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Policy and Competition:
The Development of the Cable Television Industry in the United States

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Policy and Competition:
The Development of the Cable Television Industry in the United States

By

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M.A. Emory University, 2010
M.A. Columbia University, 2005

Advisor: Timothy J. Dowd, PhD

An abstract of
A dissertation submitted to the Faculty of the
James T. Laney School of Graduate Studies of Emory University
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Abstract

Policy and Competition:
The Development of the Cable Television Industry in the United States

By Jin Won Chung

This dissertation examines the processes by which the U.S. cable television industry has developed from a retransmission service of broadcast television signals to a nationwide medium providing a broad range of original programming that competes with the programming of broadcast television networks. Drawing on the new institutionalism in organizational studies and population ecology, this dissertation attempts to provide a comprehensive framework by which to understand industrial development. After tracing the historical context in which the U.S. cable television industry emerged and developed, this study examines factors that affect the organizational dynamics of cable networks, particularly in terms of the founding and dissolution of cable networks. The first empirical analysis (Chapter 3) examines factors affecting the founding of cable networks from 1969 to 2010. Negative binomial analysis of cable networks foundings supports both ecologists' and institutionalists' arguments regarding organizational legitimacy and the growth of an industry, as both density and public policies significantly shape the growth of cable network founding. The second empirical analysis (Chapter 4) addresses the relationship between concentration and diversity in the cable television industry during a period of regulatory uncertainty regarding cable ownership limits rules. Results show that, although the rules had not legally been in effect (1993-2001), they nonetheless had an impact on the industry in terms of their potential threat, affecting the industry by decreasing concentration among cable networks while increasing concentration among cable systems. Furthermore, in the third empirical analysis (Chapter 5), event history analysis of cable networks dissolution from 1989 to 2010 shows that during the period of proposed cable ownership limits rules (1993-2001), cable networks became less likely to disband than in the periods before and after the rules were posed. Overall, this dissertation shows that the development of an industry is not just shaped by ecological (e.g., raw counts) or economic processes (e.g., vitality of the capital market). It is often affected by the state in the form of public policies. Moreover, this dissertation shows that state policy can have substantial effects on organizational dynamics in the cable television industry even during a period of regulatory uncertainty.

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Acknowledgements

As I am writing these acknowledgements, I come to realize what Howard Becker asserted in *Art Worlds* (1982) can be applicable to the process of writing dissertation: “all artistic work, like all human activity, involves the joint activity of a number, often a large number, of people” (Becker 1982:1). Now I can see that research, like all artistic work, is ultimately a collective effort. While this dissertation represents years of work on my part, I could not have completed it without help and support of people around me in so many ways. Therefore, I would like to express my appreciation for the people who contributed in a various ways to the completion of this dissertation.

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CHAPTER ONE

Introduction: Policy and Competition –

The Development of the Cable Television Industry in the United States

Preface

We live in a rapidly changing society in this age of information and communication revolutions. What we might have once thought as innovative advances that would change our lifestyles often do so, but in the process, become so habitualized that people soon take them for granted. Among others, changes in the mass media provide a good example of this in that they have had notable influence upon people's daily lives. In particular, I focus on the emergence and evolution of cable television in the United States. Up until a few decades ago, there were only three or four broadcast television channels available in the United States. At the time, it might be hard to imagine that hundreds of commercial cable networks that compete with broadcast television networks to attract television viewers would be available so that people could "surf" through numerous channels to find something interesting to watch. Yet in the present, especially those who have lived cable subscribing households all their lives, we take numerous television channels and networks for granted. How, then, did the cable television emerge and evolve into the current stage?

Cable television, first known as "community antenna television (CATV)" emerged in the late 1940s in the United States for extending the reach of existing television stations. Because of the physical limitations of broadcast signals "through the air," cable television was created for the purpose of broadcast-signal retransmission so

that people in areas where broadcast signals hardly reached could enjoy watching television “through the wire.” However, from the late 1940s to the present, cable television has grown from a basic retransmission service to a nationwide entertainment and information medium providing hundreds of diverse network programming. The number of television programs available through multichannel video programming distributors (MVPDs) including cable system is at least a hundred times greater than what was available through a broadcast antenna alone in the past (Mullen 2003).

As will be described in detail in Chapter Two, cable television in the United States has developed within a frequently changing policy environment. In its early years, cable television was neglected by the relevant regulatory agency because policy makers considered it simply as a local retransmissions service that would eventually disappear once more television stations had established and begun their services (Parsons and Frieden 1998; Mullen 2008). In their view, cable television would not pose any threat for the broadcast television industry. However, as the cable television system began to grow and spread, regulations that then appeared were meant to protect the interests of broadcast television. However, later regulations grew more conducive to the companies engaged in cable television – particularly with the deregulation of recent decades. In the face of such changes, the U.S. cable industry experienced dramatic growth.

How are we then to make sense of how the cable television industry developed – particularly with regards to entry of new cable programming networks (foundings) and the exit of such networks (dissolution)? To understand the development of the cable television industry, I draw on population ecology and the new institutionalism in organizational analysis, both of which provide compelling perspectives in sociological

study of culture and organization. As will be discussed below, these two theories have a common interest in the emergence and evolution of industry; however, they have different focuses.

Theoretical Concerns

The modern system of cable television in the United States – providing numerous programming competing with broadcast television networks – is now highly institutionalized; in other words, its existence and operation is now solidified and taken for granted by those within and beyond television production. However, the emergence and development of such an industry was the result of a series of organizational, social and political struggles over the role that cable television should play in the mass media of the U.S.

When studying the dynamics of organizational world, population ecology and the new institutionalism provide intriguing theoretical frameworks. Departing from the perspective that views organizations as isolated entities, scholars in both theories have taken the view that organizations are best understood as social systems that inhabit the larger context of a “shaping and molding environment” (Nohria and Gulati 1994: 537).

However, it has been often pointed out that there are underlying differences between these two theories. They initially asked different questions to understand the world of organizations; population ecologists asked why there are so many different kinds of organizations (Hannan and Freeman 1977: 936), while institutionalists asked why there is so much homogeneity in the forms and practices of organizations (DiMaggio

and Powell 1983: 148)[1]. Different points of view toward the same world of organizations, in turn, have led to different focuses in research activities. Population ecology argues that a few common dynamics are at work in many industries, revolving around the sheer number of organizations that enter and exit a given industry. Its emphasis is on the evolutionary dynamics of processes influencing organizational diversity (Singh and Lumsden 1990). They have developed highly abstract models that can be applied to explain the evolution of organizational populations across diverse environments (Haveman and David 2008). On the other hand, the new institutionalism has more contextual emphasis – stressing cultural and cognitive processes within and across organizations. They focus more on unique attributes of a given industry and see how such attributes can play a major role in industry dynamics than on the commonalities that could apply across most industries. As a result, institutionalists tend to give greater attention to historical context than do population ecologists, and they underscore historically specific factors that shape organizational forms and behaviors such as the state and its policies. Therefore, we can often see that institutional approaches to organizations usually involve testing of hypotheses with longitudinal analyses that consider the historical context as a key factor (Johnson *et al*. 2006).

Given these notable differences between population ecology and the new institutionalism, it seems that scholars in organizational studies have sometimes overemphasized those differences despite the fact that they indeed have underlying

[1] Haveman and David (2008) however pointed out that these seemingly different questions are indeed in "the end of a single continuum which runs from a setting in which each organization is unique to one in which all organizations are identical" (Haveman and David 2008: 583-584). Therefore, they argued that the real purposes of those questions are "how much organizational variety there is and what factors contribute to more or less variety" (*ibid*).

similarities – both population ecologists and the new institutionalists are interested in the evolution and development of industries, as well as the role that density and legitimacy play in the dynamics of industry (Johnson *et al*. 2006). Of course, there have been remarkable studies that have combined ideas from population ecology and the new institutionalism (e.g., Baum and Oliver 1991; Haveman 1993; Dobbin and Dowd 1997; Wade *et al*. 1998; David and Strang 2006). Those studies often gain richer insights regarding organizational dynamics – insights that I would also like to obtain.

I firstly review how population ecology and the new institutionalism have developed, and what their focuses are in the organizational studies, and then argue how they might complement each other to provide a comprehensive perspective in research.

Population Ecology

Population ecologists offer an interesting perspective by which to analyze the dynamics of organizations that are tied together by their membership in an organizational population – a set of organizations engaged in similar activities and with similar patterns of resource utilization (Hannan and Freeman 1977, 1989). In order to find an answer to the question "why are there so many kinds of organizations" (Hannan and Freeman 1977: 936), ecologists seek to explain the diversity of organizations at the levels of organizational population and community. Population ecologists focus on how organizations and organizational populations change over time through stages of founding, growth, transformation, decline, and dissolution. Their key concerns are to investigate how the social, economic and political conditions influence the diversity of organizations and how they change over time (Singh and Lumsden 1990; Baum and Amburgey 2002; Baum and Shipilov 2006). In addition, population ecology is known for

its quantitative oriented character. It has generated numerous hypotheses and models that can be applied for explaining the development of various industries.

In its basic form, some population ecologists hold that organizations often do not have enough information to adapt optimally and are relatively inert because they need to be reliable and accountable in order to be durable entities. As a result, individual organizations cannot change quickly and easily. From this perspective, population ecologists consider that “once founded, organizations are subject to strong inertial pressures, and alterations in organizational populations are largely due to demographic processes of organizational foundings and dissolutions” (Singh and Lumsden 1990: 162).

Since Hannan and Freeman (1977) published a pioneering study of population ecology, it has become one of the central fields in organizational studies. It has evolved to contain a number of more specific sub-theories, such as density dependence and resource partitioning. Scholars in organizational studies as well as related field have elaborated those sub-theories. Baum and his colleagues distinguished two broad themes of research in population ecology; demographic processes and ecological processes (Baum and Amburgey 2002; Baum and Shipilov 2006). Research focusing on demographic processes examines the effects of organization-level characteristics on rates of organizational change and failure, such as the impact of organizational age or size dependence. On the other hand, research focusing on ecological processes, such as density dependence and resource partitioning, examines the impacts of population-level features on the vital rates of organizations. Among others, research on founding and failure in population ecology has paid considerable attention to population dynamics and density dependence processes (Baum and Amburgey 2002). Although population ecology

represents various theoretical concepts, I specifically focus here on population dynamics and density dependence, as well as resource partitioning.

Population Dynamics and Density Dependence

In order to explain the dynamics of the organizational population, ecologists focus on population-level dynamics, which are indicated by the number of prior foundings and failures in a population, and "density," which means the total number of organizations in a given population (Baum and Shipilov 2006).

Basically, population ecologists argue that all industries can only support a certain number of organizations given limited resources ("carrying capacity"). Once carrying capacity is reached, density (i.e., the number of organizations in a population) dampens the foundings of organizations due to the fact that competition for limited resource is intensified among new and existing organizations. In other words, population ecologists argue that the vital rates of organizations are a function of population – such as the industry – and that processes of legitimation and competition shape the growth and decline of an organizational population (Hannan and Freeman 1977, 1989; Hannan and Carroll 1992).

