownership diversity with national ownership rules.

As the radio industry developed during the 1930s, the FCC began to investigate complaints against the primary network providers, NBC Red, NBC Blue and CBS. A fourth national radio network, the Mutual Broadcasting System (MBS), sought relief from the FCC regarding the difficulty in obtaining network affiliates in the largest markets. After several hearings and testimony from more than 90 different parties, the FCC released its *Report on Chain Broadcasting* in 1941 (Federal Communications Commission, 1941). In this report, the FCC described the status of chain broadcasting in

the United States. At the time, three companies controlled four networks: NBC, CBS and MBS. These networks dominated the majority of radio markets with almost two-thirds of all radio stations affiliated with a network. The 1941 *Report* eliminated dual network operation. The Supreme Court upheld the policies of the *Report* in a case against NBC (*National Broadcasting Company v. U.S.*, 1943). During the same time period, the FCC established duopoly rules in 1940 that prevented the ownership of common broadcast properties in a single market (Duopoly Rules, 1940). The report included provisions to limit the ability of a few companies from dominating an industry on both a national and local level. After the passage of the 1941 *Report*, it appeared as if the FCC used both national and local standards to regulate broadcast market structures.

National Ownership Rules

The FCC's history of national multiple ownership rules followed the growth of the new electronic media technologies -- FM radio, television, cable, satellite television distribution and the Internet. Sterling (1975) reported that the number of broadcast outlets had increased 900 percent between the 1940 and 1970. Since 1970, new media technologies such as cable television, direct broadcast satellites and computer-mediated technologies such as the Internet have increased the total number of media choices available to audiences. From the *Report on Chain Broadcasting* to the *Telecommunications Act of 1996*, there have been several hearings, cases and rules related to the national ownership structure of broadcast properties.

According to Howard (1979), the FCC began to investigate the issues of national multiple ownership rules in 1940 with limits on the number of FM radio stations (6) and experimental television stations (3). Combined with the passage of the *Report on Chain*

*Broadcasting*, the FCC's limits on chain ownership of radio stations forced a challenge from the powerful NBC and CBS networks. The results of the *NBC v. U.S.* and *KQW* cases would establish the FCC's 1953 *Multiple Ownership Rules*.

In *NBC v. U.S.* (National, 1943), the Supreme Court upheld the FCC's rules promulgated with the *Report on Chain Broadcasting*. The Court reasoned that the public interest would be better served in a marketplace where there was a more diverse field of network operators. As a result of the decision, NBC's networks, Red and Blue, were split and the Blue network was sold to Edward J. Noble who started the American Broadcasting Company (ABC) (Howard, 1979). Later, CBS petitioned the FCC to allow the network to purchase an additional station in San Jose California. The station, KQW, would have given CBS a total of eight AM radio stations. The FCC, citing localism issues, prohibited CBS from purchasing the station (Federal Communications Commission, 1946).

The 1953 *Multiple Ownership Rules* sought to promote the diversification of ownership and maximize the diversity of program and service viewpoints. Originally, the Rules limited the number of broadcast properties one company could own on a national basis to five television, seven AM radio and seven FM radio stations. A year later, in an attempt to promote UHF television stations, the Commission adopted the 'Rule of Seven,' where a company could own seven broadcast properties in each band. The FCC reasoned that a large group of diversified licensees would better serve the public interest. Howard (1989) argued that this 'Rule of Seven' sanctioned group ownership by encouraging companies to purchase seven stations. Regardless of the outcome effects on the number of group owners, the FCC did not re-visit the *Multiple Ownership Rules* until 1984.

The evolution of new media technologies such as cable television and satellite television distribution forced the FCC to reconsider the Rule of Seven. In 1984, the FCC relaxed the *Multiple Ownership Rules* to allow owners to control up to 12 television, 12 AM radio and 12 FM radio stations (Federal Communications Commission, 1984). After debate within the Commission regarding the arbitrary numerical restrictions, the FCC restricted the total potential audience reach of a single group. In other words, a group owner could control 12 television stations as long as the group's total audience did not reach more than 25 percent of the total potential national audience. Howard (1989) noted that the FCC attempted to correct the numerical flaw of the original rules by placing the reach restriction on group owners.

Economics prompted the FCC to further change the radio portion of the national ownership rules in 1992 and 1994. A national recession caused both AM and FM radio to suffer financial distress. Based on the overall economic effects of the recession, the FCC lifted the 'Rule of 12' for radio ownership. First, the Commission allowed one company to own 18 of each service; then, two years later, a company could own 20 of each service. These rules would regulate the national market structure of radio group owners until the *Telecommunications Act of 1996*.

In the *Telecommunications Act of 1996*, Congress changed the national market structure for both television and radio by lifting the limit on the number of properties one company can own on a national basis. For radio, this allowed the development of major radio groups like Chancellor Media, CBS radio, and Clear Channel Communications. For television however, the rules retained a national audience reach cap. A single

television group owner cannot reach more than 35 percent of the total potential national audience with no limit on the number of stations.

Local Ownership Rules

Throughout its history, the FCC used national rules to structure both the national and local broadcast markets. One of the major problems with this duality has been the inability to equally apply these vague ownership regulations into different and unique markets. In fact, in the FCC's 1984 *Multiple Ownership Rules*, the Commission admitted the importance of the local community when considering the marketplace of ideas:

> "Within the United States, the most important idea markets are local. For an individual member of the audience, the richness of ideas to which he is exposed turns on how many diverse views are available within his local broadcast market" (Federal Communications Commission, 1984, 37).

In local communities, the FCC has used licensing criteria, duopoly restrictions, local service rules and cross-media ownership rules to maintain a diverse local marketplace of ideas.

For the majority of the history of broadcast regulation, the FCC maintained local broadcast market structures by enforcing a policy limiting the establishment of radio or television duopolies. A duopoly is the common ownership of two same-service properties. For example, a radio duopoly would include the ownership of two FM stations in the same community. Overall, the primary rationale for maintaining this type of market structure has relied on the public interest principle of localism.

During the evolution of the broadcasting industry, the FCC was interested in the ideals of localism. Former FCC Commissioner Andrew Barrett defined localism as the "basic notion that the best practicable service to the public is rendered by the broadcaster

who maintains close ties with the community served and who provides programming that responds to issues affecting residents of that community" (1993, p. 147). Newton (1995) defined two methods of FCC regulation of localism – geographic and audience. According to Newton (1995), geographic or spatial localism was "exemplified by the distribution of licenses to various communities and the traditional preference granted to local ownership in initial licensing" (p. 79). On the other hand, audience localism obligated the licensee to "identify and program for the needs and problems of the community" (p. 79). In the original Communications Act of 1934, the licensing rules required an owner of a station to be involved with the daily operations of the station and be involved in the local community. As network radio gobbled up affiliates in various markets, the FCC became concerned with possible loss of local programming.

In 1943, the FCC issued its first duopoly rule that banned all commonly owned radio stations having overlapping coverage (Howard, 1979). The duopoly rules embraced the notion that a diverse number of owners would equate into a diverse marketplace of ideas. When the FCC initiated the *Multiple Ownership Rules* in 1953, it equated localism with a diversity of viewpoints. Localism was a key aspect, but diversity meant a wide selection of different viewpoints within a market. The FCC's position regarding the maintenance of a diverse marketplace of ideas through structural regulations was evident in the *One to a Market Rule* (Federal Communications Commission, 1970). In their decision, the FCC maintained that it was their opinion that 51 owners were better than 50 owners in a local market.

The duopoly rules for radio stations existed until 1992 when the Commission allowed radio duopolies in all markets. According to the duopoly rules, in markets with

more than 14 stations an operator could control two AM and two FM stations (Federal Communications Commission, 1992). In smaller markets, the duopoly rules allowed an owner to operate three stations -- two of the same service -- as long as the duopoly does not attract more than 50 percent of the audience share of the market (Hagin, 1994). The Commission relaxed the duopoly rules for large market television stations in Fall 1999 (Federal Communications Commission, 1999a, p. 1). Although some of the television duopoly rules have been lifted, the new policy affects only those markets where there are eight or more television stations (Federal Communications Commission, 1999a, p.1).

Related to the issue of duopolies has been the development of regulations allowing certain types of joint service agreements. Like a newspaper Joint Operating Agreement (JOA), the FCC began to allow time brokerage agreements in 1971 (Hagin, 1994). A time brokerage or local management agreement (LMA) "allows the licensee of another broadcast facility to operate a station in return for a share of the profits" (Creech, 1993, p. 84). In the early 1990s, more than 866 radio stations were involved in a duopoly or LMA enterprise (Hagin, 1994). For television, LMAs have been a recent phenomenon. According to Russell (1999), three television markets are experimenting with joint service agreements where two television stations share news and sales. These markets include Lubbock, Texas, Fort Myers, Florida and Scranton, Pennsylvania (Russell, 1999).

The development of FM radio and television technologies created new combinations of local broadcast markets that the FCC sought to regulate. Specifically, the Commission issued rules and regulations related to the development of multiple ownership and cross-media ownership within local communities. In 1970, the FCC re-

enforced the localism rationale in ownership regulation by passing the *One to a Market* rule. This rule limited an owner to one broadcast property per market. In other words, an owner could only control one AM, one FM or one TV per market (Federal Communications Commission, 1970). The *One to a Market* rule emphasized the value of a larger number of different broadcast owners providing a wide diversity of viewpoints. A year later, the FCC eased the rule to permit the formation of new AM-FM combination stations and, in some cases, a combination of radio and UHF stations.

The link between a large number of owners and the diversity of viewpoints played a major role in the development of the FCC's *Cross Media Ownership Rule*s of 1975 (Federal Communications Commission, 1975). According to the FCC, "multiple ownership rules rest on two foundations: the twin goals of diversity of viewpoints and economic competition" (Federal Communications Commission, 1975, p. 1074). These goals resulted in the prohibition of any future common ownership of broadcast stations and daily newspapers. The FCC analyzed basic media ownership and reasoned that "diversity in ownership is a means of enhancing diversity in programming service to the public" (Federal Communications Commission, 1975, p. 1079). According to the FCC, a local television station, radio station and a daily newspaper competed in the same product and geographic markets. By competing in the same markets, cross-media ownership would allow companies to limit or control the marketplace of ideas. As Creech (1993) explained, "this policy is based upon the theoretical assumption that media audiences will be exposed to more than one opinion on issues of public importance" (p. 85). Despite the dire warnings of a decreased level of diversity in markets where cross-media ownership existed, the FCC allowed existing cross-media combinations to continue.

Overall, the rules associated with the structure of local broadcast markets equated a numerical limit on the number of broadcast owners with a supposed numerical representation of the degree of diversity within the marketplace of ideas. Duopoly, local service rules and cross-media ownership rules sought to restrict the number of local broadcast multiple owners. In 1992, Congress and the FCC began to deregulate various rules including ownership policies. During this period of deregulation, the FCC switched its theoretical justification of a managed structure philosophy of diversity to a free market philosophy of competition. Table A-1 provides an overview of the major ownership policies[1].

**The Changes in Ownership Rules and Public Interest Philosophy**

Over time, the FCC used varying public interest rationales when enforcing the ownership rules and regulations. Past FCC decisions characterized the 'twin-goal philosophy' of viewpoint diversity and economic competition in the ownership of national and local broadcast media. Although this twin-goal philosophy sought to ensure a robust marketplace of ideas, the two goals utilized two separate approaches to maintaining the public interest of a robust marketplace of ideas. One of the rationales envisioned the marketplace of ideas served by a diverse pool of broadcast voices in a local market. In order to develop a diverse pool of broadcast voices, the Commission developed structural regulations aimed at forcing diversity on local markets with numerical limits on ownership. On the other hand, the second rationale viewed the marketplace of ideas in terms of economics. Instead of regulating numerical limits on the number of voices, the FCC used the ideals of free market competition to maintain the

[1] All tables are placed in Appendix A. Figures are placed in Appendix B.

marketplace of ideas. By allowing duopoly and expanding the limits of local ownership, audience demand through the forces of competition would determine the public interest.

During the 1970s, economics began to drive the decisions related to the ownership of broadcast properties within local markets. Specifically, the FCC reasoned that free market competition better served the marketplace of ideas (Fowler & Brenner, 1982). This approach argued that the marketplace determined audience preferences in terms of programming and ownership. From this economic perspective, it was the marketplace and not government regulations that would determine the most effective and efficient number of voices. The development of cable television, satellite broadcasting and other new technologies provided the Commission with further economic reasons to allow the individual broadcast industries to compete in the free market without cumbersome regulations aimed at maintaining diversity. Audience fragmentation and the potential loss of advertising revenue justified deregulation. The revised multiple ownership rules of 1984 and the subsequent rules lifting the national limits for radio stations in the early 1990s represented a deregulatory atmosphere that sought to provide economic relief for the traditional broadcast industries facing competition from new media technologies.

After a national recession pounded local owners of broadcast properties, the FCC began to investigate the limitations of local broadcast multiple ownership. In 1989, the FCC announced that large markets with more than 30 separate media owners could support a local broadcast multiple consisting of an AM, FM and VHF station. The FCC supported this change in policy because of the assumption that 30 different media owners represented a large number of separate voices within the marketplace of ideas.

According to the *Telecommunications Act of 1996*, local radio owners can now operate up to eight stations overall with a station cap per band in the largest markets (Telecommunications Act, 1996). The local rules for radio define markets in terms of the number of radio stations. The largest markets include at least 45 radio signals. The *1996 Act* defined small radio markets as having up to 14 stations. In the smallest markets, one owner can control up to 5 radio stations as long as the combined audience share does not equal 50 percent of the market.

Howard (1979) provided an exhaustive history of multiple ownership rules and their impact on television until the early 1970s. For the most part, the major policies regarding electronic media ownership focused on broadcast duopolies and broadcast-newspaper cross-ownership within local markets.

The watershed deregulatory legislation was the *Telecommunications Act of 1996*. Recent research indicated that the Top 50 radio markets are moving towards moderate concentration levels of radio ownership (Drushel, 1998). In other words, owners are using the relaxed rules to purchase large numbers of radio properties in local markets. From an economic perspective, the radio ownership structure has the potential to change from monopolistic competition to a more oligopolistic structure. Howard (1998) explored the impacts of the *1996 Act* on the television industry. He found that for the first time in all of his studies about the television industry, eight out of 10 stations in the Top 100 markets were controlled by a group owner.

Since the passage of *1996 Act*, the traditional broadcasting industries have experienced high levels of station trafficking, higher profit margins and consolidation of electronic media properties (Drushel, 1998; Howard, 1998). For example, a recent study

by Broadcast Investment Analysts (BIA) found that more than 20 percent of all radio stations were sold and bought for approximately $18 billion in 1997 (Merli, 1998, p. 40). At the other end of the spectrum, the current FCC Chairman, William Kennard and members of Congress who oversee the issues of the telecommunications industries have sparred about the state of ownership deregulation. According to Representative Billy Tauzin, Republican chairman of the House subcommittee on telecommunications, "Chairman Kennard has been off on these other agendas before he has completed the work he was assigned to complete -- the deregulation of the marketplace" (Labaton, 1999, p. 1). The battle between Congress and the FCC resulted from the regulatory paradigm shift where structural regulations designed to maintain vague public interest standards were scrapped for deregulated standards designed to respond to free market competition.

**The Public Interest Policy Paradigm Shift**

The passage of the *Telecommunications Act of 1996* symbolized the shift in the theoretical basis for electronic media regulation. Until the 1981 decision to deregulate the radio industry, the FCC and other government agencies, charged with the maintenance of the electromagnetic spectrum, used various structural and content regulations to guarantee public interest compliance from broadcast and other types of electronic media (Krasnow, 1997). Owners of broadcast station exchanged the promises of acting as public trustees for broadcast licenses (Creech, 1993). As public trustees, the Federal Radio Commission maintained "the station itself must be operated as if owned by the public..." (cited in Krasnow, 1997, p. 5). During the 1970s, the philosophy preserving the public trustee model of regulation shifted away from maintaining the

structure and content of the electronic media industries to monitoring the performance of the electronic media marketplace.

The deregulation of the radio industry ushered in the new era of deregulation for other electronic media industries. In 1981, the FCC formally deregulated the radio industry (Federal Communications Commission, 1981). In its Report and Order, the Commission eliminated the non-entertainment programming guideline (except for the generalized obligation to offer programming responsive to public issues), ascertainment rules, commercial guidelines and program logging requirements. Basing its decision on the power of marketplace economics, the FCC reasoned "that we will best assure that the bedrock obligation contemplated by the 'public interest' will be fulfilled with the least government intrusion and with the most licensee flexibility" (p. 982). Fowler and Brenner (1982) argued that the marketplace approach to broadcast regulation allows broadcasters to "enforce the paramount interests of listeners and viewers" through "perceptions of popular demand" (p. 241). Trauth and Huffman (1989) defined the marketplace approach to broadcast regulation as "allowing open markets to determine profit; refraining from achieving profit predictability through government regulation; eliminating protectionism; relying on market forces as an alternative to regulatory enforcement; and refraining from adopting technical standards in favor of market-determined standards" (p. 251). The FCC presumed that the marketplace would function as 'regulator' for radio stations. From a programming aspect, the deregulation decision, as well as subsequent decisions, passed the authority to determine what types of programming radio stations would provide to the economic players in local markets.

Just as the broadcasting industry asked for regulation in the 1920s, the financial realities of the industry in the 1980s dictated a deregulatory atmosphere. The Supreme Court interpreted the radio industry's ability to measure and provide programming for its listening audience in *Federal Communications Commission v. WNCN Listeners Guild* (450 U.S. 582 (1981)). Although a 'public' was complaining about a station's format change, the FCC's policy regarding content was to "rely on market forces to promote diversity in entertainment programming and thus serve the public interest" (cited in Carter, Franklin, & Wright, 1993, p. 143). Before the Fairness Doctrine stopped being enforced, the Commission released 1985's "Fairness Report." In this report, the Commission outlined its reasons for no longer enforcing the Fairness Doctrine. The major reason was that the public interest is "fully served by the multiplicity of voices in the marketplace today" (cited in Carter, Franklin & Wright, 1993, p. 281). The increased number of media outlets would naturally provide programming for the public interest.

**Measuring the Effectiveness of Public Interest Regulations**

Congress required the FCC to review telecommunications ownership rules on a biennial basis (Telecommunications Act, 1996). This requirement focused on the changing nature of the public interest standard related to local media ownership. In particular, the Commission's charge was to analyze the public interest standard of diversity in terms of economics. According to Section 11 of the amended Communications Act of 1934, the FCC "shall determine whether any such regulation is no longer necessary in the public interest as a result of meaningful economic competition" and requires that the Commission "shall repeal or modify any regulation it determines to be no longer necessary in the public interest" (Federal Communications

Commission, 1998a, p.1). Despite the focus on economic competition, the Commission attempted to recognize the importance of diversity.

In the first post-Telecommunications Act report on ownership, the FCC layered its evaluation of ownership in the public interest into viewpoint, outlet and source diversity (Federal Communications Commission, 1998a). The Commission defined each of these diversity measures:

> "Viewpoint diversity refers to helping to ensure that the material presented by the media reflect a wide range of diverse and antagonistic opinions and interpretations. Outlet diversity refers to a variety of delivery services (e.g., broadcast stations, newspapers, cable and DBS) that select and present programming directly to the public. Source diversity refers to promoting a variety of program or information producers and owners" (Federal Communications Commission, 1998a, p. 1).

Rather than limiting the diversity analysis to telecommunications industries, the FCC reasoned that other types of information providers such as the print media should be included in any analysis related to the diversity of the marketplace. After the passage of the Act of 1996, the FCC Commissioners released statements related to the paradox of competition and the public interest (Federal Communications Commission, 1998b). It was clear from the statements that two ideologies existed within the Commission. First, Chairperson Kennard, Commissioner Tristani, and Commissioner Ness supported the concept that a diversity of voices or ownership would provide the public interest in local broadcast markets. FCC Chairperson Kennard called for the Commission to "stay focused on the two key aspects of the public interest: promoting competition and promoting diversity" (Kennard, 1998, p. 2). Ness equated diversity with the number of antagonistic sources. According to Ness, "[a]ntagonistic sources can only be truly antagonistic (in the best sense of the word) if they are separately owned and genuinely

compete in the marketplace of ideas" (Ness, 1998, p. 3). Furthermore, Kennard argued that broadcast diversity rests in the ownership of broadcast properties: "Broadcast remains the way that most Americans get vital information about their local community. So retaining diversity of ownership of broadcast outlets is, in my view, vital to the democratic process" (Kennard, 1998, p. 3). On the other hand, Commissioners Powell and Furchtgott-Roth suggested that diversity was a subjective concept that was difficult to define. For example, Powell suggested that the FCC should evaluate diversity of ownership, programming and outlets separately and in combination before establishing a workable framework for examining telecommunications industries. Likewise, Furchtgott-Roth suggested that the FCC should uphold the ideals of the First Amendment by not placing limitations on government power in the regulation of broadcast market structure (Furchtgott-Roth, 1998, p. 6).

When the Commission decided to relax local television ownership rules, the free market camp collided with the structural regulation camp (Federal Communications Commission, 1999b, p. 1). According to the Order, "the Commission said the revised rules reflect the growth in the number and variety of media outlets in local markets, including cable and direct broadcast satellite, and the Commission's desire to permit broadcasters to realize the efficiencies of common ownership where consistent with its ongoing concern for diversity and competition in broadcast markets" (Federal Communications Commission, 1999b, p. 1). "'Increasing the number of outlets for community self-expression'" represents a "'long-established regulatory goal in the field of television broadcasting'" (Federal Communications Commission, 1999b, p. 1).

Throughout the history of FCC regulation and deregulation, the agency attempted to maintain certain core values of the public interest, convenience and necessity. These core values have included diversity, competition and localism (Besen, Krattenmaker, Metzger & Woodbury, 1984). For the FCC, measurement of these values required recognition of the number of antagonistic voices and the total number of outlets available in a market. The Commission equated a large percentage of different voices as a good indicator of diversity. Under the rubric of managed structure regulation, the ownership rules sustained these values with strict national and local ownership rules. At the national level, chains or groups of stations were limited to twenty-one or thirty-six total properties. Locally, managed structure regulations prevented one owner from controlling more than one, and in some cases, two media properties per market. When the policies of deregulation began lifting the ownership restrictions, the core values did not disappear. Deregulation did not delete the public interest goals of diverse ownership or competition. Regulators continued seeking the public interest by promoting diversity and competition. At the national level, owners of radio stations were allowed as many properties as financially possible. The new law allowed television owners to control as many stations as possible without reaching more than 35 percent of the national audience. Although there were some limitations as to the total number of properties one company could own at the local level, the nature of local media market structure changed. These changes created new types of media markets that required the updating of available theory.

## Theoretical Framework

Various researchers in the area of media economics have established industrial organization theory as an acceptable framework to analyze media markets (Chan-Olmstead, 1997; Wirth & Bloch, 1995; Busterna, 1988a). Industrial organization theory bases its explanations about economic markets within the structure-conduct-performance paradigm. According to the theory, the structure of a market determines the conduct of firms and subsequent performance of a particular market (Wirth & Bloch, 1995; Busterna, 1988a; Sheperd, 1985; Scherer, 1980; Stern & Grabner, 1970). In practical terms, this theory explains that the number and characteristics of particular organizations will determine the competitive behavior of these firms that will result in the satisfaction or dissatisfaction of the consumers in the marketplace.

One of the most important applications of the industrial organization model of economics is the ability to link market structure with market power. If a market contains a firm with market power, then the market might experience certain types of conduct from the dominant firm, resulting in an overall decrease in the market's performance (Ferguson & Ferguson, 1988). In particular, the dominant firm may use various pricing strategies to exclude current or potential competitors; or, a firm may use its power to differentiate its products or services to prevent other firms from entering the market. Therefore, it is important to define the structure, conduct and performance of a market. Once the structure of a market has been defined, then assumptions can be made about the conduct of individual firms and performance of that market.

Economists classified a market as a group of buyers and sellers exchanging substitutable goods and services (Picard, 1989; Sheperd, 1985). Unlike other industries,

local media exist in a dual product market -- the market for audience and the market for advertisers (Picard, 1989). Daily newspapers, local television stations and local radio stations compete for audience time on an intra-industry and an inter-media level. At the intra-industry level, each media type competes with similar media types for audience and advertising revenue. For example, a radio station will produce a differentiated product, or format, to attract a listener. Each station will compete against other radio stations for listeners and advertisers. At the inter-media level, each media type will compete with different media types for an audience and an advertiser. At this level, a radio station might compete with a newspaper in terms of time spent listening rather than time spent reading the newspaper. Likewise, the radio station will compete with a daily newspaper for a share of the local advertising revenue. Based on the complexity of a local media market, it is important to understand market structure both at the intra-industry and inter-media levels.

The structure of a market can be defined in terms of the size and distribution of owners, the amount of product differentiation, and the number of entry barriers within a local market (Albarran, 1996; Picard, 1989). For each type of local media industry, there will be a specific number of owners and owner types. In some markets, there may be one daily newspaper, three television stations, and ten radio stations. Each medium in this market would be a part of a newspaper, television and radio market structure where each firm would have an owner type and produce a media content product. In addition to the intra-industry market structure, the newspaper, television and radio stations exist in an inter-media market structure, characterized by the same structural elements.

The size and distribution of firms is an essential element in the economic definition of markets. According to theory, the greater number of similar firms leads to a more competitive market (Picard, 1989). Specifically, markets operate in perfect competition, monopolistic competition, oligopoly or monopoly. Monopolistic competition shares some similarities with oligopolistic competition. To be a market under monopolistic competition, a market must have a large number of producers, a degree of product differentiation, no entry barriers, no firm interdependence, and no market share above 10 percent (Sheperd, 1985). Under oligopolistic competition, a market will have small number of leading firms, some 'fringe' competitors, and a degree of interdependence among firms (Picard, 1989; Sheperd, 1985). One method to determine the structure of a market in terms of the size and distribution of firms is through a measure of concentration.

Market concentration provides an indication on the efficiency of market participants in delivering the product. A competitive market would include a number of firms providing a product for consumption. Market concentration "shows the extent to which production of a particular good or service is confined to a few large firms" (Ferguson & Ferguson, 1988, p. 39). If a market has a dominant firm, that firm will lead to entry barriers and prevent competitors from offering consumers an alternative product or service.

Overall, the structure-conduct-performance paradigm provides a useful framework for analyzing economic markets. Despite the successful application of industrial organization theory to studies of the media industry, recent research suggested the need to re-examine the basic premise of the paradigm due to rapid changes in media

market structures (Young, 2000). In particular, convergence and concentration have created new types of multi-channel media markets (Chan-Olmstead, 1997).

Based on a strict interpretation of the industrial organization theory, there are no mechanisms to deal with varying market structures. Young (2000) concluded that future research in industrial organization must get past the interpretation of the relationship between market structure and performance and observe the strategic interactions between competitive firms. Wirth and Bloch (1995) argued: "Strategic behavior undermines the direct links between market structure and conduct, such as those associated with static equilibrium models of perfect competition, monopoly and oligopoly" (p. 24). The relaxation of broadcast ownership rules changed the structure of the local media market. Television duopoly, radio market clusters and other 'new' ownership types have re-structured the media marketplace requiring further development of industrial organization theory.

According to Chan-Olmstead (1997), firms using similar strategies will form strategic groups to compete with other strategic groups within the multi-channel media environment. Depending on the level of interdependence, the strategic groups will behave in an oligopolistic manner on an intra-group basis; at the same time, the overall market will behave in a monopolistic competitive manner. Based on this model, one can begin to explore the local media environment using various market structures to predict certain types of conduct resulting in specific levels of market performance.

Media researchers classified the daily newspaper industry as existing in a state of monopoly (Albarran, 1996; Picard, 1989). In most markets, the newspaper industry has developed into a natural monopoly where one firm becomes so efficient in producing and

delivering its product that it becomes difficult for a competitor to exist in the same market. Recent research examined the status of newspaper market structure (Lacy & Davenport, 1994; Picard, 1994; Udell, 1990; Busterna, 1988b). Overall, the general trend within the newspaper industry indicated that the number of chain newspapers has doubled since 1960 (Busterna, 1988b). In addition, Lacy & Davenport (1994) concluded that the daily newspaper market was highly concentrated. Litman (1988) attributed the monopolization of the daily newspaper market to economies of scale and joint operating agreements. These results support the notion that the newspaper industry exists within a monopoly market.

An attempt to preserve competition and avoid the development of monopoly power within daily newspaper markets was the *Newspaper Preservation Act* of 1970, authorizing joint operating agreements. Despite this legal maneuver avoiding anti-trust action, research suggested the Act has failed to preserve many newspapers (Busterna, 1988b). In the case of the newspaper industry, local newspaper markets will remain in a monopoly structure until economies of scale and other entry barriers decrease.

The broadcast industries have wavered between oligopoly and monopolistic competition. In particular, structural regulations were designed to maintain diversity "through a multiplicity of sources, rather than within each source" (Bates, 1995, p. 5). The majority of research describing the structure of the broadcast industry focused on television (Howard, 1998, 1995; Bates, 1993; Larson, 1980). On a national level, Howard (1998) found that group ownership of TV stations reached an all-time high in 1995. At the local level, Bates (1993) analyzed local television market structure in terms of the audience and advertiser markets. Based on 1987 and 1992 data, Bates (1993)

concluded that the concentration levels were lower in the audience market than in the advertising market. From a radio perspective, few studies have explored the issue of ownership (Drushel, 1998; Chan-Olmstead, 1995). Drushel (1998) reported that there appeared to be movement toward oligopoly in the Top 50 radio markets. Chan-Olmstead (1995) found support for the notion that the relaxation of duopoly rules was leading to an expansion of ownership within local markets. Overall, the results of broadcast ownership studies indicated a level of competition on a national and local level. Despite these findings, the broadcast industry, unlike the print industry, had been limited in the number of broadcast properties one can possess in a single market. The new rules changed the structure of the broadcast marketplace.

Overall, it appears that each of the traditional, local media industries -- daily newspapers, local radio and local television stations -- have maintained or moved toward moderate or high levels of ownership concentration. In other words, fewer owners of local media are controlling larger numbers of local media outlets. Before deregulation, the FCC limited the number of radio and television stations one company could own. Research indicated that local markets were dominated by chain ownership of newspapers (Lacy & Davenport, 1994) and group ownership of television stations (Howard, 1995). However, the rules regulating the radio industry favored independent or small-group ownership of radio properties. After the decision to allow radio duopolies (Chan-Olmstead, 1995) and the passage of the *1996 Act* (Drushel, 1998), the local radio industry began to follow the tendency toward large group ownership.

## Linking Ownership with the Public Interest

Throughout the industry's development, several scholars have studied the market structure of the mass media (Nixon & Ward, 1961; Loevinger, 1979; Bagdikian, 1978, 1983, 1990; Compaine, 1982; Lacy, 1987; Waterman, 1991). The majority of these studies focused on ownership descriptions of national and local mass media industries (Nixon & Ward, 1961; Bagdikian, 1978, 1983, 1990; Compaine, 1979, 1982; Loevinger, 1979; Larson, 1980; Howard, 1989, 1995, 1998; Waterman, 1991), market competition (McCombs, 1972; Owen, 1978; Wirth & Allen, 1979; Dimmick & Rothenbuhler, 1984; Lacy, 1987; Powers, 1990; Waterman, 1991; Bates, 1993; Powers, 1993; Drushel, 1998) and the effects of market structure on market performance in terms of public interest programming (Busterna, 1988; Gormley, 1976; Prisuta, 1977; Wirth & Wollert, 1979). Overall, these studies indicated (1) a growing trend towards a concentration of ownership among a few media giants (Compaine, 1982; Bagdikian, 1990) and (2) a healthy debate on the actual of effects of media concentration on the public interest (Loevinger, 1979; Entman & Wildman, 1992; Jeffres, 1994; Iosofides, 1999; Napoli, 1999a). There is no question that there has been an increase in the levels of concentration for each local mass media industry; however, there is some doubt on the actual effects of concentration on market performance.