An organizational form is "legitimate" when it is commonly accepted as a normal way of producing a specific organizational outcome – a "normal" way that can secure resources for operation, such as money from investors and consumers. In the early stages of the development of a new organizational form (such as a cable network), a growth in numbers indicates the increasing legitimation of this kind of organizational form, showing both its acceptability and viability. This rising legitimacy, in turn, helps increase the founding rate of new organizations and decreases their failure rate – particularly as

more resources flow to this new organizational form (Hannan and Freeman 1977; Singh and Lumsden 1990). However, as density increases, the opposing force of competition increases. Based on a population of organizations having to rely on the same pool of resources, competition is a force opposite to legitimation, tending to reduce founding rates and increase the failure rates. That is, as density approaches carrying capacity, the greater force of legitimation tends to increase the founding rate; however, as density reaches and surpasses carrying capacity, the greater force of competition tends to reduce the founding rate, so that over time founding rates display an inverted U shaped curve. Due to the same combination of forces, failure rate also display a U-shaped curve. That is, as density increases, legitimation tends to decrease the failure rate, but as density continues to increase, competitive pressures overwhelm the legitimation effects, increasing the failure rate.

Many empirical research studies in a variety of organizational populations provide substantial support for this density dependence argument. For example, Hannan and Freeman (1988) studied national labor unions in the United States from 1836 to 1985, Carroll and Hannan (1989) studied newspaper industries in three countries (Argentina, Ireland, and selected parts of the U.S.) from 1800 to 1975, and Hannan and his colleagues (1995) analyzed the automobile industry in five European countries from 1886 to 1981. Including these studies, various studies support for the predictions of density dependent argument – whereby rising density levels have positive effects on foundings and failures but very high density levels have negative effects on both outcomes (e.g., Carroll and Swaminathan 1991; Hannan and Carroll 1992; Wade *et al*. 1998; Dobrev 2001; Barnett and Sorenson 2002). Population ecologists argue that the relationship between density,

foundings and failures is not unique to a certain industry, but should apply to various populations of organizations. In other words, they maintain that density dependence dynamics are at work in many industries in the same way.

To assess carefully the effect of density itself on the rate of founding and failure, population ecologists often include prior founding and failure in the analysis. By doing so, it is possible to subtract the influence that the total population has on foundings and failures – especially when compared to the independent effects that the "contagion" of prior foundings or failures may have. Importantly, population ecologists find that the previous numbers of foundings and failures have independent effects on current foundings and failures, and that these effects change over time (e.g., Barnett and Amburgey 1990; Carroll and Swaminathan 1992; Wade *et al*. 1998; Barnett and Sorenson 2002). For example, an increasing number of foundings indicates a hospitable environment with numerous resources; therefore, it can lead to an increased number of subsequent foundings. However, an extremely high number of previous foundings signals a crowded market with limited resources; therefore, it can dampen the foundings in subsequent periods. Likewise, prior failures have similar curvilinear effects on foundings. Initial failures can be a boon to foundings in the subsequent years by releasing resources that can be reassembled into new organizations. However, a high number of prior failures discourage foundings by signaling a hostile environment in subsequent periods (Baum and Amburgey 2002). Baum and Shipilov (2006: 83), however, pointed out that when population dynamics represented by previous numbers of foundings and failures, and population density are modeled together, the effects of previous numbers are generally weaker and less robust with few exceptions.

Resource Partitioning: The Impact of Market Concentration

Population ecologists also found that another industry-level factor has an impact on organizational foundings and failures: "concentration," the extent to which a few firms dominate an industry. Carroll (1985) proposed a model called as resource partitioning that applies to industries characterized by strong economies of scale[2]. In particular, he asked whether it is better for an organization to be a "specialist" or a "generalist", when industry is highly concentrated. The basic point of the resource partitioning argument is that environmental resources are distributed in different ways for different types of organizations. Organizations initially attempt to find a viable position within the industry by targeting their products to various resource segments (Carroll *et al.* 2002). According to this argument, generalist organizations choose targets composed of heterogeneous segments (e.g., a broad and diverse audience) while specialist organizations choose narrow homogeneous targets (e.g., a narrow and cohesive audience).

Resource partitioning proponents argue that when market concentration is low to moderate, numerous generalists are competing with each other both for resources and consumers in a wide-ranging fashion. As a result, there is little space for specialists in the marketplace. However, as the level of concentration increases (i.e., as the dominance of few firms increases), the mortality rate of generalist organizations increases because they aggressively compete with each other to control the same resource segments in the center of the market. As a result, resources at the periphery of the market became available to specialists so the entry of specialist organizations.

[2] An economy of scale exists when one large firm can supply a product at lower cost than can a combination of small firms (Carroll 1985: 1263).

Many empirical research studies on a wide range of settings find support for the resource partitioning argument (Carroll 1985; Carroll and Swaminathan 1992; Swaminathan 1995; Boone *et al*. 2000; Mezias and Mezias 2000; Boone *et al.* 2009). Carroll's (1985) seminal paper showed that specialists and generalists respond to market concentration differently. By taking the newspaper publishing industry as an example, he demonstrated that many small, specialized organizations operated successfully in the industry, despite apparently high levels of local concentration. That is, as gigantic newspaper chains increasingly dominated the industry - the viability of neighborhood papers and other specialist papers improved. Carroll and Swaminathan's (1992) study of the American beer industry likewise found that high levels of concentration benefited specialists (e.g., microbreweries) by increasing their founding rate and lowering their mortality rate. Moreover, Swaminathan (1995) reported that the founding rate of American farm wineries, a type of specialist, rose as a function of the overall concentration in the wine industry.

The resource partitioning argument has also been tested in a visual media industry – thereby offering some possible lessons for the cable television industry. Based on the resource partitioning model, Mezias and Mezias (2000) examined the viability of specialists in the U.S film industry from 1912 to 1929. They defined generalists as any firms that were involved in both production and distribution activities and vertically integrated, while defining specialists as any firms that only engaged in either production or distribution activities. They examined whether concentration among large generalist firms was associated with higher rates of founding of specialist producers and specialist distributors. They found that increased concentration among generalists had a positive

effect on the founding of specialist producers and specialist distributors. From their results, Mezias and Mezias (2000) argue that there is little room for specialists in the market when concentration is low because numerous generalists are competing to get both resources and the actual attention of consumers. In contrast, specialists can thrive and survive when concentration is high, as they address the peripheral audience demand that the few, remaining generalists tend to ignore.

The New Institutionalism

The new institutionalism has very similar concerns to population ecology, as they both are interested in the emergence and evolution of industries. In its initial argument, the new institutionalism appeared as a rejection of "rational" and "efficiency" explanations of social behavior. Instead, it rested on an assumption that social action can be understood by reference to "institutions." According to DiMaggio and Powell (1991: 3), the new institutionalisms in all social science subfield are united by "a common skepticism toward atomistic accounts of social process and a common conviction that institutional arrangements and social processes matter." That is, the new institutionalism seeks to demonstrate that actors can behave in "irrational" ways because they are embedded within pre-existing organizational systems. The new institutionalism in organization studies likewise addresses the behavior of organizations as motivated by forces in wider society.

The new institutional theory in organizational studies has achieved great prominence since the late 1970s. In the late 1970s to early 1980s, several scholars established the conceptual foundations of the new institutionalism in organizational studies (e.g., Meyer and Rowan 1977; Zucker 1977; DiMaggio and Powell 1983; Meyer

and Scott 1983). Drawing from Weber's work, Meyer and Rowan (1977) paid attention to the rationalization and diffusion of formal bureaucracies in modern society (Greenwood *et al*. 2008). They held that organizational structures evolve as reflections of institutional rules that define what it means to be rational and that diffuse throughout organizations (Meyer and Rowan 1977: 340). Organizations conform to those institutional rules in order to obtain legitimacy, thereby improving their chance to secure necessary resources and raising their survival chances. However, Meyer and Rowan (1977) did not provide a formal definition of "institution" and "institutional context." As a result, it has been used broadly in two different ways: contexts as symbolic/cultural influence, and context as the regulatory framework of state and professional agencies (Greenwood *et al*. 2008).

Although the new institutionalists posited that all organizations are influenced by their institutional contexts, they were not influenced to the same extent. Meyer and Rowan (1977) initially argued that, for organizations whose technologies are not clearly linked to their outcomes and whose outputs are difficult to appraise, conforming to institutional rules is especially crucial for their survival (Meyer and Rowan 1977: 354). In contrast, they argued that, for organization whose technologies are clearly defined in relation to their outcomes and whose outputs can be easily evaluated, efficiency often determined their survival while the institutional influences were conceived to be much weaker (*ibid*). For this reason, most of the early studies that employed the new institutional perspective in organizational studies focused on not-for-profit and governmental organizations in education and the arts (e.g., DiMaggio 1982, 1991; Meyer and Scott 1983; Powell 1991).

In brief, the new institutionalists in the early years argued that organizations are significantly affected by their institutional contexts and that organizations – particularly not-for-profit and governmental organizations – conformed to those contexts in order to gain legitimacy and enhance their probabilities to survive. DiMaggio and Powell (1983) took these ideas forward by providing explanation regarding how institutions are diffused. Initially, they asked "why is there such starling homogeneity of organizational forms and practices?" (1983: 147). In order to answer this question, DiMaggio and Powell (1983) introduced three mechanisms – coercive, normative, and mimetic[3] – promoting isomorphism[4] in organizational field. Through these three mechanisms, organizations become increasingly alike. In their work, DiMaggio and Powell argued that the organizational field is as an appropriate level of analysis for these processes. They defined organizational fields as "organizations that in the aggregate constitute a recognized area of institutional life: key suppliers, resource product consumers, regulatory agencies and other organizations that produce similar products or services" (DiMaggio and Powell 1983: 64-65). It may include constituents such as the government, regulatory agencies, critical exchange partners, sources of funding, professional and trade

[3] Coercive isomorphism stems from the political pressures for legitimacy and social expectations that are predominantly exercised by the organization's external institutional environment. For example, it can result from laws and regulations imposed by the state or trade organizations. Mimetic isomorphism results from habitual, taken-for-granted responses to uncertainty. It takes place in situations marked by high environmental uncertainty. Organizations often mimic the practices and strategies of other organizations they perceive as successful and legitimate. Therefore, mimetic isomorphism leads organizations to imitate others, modeling themselves after successful competitors. Normative isomorphism is associated with the processes of professionalization, "the collective struggle of members of an occupation to define the conditions and methods of their work, to control the production of producers" (DiMaggio and Powell 1983: 152). The more a certain occupation defines specific conditions and methods of their work, the greater the institutional isomorphism between organizations is taking place (DiMaggio and Powell 1983: 150-154).

[4] Isomorphism refers to the "constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions" (DiMaggio and Powell 1983: 149).

association, special interest groups, and the general public – any constituent which imposes a coercive, mimetic, or normative isomorphic influence on the organization (DiMaggio and Powell 1991; Scott 1991). Within an organizational field, new organizational forms and practices diffuse via coercive, mimetic, and normative processes. Although the adoption of certain forms can occur at the local level, the choice of organizational form is often influenced at the field level through the action of governmental agencies and professional associations (DiMaggio 1982, 1991).

Grounded in this argument of isomorphism, the new institutionalists have examined the diffusion and/or shift of institutional rules across various organizational fields. For example, DiMaggio (1991) examined the history of art museums to demonstrate how philanthropic agencies and a growing museum professional organization guided the emergence of the educational museum at the national level (DiMaggio 1991). Scott and his colleagues (2000) studied changes have occurred in health care delivery systems in the San Francisco Bay area since 1945, from system dominated by health professionals to a market-oriented system marked by diverse organizational forms (Scott *et al*. 2000).

As mentioned above, the majority of early studies in the new institutionalism had been of the governmental and not-for-profit organizations. Later, however, scholars applied the new institutional perspective to commercial and for-profit organizations and found “markets” could be treated as institutional constructions (Greenwood *et al*. 2008). Scholars in organizational studies increasingly examined all types of organizations including commercial and for-profit organizations (e.g., Baron *et al*. 1986; Fligstein 1987, 1990; Dobbin *et al*. 1993). For example, Baron and his colleagues (1986) investigated the

evolution and spread of modern personnel administration systems in the United States. They documented the critical role played by three key constituencies – which were labor unions, personnel professionals, and the state – in the transformation of work force control from personal control of work by the supervisor to the emergence and widespread implementation of bureaucratic and technical control of work within organizations. In particular, they emphasized the role of government intervention in manpower activities during World War II in bureaucratizing employment (Baron *et al*. 1986: 350). They argued that agencies such as the War Production Board, the War Labor Board, and the War Manpower Commission "engaged in unprecedented government manipulation of labor markets, union activities, and personnel practice's, these interventions… fueled the development of bureaucratic controls by creating models of employment and incentives to formalize and expand personnel functions" (Baron *et al*. 1986: 369).

It is also worth noting that Baron and his colleagues used "institution" in two ways; institutions as cultural prescriptions and institutions as regulatory frameworks (Greenwood *et al*. 2008). Since then, some scholars have emphasized institutions as cultural models whereas others have emphasized the state or its policies (*ibid*). This is because there has been no single definition of institution, as various scholars have defined institution in diverse ways. In this circumstance, Scott (2001 [1995]) introduced three "pillars" of the institution to bring order to the various strands of institutional analysis: regulative, normative, and cognitive. Regulative elements emphasize the making and enforcement of rules, normative elements contain an evaluative and obligatory dimension of social life which includes values and norms, while cognitive elements involve shared conceptions and understandings of social reality so deeply ingrained that they come to be

taken for granted. These elements also provide foundations of legitimacy that organizations can gain if they conform. Although Scott distinguished three different pillars of institution, he emphasized that this distinction was for analytical purposes. In practice, these three pillars are often found together (Scott 2001 [1995]). For example, Scott explained that federal programs often secure local cooperation through "the use of authority, in which coercive power is legitimated by a normative framework that both supports and constrains the exercise of power" (Scott 2001 [1995]: 53). In other words, "the regulative and normative pillars can be mutually reinforcing" (*ibid*). Therefore, scholars whose main focus is on the regulatory element of institution argue that organizational behaviors are not only affected by the regulations and rules but also shaped by their own interests and the way they interpret those rules in relation to their environment. Scholars in this line of studies often concentrated on the way that the rules are negotiated and interpreted by organizations in the process of implementation of the rules (e.g., Edelman 1992; Dobbin 1994; Sutton and Dobbin 1996; Edelman and Suchman1997). In this sense, the impact of the regulations is not just the result of regulatory mandate or of normative understanding alone, but of a process of interpretation taken by organizations (Greenwood *et al*. 2008).

The Impact of Policy on the Development of Industries

As mentioned above, institutionalists tend to give great attention to historical context, particularly the implications of the state and its policies. They emphasize that the state – in the form of industry regulations – has a significance effect on shaping organizations (Meyer and Rowan 1977; DiMaggio and Powell 1983; Dobbin and Dowd 1997; Dobbin and Sutton 1998). In this line of research, state policy is considered to be significant

factor because it provides a framework within which competition among market actors and the ecological dynamics of organizational foundings and failures take place. Therefore, institutionalists speak of “policy regimes” in which rules and regulations shape the common way that organizations within an industry conduct their business (i.e., those “institutionalized” ways of conducting and organizing their operations).

Dobbin and Dowd (1997) provide an example of how the state intervenes in economy by introducing policies. While population ecologists concentrate on the environmental resources and the level of competition for such resources, Dobbin and Dowd paid more attention to the role of the external factors that affects the level of competition in an industry. Specifically, they found that different policy regimes produced different forms of competition among Massachusetts railroad companies. Looking at broad governmental actions and tracing their impacts on a particular population, they explained the ways in which federal pro-cartel and anti-trust policies affected the founding rate of railroads. In other words, they demonstrated how the introduction of additional forms of regulations could transform the market and affect the success or failure of individual companies by favoring certain organizational forms over others. In is important to note that, in their study, the effects of density did not become significant until they controlled for the impact of different policy regimes.

In another study, Dobbin and Dowd (2000) demonstrated that antitrust enforcement resulted in a shift in business models, including the logic that informed acquisitions. By analyzing data on rail acquisitions in Massachusetts between 1982 and 1922, they showed that the impact of concentration on acquisition varied dramatically when antitrust was enforced versus when it was not. According to the authors, prior to

anti-trust enforcement, concentration did not increase acquisition, and profitability did not affect which firms became buyers. From the onset of anti-trust enforcement, however, concentration increased both buying and selling – and profitability affected which firms became buyers while it did not affect which firms sold out. In other words, they showed that the effects of market dynamics on railroad acquisitions are conditional on an anti-trust regime that limits cartels and enforces competition.

Mezias and Boyle (2005) showed that the dominance of large organizations can depend upon how the state treats such dominance in its policies. They studied a variety of factors combined to shape the operation and evolution of the film industry in the United States between 1893 and 1920. This period was characterized by a shift to active anti-trust policy, which manifested itself in legal action to disband a trust that had dominated the industry, the Motion Pictures Patents Corporation (MPPC) (Mezias and Boyle 2005: 1). Specifically, they focused on the mortality of individual film companies and the monthly number of feature films made by individual film companies. Drawing on a number of historical sources, they showed that mortality was lowered by trust membership (i.e., joining the MPPC) and increased with the market share of trust members. They also found that the effects of litigation were varied; litigation filed by trust members increases mortality and litigation filed against trust members decreases mortality. According to the authors, it demonstrates that institutional resources could be used against the MPPC as well as by it (Mezias and Boyle 2005: 24).

As illustrated above, new institutionalists have taken policy regimes into account when studying organizations. New institutionalists nevertheless focus on some general processes amidst their concerns with historical context. For example, they note that

policy regimes can play out differently for “weak” versus “strong” states. When considering the state as a source of change in organization studies, it is important to note that political cultures shape emergent industrial policy strategies (Dobbin 1994). Dobbin and his colleague explain state policies as a reflection of national policy tradition (Dobbin 1994; Dobbin and Sutton 1998). They showed that, in the United States, several distinct features of the federal government influenced how it regulates organizational life (Meyer 1983; Hamilton and Sutton 1989; Dobbin 1994). According to them, the features of the federal government in the United States are “its structurally limited administrative capacity, dispersal of authority across levels of government, decentralization of decision making at the national level, and ideological deference to the efficiency of the market and the natural virtues of civil society” (Dobbin and Sutton 1998: 442). Due to these characteristics, the state often proposes ambiguous mandates to organizations and enforces its rules in an indecisive way.

Many scholars however have shown that although these features cause the state to appear weak, they produce a peculiar kind of state strength (Dobbin and Sutton 1998; Edelman *et al*. 1999; Kelly and Dobbin 1999). They argue that the United States’ federal law typically provides broad requirements to organizations regarding what they should not do rather than mandates specific instructions about how they should meet these requirements. Consequently, professionals and other organizational actors develop new practices that alleviate operational uncertainty in response to the law. For example, Dobbin and Sutton (1998) analyzed the effects of the federal employment rights revolution of the early 1970s on organizations. They found that legal ambiguity actually has an indirect but profound effect on personnel structure in the United States. According

to them, the legal changes in employment rights stimulated organizations to create personnel, antidiscrimination, safety and benefits departments to manage compliance. However, as institutionalization proceeded, professionals (i.e., middle managers in companies) came to dissociate these new offices from policy and to justify them in purely economic terms. In other words, organizations that initially created personnel structures in response to law eventually come to develop those structures as being dictated by market efficiency. They in turn argue that this pattern is typical in the United States, and it helps to understand the federal state is administratively weak but normatively strong (Dobbin and Sutton 1998: 472).

From this perspective, public policy can have significant effects on the cable television industry through processes of regulatory mandate, normative understanding, and cognitive interpretation taken by companies involved in the cable television.

The Arguments Applied: The Scope of the Chapters

As described before, both population ecology and the new institutionalism emphasize the importance of the environmental effects on organizations and organizational population or field. However, there is a fundamental difference between these two in their directing points as theories; population ecologists strive to find a few regularities that can be applied to various organizational populations whereas the new institutionalists seek the contextualized explanation that is applied to a specific organizations or field (Haveman and David 2008). As a result, they tend to differ in their interpretation of the same concepts (e.g., legitimacy), as well as in their use of measures to capture those concepts. The concept of “legitimacy” is often taken as an example that shows the difference

between two theories. As described, legitimacy is one of the central concepts of both theories. Population ecologists focus on the cognitive dimension of legitimacy and measure it by counting the number of organizations in the focal population, which can be applied to various organizational populations. On the other hand, the new institutionalists emphasize regulative and normative dimensions in addition to cognitive dimension, and call for using contextually sensitive measure of the three dimensions of legitimacy, which cannot be reduced to simple count (Haveman and David 2008)[5].

As Haveman (2000) pointed out earlier, population ecology developed within tightly bounded paradigm: "much of ecological studies clarifies and refines the basic theory without extending it in truly novel direction" (Haveman 2000: 477). Indeed, many ecological studies have used the characteristics of organization (e.g., age and size) and the population (e.g., density) to explain the vital rates of organizations (Haveman and David 2008). On the other hand, much of the new institutional studies have often been criticized due to its fundamental uncertainties regarding its conceptions (e.g., institution) and lack of coherent propositions about relationships between constructs (Haveman and David 2008).

Yet, are population ecology and the new institutionalism incompatible with each other? I argue that combining these two theories can generate more comprehensive framework to understand the dynamics of organizations in an industry. Despite the differences they have, there is increasing number of studies that incorporate ecological perspective with institutional perspective (e.g., Baum and Oliver 1991; Haveman 1993;

[5] The detailed discussion between population ecology and the new institutionalism in their conception and measure of legitimacy is provided in Chapter Three.

Dobbin and Dowd 1997, 2000; Mezias and Boyle 2005). By doing so, they examine whether the processes that have been the object of ecological studies – such as density dependence and resource partitioning – are at work within contexts (Haveman and David 2008). As described before, Dobbin and Dowd (1997), in their study on Massachusetts railroad industry between 1825 and 1922, showed that ecological factors such as density (i.e., total number of firms) has significant effects on railroad foundings once policy regimes adopted by the state of Massachusetts (i.e., public capitalization, pro-cartel, and antitrust) are controlled. From the results, they argue that the ecological processes are embedded in, and shaped by the larger policy environment. In this sense, the new institutional perspective, to some extent, broadens and enriches organizational studies by allowing them to incorporate contextual effects and develop more nuanced insights into organizational processes (Haveman 2000; Haveman and David 2008). Studies that combine ecological and institutional arguments provide more comprehensive explanations on organizational dynamics.