For media, the link between market structure and market performance has provided numerous research opportunities and yielded somewhat less than satisfactory results. The major area of research regarding the link between market structure and performance has been the development of media concentration. This research area

stimulated discussion in several different arenas ranging from government-sponsored symposiums to traditional scholarly research.

Before Ben Bagdikian wrote The Media Monopoly, he participated in a 1978 symposium on media concentration sponsored by the Federal Trade Commission. FCC Commissioners, economists, media scholars, industry representatives and several others participated in the two-day event and discussed the ownership trends in the print, broadcast, and other media technologies and the effects of ownership changes on media diversity. Most of the discussion centered on the impact of the recent cross-ownership ruling restricting the future development of local newspaper-television joint operations. James Dertouzos (1978), a professor of economics from Stanford University, provided the best assessment of the symposium in his paper concerning media conglomerates: "In assessing the role of markets and the participating agents, it is necessary to proceed with recognition of the complexity and interdependence in the competitive media environment" (1978, p. 472). Overall, the symposium provided the framework for future debates on the effectiveness of regulating media ownership.

The core issue of media concentration research is the effect of ownership on the performance of a media market. If a company controls the majority of the media outlets, then that company can monopolize the dual product of media -- the audience and the advertiser. Bagdikian (1990) contended that media concentration would stifle the diversity of viewpoints available to the American public. In his research, Bagdikian has used national data to argue that the majority of information and entertainment options are controlled by a few companies. For critics of media concentration, the public interest is not served by monopoly control of local information outlets. A different perspective

suggested that media concentration does not exist because of the numerous local media options provided to the audience (Loevinger, 1979). According to Loevinger, television stations, radio stations, newspapers, cable systems and various other types of media outlets provide an acceptable level of diversity. One of the assumptions of both perspectives is that source diversity correlates with a diversity of viewpoints. Although some researchers have complained about the difficulty in linking source diversity with content diversity (Chan-Olmstead, 1996), there are few alternatives to measuring an ever-changing media environment.

One of the primary areas about media ownership regulation concerned the government's management of media concentration. As a rule, the concentration of ownership in a media market was seen as a detriment to the public's welfare; in other words, a harm to the marketplace of ideas. For the better part of the 20th century, the market structure of broadcast industries were managed by the FCC to prevent the monopolization of frequencies. As the 1980s ushered in a wave of deregulation, ownership restrictions, once placed to prevent the development of market power, were relaxed for both radio and television. Under both regulation and deregulation, research explored two main areas of media concentration -- ownership type and program choice.

*Types of Ownership*

For newspapers and broadcast stations, one of the key issues of market structure has concerned the type of owner controlling the media property. Individual newspapers can be classified as an independent, a joint operating agreement or as a member of a chain. Individual broadcast stations are defined as an independent, a group member, a duopoly or an local marketing agreement. Independent newspapers or broadcast stations

have been characterized as having a local owner. As a JOA (newspaper), duopoly or LMA (broadcast), newspapers or broadcast stations have combined with another local newspaper or broadcast station (same type). In theory, these types of shared service arrangements maintain diversity by keeping separate editorial departments. However, in practice, the economic interest in maintaining two outlets creates a one-owner situation. Finally, a chain or group newspaper or broadcast station means that the outlet is part of a regional or national company with other like media in other markets. Although independents can develop a degree of local monopoly power, critics using arguments about localism and community involvement focus attention on the development of chain newspapers or broadcast group stations.

For the newspaper industry, past research has indicated mixed support for the argument that chain ownership has a negative effect on the amount of diversity. Hale (1988) used 16 editorial diversity measures to analyze chain and independent newspapers. Of the 16 measures, only one of the editorial diversity measures for chain newspapers differed from independent newspapers. According to Hale, chain newspapers did not devote fewer editorial pages and/or content than independent newspapers. Although this research focused on the concept of diversity, the majority of newspaper research dealt with issues related to diversity. Demers (1991) discovered some support that corporate structure was related to the emphasis on profits at chain newspapers. While there was partial support emphasizing the difference between independent and chain newspapers regarding the emphasis on profits, Demers did not find support for the notion that chain newspapers would place a greater emphasis on product quality than independent newspapers. Lacy & Fico (1990) found no effect on

news quality based on ownership type. Donohue, Olien and Tichenor (1985) suggested that papers with multiple newspaper ownership interests outside the state of Minnesota reported local conflict at a lower rate than papers with in-state owners. Finally, Picard (1989) concluded "locally owned papers tend to do a better job of covering community controversies as news, but there is evidence that chain-owned papers – perhaps because they are less affected by adverse local reactions – take more editorial positions on local issues than do local papers" (p. 80). Generally, there appears to be little difference in the effect of newspaper ownership-type on the diversity of the newspaper content.

From a broadcast perspective, past research resembled the results of newspaper industry studies (Busterna, 1988c; Gormley, 1976; Prisuta, 1977; Wirth & Wollert, 1979). Regarding broadcast diversity, Howard (1995) concluded that diversity existed since 150 different entities owned the 547 group-owned stations in the top 100 television markets (p. 395). Besen and Johnson (1985) reviewed research concerning the effects of group ownership on broadcast diversity. After their review, Besen and Johnson concluded that group ownership does not create market power and has little effect on content. Like newspaper research, some studies have examined the ownership and its effect on issues related to diversity. Wirth and Wollert (1979) concluded "being owned by another media firm (either within the same city or in another city) has very little effect on public interest program quantity performance" (p. 326). Lacy and Riffe (1994) studied the effect of radio group ownership on radio news. The authors concluded that group ownership had no impact on financial commitment or local emphasis in radio news coverage. In related research, Riffe and Shaw (1990) suggested group ownership had a positive effect on the amount of radio news programming.

Overall, the type of owner for a newspaper or broadcast station does not appear to have a negative effect on the amount of content diversity. Particularly for broadcast stations, the amount of news programming and the level of diversity might be increasing rather than decreasing. Although these empirical studies provided mixed results, it is important to examine the related aspect of conduct when thinking about the effects of owner type on the performance of the market.

The major argument concerning the conduct of media firms is the development of market power. One of the primary concerns of deregulation critics has been that market power would result in a decrease in diversity. In particular, past research has questioned the ability of monopoly firms to stifle competition with high entry barriers, pricing strategies and other types of competitive leverage to prevent the development of competitors.

Past research concerning the conduct of monopoly and competitive newspapers provided little support for the argument that monopoly papers decrease the level of diversity. After summarizing past research into editorial differences between competing and monopoly newspapers, Picard (1989) found no important differences in the amount of news or editorial content. Lacy (1988) concluded that newspapers operating under joint operating agreements resembled competitive and monopoly newspapers when considering allocations to wire services, reporters and news space. Based on these findings, issues of diversity are closely related to the level of competition within the newspaper market.

For newspapers, competition forces individual firms to alter content in order to maximize the number of readers. In general, studies supported the notion that

competition will have a positive effect on the number of services provided to the consumer (Wanta & Johnson, 1994; Lacy, 1990, 1989). Unfortunately, research has indicated support that non-competitive markets will give monopoly newspapers the opportunity to decrease the amount of hard news content (Wanta & Johnson, 1994).

Studies into the area of broadcast conduct and diversity issues followed the trends in newspaper conduct research. Broadcast conduct research has focused on competition within network television news programming (Dominick & Moffett, 1993; Powers, 1993; Powers, 1990; Atwater, 1984) and network entertainment programming (Lin, 1995; Grant, 1994). In general, the studies indicated that an increase in competition increased the level of program-type diversity. Apparently, competition in the local television news market relates to an increase in the amount of news and in the types of news stories (Powers, 1993; Dominick & Moffett, 1993).

Like newspaper firms, the conduct of broadcast stations within a market is related to the level of competition. As a result of this competition, it appears as if broadcast stations and newspapers alter their conduct – to the benefit of consumers. Overall, the degree of competition determines the individual conduct of media firms. Theoretically, the greater the competition among media firms, the greater the level of content diversity. Since media firms are in the business of creating and maintaining audiences, the more competition for the audience, the more likely an individual firm will differentiate its product in response to audience demand.

Overall, it appeared that there were similarities between the print and broadcast research into the area of media concentration. In terms of structure and conduct, past research into the broadcast industry corresponded with similar research into the

newspaper industry. Generally, there were found to be few differences in the effect on diversity due to ownership type. In addition, there were similarities regarding the level of competition and the level of diversity in broadcast television and newspaper markets. From a structural and conduct viewpoint, media mergers do not seem to have a negative impact on media diversity. However, it is important to consider the effect of ownership on the amount of choice in the marketplace of ideas.

*The Steiner Model*

According to industrial organization theory, market structure and conduct are related to the performance of a market. A second area of research related to media concentration research has developed from the audience perspective. This area of research focused on the amount of choice provided by outlets to the audience. Entman and Wildman (1992) characterized program choice as product diversity. According to Entman and Wildman, "product diversity is the range of variation in product attributes that are available (or potentially available) in a particular product or service (1992, p. 8). The program choice or product diversity literature started with the development of niche programming of radio in the 1950s.

The majority of research focusing on broadcast competition and the availability of program choice has a link to Steiner's (1952) landmark study into the workable competition of the radio industry. Steiner maintained that competition led to program duplication. This program duplication did not serve the public interest. Steiner suggested the "problem…is that a series of competing firms, each striving to maximize its number of listeners, will fail to achieve either the industry or the social good" (p. 206). This tendency led to the idea of a discriminating monopolist would produce a radio

market where there is a high degree of diversity for radio program choices. A monopolist would attempt to maximize the entire market – not just a segment.

For example, if a monopolist controlled all five stations in a radio market, then he/she would not duplicate programming. There would not be a reason to duplicate programming on more than one station. On the other hand, a competitive market would be more likely to have program choice duplication. The primary reason is the division of the audience into non-equal segments; in other words, there would be a majority preference for a particular program type. According to the Steiner model, at least two stations would 'divide' the majority preference audience and provide the same type of programming to attract that audience. This competitive situation would result in a degree of duplication within the radio market.

For Steiner, the diversity in local markets varied directly with the number of competing signals in a market (Steiner, 1952; Haring, 1975). The only way a broadcast system would be able to provide an acceptable level of program choice diversity would be for a considerable increase in the number of competing stations. Until that time, minority-interest programming will not be served by competition.

There were several problems with the Steiner model. First, the model required an unreasonably high number of assumptions. Second, Steiner assumed that there was no value in listening to a particular radio program. Despite these problems, the Steiner theory spawned a valuable academic debate about the relationship between ownership structure and the provision of broadcast programming.

## Steiner Applications

Since Steiner, there have been few attempts to study the effects of broadcast competition and radio program choice (Wiles, 1963; Haring, 1975; Owen, 1977; Glasser, 1984; Greve, 1996; Rogers & Woodbury, 1996). The majority of research in the area of broadcast competition and program choice has been focused primarily on the structural aspects of advertiser-supported and pay television (Noll, Peck, & McGowan, 1973; Owen, Beebe & Manning, 1974; Spence & Owen, 1975; Owen, 1975; Spence, 1976; Spence & Owen, 1977; Noll, 1978; Owen & Wildman, 1992), the number of channels available on cable television (De Jong & Bates, 1991), content aspects related to the conduct of various media such as television and cable television (Grant, 1994) and the home video and theatrical marketplace (Hellman & Soramaki, 1994; Waterman, 1992). Overall, there has been a distinct difference in the theoretical applications between the television and radio industries.

## The Steiner Model and Television

For the most part, the studies dealing with television have rejected the Steiner theory on the basis of audience preferences. Economists such as Noll (1978), Spence and Owen (1975), and Owen and Wildman (1992) have refuted the Steiner examples by analyzing the advertiser-based and pay television-based systems of delivery in terms of audience preferences. Owen (1978) argued against the Steiner model on the basis of "unrealistic assumptions about the structure of viewer preferences" (p. 45). Overall, these economists pointed to audience preferences as the most important variable in the program choice equation.

Related to the structure and influence of audience preferences to program choices, research tested the Steiner model in terms of industry structure. According to Owen (1978), "monopolistic competitors (that is, firms which are small relative to the market but which produce products which are not perfect substitutes for one another) tend systematically to underproduce a certain kind of product" (p. 45). Spence and Owen (1975) rejected the idea of a monopolist supplying more diversity: "an advertiser supported monopolist produces fewer programs – and has the same biases – as a competitive advertiser-supported system" (1975, p. 164). Noll (1978) qualified Steiner's theory of a discriminating monopolist providing a higher degree of diversity than a competitor: "First, monopolists will diversify programming only if the net gain from a new program type offsets its costs, whereas a competitive network will make decisions based upon its total audience" (1978, p. 254). In addition, Noll argued "viewers of the mass audience programs may not be indifferent between one versus two simultaneous programs of the same type" (1978, p. 255). In other words, the viewing audience will make discriminating choices between programs; the audience member will have certain preferences in selecting video programming.

Modern program competition models have attempted to account for the lack of consideration for audience preferences found in the traditional models (Owen & Wildman, 1992). In the modern program choice models, there is some support for the Steiner hypothesis. According to these models, a monopolist might provide diversity in programs -- if audience tastes are homogenous and the service is priced at a marginal cost of zero (p. 148).

The Steiner Model and Radio

Overall, the traditional and modern models of program choice reject the Steiner theory – for television. Owen (1975) and Noll (1978) acknowledged the differences between the television and radio industries. Owen (1975) argued that the major difference between television and radio was the latter industry's wide range of program types and the number of competitors. Further, Owen suggested there would be more freedom of expression if the television industry were structured like the modern radio industry. In other words, the larger number of competitors, the larger number of viewpoints. Noll (1978) found support for the Steiner model when applied to the radio industry. It appeared as if increased competition (number of competitors) has led to a variety of formats.

Explicit tests of the Steiner model have provided mixed results. Recognizing the distinct differences between the radio industry and the television industry (large number of competitors and program choices, uniform distribution of tastes, listener preferences of more than one station, no identical costs, and advertiser interest in audience demographics), Owen (1977) concluded "the Steiner models tell us exactly nothing about the efficiency of competitive advertiser-supported radio broadcaster, because they contain no information on the strength or intensity of consumers' preferences" (p. 312). For Owen, the presence of advertising and the continuous change of consumer preferences provided the necessary system of checks and balances needed to ensure the level of diversity in local radio markets.

Regarding program choice and diversity, the literature has provided mixed support for the Steiner conclusion about the positive correlation between the number of

competing signals and the level of diversity (Haring, 1975; Rogers & Woodbury, 1996). First, Haring (1975) used Levin's (1971) index of diversity to test the level of radio format choices in local radio markets. Overall, both studies supported the model predicting that an increase in the number of stations would result in higher programming diversity. However, Haring (1975) concluded "the distribution of listener preferences is such as to require relatively large numbers of competing signals (20 or more) to generate 'minority' programming formats in the existing advertiser supported system" (p. 107). In addition, Haring found that the current system of radio programming in local markets produced a higher proportion of 'popular' programming than 'minority' programming. Rogers and Woodbury (1996) agreed it would take an unrealistic addition to the number of radio stations licensed per market before any considerable changes in format provision would be realized. For example, "[a]n increase in the number of stations by 10 percent will increase the number of formats by only 2 percent" (p. 91). These findings suggested that the addition of stations or media outlets to a market does not guarantee an increase in the level of diversity.

Overall, the program choice literature indicated the importance of the dual product nature of broadcast programming. Audiences and more importantly, advertisers, play an integral part in the media diversity equation. In addition, initial tests of the Steiner theory suggested that a monopolist would provide more diversity than a competitor due to the nature of program duplication. Finally, the results showed that while an increase to the number of stations in a market provides some increase to the level of program diversity, it requires a large number of stations in the market. The

program choice literature expanded the theoretical basis for analyzing media concentration.

## Summary of Literature Review

In summary, the structure-conduct-performance paradigm has provided researchers and policymakers with several different assumptions about the effect of media concentration. First, there have been different approaches to the management of market structure at the national and local level. Second, empirical studies about the effect of regulation or deregulation produced mixed results regarding the diversity performance of the local marketplace of ideas. Finally, the literature indicated a lack of attention paid to the influence of the actual economic marketplace on the notion of media diversity.

For years, the federal government maintained a level of ownership diversity with specific rules and regulations regarding the structure of broadcast and cable markets. In particular, the FCC highlighted the need to maintain ownership diversity with a wide variety of voices in a local market (Gormley, 1976) and with an emphasis on local ownership (Compaine 1979). From the *Report on Chain Broadcasting* (Federal Communications Commission, 1941) to the *Cross-Media Ownership Rule* (*Broadcasting* (Federal Communications Commission, 1975), the FCC attempted to maintain local control of broadcast properties. However, the 1980s brought a decade of deregulation to the broadcast industry when the federal government began relaxing ownership rules and the concept of localism.

The deregulation of the broadcast ownership rules allowed radio and television group owners to expand into several different markets. Instead of being limited to seven, twelve or twenty markets, broadcast group owners could purchase across markets to

become owners of hundreds of radio and/or television stations. For example, before 1992, Clear Channel Communications could not own more than 40 radio stations. In 1996, Clear Channel owned 102 radio stations; currently, the company now controls more than 800 radio stations. Locally, the deregulated radio ownership rules allow owners like Clear Channel to control up to eight stations in the largest markets and five stations in the smallest markets.

The new local ownership rules for radio allowed companies to create a new type of local radio organization, the local radio cluster. According to the rules, in markets where there are 45 or more stations, one company can control up to eight stations with no more than five in the same service. In markets where there are at least 30 stations, the rules allow a company to control up to seven stations with no more than four in the same service. For markets with 15 to 29 stations, a company can own up to six stations with no more than four in the same service. Finally, in the smallest markets with one to 14 stations, one company can control five stations with no more than three in the same service. In addition, small market radio operators cannot control more than 50 percent of the audience and/or revenue with their total number of stations. These new ownership rules appear to favor ownership diversity in the large markets. For small markets, the rules, regardless of the audience cap of 50 percent, do not favor ownership diversity. For example, if a radio owner controlled the limit of five stations in the smallest market, that owner would control 35 percent of the stations in the market (if there were 14 stations in the market). As you move up the FCC's scale, the percentage of outlet ownership decreases. In the largest markets where there are at least 45 stations, one company can only control 17% of the total number of stations. Mathematically, it seems as if the FCC

ownership policies limit the diversity of owners in smaller markets; therefore, the policy changes provide an excellent opportunity to explore the trends of ownership diversity in the smaller markets.

Another aspect of the changes in the ownership rules has been the abandonment of the localism concept in favor of absentee media ownership (Sterling, 1975; Bagdikian, 1995). Sterling (1975) described the level of group ownership in local television and daily newspaper industries, finding that the control of stations by groups, chains or conglomerates across media markets increased from 1950 to 1970. Howard (1998) reported that 80 percent of the television stations in the top 100 markets are controlled by groups, the size of television groups is expanding, and the level of cross-media ownership between newspaper owners and television groups has stabilized. For the newspaper industry, Busterna (1988a) reported that the number of competing newspapers has decreased while the number of larger chains buying small chains has increased.

The local mass media of the 1990s have experienced numerous changes in the structure and competitive nature of media markets. Overall, there has been a concentration of ownership for daily newspapers, television stations, radio stations and cable operators (Albarran & Dimmick, 1996). Unfortunately, the majority of the studies exploring concentration have been limited to the largest markets (Haring, 1975; Sterling, 1975; Howard, 1995). Most of the research that has focused on markets of all sizes have been limited to the newspaper industry (Busterna, 1988a; Lacy & Davenport, 1994). The lack of research about the smaller markets combined with the new local ownership rule structures for the radio and television industries, highlight the need to explore market structure from a small market perspective.

The number of competitors appears to be increasing and the lines of competition continue to become blurred. Most of the research into the actual effects of media concentration failed to provide concrete answers to the theoretical questions concerning the best model of public policy. Theoretically, there are two schools of thought governing the FCC's ownership policy. Both schools of thought attempt to maintain diversity of ownership and content through differing philosophical approaches to the degree of competition within local markets. The first school of thought, a political economy approach, underscored the need for government intervention to maintain certain types and amounts of social, political and cultural media content (Entman & Wildman, 1992; Bagdikian, 1995; Napoli, 1999a; Iosifides, 1999). According to this model of regulation, government policies restricting the number and type of broadcast media owners would help prevent the development of firms with monopoly power and the consequences of media concentration (Entman & Wildman, 1992; Bagdikian, 1995). At the other end of the spectrum, the second school of thought, the open-market approach, relished the ideals of economic efficiency providing favorable environments for technological development and product diversity (Loevinger, 1979; Entman & Wildman, 1992; Napoli, 1999a; Iosifides, 1999). The open-market school of thought favored the ideals of marketplace theory to provide diversity within the marketplace of ideas. Despite the extensive theoretical development of these schools of thought, most of the research in the area of media concentration has been unable to empirically support one school over the other. The problem for most of the research has been two-fold -- the limitation of an intra-industry research focus and the inability to measure one variable across media.

Overall, the quantitative research about media concentration has not focused on cross-media comparisons in local markets. Studies using national aggregate data or studies dealing with single media industries have constituted the majority of research in media concentration. Despite the lack of quantitative research supporting or refuting the effects of media concentration, many researchers have studied issues of media ownership, chain ownership and media mergers and acquisitions (Compaine, 1982; Waterman, 1991; Ozanich & Wirth, 1993).

Typically, media economists conceptualized the local media industries as existing in separate product markets. Out of this limitation grew a limited number of studies devoted to the issues of local, inter-media competition (Nixon & Ward, 1961; Loevinger, 1979; Wirth & Allen, 1979; Wirth & Bloch, 1985; Lacy, 1987; Waterman, 1991). Unfortunately, the majority of these studies focused on the introduction of a new medium such as radio, television or cable and its effect on an existing medium such as the daily newspaper (Lacy, 1987). Little research has explored competition in terms of a broader-defined market where more than two types of competitors exist.

The second problem associated with the mixed results of the previous studies has been the inability to develop a diversity measure across media types. From an ownership perspective, measures of diversity have ranged from simple ratio measures of owners to outlets (Sterling, 1975) to sophisticated concentration ratios using market share (Bates, 1993). Each technique has advantages and disadvantages. Obviously, the concentration ratios using market share provide accurate descriptions of the amount of competition in a market. Although market share information is widely available, the lack of information in smaller markets might explain the reason there is a lack of research related to media

concentration in small markets. In addition, smaller markets pose problems in the calculation of concentration ratios because of the wide distribution of market shares. Policymakers must be able to formulate a measure of ownership diversity in the smaller markets that does not require market share information.

Related to the issue of measuring ownership diversity is the difficulty in the measurement of content diversity. In theory, all media provide information; however, in practice, the technology differentiates the reception of the information. Lacy and Vermeer (1995) outlined several methodological approaches to measuring newspaper and television news competition. The researchers called for further research exploring the intermedia relationships of news. Busterna (1988c) studied various types of television ownership structures and the amount of news, public affairs and entertainment programming on local television stations. In his study, Busterna (1988c) assumed that "local programming serves the public interest better than non-local programming" (1988c, p. 64). For Busterna, news and public affairs programming "served the public interest better" than other types of programming such as sports and entertainment" (1988c, p. 64). The presence of news in a market has been associated with the marketplace of ideas. Markets where there are fewer local news outlets would be associated with lower levels of diversity within the marketplace of ideas.

The final area of concern based from the review of the literature was the apparent lack of consideration given to the effect of local market factors on the development of media concentration. Although the FCC's *Carroll* Doctrine recognized the availability of economic resources, few policies since that time have factored local market characteristics into ownership policies. Most of the concentration research (Nixon &

Ward, 1961; Sterling, 1975; Busterna, 1988c; Howard, 1995; Drushel, 1998) failed to account for local economic factors when exploring the effects of ownership. Some studies have accounted for certain market variables (Lacy, 1987; Bates, 1991; Bates, 1993). In a study about newspaper competition, Hagner (1983) isolated five market characteristics of competitive newspaper markets. Hagner found that the number of cities in the standard metropolitan statistical area, the population size, the proximity to a larger metropolitan area and the land area were predictive of the competitive status of a newspaper market. Lacy (1987) reported that during the early days of radio "a market with a growing economy could have supported two newspapers and several radio stations" (p. 781). Furthermore, research in the area of urban growth found that firms active in the merger process tend to buy companies in larger market areas (Blair & Endres, 1991).

**Measuring Media Diversity and the Public Interest**

The problem with the public interest concept of diversity is the inability of developing an effective measure for evaluating media diversity within markets. Essentially, there have been two areas of concern hindering the development of an appropriate evaluative tool. First, there is the problem of rigorously defining media diversity. The second problem area is the definition of a local media market. Each of these areas has limited the number of major analyses of local media diversity, especially in smaller media markets.

Overall, the primary function of the media is to provide information choices for the public. Based on past research, the two major public interest areas are the diversity of media ownership and the diversity of media content. Deregulation based on the

assumptions of marketplace theory presumed a diversity of outlets served the public interest. Loevinger (1979) supported the basic philosophy of marketplace theory by arguing that the sheer number of outlets available to the public created an acceptable level of diversity within the marketplace of ideas. However, it appears that the deregulation policies grounded in the assumptions of the marketplace are not serving the public interest. The relaxed ownership rules are not creating new competitors or new competition; rather, the initial evidence suggests that the traditional owners are consolidating properties and creating entry barriers for new competition (Drushel, 1998). Scholars such as Bagdikian (1983; 1990; 1997) warned of the consolidation and conglomeration of the mass media. Since 1983, Bagdikian (1983; 1990; 1997) argued that there have been a decreasing number of large conglomerates controlling the media content available to consumers. His primary concern was the control or ownership of the information choice. Bagdikian (1983; 1990; 1997) feared that monopoly control of information outlets would prevent the free expression of ideas in the American democracy.

The primary public interest goal of media ownership regulation is the achievement of a maximum level of diversity within the marketplace of ideas. Essentially, the political economy of the marketplace of ideas provides two different conceptualizations of media diversity. The current paradigm characterized media diversity from a source and a content diversity perspective (Entman & Wildman, 1992; Napoli, 1999a; Isofides, 1999). Within both of these conceptualizations, there are differing degrees of media ownership and content diversity. In theory, the highest level of ownership and content diversity would include a market where each media outlet had a

separate owner and provided a unique type of content. The problem for researchers has been the measurement of these concepts.

*Measuring Source Diversity*

Based on past research and court decisions, the concept of source diversity was linked to the idea that separate owners stimulate the marketplace of ideas. In particular, most researchers have agreed that daily newspapers, local television stations, and local radio stations play or have the potential to play a major role in the marketplace of ideas (Levin, 1954; Dertouzous; 1978; Olien, Donohue & Tichenor, 1978; Carroll, 1985; Lacy & Riffe, 1994). These local outlets for news and entertainment information participate in the marketplace of ideas and act as sources of information. Control or ownership of the source has been an important variable in the measurement of diversity. Scholars have linked the ownership of individual media properties with the diversity within the marketplace of ideas (Levin, 1954; Nixon & Ward, 1961; Sterling, 1975; Bagdikian, 1983). The theoretical link between diversity and the marketplace of ideas centered on the construct of free expression (Levin, 1954; Owen, 1975). In individual media markets, the ownership of information access influences the amount of free expression. In other words, a market where the sources of information are controlled by one entity is not as diverse as a market where the sources of information are controlled by several entities.

From an ownership perspective, a media owner controls the access and dissemination of media content to the public. Regardless of media type, media owners control the number of viewpoints mediated within the marketplace of ideas. Bagdikian (1983) argued that a diversity of ownership was a necessary requirement in order to have a diversity of viewpoints. Likewise, in responding to the FCC's consideration of further

relaxation of ownership rules for television, the Center for Media Education stated that "diverse ownership is necessary to ensure a diversity of viewpoints" (Media groups, 1998, p. 2). In order to measure this type of political diversity, media ownership needs to be distinguished from a media outlet.

A media owner represents an independent voice within the local marketplace of ideas. Economists characterized media diversity as evolving from the source of programming or the control of access to information (Owen, 1978). Sterling (1975) and Nixon and Ward (1961) defined a media voice as a separate, antagonistic owner of a media property within a local market. According to a coalition of 16 public interest groups criticizing the FCC's proposal to grant ownership waivers for local television station groups, the FCC should "require a minimum of 30 independent voices in any market before granting an ownership waiver" (Today's News, 1997, p. 1). Voices should not be confused with media outlets.

Some scholars have attempted to link diversity of opinion with the number of different media outlets within a local market (Loevinger, 1979). A media outlet differs from a media voice because an owner controls the value of the license through management decisions such as employment. In other words, owners control the outlets. Regulations dealing with licensing, joint operating agreements and other ownership restrictions control the number of outlets any media owner can operate within a local market. Industry supporters of deregulation decisions such as the *Telecommunications Act of 1996* argued that the high number of media outlet alternatives supplies the local marketplace of ideas with viewpoint diversity. According to representatives from the ABC television network, "there has been 'explosive growth in the number and diversity'

of alternative media outlets, including 'vastly increased' cable penetration and the arrival of DBS and the Internet" (Media groups, 1998, p. 1). Likewise, the Newspaper Association of America, which supports the relaxation of the cross-media ownership ban, stipulated that "cross-ownership restrictions 'clearly are not necessary to ensure diversification or safeguard competition" (Today's News, 1997, p. 1). Despite these types of arguments promoting outlet diversity as an acceptable definition of viewpoint diversity, the economic control of media outlets lies with the voices, or media owners.

Using these 'media voice' and 'media outlet' distinctions for local media ownership, a maximum level of diversity would equate an owner for each individual media property. In a less diverse market, there would be fewer owners controlling more media outlets – or fewer voices within the marketplace of ideas. If a market operated with a one to one ratio, then that media market would provide the public interest with the maximum number of available viewpoints within the marketplace of ideas. This maximum diversity level for media content would allow an audience member to have access to all available information choices in the daily newspaper, local television, and local radio industries. Therefore, the diversity measure would be a market proportion of voices to outlets for each media market.

The majority of policy decisions related to the structure of local media markets have been economic in nature. Essentially, government agencies such as the FCC, the Supreme Court, and the Justice Department used economic rationales to prevent the development of media monopolies for radio and television. For the most part, economics allowed daily newspaper industry and cable television industry to develop into natural

monopolies. Overall, the primary goal of regulation targeting the market structure of local media was to prevent anti-competitive situations within individual industries.

A major concern for government regulators has been the ability of powerful media companies to prevent the entry of new media competitors. For the broadcast industries, the duopoly rule, combined with strict local licensing policies, prevented companies from establishing economies of scale that could lead to entry barriers. However, the passage of such policies such as the *Telecommunications Act of 1996* eliminated these types of structural restrictions and provided an atmosphere conducive to the development of scale economies and, possibly, entry barriers. In other words, deregulation has led to a situation where 'the big get bigger.'

Several researchers have studied the issues of economic diversity and media ownership (Sterling, 1975; Waterman, 1991; Bates, 1993). Using measures of concentration, researchers traced the increasing concentration of ownership for daily newspapers (Lacy & Davenport, 1994), radio (Drushel, 1998) and local television (Powers, 1990). The problem with these types of studies is the results are industry specific; there is not a standard to measure concentration across media types. An appropriate method of standardizing 'concentration' at the local market level would be the calculation of proportions for the various ownership types (Sterling, 1975).