From this perspective, I explore the ways cable television industry evolved, how it developed while considering the processes through which new organizational forms become institutionalized as a result of a punctuated shift in the institutional environment. Specifically, for two reasons, I will focus on cable networks – those entities that provide programming that competes with the programming of broadcast networks. First, it is often considered that the advent of national cable *networks* altered the true nature of the cable television industry from the old type of cable television services, which mainly focused on relaying the signals of local terrestrial broadcasting stations, to the modern type that provides diverse original programming (Mullen 2003, 2008; Kang 2009).

Second, from the perspective of the public (i.e., the viewing audience), this new type of cable has meant the substantial expansion of available programming. The chapters are organized as follows.

In this Chapter One, I presented theoretical frameworks that guide the study; population ecology and the new institutionalism. In particular, I described how those theories address the organizational dynamics in an industry by focusing on similarities and differences between two theories. Then, I argued that incorporating these two theoretical perspectives may provide comprehensive framework to study cable television industry.

In Chapter Two, I illustrate the structure of the current cable television industry. After that, I describe the historical context of how the cable television emerged and developed from its early days as community antenna television through its later development as a mass medium in its own right. In particular, I focus on changes in regulations by the Federal Communications Commission. In so doing, the predictions concerning the impact of policy changes on the cable television industry can be tested in the following chapters. In addition, I present the structure of cable television industry.

In Chapter Three, I focus on the evolutionary and ecological dynamics in the cable television industry. Specifically, I examine factors that affecting the founding of cable programming networks. I do so by incorporating population ecology and the new institutional perspective in organizational studies. Although there are some differences in the two theories in that those two theories emphasize different factors when explaining the dynamics in an industry, both of theories agree that the processes of legitimation and competition significantly shape the industrial development. Drawing upon these two

theories, I investigate what factors – ecology, public policy and economic factors – significantly affect those processes and thereby determine the patterns of the growth of cable programming networks.

In Chapter Four, I focus on the market concentration and diversity of programming networks in cable television industry. The impact of market concentration on media products has been a crucial issue in many research areas dealing with media industry because people believe that excessive market concentration hinders the development of diverse media products reflecting various ideas, viewpoints and opinions that exist in a society. Therefore, regulatory agencies have always concerned about rules that control market concentration in the media industry. For the same reason, the Federal Communications Commission imposed the cable ownership limits rules in 1993; however, it had not been fully in effect due to continuous legal challenges from the industry, and eventually reversed by the Court of Appeals in 2001. Grounded in the new institutional perspective, I argue that, even though the cable ownership limits rules had not been legally in effect, the rules did have effects on the industry as possibilities. I will do so by analyzing the rhetorical strategies that the proponents and opponents of the rules adopted. And then, I examine whether the cable ownership limits rules have substantial effect on market concentration and diversity of cable programming networks by tracing trends in the level of concentrations in the cable television industry.

Chapter Five examines factors that affecting the dissolution rates of cable programming networks. Followed by Chapter Four, I elaborate the impact of cable ownership limits regulation. Because the local multichannel video programming distributor (MVPD) market is dominated by local monopolistic cable systems while the

multichannel video programming market is competitive, policy makers set the cable ownership limits in order to prevent large cable system operators from exerting excessive market power in program acquisition market in the cable television industry. In this sense, one of the purposes of establishing cable ownership limits rules was to protect cable programming networks. By using comprehensive data on cable programming networks from 1989 to 2010 containing information of organizational performance, I examine factors that affecting the dissolution rates of cable programming networks during the period of regulatory shift occurred.

In the Conclusion, I bring together the results of analyses presented previous chapters and consider what the cable television industry tell us about processes and factors that shape industrial development. By providing a sociological analysis of the cable television industry, I hope to provide a sociological perspective to understand the emergence and evolution of cable television industry. Numerous histories of media industries, including cable television industry exist and they are all magnificent. Instead of adding one to these histories, I attempted to interpret the development of cable television through a sociological viewpoint as I believe sociological theories of culture and organizations can provide unique insights into the dynamics of media industries, such as the cable television industry.

CHAPTER TWO

Cable Television Industry in the United States –
Its Current Structure and Historical Background

The Structure of the Current Cable Television Industry

Before proceeding, it is helpful to describer cable television in the United States. Broadly speaking, the cable television industry currently consists of three primary sets of players; program producers, cable networks and cable system operators. Program producers such as Paramount Pictures and Universal Studios sell programming to cable networks. Cable networks are entities that deliver packages of video contents that they produce or purchase from program producers to multichannel-video programming distribution (MVPD)[6] providers, including local cable system operators. Cable system operators, in turn, redistribute the network programs, through wires, to consumers in their local franchise areas. Each cable network negotiates with individual cable system operator for the distribution of its programming. The number of cable networks carried by any particular cable system varies depending on the channel capacity of the system. Because cable system operators serve exclusive franchised areas, cable networks strive to obtain channel space on as many cable systems as possible in order to maximize their viewing audience (Chipty and Snyder 1999). Figure 2-1 illustrates the structure of the cable television industry (note: Figures and Tables are found at the end of each chapter).

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[6] The Communications Act of 1934 (as amended by the Telecommunications Act of 1996) defines Multichannel Video Programming Distributor (MVPD) as "a person such as, but not limited to, a cable operator, a multichannel multipoint distribution service (MMDS), a direct broadcast satellite service (DBS), or a television receive-only satellite program distributor, who makes available for purchase, by subscribers or customers, multiple channels of video programming."

Program Producers

The production of video content is done by program producers, and they sell their programming to cable networks. There are various types of program producers, ranging from the major motion picture studios to independent producers. In order to fill a channel's schedule, cable networks such as HBO and American Movie Classics need to have at least 5000 titles a year (Vogel 2007); therefore, a cable network often purchases license in advance for a specified number of exhibitions for a full slate of a studio's output for a three-to-five year period (*ibid*). In this way, a program producer has a solid base of production financing while a cable network assures a programming schedule. Similarly, other cable networks such as Nickelodeon and Lifetime contract with independent producers to develop movies or series for them (Newcomb 2004).

Cable Networks

Cable networks gather and package programs that are created by themselves and/or program producers and sell them to MVPDs. Some cable networks produce most of their own programming while others contract with independent producers to develop movies or series for them to provide original programming. Still others, in a few instances, have picked up commercial series canceled by the major broadcast networks, produced new episodes, and aired them as a series (Newcomb 2004).

There are broadly three different kinds of cable networks distinguished by subscription type; basic, premium, and pay-per-view cable networks. Basic cable networks are cable-originated networks, such as MTV and CNN, and superstations, such

as WGN-TV in Chicago and WSBK-TV in Boston (Waterman and Weiss 1997)[7]. Basic cable networks, which consist of the majority of channels on most cable systems, have two sources of revenue; advertising revenue and licensing fees from cable system operators, as well as other MVPDs. The licensing fee is based on the number of subscribers the cable system has[8]. Most basic networks are provided to subscribers in bundles as part of a basic service package.

On the other hand, premium cable networks include nationally distributed services, such as HBO and Disney Channel, and some regional sports networks. They usually do not sell advertisements. Instead, they charge additional fees on an a la carte basis. Therefore, the major source of revenue for premium cable networks is its subscription fees, which are shared with local cable systems that carry them[9]. In order to justify their additional fees, premium cable networks must provide their subscribers programming they cannot receive for free. For example, premium cable networks purchase rights from motion picture studios that allow them to show feature films shortly after theatrical runs and prior to distribution to broadcast networks (Waterman and Weiss 1997). Most cable system operators sell premium cable services a la carte. Because basic cable service is tied to the premium service, a consumer who wants a premium service must first purchase the basic package (Chipty 2001).

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[7] Superstations are local broadcast television station whose signal has been uplinked to a satellite transponder for transmission to cable systems (Mullen 2008).

[8] There is considerable variation in operating procedures among basic cable networks. For example, C-SPAN is non-commercial and all revenue comes from payment by the cable systems. In case of home shopping networks, they are usually provided to cable systems free of charge because they make money from viewers who call in and buy the products shown (Newcomb 2004).

[9] The systems and the networks divide the consumer fee, usually about 50-50, but this ratio is subject to negotiation (Newcomb 2004).

Pay-per-view networks such as Playboy at Night and Viewer's Choice allow their subscribers to access certain programs by requiring a fee for each program – a single or time-limited viewing. In other words, unlike premium cable networks, subscribers pay only for those programs they actually watch. Programs offered by pay-per-view services are most often movies or sporting events, but they also provide other events, such as concerts and adult programs. The cable network and the cable system operator then divide the subscriber fees, based on a negotiated percentage.

Meanwhile, cable networks can be distinguished into two different types according to their ownership; cable networks owned by a cable system operator, and independent cable networks. Within the industry, some cable networks are vertically integrated with cable system operators. As of 2007, nearly 120 of the 530 available cable channels were affiliated with a cable system operator (FCC 2009). For example, Time Warner, which is the second largest cable system operator in the U.S., has an ownership interest in thirty nine national programming networks, including CNN and HBO; Comcast has an ownership interest in eighteen national programming networks; Cablevision has an ownership interests in twenty six national networks (*ibid*).

On the other hand, there are independent cable networks that are not owned by or affiliated with any cable system operator. However, it is important to note that what independents mean in the cable networks is somewhat different from them in other media industries. In the cable television industry, the majority of independent cable networks are owned by giant media companies such as Disney. It is difficult to find cable networks owned by someone other than a major media conglomerate (Goolsbee 2007).

From the initial emergence of cable television, the number of cable networks has continuously increased. According to the FCC's report (2009), the number of national cable networks increased from 4 in 1976 to 565 in 2006. As the number of cable networks grows, the number of subscribers increases (see Figure 2-2). Consequently, these cable networks have been taking substantial market share from traditional television networks. By the mid-1980s, more than half of all television homes subscribed to at least a minimal basic service. And by 2003, cable's audience share for the first time surpassed the combined viewership of the major broadcast networks (Vogel 2007). Various industry reports have indicated that broadcast television stations' audience shares have continued to fall while nonbroadcast channels'[10] collective audience share continue to grow (SPIS various years; FCC 2009). For example, broadcast television accounted for a combined average 40 share of all-day viewing during the 2005-2006 seasons, down from a 41 share the previous season. In contrast, nonbroadcast channels' collective channels accounted for a combined average 70 share of all-day viewing, up from a 69 share in the previous season (FCC 2009). This trend is expected to be continued due to a rapid growth of newer platforms, including the Internet.

Cable System Operators

Cable system operators provide video programming that is created or aggregated by cable networks via coaxial cable or fiber-optic cable to their subscribers. Although nowadays, many cable system operators also provide additional services such as telephone and broadband, distributing video programming is still their primary business (Kang 2009).

[10] Nonbroadcast channels include basic networks and premium networks as well as Pay-per-view networks, distributed by MVPDs.

Because cable system operators can exert their influence to determine which cable networks are delivered to their subscribers, they are sometimes considered as “gatekeeper” in the cable television industry (*ibid*).

Since cable systems emerged as a complementary to broadcast television station in between the late 1940s and early 1950s, the number of cable system operators has increased. Accordingly, the number of basic subscribers also increased substantially. Figure 2-2 shows the number of cable system operators and basic subscribers from 1950 to 2010. As shown in Figure 2-2, the number of cable system operators increased from 70 in 1950 to 11119 in 1996 (TCFB 2011), almost 160 times more. After the late 1990s, however, the number of cable system operators began to decline. Based on the fact that the total revenue for cable television industry has continuously increased (U.S. Census, Statistical Abstract, various years), the declining number of cable system operators is more likely because merger and acquisition has become more and more popular, rather than because the entire cable television industry has declined.

Then, how these cable system operators do their business in the industry? Traditionally, cable television industry was viewed as very close to a natural monopoly: a market in which there is room for only one company of efficient size due to the fact that its average cost continues to decline as its scale increases (Vogel 2007). In the cable television industry, a single company would operate the cable system in a given geographic region (Nuechterlein and Weiser 2005). The cable system business is the one that costs a lot to start-up as well as to maintain – construction costs including the cost of underground cabling, high interest rates, and so on. It functions as an entry barrier to new entrants; therefore, an attempt of overbuilding typically is empty or leads to a buyout

(Kang 2009). Moreover, incumbents deter the entry of over-builders by, for example, dropping their rate (Coombes 1993; Johnson 1994)[11].

A cable television system operates under a franchise agreement. A cable television franchise is a contractual agreement between the cable operator and a local franchising authority, which is the local municipal, county or other government organizations that regulate certain aspects of the cable television industry at the state or local level. Each cable franchise serves a geographically distinct market. A cable system operator bids for monopoly franchise to provide cable programming to communities. Once accepted, the cable system operator pays franchise fees to the local franchising authority for the right to access public rights of way to offer cable service. A cable television franchise comes up for renewal after a certain period of time. At that time, the cable operator and a local municipality are both obligated to negotiate a new franchise agreement that will outline the requirements and expectations of both parties.

In the early years of cable television industry, most local cable systems were owned and operated by small businesses in local markets (Parsons and Frieden 1998; Mullen 2003, 2008; Parsons 2003, 2008). As the industry has developed, most cable systems are owned by multiple system operators (MSOs) that operate more than one local cable systems. As of 2010, there are more than 7,400 individual cable systems. However, a majority is owned by a handful of multiple system operators (SPIS 2011) which indicates ownership concentration for cable systems is relatively high. It can be also shown by concentration ratio that is, in this case, the number of basic subscribers Top 4

[11] For example, the incumbent private cable system operator dropped its rate by approximately 60 percent to the portion of the market that would be wired by a new entrant, the city-owned system, in Glasgow, Kentucky (Coombes 1993; Jonson 1994).

and Top 8 MSOs hold over the total number of basic cable subscribers. Figure 2-3 presents the trends of market share of cable system operators in terms of the number of basic subscribers served by them, from 1969 to 2010. As shown in Figure 2-3, the numbers of basic subscribers served by the largest 4 cable system operators (i.e., Concentration ratio of top 4 cable system operators), as well as the largest 8 cable system operators (i.e., Concentration ratio of top 8 cable system operators), have continuously increased, even though there were several fluctuations. In 1970, when the cable television industry was in the early stage of development, the largest 4 cable system operators served 17.2 percent of total basic subscribers, which represented approximately 774 thousand subscribers (Sterling 1984). In 2010, four decades later, the largest 4 cable system operators – Comcast Cable Communications, Time Warner Cable, Cox Communications and Charter Communications – served approximately 45 million subscribers, which is equivalent to about 68.6 percent of total basic subscribers (SPIS 2011).

The concentration has continuously increased because increasing size through horizontal integration is beneficial to the cable system operator for several reasons. First, it enables a cable system operator to have substantial bargaining clout due to its increased purchasing volume leverage (Waterman and Weiss 1997). Second, it also enables a cable system operator to generate sufficient cash flow for the company to compete effectively – for example, upgrade its infrastructure to incorporate new technology (Crandall and Furchtgott-Roth 2006). As a result, cable companies do pursue merger and acquisition actively. Yet the question remains, how did the cable industry come to take the form shown in Figure 2-1? To answer this question, it is important to take a long-term view.

The Development of the Broadcast Television Industry: Setting the Ground

Some media scholars argue that most new media technologies developed in order to improve the functions that were already performed by an existing medium (Mullen 2003, 2008). For instance, cable television took care of an existing need from broadcast television, which itself was the heir to radio broadcasting. Therefore, it is necessary to take a look at precedents' of cable television to understand the social and cultural context of the emergence and development of cable television.

The idea of television technology was first proposed in the late 19th century, but implementation of television technology began in the early 20th century (Wise 2011). In the early 1930s, the National Broadcasting Company (NBC), owned by the Radio Corporation of America (RCA), had begun transmitting experimental telecasts from the Empire State Building in New York. Shortly thereafter, the Columbia Broadcasting System (CBS) television network was on the air, and the American Broadcasting Company (ABC) television network was formed in 1943. The DuMont Television Network became the fourth television network to enter the television broadcasting industry in 1946; however, it finally ceased operation in 1956 because "it was unable to acquire a sufficient number of affiliates and economical interconnection" (Thomas and Litman 1991: 139)[12]. Since then, the broadcasting television industry had dominated by

[12] According to media scholars, many reasons contributed to the demise of DuMont television network. Among others, some scholars argued that it partially resulted from the high cost for using coaxial lines that AT&T monopolized at that time (Auter and Boyd 1995; Sterne 1999). Because AT&T did not have enough lines to provide signal relay service from all four networks to all of their affiliates simultaneously, it allocated time to each of four networks regarding when they could offer live programs to their affiliates (Auter and Boyd 1995). However, it served four networks unequally – for example, in 1950 AT&T allotted NBC over 167 hours and CBS over 121 hours of live prime time network service, while it offered ABC only 53 hours, and DuMont just 37 hours of prime time per week (Hess 1979; Auter and Boyd 1995). Moreover, AT&T required each television network to lease both radio and television lines. DuMont was

the “Big Three” broadcast television networks until the Fox Broadcasting Company launched in 1986.

Despite great consumer interest in this new medium of television, it did not achieve nationwide coverage until the early 1950s (Vogel 2007). There were various reasons, such as economic restraints and contingencies related to World War II (1939-1945) and the high initial prices of receiving equipment. In particular, the television infrastructure had not been prepared for national distribution of programming until the early 1950. Then, how and what process did the television industry go through to reach audience nationwide? And, who were the main players in this process? In order to answer these questions, I trace how television infrastructure was developed.

Television originated as broadcast media with its roots intertwined with radio. The television industry in the United States developed out of and in response to the broadcasting industry’s experience with radio (Sterne 1999: 506). Because it is difficult for local stations to make all of their programming and because the government limited number of stations a single entity could own, radio networks emerged as a solution to both problems (Leblebici *et al*. 1991). On the one hand, the networks took responsibility for securing and creating programming. On the other hand, the networks disseminated this programming to local stations. While they owned a few of these local stations, they were affiliated with many more owned by others – providing programming to these “affiliates” in exchange for advertising time and other considerations (Leblebici *et al*.

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the only television network without a radio network, but was forced to pay for service it didn’t use. Indeed, the lack of a radio network made DuMont stand in a disadvantageous position. For others having the radio network, it provided financial support while television was growing. Moreover, it also provided its respective television networks’ administrative and program talent (Auter and Boyd 1995). However, DuMont could not receive that support from a radio network, and it in part led to its demise.

1991). Radio networks took steps to promote their vision of television as a nationally networked medium that distributed content from a few centralized sources (Sterne 1999). While the radio industry developed the idea of networking as it had grown, the television industry, from the very beginning, was considered as a nationally networked medium (*ibid*). In other words, the notion of networking was a key to the presentation of early broadcasting. Therefore, the television infrastructure was developed so that television would be a centralized broadcast medium. Then, what process did the development of television infrastructure go through? Who were the main players in this process?

In the early 1920s, American Telephone and Telegraph Company (hereafter, AT&T) already had a government-sanctioned monopoly in the telephone industry. However, AT&T decided to break into radio in an attempt to monopolize the radio industry as well, by arguing that broadcasting was merely an extension of its control over the telephone (Campbell *et al*. 2012). Through the Broadcasting Corporation of America (BCA)[13], AT&T was involved in radio experiments most notably through station WEAF, which was AT&T's experimental broadcast station (Adams and Butler 1999: 110-111). In response, General Electric (GE), Westinghouse, and Radio Corporation of America (hereafter, RCA) formed a radio group by interconnecting a smaller set of competing stations. However, the radio group was in a disadvantageous position because AT&T denied them access to its telephone wires (Campbell *et al*. 2012). By this time, AT&T refused to lease its lines to competing radio networks in order to hold a dominant position

[13] In 1923, when AT&T aired a program simultaneously on its flagship WEAF station and on WNAC in Boston, the phone company created the first network. By 1924, AT&T had interconnected twenty-two stations to air a talk by President Calvin Coolidge. Some of these stations were owned by AT&T, but most simply consented to become AT&T "affiliates," agreeing to air the phone company's program. These network stations informally became known as the telephone group and later as the Broadcasting Corporation of America (Campbell *et al*. 2012).

for control of radio (*ibid*). This eventually led to a government intervention and an arbitration settlement in 1925. In the agreement, AT&T received a monopoly on providing the wires to interconnect stations nationwide. In exchange, AT&T sold its Broadcasting Corporation of America (BCA) network to RCA, and agreed not to reenter broadcasting for eight years[14] (Campbell *et al*. 2012).

By winning common carrier status for television signals, AT&T was able to coordinate the development of a national television infrastructure. As a result, the television infrastructure became part of an expanded telephone infrastructure (Sterne 1999: 511). The networking of television, however, had technical problems that radio did not have. While radio stations could network through standard telephone lines, television could not use them because it required the wider bandwidth for the video content. In other words, standard telephone wires were insufficient to carry television signals. Regarding this problem, there were several solutions including coaxial cable and microwave relays.

AT&T developed coaxial cable as a supplement to existing phone lines that could also accommodate television. Although coaxial cable had a high initial cost for installation, AT&T intended to lay coaxial cable because it thought it was more worthwhile in that, by installing coaxial cable, it could handle more telephone traffic, as well as could use cable as leverage into the television business (Sterne 1999). Moreover, AT&T had previously handled almost all of the networking for radio station. That is to say, it already had a foothold in the industry. AT&T's coaxial cable was successfully

[14] This banishment actually extended into the 1990s (Campbell *et al*. 2012).

demonstrated in 1937 when it sent a motion picture between the two cities, New York and Philadelphia.

On the other hand, microwave technology[15] was rapidly developed during World War II. Because it developed under the U.S. Signal Corps, there was no proprietary patent situation (Horwitz 1991: 146-148). Moreover, the fact that microwave did not entail the physical wires provided favorable condition for those who intended to participate in television interconnection services. In case of coaxial cable, it remained the province of AT&T because only companies with right-of way privileges (i.e., the phone company) could build fixed cables. However, there was no major right-of-way problem for microwave relay. As a result, many companies, including Western Union, Philco, DuMont Laboratories, General Electric, and Raytheon were poised to provide television interconnection services via microwave technology (*ibid*). However, the prospective microwave companies had to receive permission from the FCC to use particular frequencies because microwave utilized the electromagnetic spectrum.

Indeed, microwave seemed to pose a serious threat to AT&T's plans to interconnect television stations. Obviously, AT&T's interest would be secured if the FCC ruled only common carriers could provide broadband carriage. Thus, in order to prevent the potential microwave companies from obtaining frequency authorization, AT&T made strong arguments. For example, AT&T argued that one entity could best coordinate a

[15] Microwaves are radio waves that are much higher frequency than that of AM radio. The development of microwave was a highly significant technical breakthrough in conquering higher regions of the radio spectrum of very short wave length, which can be focused in narrow beams useful for high capacity point-to-point communications by means of radio relay stations separated by line-of-sight distance (Beelar 1965). Microwave technology became one means of providing interconnection for the nascent post-war television network system (Horwitz 1991).

highly technical system, and an exclusive franchise would yield the most efficient use of scarce radio frequencies for video interconnection. Also, AT&T argued that only the common carriers, which were obliged to serve all, could provide uniform and reasonable rates; competitive carriers would offer service only in the most profitable markets (Horwitz 1991).