Like the political marketplace of ideas, the control of the marketplace of ideas needs to be analyzed according to the diversity in the types of economic voices available within a market. However, the economic public interest should focus on the media's other audience – the advertiser. To support their outlets, local media voices compete with each other within the advertising revenue market. Just as the FCC used regulation or

deregulation to maintain the public interest in the political marketplace of ideas, the Commission used the same rationales to justify policies targeted at preventing monopoly control of advertising revenue within a local market. From *Report on Chain Broadcasting* (Federal Communications Commission, 1941) to the updated *Local Television Ownership* rules (Federal Communications Commission, 1999a), the Commission recognized the economic factors related to broadcast market structure. Under the political economy approach to broadcast ownership regulation, the FCC based its decisions related to the degree of competition within local markets by limiting the number and type of radio and television station owners. For the open-market approach to broadcast ownership deregulation, the FCC has relaxed local radio and television ownership rules to maintain competition within local markets. Overall, the goal of regulation and deregulation has been competition. A competitive media market should effectively utilize the available advertising revenue in a local market. From a diversity perspective, a media advertising market existing in a state of perfect competition would be characterized by a large number of similar firms setting prices according to amount of advertiser demand (Picard, 1989; Albarran, 1996). In this type of situation, no one firm would command monopoly or oligopoly power and set monopoly pricing and advertisers could efficiently distribute the available advertising revenue across the economic marketplace. By effectively distributing the revenue across the media market, the 'economic' marketplace of ideas would benefit as a level of economic diversity could be achieved. A market with economic diversity would be characterized by a large number of firms reacting to rather than manipulating demand.

Overall, there are three approaches to measuring this economic diversity concept. First, the distinction between an economic voice and outlet needs to be made. For the electronic media, there are two types of outlets, commercial and non-commercial. A commercial outlet is one that seeks advertising revenue from the marketplace. A non-commercial outlet is one that does not seek advertising revenue. Although a non-commercial outlet does not compete for advertising revenue, non-commercial outlets do compete, in a sense, for the audience. Some of the financial support of non-commercial outlets comes from the support of audience members. There is some degree of competition for the audience between commercial outlets and non-commercial outlets. As the number of non-commercial outlets increased in a market, the degree of competition for available audience and advertising revenue should increase as well. Therefore, one measure of diversity within a market would be the number of non-commercial outlets.

A second approach to measuring the economic diversity of a market will focus on the type of economic voice. Critics of media concentration (Compaine, 1982; Bagdikian, 1997) argued about the effects of group ownership on the ability to generate economies of scale and scope that would ultimately damage the marketplace of ideas. According to these critics, group owners will use market power to create barriers to entry and use monopoly pricing strategies to restrict local, independent media owners from effectively operating within a local media market. Industry data suggested the growth in the level group ownership for radio and television and the decline of independent owners (BIA, 1999a; BIA, 1999b; McConnell, 1998). The decrease in the number of independent owners within media markets relates to the loss of a type of economic voice and a

subsequent reduction in the degree of local media diversity. Therefore, an effective measure of economic diversity in terms of media ownership type would compare the number of local owners with the number of absentee owners in a market. Specifically, a proportion of local owners to absentee owners would provide a useful measure of local ownership diversity. A large proportion would indicate more local owners in a market and a higher level of local ownership ties to the market.

In order to measure this type of economic diversity, a typology of media ownership needs to be developed. Although newspaper and broadcast ownership types have been characterized with several different terms (Sterling, 1975; Waterman, 1991), this dissertation will limit the typology by classifying the media as being locals or absentees (Sterling, 1975). Building on Sterling's definitions, a local medium will include any local broadcast, newspaper or cable owner who does not own or control any other medium. A local multiple is a local owner who controls more than one broadcast station or newspaper or cable operation within a local market. A local cross-media owner is an owner who controls a local combination of broadcast and newspaper, broadcast and cable, or cable and newspaper but does not own any media properties outside the market. A local cross-media owner can be classified as either a local or an absentee. An absentee owner is characterized as an owner who controls the same or different type of media in at least one other market.

A current issue related to the classification of ownership type is the duopoly or local marketing agreement. Since 1970, there have been regulatory decisions that have allowed common economic or editorial control of more than two same-type media. For newspapers, the Supreme Court allowed Joint Operating Agreements (JOA) between

local newspapers. For broadcast, Local Marketing or Management Agreements (LMA) allowed the common economic control of two or more broadcast stations. These regulatory policies allowed the combination of local media properties when one was in danger of shutting down. Although the rationale behind these policies required the maintenance of separate editorial departments for each JOA or LMA, the economic control of common properties led some critics to scrutinize the ability of management to separate economics from content. Specifically, the Media Access Project argued: "There is no diversity of viewpoint where a large number of offerings are under common economic or editorial control" (Today's News, 1997, Communications Daily, p. 1). Based on this argument, a JOA or LMA should be considered as a single ownership entity.

*Measuring Content Diversity*

Another aspect of media diversity is the media content. From this perspective, there is the assumption that the type of media owner will influence a specific type of media content (Riffe & Shaw, 1990; McChesney, 1997). In particular, the concern about the influence of ownership in content has focused on issues related to the amount and type of available news programming (Gormley, 1976; Busterna, 1988c; Hale, 1988; Gaziano, 1989; Lacy & Fico, 1990; McKean & Stone, 1992; Coulson, 1994; Lacy & Riffe, 1994; Wanta & Johnson, 1994; Blankenburg, 1995) and the relationship between staff and content (Riffe & Shaw, 1990; Demers, 1993; Stamm & Underwood, 1993; Albarran & Ludwig, 1995). Critics of deregulation often link the homogenization of media content with the concentration of ownership across markets (Bagdikian, 1985; McChesney, 1997). The critics assume that the type of ownership will have a negative

impact on the diversity of media content (Bagdikian, 1997). In particular, there is the strong suggestion that group or corporate owners will decrease the diversity of media content (McKean & Stone, 1992; Greve, 1996). However, the majority of studies concerning the effect of media ownership with content diversity have indicated mixed results at best (Besen & Johnson, 1985; Lacy & Riffe, 1994). Overall, it appeared that there are both positive and negative effects linked to the type of media owner and the type of media content.

Since the studies have been inconclusive regarding the effect of group or independent ownership on media content, there are two approaches to measuring this type of diversity. First, a primary goal of the political marketplace of ideas is the idea of an informed citizenry. Most research into the issues of media ownership and content has linked the marketplace of ideas with the presence or absence news content (McKean & Stone, 1992; Lacy & Riffe, 1994; Bates & Chambers, 1996; 1997). While entertainment content has the potential to make some sort of contribution to the marketplace of ideas, the link between news content and the idea marketplace is undeniable. If one assumes that local media, like daily newspapers, local television stations, and local radio stations can be classified as either a news provider or an entertainment provider, then a viable measure of political media content diversity can be generated. For example, daily newspapers, a radio station programming a news format, or a local television affiliate with a local newscast can all be considered as a contributor to the local marketplace of ideas. On the other hand, radio stations with a popular music format or local television stations with no local newscast would be considered as entertainment channels. From a diversity perspective, the assumption is that if a market has more news operations then

the marketplace of ideas will be more diverse than in a market with fewer news operations. Therefore, a larger number of news outlets in a market would show a higher degree of content diversity and a broader marketplace of ideas. On the other hand, a smaller number of news outlets would indicate a market where the idea marketplace was limited by a smaller number of news providers.

A second approach to measuring content diversity would be to concentrate on the number of wire services and network affiliations available to local media outlets. Each type of media relies on various wire services such as Associated Press, CNN and many others. These types of services provide content about national and regional issues. At the local level, daily newspapers, radio stations and television stations depend on these types of services to help fill the news hole. A diverse media market would maximize the number of available wire services and network affiliations. A less diverse market would limit the number of these types of services. Using this approach to content diversity would allow a comparison to the total number of wire services used on a national and local basis.

## Research Design

The major problem with the traditional diversity studies of Bagdikian (1983, 1985) and Loevinger (1979) was the inability to examine local media ownership on a broad scale. In particular, Bagdikian (1983) focused on the effects of the national conglomeration of the mass media. On the other hand, studies examining the local media ownership structure typically have only analyzed single industries such as daily newspapers (Lacy & Davenport, 1994), radio (Drushel, 1998), or television (Howard, 1998). For the most part, the inherent problems with cross-media market definitions

prevented the effective analysis of local cross-media ownership structures and the diversity of those structures. Therefore, an effective local cross-media research design needs to account for the unique characteristics of individual markets and individual media systems.

In order to account for the unique characteristics of media markets, the research design needs to acknowledge the technological differences between media types. In other words, a daily newspaper may or may not have the same reach as a local television station. Conceptually, media markets need to be considered not as individual industries; rather, media markets need to be defined in terms of individual media systems. Diversity research about the cable industry focusing on individual cable systems (Waterman & Weiss, 1997; De Jong & Bates, 1991) provided a good framework for exploring the diversity of ownership in local media markets. By considering each media market as a media system, distinct measures political and economic diversity can be calculated.

For example, De Jong and Bates (1991) defined diversity in basic cable television programming "in terms of the channels or program services made available to subscribers rather than in terms of specific programs" (1991, p. 161). Using Levin's (1971) absolute and relative diversity measures, De Jong and Bates (1991) found that deregulation contributed to an increase in the level of both absolute and relative diversity for cable television. Due to the nature of this study, absolute and relative diversity measures will provide a valid indication of the diversity of media markets from a political and economic public interest perspective.

At any given time, there are an absolute number of traditional media owners and outlets available in a local media market. An absolute measure of the number of

newspapers, newspaper owners, television stations, television station owners, radio stations and radio station owners that operate within a media marketplace can be calculated and used for comparison purposes. In addition, the absolute number of network wire services can be used to compare different time periods and/or regulatory philosophies. From an analysis perspective, an absolute measure of media diversity in terms of counts of owners, outlets and news wire services would provide some insight into the trends of ownership patterns in small media markets. However, the primary focus of this dissertation is to explore the impact of various deregulation policies on the ownership structure of small media markets. In order to measure the impact of these types of policies and assess their impact, a relative measure of source and content diversity would provide a useful insight into the structure of smaller media markets. Sterling (1975) used a proportion to measure the diversity of ownership within the largest media markets. Although this type of measure lacks the sophistication of concentration ratios, it provides a useful standard to compare across media types. To calculate a relative measure of source diversity, the number of media voices will be divided by the number of media outlets available in a market. A decrease in the proportion would suggest a decrease in the degree of ownership diversity in a market because there would be fewer owners. The relative measure for the degree of local ownership will divide the number of local owners by the number of absentee owners available in a market. A higher proportion would indicate more local owners and fewer absentee owners within a market. A relative measure related to the commercial nature of a market will be calculated by dividing the number of non-commercial outlets by the number of commercial outlets. Like the relative measure for voice diversity, a decrease in the

proportion would suggest a decrease in the number of non-commercial outlets in a market. Finally, a relative measure for the amount of news content available to the market will be created by dividing the number of news outlets by the number of entertainment outlets. An increase in this proportion would suggest a positive impact on the marketplace of ideas.

## Research Questions and Hypotheses

Overall, the FCC has relied on two basic rationales to justify the regulation or deregulation of media ownership rules -- the political school of thought and the economic school of thought. The political economy approach regards the concentration of ownership as a threat to media diversity (Iosifides, 1999). The open-market school of thought regards the concentration of ownership as a safeguard to media diversity (Iosifides, 1999). Unlike previous studies evaluating the effect of market structure on market performance, there are two distinct periods of time where the different approaches have been used to achieve media diversity. Since 1970, there has been a shift from the trusteeship model of regulation to the marketplace approach to deregulation. Between 1970 and 1988, the government maintained the marketplace of ideas by utilizing various regulations aimed at the local media market structure. After the decision to begin deregulating ownership at the national level in 1992, the government began to manage the structure of local media markets with the ideals of marketplace theory. The research questions focus on these schools of thought in smaller markets. In particular, what have been the source and content diversity trends in small markets? In addition, how have the policies of deregulation, overall, impacted these diversity trends? Did the

*Telecommunications Act of 1996* have a negative or positive effect on the amount of source diversity within smaller markets?

Based on the literature review, there were certain assumptions highlighted about each school of thought that can be used to hypothesize specific relationships for both source and content diversity. First, recent research suggested moderate to high levels of concentration in the daily newspaper, television and radio industries (Lacy & Davenport, 1994; Drushel, 1998; Howard, 1998). It would appear that deregulation has contributed to the concentration of ownership. Although the research focused on larger markets, it is assumed that the same type of situation exists in small markets as well. Therefore, the first set of hypotheses dealt with the relationship between deregulation policies and an overall decrease in source diversity.

If the same type of situation exists in the smaller media markets as the larger markets, one would expect to find a decrease in the level of source diversity. In other words, there should be a decrease in the number of owners in the smaller markets. By controlling more outlets at the local level, there would be a decrease in the number of voices that control the information output in a smaller market. Therefore, the first hypothesis predicted that since deregulation, there will be a decrease in the number of overall media owners in the smaller markets.

*H1: Since deregulation, there will be a decrease in the number of overall media owners in smaller markets.*

Based on the same assumptions, one should expect to find an overall decrease in the level of voice diversity in the smaller markets. Using Sterling's (1975) proportions as measures for relative diversity, the second hypothesis predicted that since deregulation

there would be a decrease in the proportion of voices to outlets in smaller media markets. If this hypothesis is confirmed, the results would indicate a smaller proportion of voices to outlets since 1992 compared to a larger proportion before 1992.

*H2: Since deregulation there will be a decrease in the proportion of voices to outlets in smaller markets.*

A second area related to the issues of source diversity was the status of non-commercial outlets in smaller markets. According to theory, the greater number of producers in a market leads to more competition within that market. While non-commercial outlets do not compete with commercial stations for advertising revenue, the non-commercial outlets do compete for audiences. Based on this relationship, one could assume that the greater number of non-commercial outlets in a market would equate with a higher degree of competition within a marketplace. However, with the concentration of ownership trends, the overall level of competition appears to be shrinking within local markets. The third hypothesis predicts that since deregulation there will be a decrease in the number of non-commercial outlets in smaller markets. If this hypothesis is confirmed, then there will be fewer non-commercial outlets after the passage of deregulation policies.

*H3: Since deregulation, there will be a decrease in the number of non-commercial outlets in smaller markets.*

In order to measure the relative diversity between the number of non-commercial outlets and commercial outlets, the fourth hypothesis predicted that there would be a decrease in the proportion of non-commercial outlets to commercial outlets in smaller markets.

*H4: Since deregulation, there will be a decrease in the proportion of non-commercial to commercial outlets in smaller markets.*

The third area related to source diversity dealt with the ownership status of media outlets. The growth of group ownership in the newspaper, television and radio industries suggested that more owners without ties to the local community were controlling local media outlets. From a source diversity perspective, the loss of local media voices would indicate a loss in the marketplace of ideas. The fifth hypothesis predicted that since deregulation there will be a decrease in the number of local owners in smaller markets. If this hypothesis is confirmed, the number of local owners would be higher in the period of regulation than in the period of deregulation.

*H5: Since deregulation, there will be a decrease in the number of local owners in smaller markets.*

While this hypothesis examines the absolute differences between regulation and deregulation, one would expect to find that there would be a corresponding increase in the number of absentee owners in smaller markets. Therefore, the sixth hypothesis predicted that since deregulation, there will be an increase in the number of absentee owners in smaller markets.

*H6: Since deregulation, there will be an increase in the number of absentee owners in smaller markets.*

In addition, the seventh hypothesis explored the relative difference between the number of local and absentee owners in smaller markets. Specifically, this hypothesis predicted that since deregulation, there will be a decrease in the proportion of local owners to absentee owners in smaller markets.

*H7: Since deregulation, there will be a decrease in the proportion of local owners to absentee owners in smaller markets.*

A second set of hypotheses will focus on the effect of ownership structure on content. The research suggested mixed results for the effect of group or chain-owned media operations on media content in the larger markets. The program choice literature suggested that monopoly markets would provide greater program choice in the marketplace of ideas. If this type of situation is confirmed, then one would expect to find more types of content within a market. Since news programming has always been considered a hallmark of public interest programming, deregulation should have increased the number of news providers in smaller markets. In particular, the eighth hypothesis predicted that since deregulation there will be an increase in the number of news outlets in smaller markets. If the results confirm this hypothesis, the number of news outlets will have increased since 1992.

*H8: Since deregulation, there will be an increase in the number of news outlets in smaller markets.*

Another area associated with content diversity was the number of news wire services in smaller markets. In a diverse marketplace of ideas, one would expect to find more sources of information. One method for obtaining information by the traditional media outlets is the use of news wires. The ninth hypothesis predicted that since deregulation, there will be an increase in the number of news wire services in smaller markets. For this hypothesis to be validated, the number of news wire services during the period of deregulation will be higher than during the period of regulation.

*H9: Since deregulation, there will be an increase in the number of news wire services in smaller markets.*

The final area of research relates to the impact on the actual market on ownership diversity. Based on the lack of research in this area of media ownership, the third research question seeks to find out the characteristics of a diverse, small, media market. In particular, are there certain economic characteristics of a diverse media market? Past research in the newspaper industry (Hagner, 1983) suggested that certain variables might contribute to the presence of competition in a market. Lacy (1987) found that a growing economy led to an environment conducive to different types of media existing in the same market. Therefore, one would expect to find that population size, the amount of personal income in a market and the total retail sales in a market are positively related to ownership diversity. Each of these factors appears to be positively related to the level of competition within a market. For an advertising-based local media system, it would seem appropriate that larger audiences with higher incomes would result in an attractive marketplace for competitors.

*H10: As population size increases, there will be an increase in source diversity.*

*H11: As the amount of personal income in a market increases, there will be an increase in source diversity.*

*H12: As the amount of total retail sales in a market increases, there will be an increase in source diversity.*

# CHAPTER 3
# METHODOLOGY

To answer the research questions and test the hypotheses, this study will use a secondary analysis methodology to gather and analyze ownership information. Due to the nature of media ownership, the majority of media economic studies used the secondary analysis method (Sterling, 1975; Larson, 1980; Waterman, 1991). A recent study of radio ownership rules employed a case study method (Williams, 1998). Other studies have analyzed the relationship between ownership and content (Busterna, 1988c; Coulson, 1994) using content analysis. The scope of this dissertation required exploring the effects of deregulation in several markets across time. Therefore, the most efficient method to examine the issues related to deregulation was secondary analysis.

A major problem with the analysis of media markets is determining the appropriate geographic market (Albarran, 1996; Picard, 1989). Broadcast television and radio signals do not conform to well-defined geographic limits. Likewise, the distribution network for a daily newspaper might include various suburban areas not served by a radio or television station. Despite focusing on these transmission or distribution differences, broadcast stations and daily newspapers operate within the marketplace of ideas that can be defined geographically.

There are several types of geographic market definitions available to media economists. Industry research companies such as Arbitron use the U.S. government's metropolitan statistical areas (MSA) to define a media market. For television, the A.C. Nielsen Media Research Company uses its own designated market area (DMA) to define a television media market. Some print media research companies such as the Audit

Bureau of Circulation use various market measures, but recognize television markets as a useful tool for analysis. Arbitron uses the metropolitan statistical areas as a basis for audience analysis. Essentially, there are two choices when attempting to define media markets -- the MSA or the DMA. Both market definitions would provide a useful framework for ownership analysis.

Past research (Sterling, 1975) used the top 100 television markets to track media ownership between 1922 and 1970. He argued that television markets provided the best framework for analyzing media markets. However, other studies have utilized the metropolitan statistical areas (MSA) as the units of analysis (Hagner, 1983). An advantage to using the MSA as the unit of analysis is the ability to clearly define the limitations for inclusion in the analysis. For this study, the population will include all daily newspapers, local television stations and local radio stations licensed to the county or counties included in the MSA as defined by the Bureau of Economic Analysis of United States Department of Commerce. In order to be included in the analysis, the local medium must have appeared in the MSA county, as listed in Broadcasting & Cable Yearbook, Television & Cable Factbook, or Editor & Publisher Yearbook. Placing this limitation on the market definition eliminated fringe areas where there may not be competition from other media.

According to the U.S. Department of Commerce, there were 273 metropolitan statistical areas listed in 1998 (United States Bureau of the Census, 1998). The majority of the media concentration research to date has focused on the largest markets (Sterling, 1975; Drushel, 1998). The need for research development lies in the smaller markets. The markets selected for this study were metropolitan statistical areas that contained

125,000 persons or less as measured by the Bureau of Economic Analysis of the United States Department of Commerce in 1998. Using this as the criteria for selection, there were 52 MSAs selected for the analysis (Appendix C). By selecting these smaller metropolitan statistical areas, the study will focus on markets where there has been a lack of attention in terms of media ownership research. At the same time, by choosing metropolitan statistical areas, pertinent economic information can be easily collected through government information resources. By limiting the study to the smaller markets, the dissertation will provide a benchmark for future research in the area of small market media.

The markets for the analysis were selected from the 1998 Census information (United States Bureau of the Census, 1998). By using the 1998 market definitions, all outlets licensed to the market area in previous years would be included in the study. Starting with 1972, information about media owners and outlets were collected from each market. Sterling (1975) used a similar method of tracking ownership information. Instead of tracking ownership changes every year, the time period will track ownership changes every four years from 1972 to 1992. Since the FCC began deregulating local broadcast ownership rules more frequently in 1992, the analysis will keep track of the ownership changes within the markets every year since 1992.

*Dependent Variables*

Overall, information about each medium located within the market was coded for the year[2], market, medium name, medium type, owner name, owner type, news content

[2] Since each yearbook contains dated information, the yearbooks selected for the analysis were advanced by one year. In other words, the information for 1972 was selected from the 1973 editions of the yearbooks.

status, and network or news wire affiliation and entered into a database[3]. For newspapers, the outlet, owner and news wire service information was gathered from the Editor & Publisher International Yearbook for each year in the time frame. The television station information about the outlet, owner, network and news wire service information was gathered from Television & Cable Factbook and checked with Broadcasting & Cable Yearbook for each year in the time frame. For the radio station information about the outlet, owner, network and news wire service information, the data was selected from the Broadcasting & Cable Yearbook for each year in the time frame. In case of missing information, the library's interlibrary loan department was utilized to help obtain the information.

Specifically, each of these variables were measured using the following criteria:

Medium Name

This variable refers to the local brand of a broadcast station or newspaper. For radio stations and television stations, the medium name was coded as the call letters of the station. For newspapers, the medium name was the actual name of the newspaper.

Medium Type

For each medium, a type was assigned. Newspapers were coded as a morning or a evening newspaper. Television stations were coded as a VHF or UHF station. Radio stations were coded as an AM or FM station.

Owner Name

Each medium was catalogued with the owner's name.

[3] The data was collected and entered into a Microsoft Access database.

## Owner Type

Each medium was coded as a local or absentee owner. A local owner existed when the owner did not operate or manage any property outside the market under consideration. An owner was coded as absentee if the owner operated or managed any type of media property in another market. Absentee owners were cross-referenced with lists of group owners in the industry yearbooks. In the event of a broadcast or cross-media local combination, a single owner was not counted more than once per market.

## News Content Status

Each medium was assigned a news content status where newspapers were coded as news providers. Broadcast stations were coded as either an outlet with news or an entertainment-only outlet. A news outlet was defined as any outlet having a news editor, news director or any type of news personnel listed in the yearbook information.

## Network or News Wire Affiliation

For each medium, the number of network or news wire information was counted from the yearbooks. A network or news wire was defined as any outside source for news. Television and radio networks were included in the count with any wire service (Associated Press, UPI, etc....).

Once all of the data for each market from each year was collected, summary counts for each category were calculated and placed into an SPSS database for analysis. Using this information, the dependent variables associated with source diversity -- voice diversity, non-commercial diversity, and local diversity -- and two variables related to content diversity -- news outlets, and news wires were operationalized from the market summaries.

Specifically, these measures were calculated using the following criteria:

Voice Diversity

Voice diversity was calculated for each market in each year as the proportion of voices to outlets. A media owner was considered as a media voice. Each medium was considered as a media outlet. This measure was calculated as the number of media voices divided by the number of media outlets.

Non-Commercial Diversity

Non-commercial diversity was measured as the proportion of non-commercial outlets to commercial outlets. This measure of non-commercial diversity was calculated as the number of non-commercial outlets divided by the number of commercial outlets.

Local Diversity

Local diversity was calculated as the proportion of local owners to absentee owners. This measure of localism was calculated by dividing the number of local owners by the number of absentee owners.

*Independent Variables*

In order to test for the effects of deregulation, several independent variables were gathered to use in the analysis. The primary test of deregulation included the two time periods of regulatory philosophy. In addition, various economic variables were used as control variables. 'Specifically, the independent variables related to deregulation were:

Regulatory Philosophy

The independent variables, regulation and deregulation, were measured in terms of time-periods and economic characteristics. First, there were two basic periods of regulation – structural regulation (1970 to 1988) and deregulation (1992 to present). In

order to analyze the relationship between regulatory philosophy and the dependent variables, the year variable in the SPSS database was recoded into a categorical variable where a "0" was assigned to the years between 1972 and 1988 and a "1" was assigned to the years between 1992 and 1996. To account for the effect of the *Telecommunications Act of 1996*, a categorical variable was created by recoding the year variable into a time period before the *1996 Act* and after the passage of the Act. This recode variable was calculated by assigning a "0" to each year from 1972 to 1995 and a "1" to each year from 1996 to 1998. During these periods, there are identifiable regulatory policies that affected the local structure of the media marketplace. One problem area was the drastic changes in ownership policy since the *Telecommunications Act of 1996*. However, if marketplace theory is the appropriate mechanism for determining the public interest, then the number of policy changes should not affect the results.

In order to control for differences in markets, various economic variables will be included in the analysis. Research related to media concentration issues suggested the influence of various economic factors (Hagner, 1983; Bates, 1993). From an economic perspective, variables such as retail sales and total personal income might have an impact on the number of outlets and type of outlets within a market. The market variables will be provided by market guide estimates based on information provided by the U.S. Census as reported in the *Editor & Publisher Market Guide*. The independent variables used as control variables were:

Total Retail Sales

Total retail sales referred to the amount of retail sales within a market.

Total Personal Income

The average total personal income was the average income per person in a market.

Population Size

The population size was based on the estimated market size information included in the *Editor & Publisher Market Guide* for each year in the time period.

Overall, the *Editor & Publisher Market Guide* provides the retail sales and personal income information. Market size, number of media type, number of voices, number of voices, audience reach, total retail sales and average personal income are ratio measures.

## Study Limitations

The limitations of this study included the reliability and validity of the information. From a face validity perspective, the information appears to provide an acceptable degree of validity. The stations and newspapers exist within the markets. However, there were problems related to reliability. First, the individual media firms voluntarily submit information collected by the industry publications. Although there could be questions concerning the reliability of the information, this type of sample was the best available. Barring traveling to the markets and requesting information from hundreds of media outlets, this type of sample was the most efficient. A second area of concern was the validity of the information contained in the resource material. Since the firms voluntarily submitted the information to the publications, there might have been

problems related to the timeliness of the ownership information. Some recent ownership changes might not have been accounted for. A final area of concern was the reliability of coding ownership type. For radio and television, the Broadcasting & Cable Yearbook and the Television & Cable Factbook provide information related to the group ownership of radio and television stations. In the Editor & Publisher International Yearbook, newspapers are noted as group owners. Although the yearbooks attempt to designate group ownership, checking across yearbooks was the most efficient method to check the reliability of the ownership type information. Despite these types of problems, the secondary analysis appeared to be the strongest method available for this type of study.

# CHAPTER 4
# RESULTS

The primary goal of this dissertation was to analyze the effects of government regulation or deregulation of broadcast ownership rules on the level of source and content diversity within smaller media markets. In order to analyze these effects, two phases of analysis compared the different measures of source and content diversity. The multi-phase analysis of diversity in smaller metropolitan statistical areas was divided into four areas -- summary statistics, hypotheses tests related to source diversity, hypotheses tests related to content diversity and hypotheses tests related to market factors.

## Summary Statistics from the Macro Perspective

Overall, the analysis included 52 smaller metropolitan statistical areas (see Appendix 1). In these markets, there was a total of 6,936 media outlets used in the analysis. Over the time frame, there were 777 newspapers, 1,165 television outlets and 4,994 radio outlets included in the analysis. The results indicated moderate growth in the newspaper, television and radio industries in terms of both individual media outlets and ownership of those outlets in the smallest metropolitan statistical areas. Overall, the total number of media outlets increased 33 percent from 1972 to 1998. Figure B-1 displayed the growth from 435 total media outlets in the smallest MSAs in 1972 to 654 outlets in 1998. In addition, Figure B-1 showed the 30 percent growth in the total number of media owners of those outlets.

The increase in the total average number of media outlets came from the television and radio industries. Table A-2 summarized the average number of media

outlets and media ownership for the newspaper, television and radio industries in the smallest metropolitan areas.

The local television and radio industries experienced double-digit percentage increases while the local newspaper industry lost 15 newspapers from 1972 to 1998. Most of these newspaper outlet losses can be attributed to the closing of afternoon newspaper editions across all markets. On other hand, the number of television and radio outlets increased 44 percent and 38 percent, respectively. One reason there has been growth of these types of outlets might be attributed to the allocation of UHF television stations and FM radio stations by the FCC. Like other industries, a growing economy allowed the FCC to allocate more spectrum space for additional types of television and radio stations. For example, the number of UHF television stations in these small markets increased from 11 in 1972 to 54 in 1998. Likewise, the FCC added 187 FM stations to these markets from 1972 to 1998.

The trends in the ownership of these small market media outlets indicated overall growth that corresponded with the increases in media outlet growth. The ownership information provided in Table A-2 detailed the growth in the number of television and radio owners and a decline in the number of newspaper owners. Despite increases in the number of radio and television owners between 1972 and 1998, the results suggested interesting trends in the ownership patterns in small MSAs. In particular, the total number of owners across the markets has decreased each year since 1995.

*Newspapers*

In Figure B-2, the graph illustrated the decrease in the number of both newspaper outlets and owners. The most drastic decline in the number of small market newspapers

occurred between 1980 and 1988. The graph detailed the trend of newspaper companies closing afternoon daily newspapers. In the smaller MSAs, there were 11 markets with competitive newspapers in 1972; this number dropped to 6 by 1998. For daily newspapers, the decrease in the average number of newspaper owners leveled off during the 1980s.

*Television*

Figure B-3 illustrated the information related to the average number of television outlets and owners in the smaller markets. Due to the FCC's tight control of the number of television stations at the local level, there wasn't much difference between the lines for outlets and owners. Most of the markets where one owner controlled two television stations were in locations such as Casper-Riverton, Wyoming where one company owned a station and a satellite station. However, as the graph indicated, during the 1990s, the FCC began allowing local marketing agreements in certain markets where one station was in need of management assistance by another company. Local marketing agreements explained the reason there was a wider gap between the number of outlets and owners throughout the 1990s. In other words, these types of local agreements allowed one owner to control the operation of two stations in the same market. Although television ownership appeared to have increased, the percentage increases have been less than one percent since the 1980s.

*Radio*

According to Figure 4.4, there were 449 radio outlets and 316 radio owners in 1994. Between 1995 and 1998, there was an increase of 34 radio outlets and a decrease of 22 radio owners. Based on the trends depicted in Figure 4.4, it appeared that the

*Telecommunications Act of 1996* had the most impact on radio ownership. Since 1996, the data indicated the gap between the average number of radio outlets and owners widened.

*Owner Type*

Another important distinction of media ownership was owner type. For this study, two types of media owners were considered -- local owners and absentee owners. According to Table A-3, the average number of local owners for each of the media industries has been in decline. For newspapers, the number of local owners has decreased -79 percent since 1972; down from a high of 53 local owners in 1972 to only 11 local owners in 1998. For television and radio, the number of local owners increased during the 1980s but both industries in the small markets experienced decreases in the number of local owners between 1994 and 1998. The number of local television owners peaked in 1988 with 34 but has dropped to 21 local owners in 1998. Likewise, the number of local radio owners decreased by 22 percent since 1994 -- from 233 to 181 local owners.

While there have been decreases in the number of local owners, the data showed dramatic increases in the number of absentee owners in small MSAs. Absentee ownership of newspapers, television stations and radio stations increased by 327 percent, 102 percent and 465 percent, respectively, from 1972 to 1998. These extraordinary increases in the number of owners with media properties in other markets represented a shift in market structure with possible effects on market performance.

A final aspect of market structure under consideration was the commercial status of media outlets. The information provided in Table A-4 showed the positive growth of

non-commercial media outlets in small MSAs during the time-period. For the most part, the licensing of non-commercial radio stations provided the major reason for the 221 percent increase in the total number of non-commercial outlets. In fact, radio accounted for 88 of the 103 non-commercial media outlets in 1998.

From the news or content diversity perspective, the summary statistics revealed increases in the average number of news outlets and network news service providers in the small markets. Overall, the total number of news outlets experienced growth from 1972 until the mid-1990s. The trends depicted in Figure B-5 indicated the decrease in the number of network news providers and a stable number of news outlets. On average, the trends in the number of network news providers indicated strong growth until the passage of broadcast ownership rules beginning in the 1990s. In particular, the summary statistics suggested the influence of the deregulation of local ownership rules on the number of news outlets and network news providers in smaller markets. It appeared that there was growth of both news outlets and network news providers from 1972 to 1992. After 1992, both variables experienced a plateau followed by a decrease after the *1996 Act*.

The number of newspapers, television news outlets, television network news providers, radio news outlets and radio network news providers is presented in Table A-5. The patterns in the data exhibited the effect of losing radio news voices in the small markets.

For every category except for the number of newspaper news outlets, there has been an increase in the number of outlets and network news services available in the smaller markets. However, since 1994, the radio industry in these smaller markets experienced a loss of 79 network news services from 1994 to 1998.

**Summary Statistics from the Market Perspective**

At the market level, the average number of individual media outlets increased from 8.3 in 1972 to 12.5 in 1998. Table A-6 provided the information regarding the number of owners per market by media type. While the average number of newspapers and newspaper owners decreased per market, the number of television stations, television owners, radio stations and radio owners increased. One of the interesting findings indicated that the number of radio owners peaked in 1994 when there was an average of 6.07 owners per market. By 1998, the average number had decreased to 5.65.

As shown in Table A-7, the data for the different types of owners per market indicated the strong growth in the number of absentee owners. The average number of absentee owners for newspapers, television and radio stations increased from 1972 to 1998. Local ownership for newspapers decreased while the average number of local owners for television showed a small increase between 1972 and 1998. For radio, the average number of local radio owners appeared to peak in 1994 and then decrease through 1998. On the other hand, the number of owners with interests in other markets increased for all three media types. This finding suggested that larger companies were buying into the smaller markets.

From a content perspective, the average number of news outlets and network news wire services within each market showed some growth for each media type. Table A-8 provided the information for each media type by market. On average, there were approximately five news outlets per market in 1972. By 1998, the average number of news outlets had only increased by only two. Most of the increase came from the local

radio industry where the news/talk format developed during the 1980s and provided more opportunities for news directors.

## The Research Questions

The overriding research questions of this dissertation asked about the trends of ownership diversity within the smaller media markets. Graphically, the data suggested significant linear trends for the number of overall media, owners and absentee owners. In order to explain these trends, linear regression was used to estimate whether the increases and decreases were attributable to a general trend or the policy shift from regulation to deregulation. First, simple linear regression was used to estimate whether or not the number of media, owners and other dependent variables exhibited a general trend. The regression technique analyzed the relationship between a time variable, year, and the various dependent variables. Multiple regression analysis was used to model the impact of two different sets of variables – the change in policies and the market environment. It analyzed the trends of the dependent variables controlling for other factors and provided estimates regarding the specific impacts of those factors.

Overall, several simple linear regression models estimated the relationship between a time independent variable, year, and several dependent variables. For most of the models, the value of R-Square suggested some degree of relationship between the time variable and the dependent variables. The regression models, illustrated in Table A-9, indicated significant, positive relationships between year and the number of media, owners, absentee newspaper owners, television stations, television owners, absentee television owners, radio stations, radio owners, local radio owners, absentee radio owners, non-commercial outlets, the total number of absentee owners, news outlets, news

wires, voice diversity and newspaper diversity. The models estimated a significant, negative relationship between year and the total number of newspapers, newspaper owners, local newspaper owners, and the amount of radio ownership diversity.

The results of the regression models indicated an overall linear trend in the total number of media and owners within the smaller markets. Specifically, the regression analysis with the number of media as the dependent variable indicated an increase of .16 per year. At the same time, there were similar significant linear trends in the number of radio stations (B = .135) and the number of absentee owners (B = .114). The regression analyses underscored the decline in the number of daily newspapers and newspaper owners in small markets. In addition, the results highlighted the slight and moderate increases in the number of television and radio stations in small markets. In terms of voice diversity, the regression analysis did not explain much of the variance ($R^2 = .007$) and it showed only a slight positive trend (B = .001). These results indicated that time did have a moderate impact on various market structure factors in smaller markets.

From a content perspective, the regression analysis showed a strong, significant linear trend for the number of news wires in smaller media markets (B = .248). An interesting finding from the regression models was the lack of evidence of a decrease in the number of local television and local radio owners. The regression models showed a significant decrease in the number of local newspaper owners but showed no significant relationship between year and the number of local television owners. The small market local radio industry experienced small increases in the number of local radio owners. From a content perspective, the data indicated a positive trend between year and the number of news outlets and news wires in smaller markets.

Overall, the results clarified the trends of source and content diversity within smaller media markets. Combined, these simple linear regression analyses appeared to confirm that the passage of time had a significant impact on the dependent variables. In order to ascertain the impact of deregulation policies, it was necessary to control for the time variable of year.

Although the simple linear regression models provided some insight into the relationship between the time variable of year and the dependent variables, multiple regression models highlighted the impact or lack of impact of market economics and regulatory policy changes. To accomplish this goal, two sets of multiple regression analysis were used. The first analysis sought to analyze the effects of economic variables including population size, total retail sales and total personal income because these types of variables are related to the presence of media outlets (Turpin, 1974; Bates, 1993; Smith, 1995; Bates & Chambers, 1996). A second multiple regression analysis was needed to determine the impact of deregulation policies on small media markets controlling for the economic factors. This second analysis provided the basis for the hypothesis tests. Both multiple regression analyses provided interesting results related to the economic and policy impact on the structure of the media outlets in smaller markets.

For all but two of the dependent variables, the multiple regression analysis with year, population size of the market, total retail sales of the market and average total personal income for the market as the independent variables, showed significant prediction equations. The two equations that were not successful were associated with the number of local television owners and the total number of local owners in small markets. Table A-10 summarized the beta coefficients from the multiple regression

analyses. Based on the results, it appeared necessary to include these economic factors as control variables to determine the independent effects of deregulation.

In order to test the impact of specific deregulation ownership policies, dummy variables were created from the year variable. Specifically, a dummy variable was created to measure the effect of the overall policy change from regulation to deregulation. For the years 1972 to 1988, a "0" was assigned; 1992 through 1998 were assigned a "1." A second dummy variable was created to measure the effect of the *Telecommunications Act of 1996*. For the years 1972 to 1995, a "0" was assigned; 1996 through 1998 were assigned a "1." Using these dummy variables, multiple regression analyses modeled the impact of time and policy changes on the various measures for source and content diversity in smaller markets, controlling for economic factors such as population size, retail sales and total personal income. For each of the analyses, the collinearity diagnostic tests did not indicate substantial evidence of multicollinearity.

**Hypothesis Tests**

The general hypothesis governing this dissertation was that government deregulation had a detrimental effect on the level of source and content diversity within small markets. Therefore, the hypothesis tests used the dummy variables created for the regressions to represent the time periods of regulation (1972 to 1988) and deregulation (1992 to 1998). The regulation time frame included the regulatory period before the FCC decided to loosen the restrictions regarding radio duopolies in 1992. The deregulation period included the years from 1992 to 1998. This time frame incorporated the radio duopoly rules, the allowance of television local marketing agreements and the ownership deregulation policies in the *Telecommunications Act of 1996*. In addition, the *1996 Act*

contained provisions that had the potential to dramatically restructure local radio markets and impact the level of diversity in smaller markets. Therefore, it was important to judge the hypotheses based on the effect of this period of 'hyper'-deregulation – from 1996 to 1998. A new variable was created to measure the impact of the Telecommunications Act. It included two categories – one prior to the Act, 1972 – 1995 and one after the Act, 1996 – 1998.

*Hypothesis 1 Test Results*

Based on the trends of outlet growth and ownership growth from 1972 to 1998, it did not appear that much of a difference existed in the amount of voice diversity across the markets. The first hypothesis predicted that since deregulation, there would be a decrease in the number of media owners in smaller markets. A multiple regression analysis indicated mixed results for the hypothesis. Controlling for year, population, retail sales and total personal income, the overall equation ($R^2 = .153$, $F = 18.617$, $p = .000$) predicted a relationship between deregulation policies and the number of media owners in the small markets. The model accounted for 15 percent of the variance. As reported in Table A-11, the overall switch from regulation to deregulation failed to have a significant contribution to the equation. On the other hand, the analysis showed that since the passage of the *Telecommunications Act of 1996* there has been a significant decrease in the number of owners in small markets. In fact, the analysis revealed a decrease of about one owner per year since the passage of the *1996 Act*.

The mixed results of the multiple regression analysis suggested that there was only partial support for the first hypothesis. Both of the unstandardized regression coefficients for the two time periods indicated a decrease in the number of owners in

smaller markets; however, the only significant contribution occurred with the dummy variable representing the passage of the *Telecommunications Act of 1996*. Therefore, the results suggested mixed support the first hypothesis.

*Hypothesis Two Test Results*

The second hypothesis predicted that there would be a difference in the proportion of voices to outlets in small markets. To test this hypothesis, a new variable, voice diversity, was created by dividing the number of owners by the number of outlets. This proportion of media owners to media outlets provided a measure of voice diversity within small markets. The resulting number would range from 0, indicating no diversity, to 1, indicating total diversity. For example, in a media market where there were ten total media outlets and seven owners of those outlets, the voice diversity proportion would equal .7. Since the number of media outlets and owners in smaller markets were based on specific counts, it was assumed that the distributions would be somewhat normal. Table A-12 provided the results of the multiple regression analysis estimating the impact of deregulation policies on the level of voice diversity controlling for year, population, retail sales and total personal income.

The results of the analysis indicated that the independent variables did not account for much of the variance in the level of voice diversity ($R^2 = .052$, $F = 5.686$, $p = .000$). Overall, the results revealed different directions for the unstandardized coefficients. Specifically, the overall switch in the regulatory philosophy appeared to have provided a slight increase in the level of voice diversity while the passage of the *Telecommunications Act of 1996* had a distinct negative impact on the level of voice diversity in small markets. In the equation, the passage of the Telecommunications Act

provided the only significant contribution to the equation. The changes to the radio ownership rules included in the Act had a negative impact on the level of voice diversity in smaller markets. This result corresponded with recent research related to the consolidation in the radio industry (Drushel, 1998) and the television industry (Howard, 1998). Based on these results, there was mixed support for the second hypothesis.

*Hypothesis Three Test Results*

The third hypothesis predicted a decrease in the number of non-commercial outlets in smaller markets. A multiple regression analysis explored the relationship between the policies of deregulation and the number of non-commercial outlets in smaller markets. The model accounted for some of the variance and suggested that there was a relationship between the independent and dependent variables ($R^2 = .151$, $F = 18.301$, $p = .000$). Both unstandardized regression coefficients, as reported in Table A-13 indicated a negative relationship between deregulation and the number of non-commercial outlets. Despite finding the appropriate directions for the coefficients, neither could be considered as making a significant contribution to the overall equation. These results failed to support the third hypothesis.

*Hypothesis Four Test Results*

Another area related to the number of non-commercial outlets was the proportion of non-commercial media outlets to commercial outlets in smaller markets. The fourth hypothesis predicted that there would be a decrease in the proportion of non-commercial to commercial outlets in small markets. In other words, the concentration of media ownership would result in less competition, higher entry barriers and other non-competitive results that would favor the development of commercial outlets. To create

this new measure of non-commercial diversity, the total number of non-commercial outlets was divided by the total number of commercial outlets for each market. Using actual counts of non-commercial and commercial outlets, each market would have a non-commercial diversity number ranging from 0 to 1 where a number closer to one indicated a higher degree of non-commercial diversity. Assuming normality, multiple regression analysis was used to measure the impact of deregulation on the level of non-commercial diversity. The results of the analysis suggested an equation with little predictive power because it failed to account for much of the variance ($R^2 = .048$, $F = 5.197$, $p = .000$). Overall, both of the unstandardized regression coefficients did not make significant contributions to the equation. Table A-14 detailed the results for both sets of time periods. According to the results, the fourth hypothesis was not supported.

*Hypothesis Five Test Results*

The final area related to source diversity in smaller markets was the exploration of ownership types. Overall, this set of hypotheses dealt with the general notion that there would be decreases in the number of local owners and increases in the number of absentee owners. The fifth hypothesis stated that since deregulation, there would be a decrease in the number of local owners in smaller markets. Controlling for the economic factors, a multiple regression analysis modeled the contribution of deregulation policies on the number of local media owners in small markets. This model accounted for only two percent of the total variance ($R^2 = .023$, $F = 2.404$, $p = .026$). As highlighted in Table A-15, the regression coefficients for the two time periods indicated that there was a decrease in the number of local owners in the small markets. In particular, the *Telecommunications Act of 1996* had a dramatic impact on the number of local owners in

small markets. The unstandardized coefficient showed that there was a decrease of .782 owners per market per year since the passage of the *1996 Act*. On the other hand, the coefficient for the overall effect of deregulation failed to make a significant contribution to the model. Therefore, there was mixed support for the fifth hypothesis.

*Hypothesis Six Test Results*

The sixth hypothesis predicted an increase in the number of absentee owners in smaller markets. This hypothesis worked on the assumption that there would be an inverse relationship between local and absentee owners in small markets. The model developed for this hypothesis sought to explain the effect of deregulation on the number of absentee owners controlling for time and economic factors. Based on the results as reported in Table A-16, the equation accounted for almost 26 percent of the variance ($R^2 = .257$, $F = 35.479$, $p = .000$). Despite the soundness of the model, the data failed to support the sixth hypothesis. Both of the regression coefficients were in the wrong direction and neither made a significant contribution to the equation.

*Hypothesis Seven Test Results*

Although the data suggested support for the notion that the number of local owners was decreasing and the number of absentee owners was increasing, the seventh hypothesis predicted that there would be a decrease in the proportion of local owners to absentee owners in smaller markets. The result of the proportion provided a number that could be used to evaluate the scope of local ownership in small markets. After calculating the proportion for each market, a local owner diversity variable was created and used as a dependent variable in a model where the deregulation policy time periods and economic factors were used as independent variables. The information in Table A-

17 provided the results for the multiple regression analysis. The model accounted for almost 15 percent of the variance ($R^2 = .143$, $F = 15.626$, $p = .000$). According to the results, neither of the deregulation time periods made a significant contribution to the model. In other words, the overall switch from regulation to neither deregulation nor the passage of the *Telecommunications Act of 1996* had a significant impact on the amount of local owner diversity in small markets. There was no support for the seventh hypothesis.

For the hypothesis tests related to the diversity of sources within the small markets, the results indicated mixed results. Overall, there was not a difference in the level of voice diversity between 1972-1988 and 1992-1998. However, since the passage of the *Telecommunications Act of 1996*, there was a significant decrease in the level of voice diversity in the smaller markets. In addition, there has been a decrease in the number of local owners in small markets since 1996.

Although these results indicated some losses in the level of ownership diversity in the smaller markets in general, a better indicator might be found using a market-by-market analysis. In order to analyze the data at this level, markets were classified under three different categories of ownership diversity. A market could be classified as existing in a state of high, moderate or low ownership diversity based on the voice diversity measure calculated as the proportion of owner voices to media outlets. A market classified as a high diversity market had a proportion of owner voices to media outlets and had a voice diversity measure equal to or greater than .75. A moderate diversity market included markets with a voice diversity measure ranging from .66 to .74. A low diversity market included markets where the voice diversity measure was .65 or less. Although these categories were selected arbitrarily, the categories provided a logical

classification scheme. Under this classification scheme, markets categorized with high voice diversity would be representative of a market operating with public interest efficiency -- the number of owners would almost equal the number of outlets. At the other end of the spectrum, markets marked with low levels of voice diversity would be representative of a market operating with public interest inefficiency -- fewer owners or voices controlling the same amount or more media outlets. If a market had 10 media properties, a high diversity market would include 7.5 owners per market. In other words, the voice diversity measure for a market increased with the addition of separate media owners to the overall market.

Based on this classification scheme, Table A-18 detailed the number and percentage of markets in each category by each regulatory philosophy. According to the information in Table A-18, it was apparent that since deregulation there has been an increase in the number of markets classified as high diversity markets. Prior to deregulation, only 17 percent of the markets were classified as high diversity markets. During the 1992 to 1998 time period representing deregulation, almost a quarter of the markets was classified as high diversity markets. These changes were not statistically significant ($X^2 = 3.965$, df = 2, sig.:.135). Under these categories, one of the interesting findings was the fact that 75 percent of the markets were classified existing as moderate or low voice diversity markets. Based on these results, deregulation has failed to move more markets into the moderate or high diversity categories.

The accelerated ownership deregulation policies enacted by the *Telecommunications Act of 1996* suggested that there could have been changes in the amount of voice diversity in small markets. Therefore, the markets were classified into

the three voice diversity categories using the time periods before (1972 to 1995) and after (1996 to 1998) the passage of the *Telecommunications Act of 1996*. The results, as shown in Table A-19, indicated some significant shifts between the number of markets characterized as existing in moderate and low voice diversity ($X^2 = 8.398$, df = 2, sig.:.015). Before the *Telecommunications Act of 1996*, 22 percent of small markets existed in a situation where there was a low degree of voice diversity. Between 1996 and 1998, one third of the small markets were classified as low voice diversity markets.

A different approach used to measure the degree of ownership diversity in small markets was the analysis of the proportion of absentee owners to local owners in a small market. Like voice diversity, this measure of localism provided a valid measure of the difference between the number of absentee and local media owners in small markets. After calculating the localism measure for each market, the proportion was categorized using the same low, moderate and high classification scheme.

Unlike voice diversity, the number of absentee owners at the market level increased dramatically. In Table A-20, the results indicated significant differences in the degree of localism under the different categories ($X^2$=56.344, df=2, sig.:.000). According to the Table A-20, the percentage of markets classified as low diversity was only 9 percent during the regulatory time period. For the deregulation time period, the number of markets classified as low diversity markets increased to 21 percent with a corresponding decrease in the number of high diversity markets. Based on these results, one can assume that the number of absentee owners has grown since the passage of deregulation policies.

Since the passage of the *Telecommunications Act of 1996*, there might have been a significant decrease in the degree of localism in small markets. The results of the analysis were reported in Table A-21. Before the *1996 Act*, a majority of the small markets existed in a state of high localism. During this time, many of the small markets had a situation where there were more local owners than absentee owners. After the passage of the *1996 Act* however, there has been a significant decrease in the number of markets classified as high diversity markets and an increase in the number of markets classified as low diversity markets ($X^2$=22.054, df=2, sig.:.000).

*Hypothesis Eight Test Results*

While source diversity was an important variable in this study, measuring the diversity of content in smaller markets would provide an insight into the relationship between market structure and market performance. The eighth hypothesis predicted an increase in the number of news outlets in small markets between the periods of regulation and deregulation. Multiple regression analysis was used to model the effects of deregulation on the number of news outlets in small markets. In particular, the number of news outlets was calculated as the number of newspapers, television stations with a news director and radio stations with a news director or news format. The model for both time periods was reported in Table A-22. According to the results, the model accounted for 16 percent of the variance. The regression coefficients did not make a significant contribution to the equation. However, it appeared as if there was an increase in the number of news outlets since deregulation and a decrease in the number of news outlets since the passage of the *Telecommunications Act of 1996*. There was no support for the eighth hypothesis.

*Hypothesis Nine Test Results*

Another aspect of news content diversity was the use of network news services such as television networks, news wire services and radio networks. Hypothesis nine predicted an increase in the number of network news services in small markets. After controlling for time and the economic factors, the results of the multiple regression analysis indicated a significant contribution from the *Telecommunications Act of 1996* on the number of network news services. In particular, there has been a decrease of two network news services per year since the *1996 Act*. The model accounted for almost 27 percent of the variance. The findings reported in Table A-23 showed the negative coefficients for both dummy variables representing deregulation. In light of these findings, there was no support for hypothesis nine.

Overall, the hypothesis tests related to content diversity suggested little impact in the levels of diversity. According to the results, deregulation did not have an impact on the level of content diversity in terms of the number of news outlets. There was some impact on the number of network news wire services based on the passage of the Telecommunications Act. These decreases in some aspects of content diversity combined with the loss of some aspects of ownership diversity suggested that deregulation has had a negative rather than positive impact on the public interest standards related to media ownership in small markets.

*Hypotheses Ten, Eleven and Twelve Test Results*

The final set of hypotheses predicted positive relationships between the population, total personal income and total retail sales in a market and the level of source diversity within the smaller markets. According to Pearson's correlation tests, there were

statistically significant positive relationships between population size, total personal income and total retail sales in a market and the number of total media, the owners, and absentee owners in a market. For the number of local owners, there were statistically significant positive relationships with population and total personal income in a market. According to the results provided in Table A-24, the correlation between the level of voice diversity and population size, retail sales and income was negative. The significant inverse relationships were between voice diversity and the amount of retail sales and income. The correlation suggested that as retail sales and personal income increase in the market, the level of voice diversity decreased. In the smaller markets, it appeared as if the larger owners were expanding the number of their media properties. Advertising revenue and audience demographics could explain the reason fewer owners are buying into these markets.

# CHAPTER 5
# CONCLUSION

The goal of this dissertation was to determine whether or not the policies of ownership deregulation have increased or decreased the level of source and content diversity in smaller media markets. The shift in broadcast regulation philosophy from the public trustee approach to the marketplace approach had several different types of effects on the ownership structure of the traditional media in small metropolitan statistical areas. This philosophical shift provided an opportunity to test the assumptions of deregulation and make meaningful comparisons concerning the types of source and content diversity within media marketplaces. Overall, policymakers shifted the theoretical focus away from classic themes of ownership regulation towards the unproven ideals of market performance outcomes. In the present case, this dissertation tested the effects of deregulation in small media markets and found mixed results related to the overall diversity of media ownership and its effect on the marketplace of ideas.

To better understand the implications of the results, this concluding chapter analyzes the results in terms of the theoretical and normative implications of media ownership deregulation policies in small markets, provides policy recommendations related to future ownership rules and regulations and plans for future research studies focusing on smaller media markets.

The theoretical basis of deregulation relied on the assumptions of an open-market approach to broadcast ownership regulations. Restrictions on the number and type of broadcast media owners were relaxed with the idea that free market competition would provide the basis for meeting the public interest standards related to the amount of both

media voice and media content diversity. On the surface, the arguments in favor of deregulation are appealing. First, the actual public would determine the public interest by allocating time spent reading, watching or listening to the newspaper, television station or radio station. Second, new media technologies have provided the public with additional outlets of information. Cable, direct broadcast satellites and the Internet have brought new options of information into the marketplace of ideas. Despite these compelling arguments for deregulation, the benchmark for the evaluation of deregulation policies should be focused on the core values of the public interest: localism and competition.

In theory, localism is a concept rooted in the political ideals of democracy. The media outlet, a newspaper, television or radio station, provides local access to information. Theoretically, every newspaper, television station and radio station in a market is a local medium. According to this type of framework, the number of owners in a market helps determine the degree of voice diversity. Each media owner is a local voice within the marketplace of ideas. Under the managed structure paradigm of broadcast ownership regulation, this interpretation of localism was guaranteed with the regulations restricting the consolidation of broadcast properties and the cross-ownership of newspaper and broadcast properties. Local consolidation of properties changes the degree of voice diversity by decreasing the number of voices within a marketplace. The policies of deregulation have loosened these restrictions and created an atmosphere conducive to the development of local clusters of properties.

The results of this dissertation highlighted the loss of voices within the local marketplace of ideas. Initially, the findings reflected the nature of managing the number of broadcast properties within local markets. On average, each market started with a

newspaper, a television station and about six radio stations in 1972. From an ownership perspective, there was one newspaper owner, one television owner and four radio station owners in 1972. By 1998, each market maintained one newspaper, two television stations and nine radio stations. There were two television station owners, one newspaper owner and five radio owners. Despite the five-station increase in the overall number of radio stations per market, there was only an increase of one radio owner between 1972 and 1998. Multiple regression analysis confirmed the difference between the period of regulation and deregulation by showing a decrease in the overall number of owners in small markets with a significant decrease of almost one owner per market since the passage of the *Telecommunications Act of 1996.*

The loss of a media owner will have a negative impact on the degree of voice diversity within the marketplace of ideas. Recent decisions by the FCC related to the local television industry will exacerbate the trend of local consolidation and the loss of media voices within the television news marketplace (McClellan, 2000). As television owners embrace the relaxation of duopoly rules in large markets and the economies of scale produced by shared service agreements in smaller markets, stations will begin to share management, news programming and facilities (Chambers, 2000). Likewise, there is growing concern that the recent consolidation of local radio properties will continue. According to Rathbun (2000), Clear Channel Communications wants to lower the local radio ownership restrictions further. "If Mays [Lowry Mayes, CEO Clear Channel Communications] had his way, he would toss aside the concept of clusters and own every radio station in a market" (Rathbun, 2000, p. 7). These trends will continue to have a negative impact on the nature of localism within small markets.

At a deeper theoretical level, localism has a rich history in the type of owners within a market. In the past, licensing procedures required owners to be involved in the management and operation of broadcast stations (Creech, 1993). It would be difficult for an owner with dozens, hundreds or even thousands of properties to be involved in the daily operation of a local media property. In the time of regulation, FCC regulations encouraged local ownership of properties by limiting the number of properties one group could own at the national level. Under the policies of deregulation, the nature of ownership changed with the development of companies controlling hundreds of radio stations, television stations and/or newspapers. The results of this study indicated the type of ownership changes for the daily newspaper, radio and television industries.

The types of media owners in smaller metropolitan statistical areas appeared to classify into two stages as a result of the paradigmatic shift in broadcast regulation philosophy. It appeared as if the 1984 changes to the Multiple Ownership Rules affected the type of owner found within the small media markets. The changes to the Multiple Ownership Rules allowed owners to increase the number of properties controlled at the national level from seven to twelve AM, FM and TV. Beginning in 1972, each industry experienced increases in the total number of absentee owners in small metropolitan statistical areas. Between 1972 and 1988, there was a 75 percent increase for newspapers, a 36 percent increase for television, and a 63 percent increase for the radio industries in the number of owners with media interests in other markets. Although local ownership for radio and television increased some during this time period, the number of local owners for small market newspapers dropped from 53 in 1972 to 15 in 1988.

During the open-market approach to regulation with policies of deregulation such as the relaxation of radio duopoly rules and the *Telecommunications Act of 1996*, the growth of absentee ownership slowed for each of the industries. Although the number of absentee owners for the radio industry jumped from 55 in 1988 to 113 in 1998, the majority of the increase came after the passage of the *1996 Act*. Absentee ownership in the local television industry jumped from 68 to 80 between 1988 and 1992 and then increased by seven in 1998. In the newspaper industry, the level of absentee ownership increased by just three owners between 1988 and 1998.

Overall, the regression analyses, controlling for time and economic factors, confirmed only that the *Telecommunications Act of 1996* had a significant negative effect on the number of local owners within small markets. This finding indicated the loss of almost one local owner per year per market since the passage of the *1996 Act*. Although the regression analysis failed to support the hypothesis that there was a significant increase in the number of absentee owners in small markets, the findings suggested that absentee owners could have been consolidating the number of their local properties within these markets.

Another core concept of the public interest was the notion of competition. Like localism, the FCC managed competition in all markets by allocating the number and types of broadcast outlets. In theory, markets existing in a state of competition are markets filled with a large number of competitors. For local media, competition refers to a diverse number of information providers. Policies such as the duopoly rule attempted to preserve this ideal of competition diversity. Deregulation policies allowing radio duopoly and consolidation changed the structure of media competition at the local level.

Large clusters of local radio properties can now provide advertisers with a broad range of audience choices. Based on the results of this study, there have been changes in the overall structure of the media marketplace in small metropolitan areas.

Under the period of FCC regulation, the trends of media ownership suggested positive growth in terms of media outlets and owners with the exception of newspapers. Both the television and radio industries in the small metropolitan statistical areas experienced substantial increases in the number of stations and owners. The newspaper industry in these markets lost afternoon/evening editions of papers and/or individual newspapers.

The trends in the data indicated the changes to the ownership structure of small markets during the open-market approach from 1992 to 1998. Under the open-market approach, the growth in the number of media outlets and owners failed to increase at the same rate. In fact, the television and radio industries in small markets increased by a total of six and 42, respectively. Although the local newspaper industry continued to lose newspapers, it was not at the same rate as the previous stage. Instead of losing twelve newspapers, the small markets lost just 3 papers from 1992 to 1998. Compared to the dramatic increases found in the first stage, this low growth rate accompanied the most substantial ownership deregulation policies included in the *Telecommunications Act of 1996*.

From a competition perspective, the most important issue might be the provision of content. Past research has supported the idea that a competitive market leads to program duplication (Steiner, 1952). More recent research has argued that competition at the media voice level increases the production of new content (Powers, 1993). In a

recent case study about radio consolidation, Williams (1998) reported that radio clusters increased the program diversity within a radio market. If the justifications for deregulation, the media outlets within a media market would be providing diverse programming. In particular, news content should have increased since the passage of deregulation. One of the disturbing findings of this study was the lack of support for the hypothesis that deregulation would stimulate the provision of news content. In fact, the regression analysis indicated no significant contribution from the overall period of deregulation or the *Telecommunications Act of 1996*. In addition, the results pointed to the decline in the number of network news wire services in small markets. Since the *Telecommunications Act of 1996*, there has been a significant decrease of two wire services per market. This finding suggested that owners were dropping additional sources of information within smaller markets.

From both a localism and competition perspective, ownership of small market media outlets failed to follow the trends of outlet growth. In particular, the results indicated that despite growth in the number of outlets there was a decrease in the number of local owners. Coupled with the decline in overall voice diversity and the loss of some types of news content since the passage of the *Telecommunications Act of 1996*, these results have implications for policymakers and the future of deregulation. The problem for policymakers is finding the balance between the ideals of marketplace theory and the realities of economic competition.

## Normative Implications

If the marketplace of ideas in small metropolitan areas were on a continuum, the pendulum would have moved from a point of high media diversity toward the point of

low media diversity between 1972 and 1998. The problem with interpreting the findings is attempting to determine where the pendulum started to begin with. The public interest is a difficult concept to define, much less evaluate. Opponents of deregulation often base their arguments on the idea that there was some point in time when the public interest was being satisfied. Proponents of deregulation argue that free market economics can provide the core values of the public interest. Which of these positions is correct?

According to the results, there was not a significant difference among the number of markets classified as existing in low, medium or high voice diversity for the time periods of regulation and deregulation. Before the passage of ownership deregulation only 17 percent of the markets in this study were classified as existing in a state of "high" voice diversity where for every 10 media outlets there were about eight media owners. Most of the markets were classified as existing in states of moderate or low diversity. After 1992, almost a quarter of the markets could have been classified as existing in a state of high diversity. But, the lack of statistical significance among the groups implies that the ideals of the public interest may not have been as rampant as previously believed.