These arguments had their effect with the FCC; the FCC eventually adopted a rule that reserved permanent use of the microwave frequencies to common carriers while restricting the experimental licenses of the private microwave companies to experimental activities only. As a result, many of prospective microwave companies dropped their plans. In addition, AT&T solidified its success in the effort to monopolize television carriage when it filed a video transmission tariff, to be effective May 1, 1948 (Beelar 1967). The tariff prohibited interconnection with non-AT&T transmission systems, and it therefore provided AT&T with a monopoly over the video transmission business (McNamara 1991: 20). This meant that television networking would have to be either entirely within AT&T's system or entirely outside of it (Sterne 1999: 513). The FCC did not explicitly rule that video carriage was to be a monopoly service. However, the FCC's policy that only common carrier would be permitted to provide such service, without any mandatory interconnection requirement, had the clear effect of providing AT&T with a monopoly (Horwitz 1991).

Not surprisingly, the AT&T tariff was challenged by television broadcasters in FCC hearings in the same year. At the time (the late 1940s), many television broadcasters could not get video network channels from AT&T for network television programs. Thus, several television broadcasters undertook to construct microwave facilities to other cities

where physical connection could be made with common carrier facilities (Sterne 1999). Based on the tariff, however, AT&T refused the interconnection of private microwave systems with its own facilities. In this situation, the FCC offered one concession that AT&T should interconnect with microwave relay systems, which are other broadcast company communication systems, so long as those systems were temporary and linked up areas not year covered by common carrier service (Brock 1981: 185-187).

As mentioned before, AT&T's coaxial cable at the time could handle only one television signal at a time, so that a city with multiple stations could not handle more than one live national telecast at a time. AT&T resolved this technical problem with coaxial cable and appropriated the necessary microwave relay technology (Sterne 1999: 514). Moreover, AT&T developed other technologies for television distribution, such as switching systems for coaxial and microwave relay networking. AT&T's television infrastructure eventually included multiple coaxial cables and microwave relays interconnected through a series of switching stations (*ibid*). This system had continued to develop until the emergence of satellite broadcasting.

AT&T began to construct national television infrastructure quite early. In 1945, the first physical television network linked stations in New York, Philadelphia and Schenectady (Radio Daily 1945: 255, as in Sterne 1999). In 1948, AT&T began offering networking services for television on facilities connecting major cities in the Northeast and Midwest. As the television infrastructure grew, television networks began plotting their own national coverage, diverging from AT&T. For example, the National Broadcasting Company (NBC) had coverage from the Northeastern (Boston to Richmond) to the Midwest (Milwaukee, Chicago, and St. Louis). The Columbia Broadcasting

System (CBS) and the American Broadcasting Company (ABC) were strong in the Northeast but not connected with the Midwest. All the networks had affiliates throughout the country, but most had not been hooked into the television infrastructure (Sterne 1999: 515).

During 1948-1952, when the FCC froze the assigning of new television frequencies, AT&T's television infrastructure grew rapidly so that broadcast television geographically proliferated (Sterne 1999). In the early 1950s, therefore, television networks had a wide area of coverage. The geographical proliferation of broadcast television was appealing to advertisers so that they rushed to television (*ibid*). As the television infrastructure continued to grow, however, the national television infrastructure showed a distinct coastal and urban bias (Sterne 1999). In other words, development tended to concentrate on the markets that could be best sold to advertisers. As a result, television was unevenly developed geographically. Across the nation, less populated areas had proportionally fewer television stations in service. Moreover, the combination of distant signals and uneven terrain in some areas made television reception difficult. As one of the solutions, cable television emerged. In the following part, I focus on the evolution and development of cable television.

The Emergence and Evolution of the Cable Television – Focusing on Changes in Policy Regimes[16]

Cable television got its start as a response to the physical limitations of broadcast signals in the late 1940s. As broadcast signals are both limited in their ability to travel long

[16] This discussion borrows heavily from Parsons and Frieden (1998) and Mullen (2003, 2008), who provide an extended account of the development of cable television in the United States.

distances from their origination site and are susceptible to interference, cable television was created for the purpose of broadcast-signal retransmission so that people in the area where broadcast signals hardly reached could enjoy watching television. A very tall antenna, known as a community antenna, was installed on a hilltop to receive broadcast signals and then local cable systems amplified the signals, retransmitted it by using a coaxial cable to households that could not receive clear signals. Community antenna television, or CATV, was the first name for cable television (Mullen 2008: 3). Most of local cable systems in the early years were operated by small local businessmen such as local TV dealers who want to increase their sales (Parsons and Frieden 1998; Mullen 2008; Parsons 2008). However, cable television has since evolved and developed into a strong competitor to broadcast television. By June 2012, cable operators served 56.8 million subscribers, representing 43.7 percent of the 131.2 million U.S. TV household passed, according to data from the National Cable and Telecommunication Association (NCTA).

As will be discussed later, cable television industry has undergone several periods of regulations and deregulations since its inception. In this chapter, I describe the history of cable television in the United States by focusing on changes in policy regimes. The first period is characterized as regulation with limits. As will be discussed later, the purpose of regulations in this period was to protect existing broadcast television from possible threats that cable television would pose on. The second period can be characterized as deregulation to reduce those limits. In this period, government reconsidered its rules on cable television and made a series of regulatory revisions. The third period can be characterized re/deregulation to grow the industry. In this period, the

primary purpose of the regulation was to promote the growth of cable television industry though competition.

Regulation with Limits: From the Inception of the Industry to the Mid-1970s

Many media scholars identify the origins of commercial cable television as between the late 1940s and early 1950s. This period was overlapped with the FCC's 1948-52 licensing "freeze," years in which policy-makers suspended the assigning of new television frequencies in order to examine their practices for allocating licenses to prospective new television stations, so as to ensure equal availability of television across the nation (Parsons and Frieden 1998). For cable television, the Freeze brought important consequences. Many researchers attributed the development of the small town CATV systems to the absence of local broadcast stations. Because people wanted as much television as possible, and CATV offered a means of obtaining it by importing a station from a distant town to the local community, cable television systems was able to develop (Parsons and Frieden 1998).

In the early years, cable television was neglected by the regulatory agency because policy makers considered early cable television as simply a local retransmissions service that would eventually disappear once more television stations had begun services (Mullen 2008). It also seemed not to pose any threat to the broadcast television that the Federal Communications Commission (FCC) regulated. Rather, cable television was welcomed by broadcasters because they expected cable television might increase the audience of broadcast television and thereby contribute to increased advertisement revenues. Therefore, there was no apparent need for them to regulate cable television. For this reason, cable television, or CATV, grew rapidly, unfettered by governmental

regulation. The number of cable systems doubled every year; by 1953, there were more community antenna systems than there were broadcast television stations in the United States (Mullen 2008).

As cable entered the mid-1960s, cable system operators began to import signals of distant television stations; however, the cable television industry moved from an unregulated industry to one governed by constricting rules and regulations. This change was caused by concerns that a group of broadcasters had continuously raised. In 1956, a group of broadcasters, including a company called Frontier Broadcasting, filed suit against 288 CATV operators in 36 states. They claimed that cable television's importation of their signals from large markets into small towns would discourage advertisers from buying the same time slot on the small town stations; therefore, it would eventually lead to the economic demise of the small town broadcast stations (Parsons and Frieden 1998). Thus, broadcasters argued that cable television should be subject to regulation of its practices and the FCC should have authority to regulate cable operators. However, the FCC held that cable was outside of their jurisdiction because it was not a common carrier. In other words, the FCC argued that cable television was not subject to its regulatory authority (*Frontier Broadcasting v. Collier*, 24 FCC 251 [1958])[17].

Although the FCC declined at first, the FCC changed its approach to limit the expansion of cable television as it became apparent that cable systems could invade local broadcasters' interests, especially in smaller communities. The FCC began regulating the

[17] At the time, the FCC had two categories of oversight with regard to electronic media, which are broadcast and common carrier. However, CATV by itself did not fit either of them. CATV was surely not a broadcast because it used wires rather than radio transmission of signals. Also, it could not be considered as a common carrier because CATV was not available to anyone wishing to pay for the use of them in the way that those of the telegraph and telephone were.

cable industry as a result of *Carter Mountain Transmission Corp. v. FCC* in 1962 that was affirmed in the Appeals Court (321 F.2d 359 [1963]). It was a case involving the license application of Carter Mountain Transmission Corp., wishing to serve CATV systems in some Western states. The FCC finally determined that cable television systems using microwave relays did indeed threaten the interests of small television stations and therefore cable operators would be denied microwave privileges unless they agreed not to bring in signals that duplicated existing local programming (i.e., non-duplication) and guaranteed carriage of all local signals (i.e., "must-carry"). This was the Commission's first formal restrictions on cable television (Parsons and Frieden 1998).

The decision affected the industry as a whole and opened the door for a regulatory role by the FCC (Mullen 2008). In the mid-1960s, the FCC began to take more action by issuing comprehensive sets of regulations. In the 1965 Report and Order, the FCC first established rules for cable system, imposed the "must-carry" rules on microwave-fed systems, and required carriage of any broadcast station within sixty miles of the cable systems. Following it, the 1966 Report and Order expanded its jurisdiction to cover all cable systems, regardless of whether or not they were served by microwave relays. Moreover, the 1966 rules restricted the growth of cable television in the 100 largest broadcast markets by virtually banning microwave signal importation there (Parsons and Frieden 1998).

Another critical policy issue affecting CATV was involved copyright. Broadcast television stations and networks were troubled by the fact that CATV relied heavily on television programming paid for by other parties. As the number of CATV systems importing distant signals increased, the stations that had originally paid for the imported

programs had begun to make an issue of copyright. It involved a court case, *Fortnightly Corp. v. United Artists Television* (392 U.S. 390 [1968]). United Artists, a major television syndication company, had sued the Fortnightly Corporation that owned two small CATV systems in West Virginia. In the case, United Artist, that had secured the rights to a library of feature films, challenged Fortnightly's right to use and profit from its copyrighted programming. Initially, United Artist won the case, and it was affirmed in the Court of Appeals court. In the Supreme Court, however, the decision was reversed in favor of Fortnightly Corporation. Fortnightly Corporation had argued that it did not "perform" the copyright materials by positioning itself as a passive retransmission device. The copyright issue was settled for the time being; it would not have to pay license fees for broadcast signal retransmission (*Fortnightly Corp. v. United Artists Television,* 392 U.S. 390 [1968])[18]. Although CATV gained a victory on the copyright decision, it was in reality overturned by the retransmission consent order. In December of 1968, the FCC announced that it would not accept requests from cable operators any more to import signals into the top 100 markets. It also required a cable operator to obtain permission for programs not only from the originating station but also from every entity possessed a property interest in a program such as the distributor and the producer.