On the other hand, the passage of the *Telecommunications Act of 1996* has brought about a significant change in the number of markets being classified as low diversity markets. In these markets, the proportion of owners to outlets is less than .65. After the Telecommunications Act, one-third of the markets were classified as existing in low voice diversity. This finding implied that the accelerated deregulation of the Telecommunications Act had a tremendous impact on the level of voice diversity in small markets. In addition, the results clearly showed that there was a significant increase in the number of markets where absentee owners dominated the marketplace. These types

of changes provide justification for the argument that deregulation has changed the degree of localism and competition within small media markets.

For supporters of deregulation, the overall growth in the number of owners and outlets and the contribution of the economic factors suggest that the policies allowing open market competition to determine the public interest standards of ownership have worked to some degree. For opponents of deregulation, the results articulate the shrinking number of media providers coupled with the loss of localism and competition. Altogether, the findings favor the camp against deregulation. It appears as if the pendulum was placed along the marketplace of ideas continuum in a position where the balance would favor a larger number of absentee owners providing the content in a small market.

The primary goal of deregulation was to determine if economic forces of the marketplace determine the public interest standards of source and content diversity. Until 1992, the local structure of media markets was strictly controlled by FCC regulations. Since 1992, various FCC regulations slowly deregulated the ownership rules for radio and television. In 1996, Congress passed the *Telecommunications Act of 1996* that further loosened radio and television ownership rules. Overall, these policy changes had different impacts on the structural and content diversity in small media markets that required deeper analysis regarding the factors related to performance issues.

The final area of study was related to the effect of the economic marketplace on the level of diversity within small markets. There was a positive relationship with the economic factors of population size, retail sales and total personal income. One of the striking relationships was between the number of absentee owners and the amount of

retail sales and total personal income. The new players in the local media industry are interested in profits; therefore, the smaller markets must be providing a satisfactory amount of advertising revenues. In addition, the content diversity variables showed a positive relationship with the economic factors. From the open-market perspective, proponents of deregulation can be satisfied that economic factors, not government regulation, appears to be stimulating the provision of news content in smaller markets.

On the other hand, the results indicated significant, negative relationships between the amount of retail sales and the total personal income and the level of voice diversity in a small market. The inverse relationships stressed the value of economic success to absentee owners. As retail sales and personal income increased in a market, there was a decrease in the level of voice diversity. From an advertising perspective, one could assume that as the amount of retail sales increases, there would be an increase in the amount of available advertising revenue. If a market, regardless of size, contained a large supply of advertising revenue, then absentee media owners, who survive through the sale of advertising, would want to expand into that marketplace. Likewise, one could assume that markets with an audience base composed of persons with higher amounts of personal income were more attractive than markets with an audience base composed of persons with lower amounts of personal income.

The mixed results regarding source and content diversity, combined with the intervening economic factors, emphasized the positive and negative effects related to undifferentiated policymaking with no regard for the unique characteristics of individual markets. In the positive category, the results showed that the gradual transition from regulation to deregulation did not have a detrimental impact on the level of source

diversity in small markets. From a negative perspective, the results pointed to the 'survival of the fittest' philosophy. The trends in the media ownership structure of small markets showed increases in the level of absentee ownership; owners that could realize the benefits related to the economies of scale. In addition to the impact of government regulation or deregulation, each market has unique economic characteristics that appeared to have an impact on the measures of diversity. As a result, the policies of deregulation provided an atmosphere conducive to the local, independent media owners with ties to the community of service being replaced by the absentee owner with few ties to the community. The changes in broadcast ownership policies resulted in significant decreases in the level of small market media diversity.

In sum, policies related to the deregulation of broadcast ownership seemed to have had mixed effects on media structure and content diversity in smaller metropolitan statistical areas. Overall, the results indicated that since the passage of the *Telecommunications Act of 1996*, there has been a loss in the number of local owners, a decrease in the level of voice diversity and a loss in the number of network news wire services. These drastic changes require re-evaluating the governing assumptions that justified broadcast deregulation and, specifically, the passage of the *Telecommunications Act of 1996*.

The major problem with evaluating the policies of regulation and deregulation is the dual nature of diversity. There are two levels of diversity: source and content. Since the FCC's investigation into the issues of chain broadcasting, there has always been a link between the diversity of voices and the diversity of content. Both approaches to regulation claimed to achieve the goal of competition. The difference between the two

regulatory philosophies was the theoretical method for achieving this goal. For regulation, the philosophy relied on a numerical diversity of voices. Deregulation philosophy grounded its approach in the idea that the free market, not government regulation, would provide the numerical diversity of voices.

By quantifying media diversity at the ownership level, the FCC administered policies restricting the development of local monopoly control of media information at the inter- or intra-industry level. Despite regulatory management of diversity, the data analysis characterized the majority of the small media markets in this study as existing in moderate diversity. Given the government's role in broadcast spectrum management, one would have assumed that there would have been more markets categorized as high diversity. Since deregulation, Congress instructed the FCC to relax the rules related to local ownership of radio properties. With the radio changes, there has been an impact on the overall level of owners within markets.

The regulatory philosophy shift to the marketplace approach to broadcast regulation was grounded on the assumption that media markets would maintain the public interest standards better than government policies. One of the goals of this study was to explore the nature and range of any imperfections in the ownership structure of small markets. From a theoretical perspective, market imperfections have always existed in broadcast markets.

These socio-economic imperfections are linked to the core values of the public interest – localism, competition and diversity -- as defined by the FCC Chairman Kennard (1998, p. 2) and scholars such as Besen et al. (1984), the number of market imperfections has increased since 1996 in the small markets. At the structure level, the

results indicated both a decrease in the level of competition and diversity. More markets contained fewer and less diverse owners. These types of market imperfections should force the FCC to re-consider the ownership deregulation policies.

## Policy Recommendations

Localism, competition and diversity are noble goals to pursue in the area of telecommunications policy. In the current deregulatory environment, these goals will be difficult to achieve and maintain. At the ownership level, deregulation will continue for both the radio and television industry (FCC, 1999a). The FCC will also re-consider the rules related to cross-media ownership in local markets (FCC, 1998a). Despite the trends of deregulation, Congress, the FCC and other government agencies such as the Justice Department and the Federal Trade Commission can develop new policies aimed at preserving the level of competition within local media markets without sacrificing the intent of free market economics.

In particular, one policy recommendation area the FCC might consider is the development of rules related the limitation of local audience reach by broadcast stations in small markets. This type of policy would prevent properties at the local level from developing market power and preventing new competitors from entering the market. At the national level, the FCC prohibits a group of television stations from reaching a potential audience of more than 35 percent of the national audience. In the past, the Commission set audience caps within local markets. Although this type of policy would set standards limiting the development of monopoly power, the potential economic inefficiencies might outweigh the public interest benefits.

A second policy recommendation area for the FCC and Congress to consider is the maintenance of local ownership through various types of incentives. One method of incentive would be to encourage local ownership of broadcast properties through tax reduction incentives. Instead of providing federal grants or loans, Congress could provide any local owner of a media property a reduction or a policy of no taxes for local owners. Congress would need to set strict parameters to this type of policy; in particular, the policy would need to limit local owners to those with properties in just one market.

A final policy recommendation would be to cap current initiatives aimed at relaxing ownership rules for local television and radio stations and maintain the prohibition on cross-media ownership. Currently, the FCC allows television duopoly in the largest television markets (FCC, 1999a). In the small markets, a television duopoly would accelerate the decrease of media voices. Recent research has already indicated that television stations in smaller television markets are sharing news programming; thereby decreasing the number of voices in both the television and overall news market (Chambers, et al, 2000). Like television duopoly, an allowance of a newspaper and broadcast station combination would be detrimental to media voice diversity in small markets.

Overall, policy decisions that might work in larger markets due to the number of competitors are difficult to apply across markets. The economics of small markets highlight the need to maintain as much voice diversity in terms of the marketplace of ideas as possible. Based on the results of this study, the average number of outlets in small markets increased while the number of owners of these outlets decreased. Theoretically, competition does produce diverse programming (Bates & Chambers,

1999). Realistically, competition exists when there are a diverse number of competitors. If the trends as reported in this dissertation continue, competition will cease to exist for local media owners in small markets. There might be competition among a handful of absentee owners; however, local ties to local information will be lost.

## Limitations

Some of the problem areas of this dissertation included the issues related to the validity and reliability of secondary information. From a validity perspective, the information provided in the yearbooks might not represent the actual ownership structure of a market. For example, the yearbook might not have included current information about the ownership status of a property. In this study, each property was checked with other yearbooks to attempt to gain valid and valuable information. At the same time, one would need to consider the reliability of information provided to the yearbook. In most cases, the media properties voluntarily submit information to the yearbook. Some of the information might be out-of-date or incorrect. Every attempt was made to check the validity and reliability of the information. Despite these types of problems, this dissertation and its results provide an insight and hopefully a benchmark to future research in the economics of small market media.

## Future Research

Based on this dissertation, future research studies can expand the scope of the data set to include more markets and more issues related to the structure, conduct and performance of small-market media. Overall, the results suggested decreases to source and content diversity. One area of future research should focus on the conduct of individual media properties in small markets and how the conduct affects the overall

performance of the market. Recent research in the area of local television joint ventures illustrated the potential negative consequences of collective newsgathering techniques (Chambers, et al. 2000). In their study, Chambers et al. found initial evidence that television stations involved in a joint venture in their news departments used the same stories, reporters, and footage for newscasts on the separate stations. In smaller metropolitan areas where there might only be three television stations with a newscast, the combination of a news department would result in the loss of a media voice -- if the same content aired on both stations.

A second area of future research should concentrate on broadening the scope of this dissertation to include new media technologies such as the cable, telephone, direct broadcast satellite and Internet Service Provider industries. Each of these industries interacts with the audience in small markets. Related to this area of research would be to re-think the nature of concentration research. Napoli (1997) suggested using an audience-centered approach when exploring the issues related to concentration and program diversity. By focusing on the time-spent with media instead of audience shares, media economists can fruitfully make valid comparisons among media.

In conclusion, the data provided a benchmark for future studies related to the media economics of small markets. In study after study, including this dissertation, diversity proved to be a difficult variable to analyze. However, in this case, the restriction of the definition of diversity to specific variables concerning the structure and performance of small media markets indicated the number of local owners was shrinking and the number of network news sources was decreasing as well. Although the ideals of localism, competition and diversity exist in the deregulation policies, there has been a

negative impact on overall media diversity in small markets. Policymakers should learn from the examples set by the daily newspaper industry. In the beginning, the daily newspaper industry was competitive. Free market economics and the protection of the First Amendment helped to create local daily newspaper monopolies. Policymakers could also learn from the lessons taught by the introduction of large department stores into small communities. Although the chain stores made positive contributions to the community with jobs and stimulating the local economy, the loss of locally-owned 'mom and pop' stores decreased the diversity of products available found in that community.

The marketplace of ideas in small markets is an important commodity that demands careful scrutiny when considering policies related to the structure of local media. Daily newspapers, television stations and radio stations play an important role in informing the citizens of the market. If the trends of small market media diversity continue, content will be controlled by a small number of owners distributing the same product across markets.

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# APPENDICES

# Appendix A

**Table A-1. Major FCC Ownership Policy Changes Since 1970**

| *Year* | *Media* | *Decision* |
|---|---|---|
| 1970 | Radio/TV/Cable | One-to-a-Market |
| 1975 | Radio/TV/Newspaper | Cross-ownership Ban |
| 1985 | Radio/TV | 12-12-12 Rule |
| 1989 | Radio/TV | One-to-a-Market modified |
| 1992 | Radio | Duopoly Decision, National Ownership Cap Increased |
| 1994 | Radio | National Cap Increased |
| 1996 | Radio/TV | Local and National Caps Increased |

Source: McConnell, B. (1998, November 16). FCC moving, cautiously, on ownership. Broadcasting & Cable, p. 27.

**Table A-2. Average number of newspaper, television and radio outlets and owners in small markets, 1972-1998**

| *Year* | *Newspaper* | *Newspaper Owner* | *TV* | *TV Owner* | *Radio* | *Radio Owner* |
|---|---|---|---|---|---|---|
| **1972** | 74 | 64 | 62 | 60 | 299 | 213 |
| **1976** | 72 | 61 | 72 | 70 | 328 | 227 |
| **1980** | 73 | 61 | 78 | 76 | 358 | 249 |
| **1984** | 70 | 60 | 86 | 84 | 374 | 256 |
| **1988** | 66 | 59 | 104 | 102 | 415 | 286 |
| **1992** | 62 | 59 | 106 | 103 | 441 | 308 |
| **1993** | 61 | 59 | 107 | 104 | 441 | 306 |
| **1994** | 61 | 59 | 109 | 106 | 449 | 316 |
| **1995** | 61 | 59 | 108 | 105 | 462 | 313 |
| **1996** | 59 | 57 | 109 | 106 | 470 | 313 |
| **1997** | 59 | 58 | 112 | 108 | 474 | 296 |
| **1998** | 59 | 58 | 112 | 107 | 483 | 294 |

**Table A-3. Types of newspaper, television and radio owners in small markets, 1972-1998**

| *Year* | *Local Newspaper* | *Absentee Newspaper* | *Local TV* | *Absentee TV* | *Local Radio* | *Absentee Radio* |
|---|---|---|---|---|---|---|
| **1972** | 53 | 11 | 17 | 43 | 193 | 20 |
| **1976** | 47 | 14 | 17 | 53 | 177 | 50 |
| **1980** | 27 | 34 | 23 | 53 | 199 | 50 |
| **1984** | 21 | 39 | 31 | 53 | 203 | 55 |
| **1988** | 15 | 44 | 34 | 68 | 231 | 55 |
| **1992** | 14 | 45 | 23 | 80 | 227 | 82 |
| **1993** | 15 | 44 | 24 | 80 | 224 | 82 |
| **1994** | 15 | 44 | 26 | 80 | 233 | 83 |
| **1995** | 13 | 46 | 17 | 88 | 231 | 82 |
| **1996** | 12 | 45 | 16 | 90 | 224 | 82 |
| **1997** | 11 | 47 | 19 | 90 | 199 | 90 |
| **1998** | 11 | 47 | 21 | 87 | 181 | 113 |

**Table A-4. The growth of non-commercial media outlets in small markets, 1972-1998**

| *Year* | *Non-commercial media* | *Commercial Media* |
|---|---|---|
| **1972** | 32 | 403 |
| **1976** | 54 | 418 |
| **1980** | 64 | 445 |
| **1984** | 68 | 462 |
| **1988** | 80 | 505 |
| **1992** | 90 | 519 |
| **1993** | 91 | 518 |
| **1994** | 90 | 529 |
| **1995** | 92 | 539 |
| **1996** | 97 | 541 |
| **1997** | 96 | 549 |
| **1998** | 103 | 551 |

**Table A-5. News outlets and network news providers in small markets, 1972-1998**

| *Year* | *Newspaper* | *Newspaper Wires* | *TV News Outlet* | *TV News Wires* | *Radio News Outlet* | *Radio News Wires* |
|---|---|---|---|---|---|---|
| **1972** | 74 | 83 | 50 | 80 | 167 | 136 |
| **1976** | 72 | 70 | 45 | 128 | 151 | 186 |
| **1980** | 73 | 89 | 50 | 130 | 168 | 241 |
| **1984** | 70 | 92 | 57 | 144 | 175 | 275 |
| **1988** | 66 | 98 | 62 | 145 | 198 | 330 |
| **1992** | 62 | 101 | 64 | 148 | 249 | 381 |
| **1993** | 61 | 105 | 66 | 149 | 246 | 395 |
| **1994** | 61 | 108 | 65 | 152 | 246 | 397 |
| **1995** | 61 | 106 | 61 | 156 | 247 | 381 |
| **1996** | 59 | 95 | 63 | 157 | 255 | 393 |
| **1997** | 59 | 106 | 65 | 154 | 261 | 384 |
| **1998** | 59 | 108 | 64 | 166 | 257 | 318 |

Table A-6. Average number of media in small markets, 1972-1998

| *Year* | *Newspaper* | *Newspaper Owner* | *TV* | *TV Owner* | *Radio* | *Radio Owner* |
|---|---|---|---|---|---|---|
| **1972** | 1.423077 | 1.230769 | 1.192308 | 1.153846 | 5.75 | 4.096154 |
| **1976** | 1.384615 | 1.173077 | 1.384615 | 1.346154 | 6.307692 | 4.365385 |
| **1980** | 1.403846 | 1.173077 | 1.5 | 1.461538 | 6.884615 | 4.788462 |
| **1984** | 1.346154 | 1.153846 | 1.653846 | 1.615385 | 7.192308 | 4.923077 |
| **1988** | 1.269231 | 1.134615 | 2 | 1.961538 | 7.980769 | 5.5 |
| **1992** | 1.192308 | 1.134615 | 2.038462 | 1.980769 | 8.480769 | 5.923077 |
| **1993** | 1.173077 | 1.134615 | 2.057692 | 2 | 8.480769 | 5.884615 |
| **1994** | 1.173077 | 1.134615 | 2.096154 | 2.038462 | 8.634615 | 6.076923 |
| **1995** | 1.173077 | 1.134615 | 2.076923 | 2.019231 | 8.884615 | 6.019231 |
| **1996** | 1.134615 | 1.096154 | 2.096154 | 2.038462 | 9.038462 | 6.019231 |
| **1997** | 1.134615 | 1.115385 | 2.153846 | 2.076923 | 9.115385 | 5.692308 |
| **1998** | 1.134615 | 1.115385 | 2.153846 | 2.057692 | 9.288462 | 5.653846 |

Table A-7. Average media owners in small markets, 1972-1998

| *Year* | *Newspaper Local* | *Newspaper Absentee* | *TV Local* | *TV Absentee* | *Radio Local* | *Radio Absentee* |
|---|---|---|---|---|---|---|
| **1972** | 1.019231 | 0.211538 | 0.326923 | 0.826923 | 3.711538 | 0.384615 |
| **1976** | 0.903846 | 0.269231 | 0.326923 | 1.019231 | 3.403846 | 0.961538 |
| **1980** | 0.519231 | 0.653846 | 0.442308 | 1.019231 | 3.826923 | 0.961538 |
| **1984** | 0.403846 | 0.75 | 0.596154 | 1.019231 | 3.903846 | 1.057692 |
| **1988** | 0.288462 | 0.846154 | 0.653846 | 1.307692 | 4.442308 | 1.057692 |
| **1992** | 0.269231 | 0.865385 | 0.442308 | 1.538462 | 4.365385 | 1.576923 |
| **1993** | 0.288462 | 0.846154 | 0.461538 | 1.538462 | 4.307692 | 1.576923 |
| **1994** | 0.288462 | 0.846154 | 0.5 | 1.538462 | 4.480769 | 1.596154 |
| **1995** | 0.25 | 0.884615 | 0.326923 | 1.692308 | 4.442308 | 1.576923 |
| **1996** | 0.230769 | 0.865385 | 0.307692 | 1.730769 | 4.307692 | 1.576923 |
| **1997** | 0.211538 | 0.903846 | 0.365385 | 1.730769 | 3.826923 | 1.730769 |
| **1998** | 0.211538 | 0.903846 | 0.403846 | 1.673077 | 3.480769 | 2.173077 |

**Table A-8a. Average number of news outlets in small markets, 1972-1998**

| *Year* | *Newspaper* | *TV News Outlet* | *Radio News Outlet* |
|---|---|---|---|
| **1972** | 1.423077 | 0.961538 | 3.211538 |
| **1976** | 1.384615 | 0.865385 | 2.903846 |
| **1980** | 1.403846 | 0.961538 | 3.230769 |
| **1984** | 1.346154 | 1.096154 | 3.365385 |
| **1988** | 1.269231 | 1.192308 | 3.807692 |
| **1992** | 1.192308 | 1.230769 | 4.788462 |
| **1993** | 1.173077 | 1.269231 | 4.730769 |
| **1994** | 1.173077 | 1.25 | 4.730769 |
| **1995** | 1.173077 | 1.173077 | 4.75 |
| **1996** | 1.134615 | 1.211538 | 4.903846 |
| **1997** | 1.134615 | 1.25 | 5.019231 |
| **1998** | 1.134615 | 1.230769 | 4.942308 |

**Table A-8b. Average number of network news services in small markets, 1972-1998**

| *Year* | *Newspaper Wires* | *TV News Wires* | *Radio News Wires* |
|---|---|---|---|
| **1972** | 1.596154 | 1.538462 | 2.615385 |
| **1976** | 1.346154 | 2.461538 | 3.576923 |
| **1980** | 1.711538 | 2.5 | 4.634615 |
| **1984** | 1.769231 | 2.769231 | 5.288462 |
| **1988** | 1.884615 | 2.788462 | 6.346154 |
| **1992** | 1.942308 | 2.846154 | 7.326923 |
| **1993** | 2.019231 | 2.865385 | 7.596154 |
| **1994** | 2.076923 | 2.923077 | 7.634615 |
| **1995** | 2.038462 | 3 | 7.326923 |
| **1996** | 1.826923 | 3.019231 | 7.557692 |
| **1997** | 2.038462 | 2.961538 | 7.384615 |
| **1998** | 2.076923 | 3.192308 | 6.115385 |

**Table A-9. Regression Models For Dependent Variables on Year**

| *Dependent Variable* | $R^2$ | *F-Test* | *p<* | *B* | *Beta* |
|---|---|---|---|---|---|
| *Number of Media* | .096 | 65.696 | .000 | .16 | .309 |
| *Number of Owners* | .098 | 67.215 | .000 | .115 | .312 |
| *Number of Newspapers* | .052 | 33.833 | .000 | -.012 | -.227 |
| *Number of Newspaper Owners* | .007 | 4.309 | .038 | -.003 | -.083 |
| *Number of Local Newspaper Owners* | .206 | 160.74 | .000 | -.02 | -.453 |
| *Number of Absentee Newspaper Owners* | .151 | 110.17 | .000 | .025 | .388 |
| *Number of TV Stations* | .047 | 30.716 | .000 | .038 | .217 |
| *Number of TV Owners* | .047 | 30.439 | .000 | .036 | .216 |
| *Number of Local TV Owners* | .000 | .007 | .934 | .0002 | .003 |
| *Number of Absentee TV Owners* | .055 | 36.271 | .000 | .036 | .235 |
| *Number of Radio Stations* | .115 | 81.159 | .000 | .135 | .34 |
| *Number of Radio Owners* | .083 | 56.354 | .000 | .074 | .288 |
| *Number of Local Radio Owners* | .008 | 5.045 | .025 | .021 | .09 |
| *Number of Absentee Radio Owners* | .15 | 109.89 | .000 | .051 | .387 |
| *Number of Non-Commercial Outlets* | .075 | 50.450 | .000 | .045 | .274 |
| *Sum of Local Owners* | .001 | .522 | .470 | -.007 | -.029 |
| *Sum of Absentee Owners* | .173 | 129.53 | .000 | .114 | .415 |
| *Number of News Outlets* | .066 | 44.194 | .000 | .091 | .258 |
| *Number of News Wires* | .183 | 137.48 | .000 | .248 | .428 |
| *Voice Diversity* | .007 | 4.07 | .044 | .001 | .081 |
| *Radio Diversity* | .013 | 8.06 | .005 | -.001 | -.113 |
| *TV Diversity* | .000 | .013 | .91 | -.0004 | -.005 |
| *Newspaper Diversity* | .069 | 39.864 | .000 | .004 | .264 |

**All F-Tests have df=622*

**Table A-10. Effect of Deregulation Policies on Dependent Variables Controlling for Year, Population, Retail Sales and Total Personal Income.**

| *Variable* | $R^2$ | *F-Test* | *F-Sig.* | *Year* | *Dereg* | *T 96* | *Popul.* | *Retail* | *Income* |
|---|---|---|---|---|---|---|---|---|---|
| *# of Media* | .183 | 23.025 | .000 | -.072 | -.062 | -.065 | -.019 | .511** | .060 |
| *# of Owners* | .153 | 18.617 | .000 | .043 | -.027 | -.13** | -.004 | .359** | .080 |
| *# NP* | .076 | 8.467 | .000 | -.276** | -.077 | -.005 | .092* | -.159 | .275** |
| *# NP Owners* | .022 | 2.325 | .031 | -.26* | .035 | .000 | .020 | -.127 | .291** |
| *# Local NP Own* | .241 | 32.688 | .000 | -.551** | .276** | .11** | -.014 | -.142 | -.102 |
| *# Absent NP Own* | .201 | 25.802 | .000 | .37** | -.246** | -.107* | .026 | .057 | .287** |
| *# TV Stations* | .092 | 10.403 | .000 | .014 | -.063 | -.073 | -.045 | .451** | -.079 |
| *# of TV Owners* | .108 | 12.471 | .000 | -.026 | -.075 | -.088 | -.037 | .516** | -.076 |
| *# Local TV Own* | .027 | 2.825 | .01 | .292** | -.253** | -.091 | .03 | -.176 | .149 |
| *# Absent TV Own* | .138 | 16.45 | .000 | -.164 | .041 | -.046 | -.054 | .637** | -.154 |
| *# Radio Stations* | .20 | 25.783 | .000 | -.066 | -.042 | -.051 | -.018 | .489** | .080 |
| *# Radio Owners* | .133 | 15.751 | .000 | .020 | .010 | -.133 | .021 | .293** | .101 |
| *# Local Radio O* | .043 | 4.586 | .000 | -.001 | -.026 | -.173** | .039 | .164 | .079 |
| *# Absent Radio O* | .192 | 24.40 | .000 | .028 | .053 | .003 | -.030 | .367** | .014 |
| *# Non-Comml.* | .151 | 18.301 | .000 | -.119 | -.073 | -.046 | -.062 | .187 | .401** |
| *Non-Comml Diversity* | .048 | 5.197 | .000 | -.002 | -.062 | .001 | -.070 | -.264** | .487** |
| *Local Owners* | .023 | 2.404 | .026 | -.054 | -.027 | -.151** | .040 | .059 | .091 |
| *Absent Owners* | .257 | 35.479 | .000 | -.001 | -.011 | -.047 | -.040 | .546** | .006 |
| *Local to Absentee* | .143 | 15.626 | .000 | -.052 | -.087 | .000 | .025 | -.266* | -.003 |
| *# of News Outlets* | .161 | 19.657 | .000 | -.194 | .101 | -.065 | -.016 | .668** | -.181 |
| *# of News Wires* | .268 | 37.159 | .000 | .218* | -.066 | -.182** | -.009 | .586** | -.135 |
| *Voice Divy.* | .052 | 5.686 | .000 | .309** | .092 | -.141** | .035 | -.321** | .036 |
| *Radio Divy.* | .078 | 8.662 | .000 | .126 | .135 | -.13** | .117** | -.411** | .041 |
| *TV Divy* | .037 | 3.150 | .005 | -.155 | -.058 | -.092 | .060 | .33** | -.038 |
| *NP Divy.* | .083 | 9.245 | .000 | .125 | .156 | .005 | -.124** | .098 | -.091 |

*p<.05 **p<.01

**Table A-11. Multiple Regression Explaining the Effect of Deregulation Policies on the Number of Owners Controlling for Year, Population, Retail Sales and Total Personal Income**

| Time Period | B | Beta | t-test | p< |
|---|---|---|---|---|
| *Regulation v. Deregulation* | -.171 | -.027 | -.347 | .729 |
| *Before v. After 96 Act* | -.925 | -.13 | -2.828 | .005 |
| $R^2 = .153$ | | | | |
| F = 18.617 | | | | |
| sig. = .000 | | | | |

**Table A-12. Multiple Regression Explaining the Effect of Deregulation Policies on the Level of Voice Diversity Controlling for Year, Population, Retail Sales and Total Personal Income**

| Time Period | B | Beta | t-test | p< |
|---|---|---|---|---|
| *Regulation v. Deregulation* | .0194 | .092 | 1.106 | .269 |
| *Before v. After 96 Act* | -.033 | -.141 | -2.903 | .004 |
| $R^2 = .052$ | | | | |
| F = 5.686 | | | | |
| sig. = .000 | | | | |

**Table A-13. Multiple Regression Explaining the Effect of Deregulation Policies on the Number of Non-Commercial Outlets Controlling for Year, Population, Retail Sales and Total Personal Income**

| Time Period | B | Beta | t-test | p< |
|---|---|---|---|---|
| *Regulation v. Deregulation* | -.209 | -.073 | -.932 | .352 |
| *Before v. After 96 Act* | -.15 | -.046 | -1.013 | .311 |
| $R^2 = .151$ | | | | |
| F = 18.301 | | | | |
| sig. = .000 | | | | |

**Table A-14. Multiple Regression Explaining the Effect of Deregulation Policies on the Level of Non-Commercial Diversity Controlling for Year, Population, Retail Sales and Total Personal Income**

| Time Period | B | Beta | t-test | p< |
|---|---|---|---|---|
| *Regulation v. Deregulation* | -.025 | -.062 | -.742 | .458 |
| *Before v. After 96 Act* | .0003 | .001 | .014 | .989 |
| $R^2 = .048$ | | | | |
| F = 5.197 | | | | |
| sig. = .000 | | | | |

**Table A-15. Multiple Regression Explaining the Effect of Deregulation Policies on the Number of Local Owners Controlling for Year, Population, Retail Sales and Total Personal Income**

| Time Period | B | Beta | t-test | p< |
|---|---|---|---|---|
| *Regulation v. Deregulation* | -.124 | -.027 | -.323 | .747 |
| *Before v. After 96 Act* | -.782 | -.151 | -3.066 | .002 |
| $R^2 = .023$ | | | | |
| F = 2.404 | | | | |
| sig. = .026 | | | | |

**Table A-16. Multiple Regression Explaining the Effect of Deregulation Policies on the Number of Absentee Owners Controlling for Year, Population, Retail Sales and Total Personal Income**

| Time Period | B | Beta | t-test | p< |
|---|---|---|---|---|
| *Regulation v. Deregulation* | -.05 | -.011 | -.147 | .883 |
| *Before v. After 96 Act* | -.249 | -.047 | -1.09 | .274 |
| $R^2 = .257$ | | | | |
| F = 35.479 | | | | |
| sig. = .000 | | | | |

**Table A-17. Multiple Regression Explaining the Effect of Deregulation Policies on the Level of Local Owner Diversity Controlling for Year, Population, Retail Sales and Total Personal Income**

| Time Period | B | Beta | t-test | p< |
|---|---|---|---|---|
| *Regulation v. Deregulation* | -.288 | -.087 | -1.057 | .291 |
| *Before v. After 96 Act* | -.0003 | .000 | -.002 | .999 |
| $R^2 = .143$ | | | | |
| F = 15.626 | | | | |
| sig. = .000 | | | | |

**Table A-18. Voice diversity category by regulatory philosophy, 1972-1998**

| ***Regulatory Philosophy*** | ***Low Diversity <=.65 voice diversity*** | ***Moderate Diversity .66 - .74 voice diversity*** | ***High Diversity >=.75 voice diversity*** |
|---|---|---|---|
| *Regulation Paradigm 1972-1988* | 70 (26.9%) | 146 (56.2%) | 44 (16.9%) |
| *Deregulation Paradigm 1992-1998* | 86 (23.6%) | 193 (53%) | 85 (23.4%) |
| | $X^2$=3.965 | df=2 | sig.:.138 |

**Table A-19. Voice diversity by market before and after the *Telecommunications Act of 1996***

| ***Regulatory Philosophy*** | ***Low Diversity <=.65 voice diversity*** | ***Moderate Diversity .66 - .74 voice diversity*** | ***High Diversity >=.75 voice diversity*** |
|---|---|---|---|
| *Before Telecommunications Act, 1972-1995 1972-1988* | 104 (22.2%) | 267 (57.1%) | 97 (20.7%) |
| *After Telecommunications Act, 1996-1998* | 52 (33.3%) | 76 (46.2%) | 32 (20.5%) |
| | $X^2$=8.338 | df=2 | sig.:.015 |

**Table A-20. Absentee owner diversity category by regulatory philosophy, 1972-1998**

| ***Regulatory Philosophy*** | ***Low Diversity <=.65 voice diversity*** | ***Moderate Diversity .66 - .74 voice diversity*** | ***High Diversity >=.75 voice diversity*** |
|---|---|---|---|
| *Regulation Paradigm* | 24 | 91 | 145 |
| *1972-1988* | (9.2%) | (35%) | (55.8) |
| *Deregulation Paradigm* | 78 | 188 | 97 |
| *1992-1998* | (21.5%) | (51.8%) | (26.7%) |
| | $X^2$=56.344 | df=2 | sig.:.000 |

**Table A-21. Absentee owner diversity by market before and after the *Telecommunications Act of 1996***

| ***Regulatory Philosophy*** | ***Low Diversity <=.65 voice diversity*** | ***Moderate Diversity .66 - .74 voice diversity*** | ***High Diversity >=.75 voice diversity*** |
|---|---|---|---|
| *Before Telecommunications Act, 1972-1995 1972-1988* | 63 (13.5%) | 201 (42.9%) | 204 (43.6%) |
| *After Telecommunications Act, 1996-1998* | 39 (25.2%) | 78 (50.3%) | 38 (24.5%) |
| | $X^2$=22.054 | df=2 | sig.:.000 |

**Table A-22. Multiple Regression Explaining the Effect of Deregulation Policies on the Number of News Outlets Controlling for Year, Population, Retail Sales and Total Personal Income**

| Time Period | B | Beta | t-test | p< |
|---|---|---|---|---|
| *Regulation v. Deregulation* | .604 | .101 | 1.288 | .198 |
| *Before v. After 96 Act* | -.447 | -.065 | -1.435 | .152 |
| $R^2 = .161$ | | | | |
| F = 19.657 | | | | |
| sig. = .000 | | | | |

**Table A-23. Multiple Regression Explaining the Effect of Deregulation Policies on the Number of News Wire Services Controlling for Year, Population, Retail Sales and Total Personal Income**

| Time Period | B | Beta | t-test | p< |
|---|---|---|---|---|
| *Regulation v. Deregulation* | -.646 | -.066 | -.898 | .369 |
| *Before v. After 96 Act* | -2.035 | -.182 | -4.256 | .000 |
| $R^2 = .268$ | | | | |
| F = 37.159 | | | | |
| sig. = .000 | | | | |

**Table A-24. Correlation Matrix for Population, Retail Sales and Total Personal Income by Dependent Variables**

| *Dependent Variable* | *Population* | *Retail Sales* | *Total Personal Income* |
|---|---|---|---|
| *# Media* | .081** | .305*** | .237*** |
| *# Owners* | .069** | .223*** | .189*** |
| *Voice Diversity* | -.023 | -.169*** | -.099*** |
| *# Absentee Owners* | .059* | .312*** | .222*** |
| *# Local Owners* | .056* | .058 | .073** |
| *# Non-Commercial* | .049 | .239*** | .277*** |
| *# News Outlets* | .063* | .299*** | .166*** |
| *# News Wires* | .065* | .272*** | .160*** |

** = p<.10*
*** =p<.05*
****=p<.01*

# Appendix B

**Figure B-1. Media outlets and owners in small markets, 1972-1998**

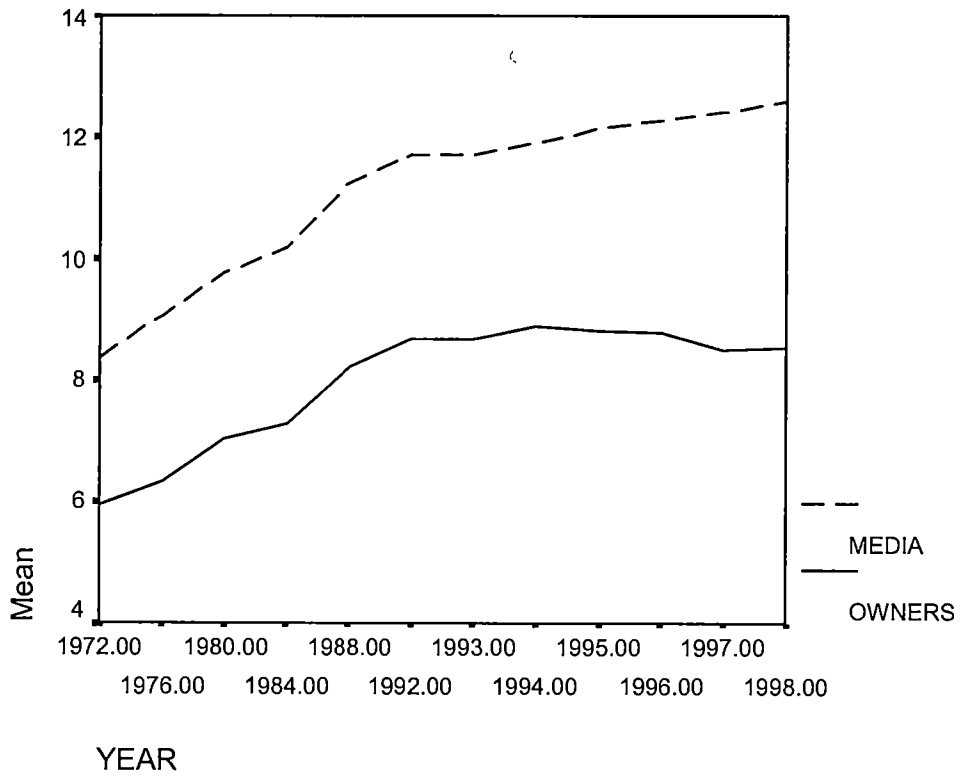


**Figure B-2. Average number of newspaper owners and outlets in small markets, 1972-1998**

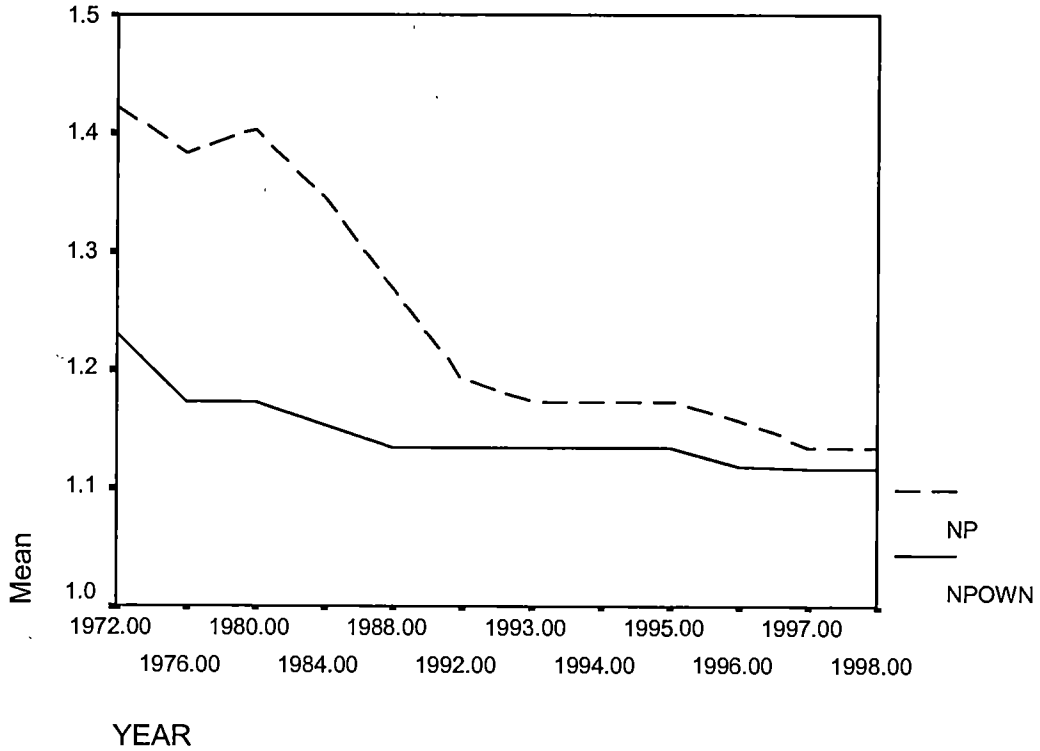


**Figure B-3. Average number of television outlets and owners in small markets, 1972-1998**

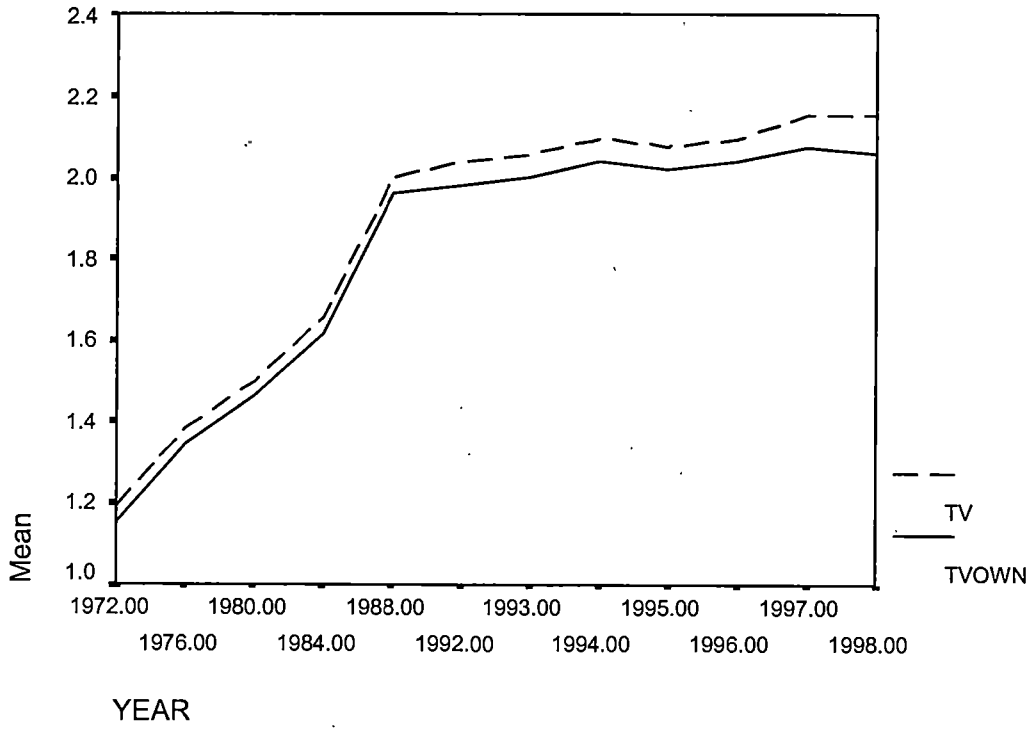


**Figure B-4. Average number of radio outlets and owners in small markets, 1972-1998**

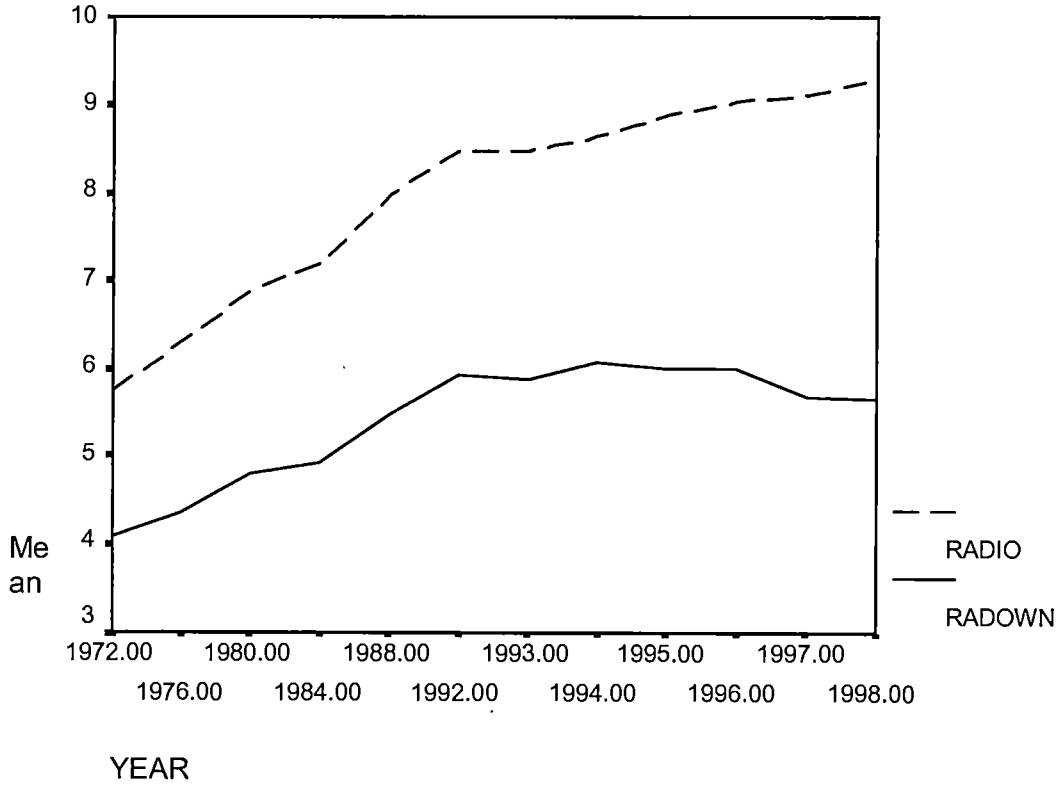
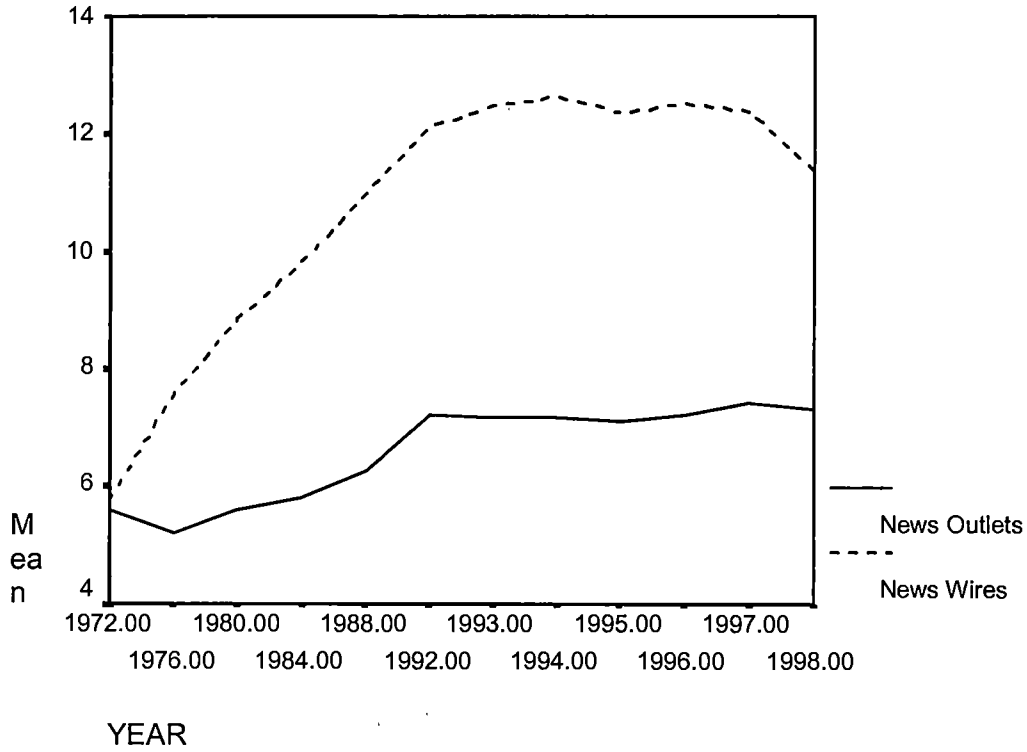


**Figure B-5. Average number of news outlets and news wires in small markets, 1972-1998**



# Appendix C

| *Market* | *ID* | *Year* | *# Media* | *# Owners* | *#NP* | *#NP Own* | *#TV* | *#TV Own* | *# Radio* | *# Radown* |
|---|---|---|---|---|---|---|---|---|---|---|
| Abilene, Texas | 228 | 1972 | 10 | 9 | 1 | 1 | 2 | 2 | 7 | 6 |
| Abilene, Texas | 228 | 1976 | 11 | 9 | 1 | 1 | 2 | 2 | 8 | 6 |
| Abilene, Texas | 228 | 1980 | 14 | 11 | 2 | 1 | 3 | 3 | 9 | 7 |
| Abilene, Texas | 228 | 1984 | 14 | 10 | 2 | 1 | 3 | 3 | 9 | 6 |
| Abilene, Texas | 228 | 1988 | 17 | 13 | 1 | 1 | 4 | 4 | 12 | 8 |
| Abilene, Texas | 228 | 1992 | 17 | 13 | 1 | 1 | 3 | 3 | 13 | 9 |
| Abilene, Texas | 228 | 1993 | 18 | 14 | 1 | 1 | 3 | 3 | 14 | 10 |
| Abilene, Texas | 228 | 1994 | 17 | 14 | 1 | 1 | 3 | 3 | 13 | 10 |
| Abilene, Texas | 228 | 1995 | 17 | 14 | 1 | 1 | 3 | 3 | 13 | 10 |
| Abilene, Texas | 228 | 1996 | 17 | 14 | 1 | 1 | 3 | 3 | 13 | 10 |
| Abilene, Texas | 228 | 1997 | 18 | 13 | 1 | 1 | 3 | 3 | 14 | 9 |
| Abilene, Texas | 228 | 1998 | 18 | 12 | 1 | 1 | 3 | 3 | 14 | 8 |
| Albany, Georgia | 236 | 1972 | 9 | 5 | 1 | 1 | 1 | 1 | 7 | 4 |
| Albany, Georgia | 236 | 1976 | 9 | 5 | 1 | 1 | 1 | 1 | 7 | 4 |
| Albany, Georgia | 236 | 1980 | 9 | 6 | 1 | 1 | 1 | 1 | 7 | 5 |
| Albany, Georgia | 236 | 1984 | 10 | 7 | 1 | 1 | 2 | 2 | 7 | 5 |
| Albany, Georgia | 236 | 1988 | 10 | 6 | 1 | 1 | 2 | 2 | 7 | 4 |
| Albany, Georgia | 236 | 1992 | 13 | 9 | 1 | 1 | 2 | 2 | 10 | 7 |
| Albany, Georgia | 236 | 1993 | 13 | 9 | 1 | 1 | 2 | 2 | 10 | 7 |
| Albany, Georgia | 236 | 1994 | 13 | 9 | 1 | 1 | 2 | 2 | 10 | 7 |
| Albany, Georgia | 236 | 1995 | 13 | 9 | 1 | 1 | 2 | 2 | 10 | 7 |
| Albany, Georgia | 236 | 1996 | 13 | 9 | 1 | 1 | 2 | 2 | 10 | 7 |
| Albany, Georgia | 236 | 1997 | 14 | 8 | 1 | 1 | 2 | 2 | 11 | 6 |
| Albany, Georgia | 236 | 1998 | 14 | 8 | 1 | 1 | 2 | 2 | 11 | 5 |
| Anniston, Alabama | 239 | 1972 | 6 | 3 | 1 | 1 | 1 | 1 | 4 | 3 |
| Anniston, Alabama | 239 | 1976 | 6 | 3 | 1 | 1 | 1 | 1 | 4 | 3 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Anniston, Alabama | 239 | 1980 | 6 | 3 | 1 | 1 | 1 | 1 | 4 | 3 |
| Anniston, Alabama | 239 | 1984 | 6 | 5 | 1 | 1 | 1 | 1 | 4 | 3 |
| Anniston, Alabama | 239 | 1988 | 6 | 5 | 1 | 1 | 1 | 1 | 4 | 3 |
| Anniston, Alabama | 239 | 1992 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 4 |
| Anniston, Alabama | 239 | 1993 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 4 |
| Anniston, Alabama | 239 | 1994 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 4 |
| Anniston, Alabama | 239 | 1995 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 4 |
| Anniston, Alabama | 239 | 1996 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 4 |
| Anniston, Alabama | 239 | 1997 | 8 | 7 | 1 | 1 | 1 | 1 | 6 | 5 |
| Anniston, Alabama | 239 | 1998 | 8 | 7 | 1 | 1 | 1 | 1 | 6 | 5 |
| Bangor, Maine | 262 | 1972 | 11 | 6 | 1 | 1 | 3 | 3 | 7 | 5 |
| Bangor, Maine | 262 | 1976 | 11 | 8 | 1 | 1 | 3 | 3 | 7 | 6 |
| Bangor, Maine | 262 | 1980 | 14 | 11 | 1 | 1 | 3 | 3 | 10 | 7 |
| Bangor, Maine | 262 | 1984 | 15 | 11 | 1 | 1 | 3 | 3 | 11 | 9 |
| Bangor, Maine | 262 | 1988 | 17 | 13 | 1 | 1 | 3 | 3 | 13 | 10 |
| Bangor, Maine | 262 | 1992 | 20 | 15 | 1 | 1 | 3 | 3 | 16 | 12 |
| Bangor, Maine | 262 | 1993 | 20 | 14 | 1 | 1 | 3 | 3 | 16 | 11 |
| Bangor, Maine | 262 | 1994 | 20 | 14 | 1 | 1 | 3 | 3 | 16 | 11 |
| Bangor, Maine | 262 | 1995 | 20 | 13 | 1 | 1 | 3 | 3 | 16 | 10 |
| Bangor, Maine | 262 | 1996 | 20 | 13 | 1 | 1 | 3 | 3 | 16 | 10 |
| Bangor, Maine | 262 | 1997 | 19 | 12 | 1 | 1 | 3 | 3 | 15 | 9 |
| Bangor, Maine | 262 | 1998 | 18 | 11 | 1 | 1 | 3 | 3 | 14 | 7 |
| Bismarck, North Dakota | 259 | 1972 | 8 | 5 | 1 | 1 | 2 | 2 | 5 | 3 |
| Bismarck, North Dakota | 259 | 1976 | 8 | 5 | 1 | 1 | 2 | 2 | 5 | 3 |
| Bismarck, North Dakota | 259 | 1980 | 9 | 7 | 1 | 1 | 3 | 3 | 5 | 3 |
| Bismarck, North Dakota | 259 | 1984 | 11 | 7 | 1 | 1 | 4 | 4 | 6 | 4 |
| Bismarck, North Dakota | 259 | 1988 | 12 | 7 | 1 | 1 | 4 | 4 | 7 | 4 |
| Bismarck, North Dakota | 259 | 1992 | 12 | 7 | 1 | 1 | 4 | 4 | 7 | 4 |
| Bismarck, North Dakota | 259 | 1993 | 12 | 7 | 1 | 1 | 4 | 4 | 7 | 4 |
| Bismarck, North Dakota | 259 | 1994 | 12 | 7 | 1 | 1 | 4 | 4 | 7 | 4 |
| Bismarck, North Dakota | 259 | 1995 | 14 | 8 | 1 | 1 | 4 | 4 | 9 | 5 |
| Bismarck, North Dakota | 259 | 1996 | 14 | 8 | 1 | 1 | 4 | 4 | 9 | 5 |
| Bismarck, North Dakota | 259 | 1997 | 15 | 8 | 1 | 1 | 4 | 4 | 10 | 5 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bismarck, North Dakota | 259 | 1998 | 15 | 8 | 1 | 1 | 4 | 4 | 10 | 4 |
| Bloomington, Indiana | 237 | 1972 | 7 | 4 | 2 | 2 | 2 | 2 | 3 | 2 |
| Bloomington, Indiana | 237 | 1976 | 6 | 3 | 1 | 1 | 2 | 2 | 3 | 2 |
| Bloomington, Indiana | 237 | 1980 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| Bloomington, Indiana | 237 | 1984 | 7 | 5 | 1 | 1 | 2 | 2 | 4 | 3 |
| Bloomington, Indiana | 237 | 1988 | 9 | 7 | 1 | 1 | 4 | 4 | 4 | 3 |
| Bloomington, Indiana | 237 | 1992 | 10 | 8 | 1 | 1 | 4 | 4 | 5 | 4 |
| Bloomington, Indiana | 237 | 1993 | 10 | 8 | 1 | 1 | 4 | 4 | 5 | 4 |
| Bloomington, Indiana | 237 | 1994 | 10 | 8 | 1 | 1 | 4 | 4 | 5 | 4 |
| Bloomington, Indiana | 237 | 1995 | 10 | 8 | 1 | 1 | 4 | 4 | 5 | 4 |
| Bloomington, Indiana | 237 | 1996 | 10 | 8 | 1 | 1 | 4 | 4 | 5 | 4 |
| Bloomington, Indiana | 237 | 1997 | 10 | 8 | 1 | 1 | 4 | 4 | 5 | 4 |
| Bloomington, Indiana | 237 | 1998 | 9 | 7 | 1 | 1 | 3 | 3 | 5 | 4 |
| Casper-Riverton, Wyoming | 272 | 1972 | 10 | 8 | 2 | 2 | 2 | 2 | 6 | 5 |
| Casper-Riverton, Wyoming | 272 | 1976 | 10 | 8 | 2 | 2 | 2 | 2 | 6 | 5 |
| Casper-Riverton, Wyoming | 272 | 1980 | 14 | 9 | 2 | 2 | 3 | 3 | 9 | 6 |
| Casper-Riverton, Wyoming | 272 | 1984 | 18 | 13 | 2 | 2 | 4 | 4 | 12 | 9 |
| Casper-Riverton, Wyoming | 272 | 1988 | 20 | 16 | 2 | 2 | 4 | 4 | 14 | 11 |
| Casper-Riverton, Wyoming | 272 | 1992 | 21 | 16 | 2 | 2 | 4 | 3 | 15 | 11 |
| Casper-Riverton, Wyoming | 272 | 1993 | 20 | 16 | 2 | 2 | 4 | 3 | 14 | 11 |
| Casper-Riverton, Wyoming | 272 | 1994 | 19 | 15 | 2 | 2 | 4 | 3 | 13 | 10 |
| Casper-Riverton, Wyoming | 272 | 1995 | 19 | 14 | 2 | 2 | 4 | 3 | 13 | 9 |
| Casper-Riverton, | 272 | 1996 | 19 | 14 | 2 | 2 | 4 | 3 | 13 | 9 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Wyoming | | | | | | | | | | |
| Casper-Riverton, Wyoming | 272 | 1997 | 20 | 13 | 2 | 2 | 4 | 3 | 14 | 8 |
| Casper-Riverton, Wyoming | 272 | 1998 | 24 | 14 | 2 | 2 | 6 | 4 | 16 | 9 |
| Cheyenne-Scottsbluff, Wyoming | 269 | 1972 | 16 | 10 | 3 | 2 | 3 | 2 | 10 | 7 |
| Cheyenne-Scottsbluff, Wyoming | 269 | 1976 | 16 | 10 | 3 | 2 | 3 | 2 | 10 | 7 |
| Cheyenne-Scottsbluff, Wyoming | 269 | 1980 | 17 | 12 | 3 | 2 | 3 | 2 | 11 | 8 |
| Cheyenne-Scottsbluff, Wyoming | 269 | 1984 | 18 | 13 | 3 | 2 | 4 | 3 | 11 | 8 |
| Cheyenne-Scottsbluff, Wyoming | 269 | 1988 | 20 | 14 | 3 | 2 | 5 | 4 | 12 | 8 |
| Cheyenne-Scottsbluff, Wyoming | 269 | 1992 | 20 | 13 | 3 | 2 | 5 | 4 | 12 | 7 |
| Cheyenne-Scottsbluff, Wyoming | 269 | 1993 | 19 | 14 | 2 | 2 | 5 | 4 | 12 | 8 |
| Cheyenne-Scottsbluff, Wyoming | 269 | 1994 | 19 | 14 | 2 | 2 | 5 | 4 | 12 | 8 |
| Cheyenne-Scottsbluff, Wyoming | 269 | 1995 | 19 | 14 | 2 | 2 | 5 | 4 | 12 | 8 |
| Cheyenne-Scottsbluff, Wyoming | 269 | 1996 | 20 | 15 | 2 | 2 | 5 | 4 | 13 | 9 |
| Cheyenne-Scottsbluff, Wyoming | 269 | 1997 | 22 | 14 | 2 | 2 | 5 | 4 | 15 | 8 |
| Cheyenne-Scottsbluff, Wyoming | 269 | 1998 | 22 | 14 | 2 | 2 | 5 | 4 | 15 | 8 |
| Cumberland, Maryland | 252 | 1972 | 7 | 4 | 2 | 1 | 0 | 0 | 5 | 3 |
| Cumberland, Maryland | 252 | 1976 | 7 | 4 | 2 | 1 | 0 | 0 | 5 | 3 |
| Cumberland, Maryland | 252 | 1980 | 7 | 4 | 2 | 1 | 0 | 0 | 5 | 3 |
| Cumberland, Maryland | 252 | 1984 | 7 | 4 | 2 | 1 | 0 | 0 | 5 | 3 |
| Cumberland, Maryland | 252 | 1988 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |
| Cumberland, Maryland | 252 | 1992 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Cumberland, Maryland | 252 | 1993 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |
| Cumberland, Maryland | 252 | 1994 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |
| Cumberland, Maryland | 252 | 1995 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |
| Cumberland, Maryland | 252 | 1996 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |
| Cumberland, Maryland | 252 | 1997 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |
| Cumberland, Maryland | 252 | 1998 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |
| Danville, Virginia | 244 | 1972 | 7 | 5 | 2 | 1 | 0 | 0 | 5 | 4 |
| Danville, Virginia | 244 | 1976 | 7 | 5 | 2 | 1 | 0 | 0 | 5 | 4 |
| Danville, Virginia | 244 | 1980 | 7 | 5 | 2 | 1 | 0 | 0 | 5 | 4 |
| Danville, Virginia | 244 | 1984 | 7 | 5 | 2 | 1 | 0 | 0 | 5 | 4 |
| Danville, Virginia | 244 | 1988 | 7 | 5 | 2 | 1 | 0 | 0 | 5 | 4 |
| Danville, Virginia | 244 | 1992 | 6 | 5 | 1 | 1 | 0 | 0 | 5 | 4 |
| Danville, Virginia | 244 | 1993 | 6 | 5 | 1 | 1 | 0 | 0 | 5 | 4 |
| Danville, Virginia | 244 | 1994 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 4 |
| Danville, Virginia | 244 | 1995 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 4 |
| Danville, Virginia | 244 | 1996 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 4 |
| Danville, Virginia | 244 | 1997 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 4 |
| Danville, Virginia | 244 | 1998 | 8 | 7 | 1 | 1 | 1 | 1 | 6 | 5 |
| Decatur, Illinois | 238 | 1972 | 6 | 3 | 2 | 1 | 1 | 1 | 3 | 2 |
| Decatur, Illinois | 238 | 1976 | 8 | 5 | 2 | 1 | 1 | 1 | 5 | 4 |
| Decatur, Illinois | 238 | 1980 | 8 | 6 | 2 | 1 | 1 | 1 | 5 | 4 |
| Decatur, Illinois | 238 | 1984 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 3 |
| Decatur, Illinois | 238 | 1988 | 8 | 6 | 1 | 1 | 2 | 2 | 5 | 3 |
| Decatur, Illinois | 238 | 1992 | 8 | 6 | 1 | 1 | 2 | 2 | 5 | 3 |
| Decatur, Illinois | 238 | 1993 | 8 | 6 | 1 | 1 | 2 | 2 | 5 | 3 |
| Decatur, Illinois | 238 | 1994 | 8 | 6 | 1 | 1 | 2 | 2 | 5 | 3 |
| Decatur, Illinois | 238 | 1995 | 9 | 7 | 1 | 1 | 2 | 2 | 6 | 4 |
| Decatur, | 238 | 1996 | 9 | 7 | 1 | 1 | 2 | 2 | 6 | 4 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Illinois | | | | | | | | | | |
| Decatur, Illinois | 238 | 1997 | 9 | 7 | 1 | 1 | 2 | 2 | 6 | 4 |
| Decatur, Illinois | 238 | 1998 | 9 | 7 | 1 | 1 | 2 | 2 | 6 | 4 |
| Dover, Delaware | 226 | 1972 | 5 | 4 | 1 | 1 | 0 | 0 | 4 | 3 |
| Dover, Delaware | 226 | 1976 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |
| Dover, Delaware | 226 | 1980 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |
| Dover, Delaware | 226 | 1984 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |
| Dover, Delaware | 226 | 1988 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |
| Dover, Delaware | 226 | 1992 | 8 | 6 | 1 | 1 | 0 | 0 | 7 | 5 |
| Dover, Delaware | 226 | 1993 | 8 | 6 | 1 | 1 | 0 | 0 | 7 | 5 |
| Dover, Delaware | 226 | 1994 | 8 | 6 | 1 | 1 | 0 | 0 | 7 | 5 |
| Dover, Delaware | 226 | 1995 | 8 | 6 | 1 | 1 | 0 | 0 | 7 | 5 |
| Dover, Delaware | 226 | 1996 | 8 | 6 | 1 | 1 | 0 | 0 | 7 | 5 |
| Dover, Delaware | 226 | 1997 | 8 | 6 | 1 | 1 | 0 | 0 | 7 | 5 |
| Dover, Delaware | 226 | 1998 | 8 | 6 | 1 | 1 | 0 | 0 | 7 | 5 |
| Dubuque, Iowa | 263 | 1972 | 6 | 3 | 1 | 1 | 1 | 1 | 4 | 2 |
| Dubuque, Iowa | 263 | 1976 | 6 | 3 | 1 | 1 | 1 | 1 | 4 | 2 |
| Dubuque, Iowa | 263 | 1980 | 7 | 4 | 1 | 1 | 1 | 1 | 5 | 3 |
| Dubuque, Iowa | 263 | 1984 | 7 | 4 | 1 | 1 | 1 | 1 | 5 | 3 |
| Dubuque, Iowa | 263 | 1988 | 7 | 4 | 1 | 1 | 1 | 1 | 5 | 3 |
| Dubuque, Iowa | 263 | 1992 | 7 | 4 | 1 | 1 | 1 | 1 | 5 | 3 |
| Dubuque, Iowa | 263 | 1993 | 7 | 4 | 1 | 1 | 1 | 1 | 5 | 3 |
| Dubuque, Iowa | 263 | 1994 | 7 | 4 | 1 | 1 | 1 | 1 | 5 | 3 |
| Dubuque, Iowa | 263 | 1995 | 7 | 4 | 1 | 1 | 1 | 1 | 5 | 3 |
| Dubuque, Iowa | 263 | 1996 | 7 | 4 | 1 | 1 | 1 | 1 | 5 | 3 |
| Dubuque, Iowa | 263 | 1997 | 7 | 3 | 1 | 1 | 1 | 1 | 5 | 2 |
| Dubuque, Iowa | 263 | 1998 | 7 | 3 | 1 | 1 | 1 | 1 | 5 | 2 |
| Elmira, New York | 257 | 1972 | 11 | 8 | 1 | 1 | 2 | 2 | 8 | 5 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Elmira, New York | 257 | 1976 | 11 | 7 | 1 | 1 | 2 | 2 | 8 | 5 |
| Elmira, New York | 257 | 1980 | 11 | 7 | 1 | 1 | 2 | 2 | 8 | 5 |
| Elmira, New York | 257 | 1984 | 11 | 7 | 1 | 1 | 2 | 2 | 8 | 5 |
| Elmira, New York | 257 | 1988 | 12 | 8 | 1 | 1 | 2 | 2 | 9 | 6 |
| Elmira, New York | 257 | 1992 | 13 | 9 | 1 | 1 | 2 | 2 | 10 | 7 |
| Elmira, New York | 257 | 1993 | 13 | 9 | 1 | 1 | 2 | 2 | 10 | 7 |
| Elmira, New York | 257 | 1994 | 13 | 9 | 1 | 1 | 2 | 2 | 10 | 7 |
| Elmira, New York | 257 | 1995 | 13 | 9 | 1 | 1 | 2 | 2 | 10 | 7 |
| Elmira, New York | 257 | 1996 | 13 | 9 | 1 | 1 | 2 | 2 | 10 | 7 |
| Elmira, New York | 257 | 1997 | 13 | 9 | 1 | 1 | 2 | 2 | 10 | 7 |
| Elmira, New York | 257 | 1998 | 13 | 9 | 1 | 1 | 2 | 2 | 10 | 7 |
| Enid, Oklahoma | 273 | 1972 | 5 | 3 | 2 | 1 | 0 | 0 | 3 | 2 |
| Enid, Oklahoma | 273 | 1976 | 5 | 3 | 2 | 1 | 0 | 0 | 3 | 2 |
| Enid, Oklahoma | 273 | 1980 | 5 | 3 | 2 | 1 | 0 | 0 | 3 | 2 |
| Enid, Oklahoma | 273 | 1984 | 7 | 4 | 2 | 1 | 0 | 0 | 5 | 3 |
| Enid, Oklahoma | 273 | 1988 | 8 | 5 | 2 | 1 | 0 | 0 | 6 | 4 |
| Enid, Oklahoma | 273 | 1992 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Enid, Oklahoma | 273 | 1993 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Enid, Oklahoma | 273 | 1994 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Enid, Oklahoma | 273 | 1995 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Enid, Oklahoma | 273 | 1996 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Enid, Oklahoma | 273 | 1997 | 7 | 4 | 1 | 1 | 0 | 0 | 6 | 3 |
| Enid, Oklahoma | 273 | 1998 | 7 | 4 | 1 | 1 | 0 | 0 | 6 | 3 |
| Flagstaff, Arizona | 235 | 1972 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 4 |
| Flagstaff, Arizona | 235 | 1976 | 8 | 7 | 1 | 1 | 1 | 1 | 6 | 5 |
| Flagstaff, Arizona | 235 | 1980 | 8 | 7 | 1 | 1 | 1 | 1 | 6 | 5 |
| Flagstaff, Arizona | 235 | 1984 | 8 | 7 | 1 | 1 | 1 | 1 | 6 | 5 |
| Flagstaff, | 235 | 1988 | 9 | 7 | 1 | 1 | 1 | 1 | 7 | 5 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Arizona | | | | | | | | | | |
| Flagstaff, Arizona | 235 | 1992 | 9 | 7 | 1 | 1 | 1 | 1 | 7 | 5 |
| Flagstaff, Arizona | 235 | 1993 | 11 | 8 | 1 | 1 | 2 | 2 | 8 | 5 |
| Flagstaff, Arizona | 235 | 1994 | 11 | 8 | 1 | 1 | 2 | 2 | 8 | 5 |
| Flagstaff, Arizona | 235 | 1995 | 11 | 7 | 1 | 1 | 2 | 2 | 8 | 4 |
| Flagstaff, Arizona | 235 | 1996 | 12 | 8 | 1 | 1 | 2 | 2 | 9 | 5 |
| Flagstaff, Arizona | 235 | 1997 | 11 | 7 | 1 | 1 | 2 | 2 | 8 | 4 |
| Flagstaff, Arizona | 235 | 1998 | 11 | 7 | 1 | 1 | 2 | 2 | 8 | 4 |
| Florence, South Carolina | 223 | 1972 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 4 |
| Florence, South Carolina | 223 | 1976 | 8 | 7 | 1 | 1 | 2 | 2 | 5 | 4 |
| Florence, South Carolina | 223 | 1980 | 10 | 8 | 1 | 1 | 3 | 3 | 6 | 4 |
| Florence, South Carolina | 223 | 1984 | 10 | 8 | 1 | 1 | 3 | 3 | 6 | 4 |
| Florence, South Carolina | 223 | 1988 | 10 | 8 | 1 | 1 | 3 | 3 | 6 | 4 |
| Florence, South Carolina | 223 | 1992 | 10 | 7 | 1 | 1 | 3 | 3 | 6 | 3 |
| Florence, South Carolina | 223 | 1993 | 10 | 8 | 1 | 1 | 3 | 3 | 6 | 4 |
| Florence, South Carolina | 223 | 1994 | 14 | 12 | 1 | 1 | 4 | 4 | 9 | 7 |
| Florence, South Carolina | 223 | 1995 | 14 | 11 | 1 | 1 | 4 | 4 | 9 | 6 |
| Florence, South Carolina | 223 | 1996 | 15 | 11 | 1 | 1 | 4 | 4 | 10 | 6 |
| Florence, South Carolina | 223 | 1997 | 15 | 10 | 1 | 1 | 4 | 4 | 10 | 5 |
| Florence, South Carolina | 223 | 1998 | 15 | 9 | 1 | 1 | 4 | 4 | 10 | 4 |
| Gadsden, Alabama | 250 | 1972 | 5 | 4 | 1 | 1 | 0 | 0 | 4 | 3 |
| Gadsden, Alabama | 250 | 1976 | 6 | 5 | 1 | 1 | 0 | 0 | 5 | 4 |
| Gadsden, Alabama | 250 | 1980 | 6 | 5 | 1 | 1 | 0 | 0 | 5 | 4 |
| Gadsden, Alabama | 250 | 1984 | 6 | 5 | 1 | 1 | 0 | 0 | 5 | 4 |
| Gadsden, Alabama | 250 | 1988 | 9 | 8 | 1 | 1 | 2 | 2 | 6 | 5 |
| Gadsden, Alabama | 250 | 1992 | 10 | 9 | 1 | 1 | 2 | 2 | 7 | 6 |
| Gadsden, Alabama | 250 | 1993 | 10 | 9 | 1 | 1 | 2 | 2 | 7 | 6 |
| Gadsden, Alabama | 250 | 1994 | 11 | 9 | 1 | 1 | 2 | 2 | 8 | 6 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Gadsden, Alabama | 250 | 1995 | 11 | 9 | 1 | 1 | 2 | 2 | 8 | 6 |
| Gadsden, Alabama | 250 | 1996 | 11 | 10 | 1 | 1 | 2 | 2 | 8 | 7 |
| Gadsden, Alabama | 250 | 1997 | 11 | 10 | 1 | 1 | 2 | 2 | 8 | 7 |
| Gadsden, Alabama | 250 | 1998 | 11 | 10 | 1 | 1 | 2 | 2 | 8 | 7 |
| Glens Falls, New York | 225 | 1972 | 5 | 3 | 1 | 1 | 0 | 0 | 4 | 2 |
| Glens Falls, New York | 225 | 1976 | 5 | 3 | 1 | 1 | 0 | 0 | 4 | 2 |
| Glens Falls, New York | 225 | 1980 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |
| Glens Falls, New York | 225 | 1984 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |
| Glens Falls, New York | 225 | 1988 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Glens Falls, New York | 225 | 1992 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Glens Falls, New York | 225 | 1993 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Glens Falls, New York | 225 | 1994 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Glens Falls, New York | 225 | 1995 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Glens Falls, New York | 225 | 1996 | 7 | 4 | 1 | 1 | 0 | 0 | 6 | 3 |
| Glens Falls, New York | 225 | 1997 | 7 | 4 | 1 | 1 | 0 | 0 | 6 | 3 |
| Glens Falls, New York | 225 | 1998 | 7 | 4 | 1 | 1 | 0 | 0 | 6 | 3 |
| Goldsboro, North Carolina | 241 | 1972 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Goldsboro, North Carolina | 241 | 1976 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Goldsboro, North Carolina | 241 | 1980 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Goldsboro, North Carolina | 241 | 1984 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Goldsboro, North Carolina | 241 | 1988 | 8 | 6 | 1 | 1 | 1 | 1 | 6 | 4 |
| Goldsboro, North Carolina | 241 | 1992 | 8 | 7 | 1 | 1 | 1 | 1 | 6 | 5 |
| Goldsboro, North Carolina | 241 | 1993 | 8 | 7 | 1 | 1 | 1 | 1 | 6 | 5 |
| Goldsboro, North Carolina | 241 | 1994 | 8 | 7 | 1 | 1 | 1 | 1 | 6 | 5 |
| Goldsboro, North Carolina | 241 | 1995 | 8 | 6 | 1 | 1 | 1 | 1 | 6 | 4 |
| Goldsboro, North Carolina | 241 | 1996 | 8 | 5 | 1 | 1 | 1 | 1 | 6 | 3 |
| Goldsboro, North Carolina | 241 | 1997 | 8 | 5 | 1 | 1 | 1 | 1 | 6 | 3 |
| Goldsboro, | 241 | 1998 | 9 | 6 | 1 | 1 | 1 | 1 | 7 | 4 |