Also, in 1968, the FCC asked for comments on proposals to prohibit cross-ownership of cable and broadcast properties and to limit multiple system ownership. After two years, in 1970, the FCC prohibited cross-ownership of television and cable properties in the same market (Parsons 2003). In addition, the FCC issued a Notice of Proposed Rule Making on cable ownership limits, suggesting that no company be

[18] The performance distinction was central because liability of copyright was contingent on an unauthorized reperformance of the licensed work (Parsons and Frieden 1998).

permitted to own more than 50 systems with 1,000 or more subscribers in the top 100 markets, or alternatively, 2 million subscribers; however, this proposal did not lead to action (*ibid*).

The FCC's rules in the 1960s were designed to protect broadcasters from the importation of distant signals that cable could provide. As a result, the cable television industry in the early and mid-1960s was almost at a standstill. However, it showed a quite different view in the late 1960s, what was often referred to as "Blue Sky" period of the cable television industry (Parsons 2008). With increasing social attention to cable television and the development of technologies, people began to heed to cable television and various reports and studies were produced (e.g., the Sloan report). Since then, cable television was thought of as a means of local community expression, especially in service to minority interests that the broadcast television had failed to serve (Parsons 2008; Mullen 2008).

Accompanying the expectation, the FCC issued rules and regulations in the late 1960s and early 1970s. Some of the rules and regulations were issued for the purpose of stimulating cable television expansion, but some of the restrictions on cable television were maintained to protect the broadcast stations. For example, in 1969, the FCC issued the Report and Order requiring all cable systems with more than 3,500 subscribers to develop a channel for local origination programming prior to April 1971. However, it was not implemented because of huge financial burden to produce their programs within such a short time period (Mullen 2003). Moreover, in 1972, the FCC issued another Report and Order requiring cable systems in the top 100 markets to provide production facilities for public, educational, and government (PEG) access programming. Under

pressures from the cable industry, however, the FCC removed the original programming requirement, but continued to require PEG access program production (Mullen 2003). Indeed, the 1972 rules were the result of a compromise between broadcast and cable interests, and they were defended by the FCC that they protected local broadcasting while allowing some growth for cable by relaxing some of the restrictions (Crandall and Furchtgott-Roth 1996).

The FCC also required cable operators to file a Certificate of Compliance with the agency before starting new operations or adding signals, and a certificate would not be issued unless the cable systems had been franchised in the municipality where it intended to do business. In terms of rates, the rules granted the right to control rates to municipalities while capping franchise fees at 3 percent. The must-carry rules were remained; it required that cable companies provide channels for all local broadcasters within a 60-mile (later changed to 50-mile) radius of the cable company's service area. Importing additional broadcast signals from outside the local market was permitted, but those signals had to come from geographically the closest network affiliate stations (i.e., "anti-leapfrogging"). Therefore, cable systems could not bypass network signals originating within their market areas in order to bring in distant markets (Crandall and Furchtgott-Roth 1996). Broadcasters were further protected by the syndicated exclusivity rules requiring cable systems to "black out" syndicated programs carried on a distant station if the same program is being carried by a local station (Creech 2007).

Although cable television began to be considered as a medium that would help to solve the problems the broadcasters had, policies did not foster the development of the cable television industry that had been anticipated. In other words, it seems that the

priority was given to the broadcast television because some of the restrictions on cable television to protect the broadcasters were maintained.

Deregulation to Reduce Those Limits: From the Mid-1970 to the Early 1990s

As cable entered the mid-1970s, the political climate generally changed from one of strong government regulation to one of deregulation (Parsons and Frieden 1998). Accordingly, the FCC began to reconsider the rules on cable television. As a result, some of the extreme provisions were once again softened or repealed. For example, in 1976, the FCC permitted an unlimited number of distant signals to be imported by a cable system once local channels were off the air. Then, it completely eliminated "anti-leapfrogging" rule in 1980 so that cable system operators were allowed to import signals from anywhere in the country. Also, the PEG access program requirement was lifted as a result of a Court decision (i.e., *FCC v. Midwest Video Corp.* 440 U.S. 689 [1979]).

Another step toward deregulation involved lifting the "anti-siphoning" rules that the FCC had imposed on cable television in the late 1960s. Those rules prevented cable networks from siphoning off programming, especially sports and feature films, for pay cable channels that otherwise would be seen on the broadcast television (Creech 2007). The reason the FCC was concerned was that, if such a monopoly was allowed, then the poor would be unable to see those programs. However, for the cable television industry, they were obviously very restrictive rules that reined the growth of the industry by limiting program options. So, in 1973, HBO appealed to the Commission to repeal the anti-siphoning rules. The FCC decided not to lift the rules, but they revised some of the rules to make them less restrictive in 1975. For example, the FCC's rules barred cable networks from the following kinds of programming; feature films that were between

three and ten years old, individual sporting events like the World Series that had been shown on broadcast television within the previous five years, series programming, anything with recurring characters of continuing plots, and others (Zarkin 2006).

A revised set of the rules, however, failed to satisfy both cable and broadcast industry, and eventually it was appealed to the federal courts. In *Home Box Office v. FCC* (567 F.2d 9 [1977]), the U.S. Court of Appeals for the District of Columbia Circuit struck down the anti-siphoning rules. The Court held that not only did the FCC exceed its authority over cable television in issuing program restrictions for pay-cable, but also there was no evidence to support the need for regulation of cable programming (Creech 2007). This decision had a huge impact on cable networks in that they were now allowed to show a much wider range of programming, such as recent movies and television series not previously shown on broadcast. The ruling not only was a boon to the existing cable networks, but it also encouraged the development of others in the future.

The Copyright issue was also settled. As mentioned above, cable operators did not pay for the signals they retransmitted as a result of a victory in the court case in 1968 (*Fortnightly v. United Artists,* 392 U.S. 390 [1968]). They were, however, considered by others to be taking unfair advantage of a loophole in the law (Parsons and Frieden 1998). Therefore, the cable industry had frequently faced the issue of copyright, and it had spent many years in court[19]. This was mainly because the copyright legislation the court and

[19] For example, CBS brought a copyright suit against Teleprompter in 1974 (*Teleprompter Corp. v. CBS*, 415 U.S. 394). At this time, CBS argued that Teleprompter had used microwave hops, which are microwave communications channels between two stations with directive antennas that are aimed at each other, to import the signals at issue, constituting a more active "performance" of the programming than was the case in *Fortnightly v. United Artists* (1968), in which use of a simple antenna receiver was judged as a passive act of reception (Parsons and Frieden 1998). In spite of CBS's efforts, it lost its argument in federal

the industry relied on was the one that established in 1909; there had been no definitive copyright law to guide cable or any electronic media industry (*ibid*). However, this finally changed with the new Copyright Act in 1976. In the case of cable, copyright payments were settled down through a "compulsory license" system that allows operators to retransmit local signals without paying royalties but which requires a flat payment for programming on distant signals (Mullen 2008).

Furthermore, the FCC decided to lift the syndicated exclusivity provisions in 1980. The FCC created these rules in the 1972 Report and Order in order to protect local broadcasters. When cable systems import distant television signals, there is a possibility that programming appearing on a local station will be duplicated. Such duplication could cost the local station advertisers and thus revenue (Zarkin 2006). The lift of these rules was the results of two studies released by the FCC in 1979; the Syndicated Exclusivity Report and the Economic Inquiry Report. These studies had examined the extent to which competition from cable did harm to local broadcasters and, therefore, threatened the public interest (Mullen 2008). The two reports reached the same conclusion: Cable television did not have any negative financial impact on local broadcasting. However the controversy did not disappear so it was implemented again in 1988.

Besides regulations and laws, the most prominent change in this period might be the introduction of commercial communications satellite. As the FCC issued the "Open Skies" policy in 1972, which authorized domestic communications satellites, cable networks became able to disseminate their programs nationwide cost effectively by

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district court, but then was upheld by the Court of Appeals. However, the Supreme Court reversed the appellate decision once again, on the same grounds it had used in *Fortnightly v. United Artists* (1968) case.

bypassing expensive network carriage fees. Home Box Office, which was launched in 1972 as a microwave relay network, first made its satellite debut in 1975. It is often described as a revolution in cable programming because it was the first instance of a non-broadcast-based cable network becoming available to nationwide audience (Mullen 2003: 94). In its first couple of years, however, HBO's programming did not make a profit; rather it was a drain to the financial resources of the parent's company, Time, Inc. However, Time was able to announce that HBO had turned its first profit in 1977, about two years after its satellite debut (Mullan 2003, 2008). HBO has since become a huge success that would serve as a model for other entertainment companies. Not surprisingly, other pay-cable competition had emerged for HBO, such as the Movie Channel and Showtime.

The superstations also made their satellite debut. In this early satellite period, it was important for cable networks to have infrastructure in place before they move to satellite because the initial cost of satellite uplinking was financially challenging enough (Mullen 2003). For this reason, the superstations, which already had business infrastructure including programming, could move into satellite. A cable superstation is defined by the FCC as "a television broadcast television station, other than a network station, licensed by the FCC that is secondarily transmitted by a satellite carrier." Although the station can be received over the air using home antenna within its originating market, the station functions as a cable network once uplinked to a satellite (Newcomb 2004: 2224). The first mover was WTCG (later renamed WTBS) launched in 1975, which made a signal available by satellite in 1976 (Mullen 2008). Several other

stations followed in the late 1970s: New York's WOR (1979) and Chicago's WGN (1978) (*ibid*).

Several satellite-carried basic cable networks were introduced in the late 1970s. The Christian Broadcasting Network's cable service (CBN-C) was the first of them. It was launched as a terrestrial broadcast network in 1960s, but it moved to satellite along with changing its programming from religious orientation to a more generalized family orientated one. Cable-Satellite Public Affair (C-SPAN) was also launched successfully in March of 1979. Entertainment and Sports Programming Network (ESPN), invested in largely by Getty Oil, was also launched in September of 1979. Another popular basic cable network that was launched in the 1970s was Nickelodeon. It was actually launched as part of Warner Communications' experimental QUBE interactive cable system in 1977. However, it was phased out in the early 1980s except for the children's component of QUBE, which was known as Pinwheel. In April of 1979, Pinwheel changed its name to Nickelodeon and uplinked as a commercial free channel for children. In addition, Turner launched a 24 hours all news cable channel, Cable News Network (CNN) in 1980, and Black Entertainment Television (BET) owned by Viacom, was launched in 1980, too.

With the availability of satellite technology, the most important feature of the cable television industry became the national cable networks that competed with the programming of the broadcast networks. By delivering various specialized programming that was not usually offered by national broadcast television networks, the national cable networks substantially raised the value of the cable television service to cable subscribers. With the onset of national programming distribution system, certain economies of scale began to have an impact (Parsons 2003). The large cable system operators found their

advantage in negotiating distribution contracts with program suppliers and equipment vendors. This led to an increase in merger and acquisition activities, and therefore gave rise to concerns about vertical integration in the industry (Waterman and Weiss 1997).

Meanwhile, along with the increased cable networks, cable began to break into urban markets, offering various programming such as movies, sports, and broadcast signals imported from around the region and across the country. Accordingly, the competition among cable operators to acquire big city franchises intensified. This situation was even called the "franchising wars." In the absence of strong federal control, the cable industry and the local municipalities disputed over issues of regulation. In order to make a balance between the interests of the cable industry and those of the municipalities, the Cable Communications Policy Act of 1984 was established (Parsons and Frieden 1998; Mullen 2008).