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| North Carolina | | | | | | | | | | |
| Grand Forks, North Dakota | 248 | 1972 | 11 | 9 | 1 | 1 | 2 | 2 | 8 | 6 |
| Grand Forks, North Dakota | 248 | 1976 | 16 | 11 | 1 | 1 | 3 | 3 | 12 | 7 |
| Grand Forks, North Dakota | 248 | 1980 | 18 | 13 | 1 | 1 | 3 | 3 | 14 | 9 |
| Grand Forks, North Dakota | 248 | 1984 | 17 | 12 | 1 | 1 | 3 | 3 | 13 | 8 |
| Grand Forks, North Dakota | 248 | 1988 | 18 | 13 | 1 | 1 | 3 | 3 | 14 | 9 |
| Grand Forks, North Dakota | 248 | 1992 | 19 | 14 | 1 | 1 | 3 | 3 | 15 | 10 |
| Grand Forks, North Dakota | 248 | 1993 | 19 | 14 | 1 | 1 | 3 | 3 | 15 | 10 |
| Grand Forks, North Dakota | 248 | 1994 | 19 | 14 | 1 | 1 | 3 | 3 | 15 | 10 |
| Grand Forks, North Dakota | 248 | 1995 | 20 | 14 | 1 | 1 | 3 | 3 | 16 | 10 |
| Grand Forks, North Dakota | 248 | 1996 | 20 | 14 | 1 | 1 | 3 | 3 | 16 | 10 |
| Grand Forks, North Dakota | 248 | 1997 | 20 | 10 | 1 | 1 | 3 | 3 | 16 | 6 |
| Grand Forks, North Dakota | 248 | 1998 | 20 | 10 | 1 | 1 | 3 | 3 | 16 | 6 |
| Grand Junction, Colorado | 245 | 1972 | 10 | 7 | 2 | 2 | 2 | 1 | 6 | 5 |
| Grand Junction, Colorado | 245 | 1976 | 13 | 8 | 2 | 2 | 2 | 1 | 9 | 6 |
| Grand Junction, Colorado | 245 | 1980 | 16 | 11 | 2 | 2 | 3 | 2 | 11 | 8 |
| Grand Junction, Colorado | 245 | 1984 | 18 | 13 | 2 | 2 | 3 | 2 | 13 | 10 |
| Grand Junction, Colorado | 245 | 1988 | 19 | 14 | 2 | 2 | 3 | 2 | 14 | 10 |
| Grand Junction, Colorado | 245 | 1992 | 19 | 14 | 2 | 2 | 3 | 2 | 14 | 10 |
| Grand Junction, Colorado | 245 | 1993 | 19 | 14 | 2 | 2 | 3 | 2 | 14 | 10 |
| Grand Junction, Colorado | 245 | 1994 | 19 | 13 | 2 | 2 | 3 | 2 | 14 | 9 |
| Grand Junction, Colorado | 245 | 1995 | 20 | 13 | 2 | 2 | 3 | 2 | 15 | 9 |
| Grand Junction, Colorado | 245 | 1996 | 22 | 15 | 2 | 2 | 4 | 3 | 16 | 10 |

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|---|---|---|---|---|---|---|---|---|---|---|
| Grand Junction, Colorado | 245 | 1997 | 22 | 13 | 2 | 2 | 4 | 3 | 16 | 9 |
| Grand Junction, Colorado | 245 | 1998 | 24 | 15 | 2 | 2 | 5 | 4 | 17 | 9 |
| Great Falls, Montana | 268 | 1972 | 10 | 8 | 1 | 1 | 2 | 2 | 7 | 5 |
| Great Falls, Montana | 268 | 1976 | 10 | 8 | 1 | 1 | 2 | 2 | 7 | 5 |
| Great Falls, Montana | 268 | 1980 | 10 | 8 | 1 | 1 | 2 | 2 | 7 | 5 |
| Great Falls, Montana | 268 | 1984 | 11 | 8 | 1 | 1 | 2 | 2 | 8 | 5 |
| Great Falls, Montana | 268 | 1988 | 13 | 9 | 1 | 1 | 3 | 3 | 9 | 5 |
| Great Falls, Montana | 268 | 1992 | 13 | 9 | 1 | 1 | 3 | 3 | 9 | 5 |
| Great Falls, Montana | 268 | 1993 | 13 | 9 | 1 | 1 | 3 | 3 | 9 | 5 |
| Great Falls, Montana | 268 | 1994 | 13 | 9 | 1 | 1 | 3 | 3 | 9 | 5 |
| Great Falls, Montana | 268 | 1995 | 13 | 9 | 1 | 1 | 3 | 3 | 9 | 5 |
| Great Falls, Montana | 268 | 1996 | 14 | 10 | 1 | 1 | 3 | 3 | 10 | 6 |
| Great Falls, Montana | 268 | 1997 | 14 | 10 | 1 | 1 | 3 | 3 | 10 | 6 |
| Great Falls, Montana | 268 | 1998 | 14 | 10 | 1 | 1 | 3 | 3 | 10 | 6 |
| Greenville, North Carolina | 233 | 1972 | 9 | 7 | 1 | 1 | 3 | 3 | 5 | 4 |
| Greenville, North Carolina | 233 | 1976 | 11 | 8 | 1 | 1 | 4 | 4 | 6 | 4 |
| Greenville, North Carolina | 233 | 1980 | 11 | 8 | 1 | 1 | 4 | 4 | 6 | 4 |
| Greenville, North Carolina | 233 | 1984 | 12 | 9 | 1 | 1 | 4 | 4 | 7 | 5 |
| Greenville, North Carolina | 233 | 1988 | 12 | 10 | 1 | 1 | 4 | 4 | 7 | 6 |
| Greenville, North Carolina | 233 | 1992 | 12 | 10 | 1 | 1 | 5 | 5 | 6 | 5 |
| Greenville, North Carolina | 233 | 1993 | 12 | 11 | 1 | 1 | 5 | 5 | 6 | 5 |
| Greenville, North Carolina | 233 | 1994 | 12 | 10 | 1 | 1 | 5 | 5 | 6 | 5 |
| Greenville, North Carolina | 233 | 1995 | 13 | 11 | 1 | 1 | 5 | 5 | 7 | 6 |
| Greenville, North Carolina | 233 | 1996 | 13 | 11 | 1 | 1 | 5 | 5 | 7 | 6 |
| Greenville, North Carolina | 233 | 1997 | 12 | 11 | 1 | 1 | 5 | 5 | 6 | 5 |
| Greenville, North Carolina | 233 | 1998 | 13 | 12 | 1 | 1 | 5 | 5 | 7 | 6 |
| Hattiesburg- | 246 | 1972 | 14 | 11 | 2 | 2 | 1 | 1 | 11 | 8 |

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|---|---|---|---|---|---|---|---|---|---|---|
| Laurel, Mississippi | | | | | | | | | | |
| Hattiesburg-Laurel, Mississippi | 246 | 1976 | 15 | 12 | 2 | 2 | 1 | 1 | 12 | 9 |
| Hattiesburg-Laurel, Mississippi | 246 | 1980 | 15 | 12 | 2 | 2 | 1 | 1 | 12 | 9 |
| Hattiesburg-Laurel, Mississippi | 246 | 1984 | 16 | 12 | 2 | 2 | 1 | 1 | 13 | 9 |
| Hattiesburg-Laurel, Mississippi | 246 | 1988 | 19 | 14 | 2 | 2 | 2 | 2 | 15 | 10 |
| Hattiesburg-Laurel, Mississippi | 246 | 1992 | 21 | 16 | 2 | 2 | 2 | 2 | 17 | 12 |
| Hattiesburg-Laurel, Mississippi | 246 | 1993 | 20 | 15 | 2 | 2 | 2 | 2 | 16 | 11 |
| Hattiesburg-Laurel, Mississippi | 246 | 1994 | 20 | 15 | 2 | 2 | 2 | 2 | 16 | 11 |
| Hattiesburg-Laurel, Mississippi | 246 | 1995 | 20 | 15 | 2 | 2 | 2 | 2 | 16 | 11 |
| Hattiesburg-Laurel, Mississippi | 246 | 1996 | 20 | 15 | 2 | 2 | 2 | 2 | 16 | 11 |
| Hattiesburg-Laurel, Mississippi | 246 | 1997 | 20 | 15 | 2 | 2 | 2 | 2 | 16 | 11 |
| Hattiesburg-Laurel, Mississippi | 246 | 1998 | 20 | 14 | 2 | 2 | 2 | 2 | 16 | 10 |
| Idaho Falls-Pocatello, Idaho | 271 | 1972 | 15 | 11 | 2 | 2 | 3 | 3 | 10 | 8 |
| Idaho Falls-Pocatello, Idaho | 271 | 1976 | 18 | 13 | 2 | 2 | 4 | 4 | 12 | 9 |
| Idaho Falls-Pocatello, Idaho | 271 | 1980 | 20 | 12 | 3 | 2 | 4 | 4 | 13 | 9 |
| Idaho Falls-Pocatello, Idaho | 271 | 1984 | 19 | 12 | 2 | 2 | 4 | 4 | 13 | 8 |
| Idaho Falls-Pocatello, Idaho | 271 | 1988 | 20 | 13 | 2 | 2 | 4 | 4 | 14 | 8 |
| Idaho Falls-Pocatello, Idaho | 271 | 1992 | 20 | 14 | 2 | 2 | 4 | 4 | 14 | 9 |
| Idaho Falls-Pocatello, | 271 | 1993 | 20 | 13 | 2 | 2 | 4 | 4 | 14 | 8 |

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| Idaho | | | | | | | | | | |
| Idaho Falls-Pocatello, Idaho | 271 | 1994 | 21 | 13 | 2 | 2 | 4 | 4 | 15 | 8 |
| Idaho Falls-Pocatello, Idaho | 271 | 1995 | 21 | 13 | 2 | 2 | 4 | 4 | 15 | 8 |
| Idaho Falls-Pocatello, Idaho | 271 | 1996 | 21 | 13 | 2 | 2 | 4 | 4 | 15 | 8 |
| Idaho Falls-Pocatello, Idaho | 271 | 1997 | 21 | 13 | 2 | 2 | 4 | 4 | 15 | 8 |
| Idaho Falls-Pocatello, Idaho | 271 | 1998 | 21 | 11 | 2 | 2 | 4 | 4 | 15 | 6 |
| Iowa City, Iowa | 251 | 1972 | 7 | 4 | 2 | 2 | 1 | 1 | 4 | 2 |
| Iowa City, Iowa | 251 | 1976 | 7 | 4 | 1 | 1 | 1 | 1 | 5 | 3 |
| Iowa City, Iowa | 251 | 1980 | 8 | 6 | 1 | 1 | 1 | 1 | 6 | 4 |
| Iowa City, Iowa | 251 | 1984 | 9 | 7 | 1 | 1 | 1 | 1 | 7 | 5 |
| Iowa City, Iowa | 251 | 1988 | 9 | 7 | 1 | 1 | 1 | 1 | 7 | 5 |
| Iowa City, Iowa | 251 | 1992 | 9 | 7 | 1 | 1 | 1 | 1 | 7 | 5 |
| Iowa City, Iowa | 251 | 1993 | 9 | 7 | 1 | 1 | 1 | 1 | 7 | 5 |
| Iowa City, Iowa | 251 | 1994 | 9 | 7 | 1 | 1 | 1 | 1 | 7 | 5 |
| Iowa City, Iowa | 251 | 1995 | 9 | 7 | 1 | 1 | 1 | 1 | 7 | 5 |
| Iowa City, Iowa | 251 | 1996 | 9 | 7 | 1 | 1 | 1 | 1 | 7 | 5 |
| Iowa City, Iowa | 251 | 1997 | 9 | 7 | 1 | 1 | 1 | 1 | 7 | 5 |
| Iowa City, Iowa | 251 | 1998 | 9 | 7 | 1 | 1 | 1 | 1 | 7 | 5 |
| Jackson, Tennessee | 255 | 1972 | 6 | 4 | 1 | 1 | 1 | 1 | 4 | 3 |
| Jackson, Tennessee | 255 | 1976 | 6 | 5 | 1 | 1 | 1 | 1 | 4 | 3 |
| Jackson, Tennessee | 255 | 1980 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 4 |
| Jackson, Tennessee | 255 | 1984 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 3 |
| Jackson, Tennessee | 255 | 1988 | 8 | 7 | 1 | 1 | 2 | 2 | 5 | 4 |
| Jackson, Tennessee | 255 | 1992 | 9 | 7 | 1 | 1 | 2 | 2 | 6 | 4 |
| Jackson, Tennessee | 255 | 1993 | 10 | 8 | 1 | 1 | 2 | 2 | 7 | 5 |

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| Jackson, Tennessee | 255 | 1994 | 10 | 8 | 1 | 1 | 2 | 2 | 7 | 5 |
| Jackson, Tennessee | 255 | 1995 | 10 | 8 | 1 | 1 | 2 | 2 | 7 | 5 |
| Jackson, Tennessee | 255 | 1996 | 12 | 10 | 1 | 1 | 2 | 2 | 9 | 7 |
| Jackson, Tennessee | 255 | 1997 | 12 | 10 | 1 | 1 | 2 | 2 | 9 | 7 |
| Jackson, Tennessee | 255 | 1998 | 12 | 9 | 1 | 1 | 2 | 2 | 9 | 6 |
| Jonesboro, Arkansas | 270 | 1972 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 4 |
| Jonesboro, Arkansas | 270 | 1976 | 8 | 7 | 1 | 1 | 2 | 2 | 5 | 4 |
| Jonesboro, Arkansas | 270 | 1980 | 9 | 8 | 1 | 1 | 2 | 2 | 6 | 5 |
| Jonesboro, Arkansas | 270 | 1984 | 9 | 8 | 1 | 1 | 2 | 2 | 6 | 5 |
| Jonesboro, Arkansas | 270 | 1988 | 10 | 9 | 1 | 1 | 2 | 2 | 7 | 6 |
| Jonesboro, Arkansas | 270 | 1992 | 10 | 8 | 1 | 1 | 2 | 2 | 7 | 5 |
| Jonesboro, Arkansas | 270 | 1993 | 10 | 7 | 1 | 1 | 2 | 2 | 7 | 4 |
| Jonesboro, Arkansas | 270 | 1994 | 10 | 8 | 1 | 1 | 2 | 2 | 7 | 5 |
| Jonesboro, Arkansas | 270 | 1995 | 10 | 8 | 1 | 1 | 2 | 2 | 7 | 5 |
| Jonesboro, Arkansas | 270 | 1996 | 10 | 8 | 1 | 1 | 2 | 2 | 7 | 5 |
| Jonesboro, Arkansas | 270 | 1997 | 10 | 7 | 1 | 1 | 2 | 2 | 7 | 4 |
| Jonesboro, Arkansas | 270 | 1998 | 11 | 8 | 1 | 1 | 3 | 3 | 7 | 4 |
| Kokomo, Indiana | 254 | 1972 | 5 | 4 | 1 | 1 | 1 | 1 | 3 | 2 |
| Kokomo, Indiana | 254 | 1976 | 5 | 4 | 1 | 1 | 1 | 1 | 3 | 2 |
| Kokomo, Indiana | 254 | 1980 | 6 | 5 | 1 | 1 | 1 | 1 | 4 | 3 |
| Kokomo, Indiana | 254 | 1984 | 6 | 5 | 1 | 1 | 1 | 1 | 4 | 3 |
| Kokomo, Indiana | 254 | 1988 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| Kokomo, Indiana | 254 | 1992 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| Kokomo, Indiana | 254 | 1993 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| Kokomo, Indiana | 254 | 1994 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| Kokomo, Indiana | 254 | 1995 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| Kokomo, Indiana | 254 | 1996 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| Kokomo, | 254 | 1997 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |

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| Indiana | | | | | | | | | | |
| Kokomo, Indiana | 254 | 1998 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| La Crosse, Wisconsin | 230 | 1972 | 9 | 8 | 1 | 1 | 2 | 2 | 6 | 5 |
| La Crosse, Wisconsin | 230 | 1976 | 11 | 7 | 1 | 1 | 3 | 3 | 7 | 4 |
| La Crosse, Wisconsin | 230 | 1980 | 11 | 7 | 1 | 1 | 3 | 3 | 7 | 4 |
| La Crosse, Wisconsin | 230 | 1984 | 11 | 7 | 1 | 1 | 3 | 3 | 7 | 4 |
| La Crosse, Wisconsin | 230 | 1988 | 13 | 9 | 1 | 1 | 4 | 4 | 8 | 5 |
| La Crosse, Wisconsin | 230 | 1992 | 15 | 11 | 1 | 1 | 4 | 4 | 10 | 7 |
| La Crosse, Wisconsin | 230 | 1993 | 15 | 11 | 1 | 1 | 4 | 4 | 10 | 7 |
| La Crosse, Wisconsin | 230 | 1994 | 16 | 12 | 1 | 1 | 4 | 4 | 11 | 8 |
| La Crosse, Wisconsin | 230 | 1995 | 16 | 12 | 1 | 1 | 4 | 4 | 11 | 8 |
| La Crosse, Wisconsin | 230 | 1996 | 16 | 11 | 1 | 1 | 4 | 4 | 11 | 7 |
| La Crosse, Wisconsin | 230 | 1997 | 16 | 10 | 1 | 1 | 4 | 4 | 11 | 6 |
| La Crosse, Wisconsin | 230 | 1998 | 16 | 10 | 1 | 1 | 4 | 4 | 11 | 6 |
| Lawrence, Kansas | 260 | 1972 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |
| Lawrence, Kansas | 260 | 1976 | 7 | 4 | 1 | 1 | 0 | 0 | 6 | 3 |
| Lawrence, Kansas | 260 | 1980 | 7 | 4 | 1 | 1 | 0 | 0 | 6 | 3 |
| Lawrence, Kansas | 260 | 1984 | 7 | 4 | 1 | 1 | 0 | 0 | 6 | 3 |
| Lawrence, Kansas | 260 | 1988 | 8 | 5 | 1 | 1 | 1 | 1 | 6 | 3 |
| Lawrence, Kansas | 260 | 1992 | 8 | 5 | 1 | 1 | 1 | 1 | 6 | 3 |
| Lawrence, Kansas | 260 | 1993 | 8 | 5 | 1 | 1 | 1 | 1 | 6 | 3 |
| Lawrence, Kansas | 260 | 1994 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 3 |
| Lawrence, Kansas | 260 | 1995 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 3 |
| Lawrence, Kansas | 260 | 1996 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 3 |
| Lawrence, Kansas | 260 | 1997 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 3 |
| Lawrence, Kansas | 260 | 1998 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 3 |
| Lawton, Oklahoma | 242 | 1972 | 7 | 4 | 2 | 1 | 1 | 1 | 4 | 3 |
| Lawton, Oklahoma | 242 | 1976 | 7 | 4 | 2 | 1 | 1 | 1 | 4 | 3 |

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| Lawton, Oklahoma | 242 | 1980 | 7 | 4 | 2 | 1 | 1 | 1 | 4 | 3 |
| Lawton, Oklahoma | 242 | 1984 | 8 | 5 | 2 | 1 | 2 | 2 | 4 | 3 |
| Lawton, Oklahoma | 242 | 1988 | 9 | 6 | 2 | 1 | 1 | 1 | 6 | 5 |
| Lawton, Oklahoma | 242 | 1992 | 11 | 9 | 1 | 1 | 1 | 1 | 9 | 8 |
| Lawton, Oklahoma | 242 | 1993 | 12 | 10 | 1 | 1 | 1 | 1 | 10 | 9 |
| Lawton, Oklahoma | 242 | 1994 | 12 | 10 | 1 | 1 | 1 | 1 | 10 | 9 |
| Lawton, Oklahoma | 242 | 1995 | 12 | 10 | 1 | 1 | 1 | 1 | 10 | 9 |
| Lawton, Oklahoma | 242 | 1996 | 12 | 9 | 1 | 1 | 1 | 1 | 10 | 8 |
| Lawton, Oklahoma | 242 | 1997 | 12 | 9 | 1 | 1 | 1 | 1 | 10 | 8 |
| Lawton, Oklahoma | 242 | 1998 | 12 | 10 | 1 | 1 | 1 | 1 | 10 | 8 |
| Lewiston-Auburn, Maine | 261 | 1972 | 7 | 5 | 2 | 1 | 0 | 0 | 5 | 4 |
| Lewiston-Auburn, Maine | 261 | 1976 | 8 | 6 | 2 | 1 | 0 | 0 | 6 | 5 |
| Lewiston-Auburn, Maine | 261 | 1980 | 9 | 6 | 2 | 1 | 0 | 0 | 7 | 5 |
| Lewiston-Auburn, Maine | 261 | 1984 | 9 | 6 | 2 | 1 | 0 | 0 | 7 | 5 |
| Lewiston-Auburn, Maine | 261 | 1988 | 9 | 6 | 2 | 1 | 0 | 0 | 7 | 5 |
| Lewiston-Auburn, Maine | 261 | 1992 | 7 | 6 | 1 | 1 | 0 | 0 | 6 | 5 |
| Lewiston-Auburn, Maine | 261 | 1993 | 7 | 6 | 1 | 1 | 0 | 0 | 6 | 5 |
| Lewiston-Auburn, Maine | 261 | 1994 | 7 | 6 | 1 | 1 | 0 | 0 | 6 | 5 |
| Lewiston-Auburn, Maine | 261 | 1995 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Lewiston-Auburn, Maine | 261 | 1996 | 7 | 5 | 1 | 1 | 0 | 0 | 6 | 4 |
| Lewiston-Auburn, Maine | 261 | 1997 | 8 | 6 | 1 | 1 | 1 | 1 | 6 | 4 |
| Lewiston-Auburn, | 261 | 1998 | 8 | 7 | 1 | 1 | 1 | 1 | 6 | 5 |

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| Maine | | | | | | | | | | |
| Muncie, Indiana | 234 | 1972 | 8 | 6 | 2 | 1 | 1 | 1 | 5 | 4 |
| Muncie, Indiana | 234 | 1976 | 8 | 5 | 2 | 1 | 1 | 1 | 5 | 4 |
| Muncie, Indiana | 234 | 1980 | 9 | 6 | 2 | 1 | 1 | 1 | 6 | 5 |
| Muncie, Indiana | 234 | 1984 | 9 | 6 | 2 | 1 | 1 | 1 | 6 | 5 |
| Muncie, Indiana | 234 | 1988 | 11 | 8 | 2 | 1 | 1 | 1 | 8 | 7 |
| Muncie, Indiana | 234 | 1992 | 11 | 8 | 2 | 1 | 1 | 1 | 8 | 7 |
| Muncie, Indiana | 234 | 1993 | 11 | 7 | 2 | 1 | 1 | 1 | 8 | 6 |
| Muncie, Indiana | 234 | 1994 | 11 | 7 | 2 | 1 | 1 | 1 | 8 | 6 |
| Muncie, Indiana | 234 | 1995 | 11 | 7 | 2 | 1 | 1 | 1 | 8 | 6 |
| Muncie, Indiana | 234 | 1996 | 11 | 7 | 2 | 1 | 1 | 1 | 8 | 6 |
| Muncie, Indiana | 234 | 1997 | 10 | 7 | 1 | 1 | 1 | 1 | 8 | 6 |
| Muncie, Indiana | 234 | 1998 | 10 | 7 | 1 | 1 | 1 | 1 | 8 | 6 |
| Owensboro, Kentucky | 258 | 1972 | 5 | 2 | 1 | 1 | 0 | 0 | 4 | 2 |
| Owensboro, Kentucky | 258 | 1976 | 5 | 2 | 1 | 1 | 0 | 0 | 4 | 2 |
| Owensboro, Kentucky | 258 | 1980 | 6 | 3 | 1 | 1 | 1 | 1 | 4 | 2 |
| Owensboro, Kentucky | 258 | 1984 | 7 | 4 | 1 | 1 | 1 | 1 | 5 | 3 |
| Owensboro, Kentucky | 258 | 1988 | 8 | 5 | 1 | 1 | 2 | 2 | 5 | 3 |
| Owensboro, Kentucky | 258 | 1992 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 3 |
| Owensboro, Kentucky | 258 | 1993 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 3 |
| Owensboro, Kentucky | 258 | 1994 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 3 |
| Owensboro, Kentucky | 258 | 1995 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 3 |
| Owensboro, Kentucky | 258 | 1996 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 3 |
| Owensboro, Kentucky | 258 | 1997 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 3 |
| Owensboro, Kentucky | 258 | 1998 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 3 |
| Pine Bluff, Arkansas | 266 | 1972 | 8 | 6 | 1 | 1 | 0 | 0 | 7 | 5 |
| Pine Bluff, Arkansas | 266 | 1976 | 8 | 6 | 1 | 1 | 0 | 0 | 7 | 5 |
| Pine Bluff, Arkansas | 266 | 1980 | 8 | 6 | 1 | 1 | 0 | 0 | 7 | 5 |

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| Pine Bluff, Arkansas | 266 | 1984 | 9 | 6 | 1 | 1 | 0 | 0 | 8 | 5 |
| Pine Bluff, Arkansas | 266 | 1988 | 11 | 8 | 1 | 1 | 2 | 2 | 8 | 5 |
| Pine Bluff, Arkansas | 266 | 1992 | 11 | 9 | 1 | 1 | 2 | 2 | 8 | 6 |
| Pine Bluff, Arkansas | 266 | 1993 | 11 | 9 | 1 | 1 | 2 | 2 | 8 | 6 |
| Pine Bluff, Arkansas | 266 | 1994 | 12 | 10 | 1 | 1 | 2 | 2 | 9 | 7 |
| Pine Bluff, Arkansas | 266 | 1995 | 12 | 9 | 1 | 1 | 2 | 2 | 9 | 6 |
| Pine Bluff, Arkansas | 266 | 1996 | 12 | 9 | 1 | 1 | 2 | 2 | 9 | 6 |
| Pine Bluff, Arkansas | 266 | 1997 | 12 | 10 | 1 | 1 | 2 | 2 | 9 | 7 |
| Pine Bluff, Arkansas | 266 | 1998 | 11 | 9 | 1 | 1 | 2 | 2 | 8 | 6 |
| Pittsfield, Massachusetts | 265 | 1972 | 10 | 7 | 2 | 2 | 0 | 0 | 8 | 5 |
| Pittsfield, Massachusetts | 265 | 1976 | 11 | 7 | 2 | 2 | 0 | 0 | 9 | 5 |
| Pittsfield, Massachusetts | 265 | 1980 | 12 | 8 | 2 | 2 | 0 | 0 | 10 | 6 |
| Pittsfield, Massachusetts | 265 | 1984 | 12 | 8 | 2 | 2 | 0 | 0 | 10 | 6 |
| Pittsfield, Massachusetts | 265 | 1988 | 12 | 8 | 2 | 2 | 0 | 0 | 10 | 6 |
| Pittsfield, Massachusetts | 265 | 1992 | 12 | 8 | 2 | 2 | 0 | 0 | 10 | 6 |
| Pittsfield, Massachusetts | 265 | 1993 | 11 | 7 | 2 | 2 | 0 | 0 | 9 | 5 |
| Pittsfield, Massachusetts | 265 | 1994 | 11 | 7 | 2 | 2 | 0 | 0 | 9 | 5 |
| Pittsfield, Massachusetts | 265 | 1995 | 11 | 7 | 2 | 2 | 0 | 0 | 9 | 5 |
| Pittsfield, Massachusetts | 265 | 1996 | 9 | 5 | | | 0 | 0 | 9 | 5 |
| Pittsfield, Massachusetts | 265 | 1997 | 11 | 6 | 2 | 1 | 0 | 0 | 9 | 5 |
| Pittsfield, Massachusetts | 265 | 1998 | 11 | 6 | 2 | 1 | 0 | 0 | 9 | 5 |
| Rapid City, South Dakota | 264 | 1972 | 11 | 8 | 1 | 1 | 3 | 3 | 7 | 5 |
| Rapid City, South Dakota | 264 | 1976 | 11 | 9 | 1 | 1 | 3 | 3 | 7 | 6 |
| Rapid City, South Dakota | 264 | 1980 | 12 | 9 | 1 | 1 | 3 | 3 | 8 | 6 |
| Rapid City, South Dakota | 264 | 1984 | 12 | 9 | 1 | 1 | 3 | 3 | 8 | 6 |
| Rapid City, South Dakota | 264 | 1988 | 16 | 11 | 1 | 1 | 4 | 4 | 11 | 8 |
| Rapid City, South Dakota | 264 | 1992 | 17 | 11 | 1 | 1 | 4 | 4 | 12 | 8 |
| Rapid City, | 264 | 1993 | 17 | 11 | 1 | 1 | 4 | 4 | 12 | 8 |

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| South Dakota | | | | | | | | | | |
| Rapid City, South Dakota | 264 | 1994 | 17 | 11 | 1 | 1 | 4 | 4 | 12 | 8 |
| Rapid City, South Dakota | 264 | 1995 | 18 | 12 | 1 | 1 | 4 | 4 | 13 | 9 |
| Rapid City, South Dakota | 264 | 1996 | 18 | 10 | 1 | 1 | 4 | 4 | 13 | 7 |
| Rapid City, South Dakota | 264 | 1997 | 18 | 10 | 1 | 1 | 4 | 4 | 13 | 7 |
| Rapid City, South Dakota | 264 | 1998 | 18 | 10 | 1 | 1 | 4 | 4 | 13 | 7 |
| Rochester, Minnesota | 240 | 1972 | 9 | 5 | 1 | 1 | 1 | 1 | 7 | 4 |
| Rochester, Minnesota | 240 | 1976 | 9 | 6 | 1 | 1 | 1 | 1 | 7 | 4 |
| Rochester, Minnesota | 240 | 1980 | 9 | 6 | 1 | 1 | 1 | 1 | 7 | 4 |
| Rochester, Minnesota | 240 | 1984 | 10 | 7 | 1 | 1 | 2 | 2 | 7 | 4 |
| Rochester, Minnesota | 240 | 1988 | 13 | 10 | 1 | 1 | 2 | 2 | 10 | 7 |
| Rochester, Minnesota | 240 | 1992 | 14 | 10 | 1 | 1 | 2 | 2 | 11 | 7 |
| Rochester, Minnesota | 240 | 1993 | 14 | 10 | 1 | 1 | 2 | 2 | 11 | 7 |
| Rochester, Minnesota | 240 | 1994 | 14 | 10 | 1 | 1 | 2 | 2 | 11 | 7 |
| Rochester, Minnesota | 240 | 1995 | 14 | 10 | 1 | 1 | 2 | 2 | 11 | 7 |
| Rochester, Minnesota | 240 | 1996 | 14 | 10 | 1 | 1 | 2 | 2 | 11 | 7 |
| Rochester, Minnesota | 240 | 1997 | 14 | 10 | 1 | 1 | 2 | 2 | 11 | 7 |
| Rochester, Minnesota | 240 | 1998 | 15 | 11 | 1 | 1 | 2 | 2 | 12 | 8 |
| San Angelo, Texas | 249 | 1972 | 10 | 9 | 1 | 1 | 2 | 2 | 7 | 6 |
| San Angelo, Texas | 249 | 1976 | 11 | 8 | 2 | 1 | 2 | 2 | 7 | 5 |
| San Angelo, Texas | 249 | 1980 | 12 | 9 | 2 | 1 | 2 | 2 | 8 | 6 |
| San Angelo, Texas | 249 | 1984 | 13 | 9 | 2 | 1 | 3 | 3 | 8 | 5 |
| San Angelo, Texas | 249 | 1988 | 14 | 11 | 1 | 1 | 3 | 3 | 10 | 7 |
| San Angelo, Texas | 249 | 1992 | 14 | 11 | 1 | 1 | 3 | 3 | 10 | 7 |
| San Angelo, Texas | 249 | 1993 | 13 | 10 | 1 | 1 | 3 | 3 | 9 | 6 |
| San Angelo, Texas | 249 | 1994 | 13 | 11 | 1 | 1 | 3 | 3 | 9 | 7 |
| San Angelo, Texas | 249 | 1995 | 14 | 11 | 1 | 1 | 3 | 3 | 10 | 7 |
| San Angelo, Texas | 249 | 1996 | 16 | 12 | 1 | 1 | 3 | 3 | 12 | 8 |

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| San Angelo, Texas | 249 | 1997 | 16 | 12 | 1 | 1 | 3 | 3 | 12 | 8 |
| San Angelo, Texas | 249 | 1998 | 16 | 12 | 1 | 1 | 3 | 3 | 12 | 8 |
| Sharon, Pennsylvania | 227 | 1972 | 12 | 9 | 2 | 2 | 0 | 0 | 10 | 7 |
| Sharon, Pennsylvania | 227 | 1976 | 13 | 10 | 2 | 2 | 0 | 0 | 11 | 8 |
| Sharon, Pennsylvania | 227 | 1980 | 13 | 9 | 2 | 2 | 0 | 0 | 11 | 7 |
| Sharon, Pennsylvania | 227 | 1984 | 13 | 9 | 2 | 2 | 0 | 0 | 11 | 7 |
| Sharon, Pennsylvania | 227 | 1988 | 14 | 10 | 2 | 2 | 0 | 0 | 12 | 8 |
| Sharon, Pennsylvania | 227 | 1992 | 14 | 10 | 2 | 2 | 0 | 0 | 12 | 8 |
| Sharon, Pennsylvania | 227 | 1993 | 14 | 10 | 2 | 2 | 0 | 0 | 12 | 8 |
| Sharon, Pennsylvania | 227 | 1994 | 14 | 11 | 2 | 2 | 0 | 0 | 12 | 9 |
| Sharon, Pennsylvania | 227 | 1995 | 14 | 9 | 2 | 2 | 0 | 0 | 12 | 7 |
| Sharon, Pennsylvania | 227 | 1996 | 14 | 8 | 2 | 2 | 0 | 0 | 12 | 6 |
| Sharon, Pennsylvania | 227 | 1997 | 14 | 8 | 2 | 2 | 0 | 0 | 12 | 6 |
| Sharon, Pennsylvania | 227 | 1998 | 15 | 9 | 2 | 2 | 0 | 0 | 13 | 7 |
| Sheboygan, Wisconsin | 243 | 1972 | 4 | 3 | 1 | 1 | 0 | 0 | 3 | 2 |
| Sheboygan, Wisconsin | 243 | 1976 | 5 | 4 | 1 | 1 | 0 | 0 | 4 | 3 |
| Sheboygan, Wisconsin | 243 | 1980 | 5 | 4 | 1 | 1 | 0 | 0 | 4 | 3 |
| Sheboygan, Wisconsin | 243 | 1984 | 5 | 4 | 1 | 1 | 0 | 0 | 4 | 3 |
| Sheboygan, Wisconsin | 243 | 1988 | 5 | 4 | 1 | 1 | 0 | 0 | 4 | 3 |
| Sheboygan, Wisconsin | 243 | 1992 | 5 | 4 | 1 | 1 | 0 | 0 | 4 | 3 |
| Sheboygan, Wisconsin | 243 | 1993 | 5 | 4 | 1 | 1 | 0 | 0 | 4 | 3 |
| Sheboygan, Wisconsin | 243 | 1994 | 5 | 4 | 1 | 1 | 0 | 0 | 4 | 3 |
| Sheboygan, Wisconsin | 243 | 1995 | 5 | 4 | 1 | 1 | 0 | 0 | 4 | 3 |
| Sheboygan, Wisconsin | 243 | 1996 | 5 | 4 | 1 | 1 | 0 | 0 | 4 | 3 |
| Sheboygan, Wisconsin | 243 | 1997 | 5 | 4 | 1 | 1 | 0 | 0 | 4 | 3 |
| Sheboygan, Wisconsin | 243 | 1998 | 6 | 4 | 1 | 1 | 0 | 0 | 5 | 3 |
| Sherman-Denison, Texas | 253 | 1972 | 10 | 9 | 3 | 3 | 1 | 1 | 6 | 5 |

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|---|---|---|---|---|---|---|---|---|---|---|
| Sherman-Denison, Texas | 253 | 1976 | 9 | 8 | 2 | 2 | 1 | 1 | 6 | 5 |
| Sherman-Denison, Texas | 253 | 1980 | 9 | 7 | 2 | 2 | 1 | 1 | 6 | 4 |
| Sherman-Denison, Texas | 253 | 1984 | 10 | 8 | 2 | 2 | 1 | 1 | 7 | 5 |
| Sherman-Denison, Texas | 253 | 1988 | 9 | 6 | 2 | 1 | 1 | 1 | 6 | 4 |
| Sherman-Denison, Texas | 253 | 1992 | 10 | 7 | 2 | 1 | 1 | 1 | 7 | 5 |
| Sherman-Denison, Texas | 253 | 1993 | 10 | 7 | 2 | 1 | 1 | 1 | 7 | 5 |
| Sherman-Denison, Texas | 253 | 1994 | 10 | 7 | 2 | 1 | 1 | 1 | 7 | 5 |
| Sherman-Denison, Texas | 253 | 1995 | 10 | 6 | 2 | 1 | 1 | 1 | 7 | 4 |
| Sherman-Denison, Texas | 253 | 1996 | 8 | 6 | 2 | 1 | 1 | 1 | 5 | 4 |
| Sherman-Denison, Texas | 253 | 1997 | 7 | 7 | 1 | 1 | 1 | 1 | 5 | 5 |
| Sherman-Denison, Texas | 253 | 1998 | 7 | 7 | 1 | 1 | 1 | 1 | 5 | 5 |
| Sioux City, Iowa | 231 | 1972 | 9 | 9 | 1 | 1 | 3 | 3 | 5 | 5 |
| Sioux City, Iowa | 231 | 1976 | 11 | 10 | 1 | 1 | 4 | 4 | 6 | 5 |
| Sioux City, Iowa | 231 | 1980 | 13 | 12 | 1 | 1 | 4 | 4 | 8 | 7 |
| Sioux City, Iowa | 231 | 1984 | 13 | 12 | 1 | 1 | 4 | 4 | 8 | 7 |
| Sioux City, Iowa | 231 | 1988 | 13 | 11 | 1 | 1 | 4 | 4 | 8 | 6 |
| Sioux City, Iowa | 231 | 1992 | 13 | 11 | 1 | 1 | 4 | 4 | 8 | 6 |
| Sioux City, Iowa | 231 | 1993 | 13 | 11 | 1 | 1 | 4 | 4 | 8 | 6 |
| Sioux City, Iowa | 231 | 1994 | 13 | 11 | 1 | 1 | 4 | 4 | 8 | 6 |
| Sioux City, Iowa | 231 | 1995 | 13 | 11 | 1 | 1 | 4 | 4 | 8 | 6 |
| Sioux City, Iowa | 231 | 1996 | 13 | 11 | 1 | 1 | 4 | 4 | 8 | 6 |
| Sioux City, Iowa | 231 | 1997 | 13 | 10 | 1 | 1 | 4 | 4 | 8 | 5 |

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| Sioux City, Iowa | 231 | 1998 | 13 | 10 | 1 | 1 | 4 | 4 | 8 | 5 |
| St. Joseph, Missouri | 256 | 1972 | 7 | 5 | 2 | 1 | 1 | 1 | 4 | 3 |
| St. Joseph, Missouri | 256 | 1976 | 7 | 5 | 2 | 1 | 1 | 1 | 4 | 3 |
| St. Joseph, Missouri | 256 | 1980 | 7 | 5 | 2 | 1 | 1 | 1 | 4 | 3 |
| St. Joseph, Missouri | 256 | 1984 | 7 | 5 | 2 | 1 | 1 | 1 | 4 | 3 |
| St. Joseph, Missouri | 256 | 1988 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| St. Joseph, Missouri | 256 | 1992 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| St. Joseph, Missouri | 256 | 1993 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| St. Joseph, Missouri | 256 | 1994 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| St. Joseph, Missouri | 256 | 1995 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| St. Joseph, Missouri | 256 | 1996 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| St. Joseph, Missouri | 256 | 1997 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| St. Joseph, Missouri | 256 | 1998 | 7 | 6 | 1 | 1 | 2 | 2 | 4 | 3 |
| Sumter, South Carolina | 247 | 1972 | 5 | 4 | 1 | 1 | 0 | 0 | 4 | 3 |
| Sumter, South Carolina | 247 | 1976 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 4 |
| Sumter, South Carolina | 247 | 1980 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 4 |
| Sumter, South Carolina | 247 | 1984 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 4 |
| Sumter, South Carolina | 247 | 1988 | 7 | 5 | 1 | 1 | 1 | 1 | 5 | 4 |
| Sumter, South Carolina | 247 | 1992 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 5 |
| Sumter, South Carolina | 247 | 1993 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 5 |
| Sumter, South Carolina | 247 | 1994 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 5 |
| Sumter, South Carolina | 247 | 1995 | 8 | 7 | 1 | 1 | 1 | 1 | 6 | 6 |
| Sumter, South Carolina | 247 | 1996 | 8 | 7 | 1 | 1 | 1 | 1 | 6 | 6 |
| Sumter, South Carolina | 247 | 1997 | 9 | 7 | 1 | 1 | 2 | 1 | 6 | 6 |
| Sumter, South Carolina | 247 | 1998 | 9 | 8 | 1 | 1 | 2 | 2 | 6 | 6 |
| Texarkana, Texas | 222 | 1972 | 12 | 5 | 2 | 1 | 1 | 1 | 9 | 5 |
| Texarkana, Texas | 222 | 1976 | 12 | 5 | 2 | 1 | 1 | 1 | 9 | 5 |
| Texarkana, | 222 | 1980 | 10 | 5 | 1 | 1 | 1 | 1 | 8 | 5 |

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| Texas | | | | | | | | | | |
| Texarkana, Texas | 222 | 1984 | 10 | 6 | 1 | 1 | 1 | 1 | 8 | 5 |
| Texarkana, Texas | 222 | 1988 | 11 | 7 | 1 | 1 | 1 | 1 | 9 | 6 |
| Texarkana, Texas | 222 | 1992 | 12 | 7 | 1 | 1 | 1 | 1 | 10 | 7 |
| Texarkana, Texas | 222 | 1993 | 12 | 7 | 1 | 1 | 1 | 1 | 10 | 7 |
| Texarkana, Texas | 222 | 1994 | 12 | 7 | 1 | 1 | 1 | 1 | 10 | 7 |
| Texarkana, Texas | 222 | 1995 | 14 | 9 | 1 | 1 | 1 | 1 | 12 | 9 |
| Texarkana, Texas | 222 | 1996 | 14 | 9 | 1 | 1 | 1 | 1 | 12 | 9 |
| Texarkana, Texas | 222 | 1997 | 14 | 7 | 1 | 1 | 1 | 1 | 12 | 7 |
| Texarkana, Texas | 222 | 1998 | 16 | 8 | 1 | 1 | 1 | 1 | 14 | 8 |
| Victoria, Texas | 267 | 1972 | 5 | 5 | 1 | 1 | 1 | 1 | 3 | 3 |
| Victoria, Texas | 267 | 1976 | 6 | 4 | 1 | 1 | 1 | 1 | 4 | 2 |
| Victoria, Texas | 267 | 1980 | 7 | 6 | 1 | 1 | 1 | 1 | 5 | 4 |
| Victoria, Texas | 267 | 1984 | 8 | 7 | 1 | 1 | 2 | 2 | 5 | 4 |
| Victoria, Texas | 267 | 1988 | 9 | 8 | 1 | 1 | 2 | 2 | 6 | 5 |
| Victoria, Texas | 267 | 1992 | 10 | 9 | 1 | 1 | 2 | 2 | 7 | 6 |
| Victoria, Texas | 267 | 1993 | 10 | 9 | 1 | 1 | 2 | 2 | 7 | 6 |
| Victoria, Texas | 267 | 1994 | 12 | 11 | 1 | 1 | 2 | 2 | 9 | 8 |
| Victoria, Texas | 267 | 1995 | 13 | 12 | 1 | 1 | 2 | 2 | 10 | 9 |
| Victoria, Texas | 267 | 1996 | 13 | 12 | 1 | 1 | 2 | 2 | 10 | 9 |
| Victoria, Texas | 267 | 1997 | 13 | 12 | 1 | 1 | 2 | 2 | 10 | 9 |
| Victoria, Texas | 267 | 1998 | 13 | 10 | 1 | 1 | 2 | 1 | 10 | 8 |
| Wasau, Wisconsin | 229 | 1972 | 10 | 6 | 1 | 1 | 3 | 3 | 6 | 4 |
| Wasau, Wisconsin | 229 | 1976 | 11 | 7 | 1 | 1 | 4 | 4 | 6 | 4 |
| Wasau, Wisconsin | 229 | 1980 | 11 | 9 | 1 | 1 | 4 | 4 | 6 | 4 |
| Wasau, Wisconsin | 229 | 1984 | 12 | 8 | 1 | 1 | 4 | 4 | 7 | 4 |
| Wasau, Wisconsin | 229 | 1988 | 14 | 10 | 1 | 1 | 4 | 4 | 9 | 6 |
| Wasau, Wisconsin | 229 | 1992 | 13 | 9 | 1 | 1 | 4 | 4 | 8 | 5 |

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| Wasau, Wisconsin | 229 | 1993 | 13 | 9 | 1 | 1 | 4 | 4 | 8 | 5 |
| Wasau, Wisconsin | 229 | 1994 | 13 | 9 | 1 | 1 | 4 | 4 | 8 | 5 |
| Wasau, Wisconsin | 229 | 1995 | 14 | 9 | 1 | 1 | 4 | 4 | 9 | 5 |
| Wasau, Wisconsin | 229 | 1996 | 15 | 9 | 1 | 1 | 4 | 4 | 10 | 5 |
| Wasau, Wisconsin | 229 | 1997 | 15 | 9 | 1 | 1 | 4 | 4 | 10 | 5 |
| Wasau, Wisconsin | 229 | 1998 | 14 | 8 | 1 | 1 | 3 | 3 | 10 | 5 |
| Waterloo-Cedar Falls, Iowa | 224 | 1972 | 14 | 10 | 2 | 2 | 3 | 3 | 9 | 6 |
| Waterloo-Cedar Falls, Iowa | 224 | 1976 | 16 | 12 | 2 | 2 | 4 | 4 | 10 | 7 |
| Waterloo-Cedar Falls, Iowa | 224 | 1980 | 17 | 13 | 2 | 2 | 4 | 4 | 11 | 7 |
| Waterloo-Cedar Falls, Iowa | 224 | 1984 | 16 | 12 | 1 | 1 | 4 | 4 | 11 | 7 |
| Waterloo-Cedar Falls, Iowa | 224 | 1988 | 16 | 11 | 1 | 1 | 4 | 4 | 11 | 7 |
| Waterloo-Cedar Falls, Iowa | 224 | 1992 | 18 | 13 | 1 | 1 | 7 | 7 | 10 | 6 |
| Waterloo-Cedar Falls, Iowa | 224 | 1993 | 17 | 12 | 1 | 1 | 6 | 6 | 10 | 6 |
| Waterloo-Cedar Falls, Iowa | 224 | 1994 | 19 | 14 | 1 | 1 | 6 | 6 | 12 | 8 |
| Waterloo-Cedar Falls, Iowa | 224 | 1995 | 18 | 13 | 1 | 1 | 5 | 5 | 12 | 8 |
| Waterloo-Cedar Falls, Iowa | 224 | 1996 | 18 | 12 | 1 | 1 | 5 | 5 | 12 | 7 |
| Waterloo-Cedar Falls, Iowa | 224 | 1997 | 19 | 13 | 1 | 1 | 6 | 6 | 12 | 7 |
| Waterloo-Cedar Falls, Iowa | 224 | 1998 | 18 | 13 | 1 | 1 | 4 | 4 | 13 | 9 |
| Williamsport, Pennsylvania | 232 | 1972 | 8 | 5 | 1 | 1 | 0 | 0 | 7 | 4 |
| Williamsport, Pennsylvania | 232 | 1976 | 9 | 6 | 1 | 1 | 0 | 0 | 8 | 5 |
| Williamsport, Pennsylvania | 232 | 1980 | 10 | 7 | 1 | 1 | 0 | 0 | 9 | 6 |
| Williamsport, | 232 | 1984 | 10 | 7 | 1 | 1 | 0 | 0 | 9 | 6 |

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| Pennsylvania | | | | | | | | | | |
| Williamsport, Pennsylvania | 232 | 1988 | 13 | 9 | 1 | 1 | 0 | 0 | 12 | 8 |
| Williamsport, Pennsylvania | 232 | 1992 | 15 | 10 | 1 | 1 | 0 | 0 | 14 | 9 |
| Williamsport, Pennsylvania | 232 | 1993 | 16 | 11 | 1 | 1 | 1 | 1 | 14 | 9 |
| Williamsport, Pennsylvania | 232 | 1994 | 16 | 11 | 1 | 1 | 1 | 1 | 14 | 9 |
| Williamsport, Pennsylvania | 232 | 1995 | 16 | 10 | 1 | 1 | 1 | 1 | 14 | 8 |
| Williamsport, Pennsylvania | 232 | 1996 | 16 | 10 | 1 | 1 | 1 | 1 | 14 | 8 |
| Williamsport, Pennsylvania | 232 | 1997 | 16 | 10 | 1 | 1 | 1 | 1 | 14 | 8 |
| Williamsport, Pennsylvania | 232 | 1998 | 15 | 10 | 1 | 1 | 1 | 1 | 13 | 8 |

# VITA

Leslie Todd Chambers was born in Fort Worth, Texas on February 11, 1966. He attended schools in the public system of Brownfield, Texas, the Terry County Independent School District, where he graduated from Brownfield High School in May 1984. He entered Texas Tech University, Lubbock, Texas during August 1984 where in December 1988, he received the Bachelor of Arts in Journalism. While working in the radio industry, he entered the Master's program in Mass Communications at Texas Tech University in June of 1990, officially receiving the Master's degree in August 1994. A continuing interest in research led Todd to the College of Communications at The University of Tennessee, Knoxville. He entered the graduate program to pursue the Doctorate of Philosophy degree with a major in Communications. The doctoral degree was received December 2000.

Todd and his family, Barbie and Emily, are living in Lubbock, Texas where he is working as an assistant professor in the School of Mass Communications at Texas Tech University.