The Cable Communications Policy Act of 1984

The 1984 Cable Act was the first comprehensive cable legislation establishing general governmental authority over cable television. Indeed, the Act was the product of a long and fierce debate between the cable industry and the cities (Parsons and Frieden 1998). For the cities, the Act gave them principal authority to grant and renew franchise licenses for cable operations and to charge franchise fees, although it set limits on the fees of 5 percent of gross revenues. For cable, the Act limited the types of control municipalities were allowed to exercise, preventing local authorities from interfering in programming decisions (*ibid*). By establishing an orderly process for franchise renewal, the Act protected cable operators from unfair denials of renewal. Also, the Act prohibited state and federal regulation of nearly all subscriber rates, while authorizing local regulation of

basic rates only in cases where “effective competition” did not exist in a given area. And the Act left it to the FCC to determine what constituted “effective competition.” As a result, cable systems could charge whatever the market would bear (*ibid*).

Furthermore, in the mid-1980s (1985 to 1987), the U.S. Court of Appeals found that must-carry rules violated cable operator’s First Amendment right of editorial discretion (Parsons and Frieden 1998). From then on, cable systems were only required to carry public television signals. In the early development of cable, the must-carry rules somewhat benefitted cable system operators in that they were given a free source of quality programming from the major broadcast networks. However, as cable penetration increased and more viable sources of programming became available to cable systems, must-carry rules became a burden to cable operators. Indeed, must-carry rules were very restrictive in that they severely constrained the programming options for cable television operators. Therefore, this decision allowed greater freedom in program and station selection for the system operator.

Overall, the 1984 Act and related rules and regulations were strongly favorable to the cable industry; thus it considerably helped cable industry expansion both in programming and system construction. The cable networks began to provide various types of programming and therefore to draw diverse range of audience. For example, Discovery, Lifetime, Home Shopping Network and many others were launched in the 1980s and early 1990s. By delivering specialized programming that was not usually offered by national broadcast television networks (i.e., ABS, CBS, and NBC), cable networks substantially raised the value of the cable television service to cable subscribers. Consequently, the number of cable subscribers grew dramatically (see Figure 2-2).

The cable television industry had grown considerably in this period with an increasingly favorable policy climate and the introduction of commercial satellite distribution system. The number of cable systems increased from 4,225 in 1980 to 9,575 in 1990, and the number of basic subscribers also sharply increased from sixteen million to fifty million (Television and Cable Factbook 2011).

Re/Deregulation to Grow the Industry: From the Mid-1990s Onward

During the 1980s, the cable industry exponentially grew (Parsons 2003). Although it had grown rapidly in this period, its growth had been costly. The cable industry went through with change in cable system architecture from coaxial to fiber-optic cable. So far, the cable industry had relied largely on the use of coaxial cable to transmit its signal to subscribers. However, coaxial cable has many drawbacks. First of all, the number of signals that it can transmit simultaneously is limited. Moreover, the signal transmitted by it degrades as distance increases, so costly amplifiers are needed to enhance quality by boosting the signal as it travels to its destination. On the other hand, fiber-optic cable is a more efficient transmitter than coaxial cable, by expanding channel capacity, improving system reliability, and reducing operating expenses and compatible with high-definition television. However, construction costs have become particularly oppressive. The high expenses reflect the cost of underground cabling, high interest rates, cost overruns, and inflationary cost increases. Even before construction begins, significant amount of costs are involved in obtaining the franchise (SPIS 1984). Moreover, the growing number of cable channels being made available by system operators and the introduction of new program services made subscribers require a wider range of programming. This led to increase in programming costs from the programming services. In fact, programming

costs were going up as program services began charging cable systems for content instead of paying operators for carriage (Parsons and Frieden 1998).

For these reasons, the cable industry faced significant pressure to increase its cash flow. As a way of doing so, the larger multiple cable system operators (MSOs) were able to raise subscription fees almost every year. Eventually, it turned out the 1984 Act that deregulated rates hurt consumers. In response, Congress enacted the Cable Television Consumer Protection and Competition Act on October 1992.

The Cable Television Consumer Protection and Competition Act of 1992

The 1992 Cable Television Consumer Protection and Competition Act modified some of the provisions of the 1984 Cable Communications Act. While cable television industry was substantially deregulated in the 1980s, it was reregulated with the passage of the 1992 Act in order to ensure not only that cable operators do not have excessive market power, but also that consumer interests are protected.

Among other things, the most prominent provisions in the 1992 Cable Act might be rate re-regulation and the carriage of local broadcast signals. The 1992 Cable Act gave local governments the power to regulate rates for basic cable programming under guidelines developed by the FCC. Municipalities, in turn, were subject to FCC-established procedures and criteria. Exceptions were made in case where a given market has “effective competition,” which the Act defined as the presence of more than one cable operator or multichannel video service that is available to a specified percentage of community (SPIS 1997). Responding to pressure from cable systems, however, the FCC almost immediately began relaxing price controls by establishing “Going Forward” in November, 1994. The “Going Forward” rules allowed cable operators to increase of up to

1.5 dollar per month over two years if up to six channels were added (Hazlett and Spitzer 1997). The relaxing process was continued until the next legislation was enacted.

In terms of the carriage of local broadcast signals, the must-carry rules were reinstated. Like before, it required cable systems to carry local broadcast signals, but it allowed cable system operators to drop redundant carriage of signals, where stations within the service area duplicated programming. What differed from the previous rules was that the 1992 Cable Act granted options to broadcasters to choose between the must-carry and retransmission consent. If the broadcaster opted for must-carry, cable system operators were required to carry the local station on their cable system's basic tier. On the other hand, if the broadcaster opted for retransmission consent, the broadcasters and cable operators would have to negotiate terms, including monetary payment to the broadcaster in return for carriage rights or another form of compensation. If no agreement could be reached, then the cable company could not carry the broadcast signal (Creech 2007: 116). As expected, cable companies fiercely opposed to those provisions. They claimed that they would not pay for the production that is already free – which means households with antennas can receive a broadcast signal for free – and would be willing to drop network affiliates if necessary (Mullen 2003). As a result, broadcasters failed to negotiate direct monetary payments in many cases. Instead, they settled for channel space on cable systems. It was beneficial to broadcasters in the long run because it gave them the opportunity to start their own cable networks: for example, ABC launched ESPN2, and Fox began the fX network (Mullen 2003).

The 1992 Act also introduced two important regulations related to the programming market – the cable ownership limits and program access rules. At that time,

Congress was concerned that increased horizontal concentration of cable operators and vertical integration (i.e., the combined ownership of cable systems and cable program suppliers) created an imbalance of market power, both between cable operators and program vendors and between incumbent cable operators and their multichannel competitors such as satellite broadcasters. In terms of the ownership, the 1992 Act required the FCC to establish reasonable limits on the number of subscribers a cable system operator may serve (horizontal limit) as well as the number of channels a cable operator may devote to affiliated program networks (vertical limit). These were set at 30 percent for the horizontal limit and 40 percent for the vertical limit up to capacities of 75 in 1993[20]. In terms of program access rules, as required by Section 19 of the 1992 Act, the FCC prohibited affiliated cable system operators and networks from discriminating against unaffiliated rival in either programming or distribution markets. The FCC defined vertically integrated cable program suppliers as those in which any cable operator has a 5 percent or greater equity interest for specific regulations (Waterman and Weiss 1997). The rules required cable program suppliers in which cable systems have an "attributable ownership interest" to make programming available on the same terms and conditions to all competing delivery systems. Moreover, the rules required that a cable company may not carry more than 40 percent of its programming from channels in which it has an attributable ownership interest (SPIS 1994). However, these restrictions applied only to the first 75 channels on a cable system; beyond 75 channels, as well as regional programming services, were not regulated (*ibid*). Nevertheless, it was boon to cable

[20] As will be explained in Chapter Four, the cable ownership limits had gone through many court cases. In short, the rules had indeed not been legally in effect after the FCC promulgated those rules in 1993.

networks, at least to some extent, in that they could secure carriage on cable systems even though they were not affiliated with cable systems.

However, the 1992 Cable Act was judged to be unsuccessful in keeping pace with rapidly changing media environment (Mullen 2008). Consequently, new legislation was enacted within a few years: the Telecommunications Act of 1996.

The Telecommunications Act of 1996

The 1996 Act was the first overhaul of U.S. telecommunications law in more than sixty years, amending the Communications Act of 1934. It attempted to provide ground rules for all sectors of the communications industries. In the 1996 Act, the FCC was once again directed to deregulate the cable television industry. However, at this time, the emphasis was on the promotion of the growth of cable television industry through competition. Policy makers and cable operators believed that deregulation would produce more competition and lower prices, while critics argued that deregulation would produce less competition, higher prices, and higher concentration of cable services (Newcomb 2004).

The general objective of the 1996 Act was to open up markets to competition by removing unnecessary regulatory barriers to entry. The conference report referred to the 1996 Act "to provide for a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced information technologies and services to all Americans by opening all telecommunications markets to competition..." (H.R. Rep. 104-458: 1). One of the most controversial issues was the one that allowed for media cross-ownership. The 1996 Act abolished many of the cross-market barriers that prohibited dominant players in one communications industry from providing services in other industry sectors (Newcomb 2004). Therefore, owners of cable

television systems were permitted to provide phone service over their wire, and telephone companies were permitted to provide video programming in their own service areas. In other words, the 1996 Act opened the door for competition among cable and telephone companies.

For over a century, the U.S. telephone industry had been controlled by the American Telephone & Telecommunications Corporation (AT&T). Its monopoly was ended in 1984 by the free market oriented Reagan administration. The U.S. government decided to break up the AT&T monopoly by dividing it into seven Regional Bell Operating Companies (i.e., RBOCs, known as “baby Bells”). Furthermore, it prohibited the RBOCs from offering information services. The 1984 Act then put restrictions on telephone companies operating cable systems within their telephone service areas. However, the 1996 Telecommunications Act opened the door for competition among cable and telephone companies. As a result, owners of cable TV systems were permitted to provide phone service over their wire, and telephone companies were permitted to provide video programming in their own service areas.

Meanwhile, direct broadcast satellite (DBS) systems posed another new competition. Initially, DBS systems had several weaknesses compared to cable. For example, in order to receive the signal, the satellite dish must be purchased installed and maintained by the subscriber. Moreover, DBS reception was limited to one television set per household without a special hookup device. In addition, DBS reception could be lost or badly distributed in severe weather. For those reasons, cable systems seemed to be preferred by customers due to their more affordable pricing, wide product offerings, and a more robust signal. However, DBS has experienced great growth in the 2000s as it has

worked to cut its disadvantages relative to cable: offering multiple set-top deals, free dish installations, and various discounts (SPIS 2002).

The 1996 Act, as well as related federal legislation and FCC rule changes have reshaped the structure of media industries. It has been observed that more consolidations have occurred among large corporation after the enactment of the 1996 Act. In addition to eliminating the barriers between telephone business and cable business, increasing competition from outside of cable industry promoted the merger trend because, in many cases, a company can ease its competitive problems by increasing its size. It helps operating economies of scale, and it provides sufficient cash flow generation for the company to compete effectively in the deregulated era (SPIS 2000). In addition, new technologies such as wireless and fiber-optic also helped consolidation because only the larger players can afford to invest in them (*ibid*). In such circumstances, cable companies rushed to consolidate. Small cable companies rushed to sell because they were fearful that potential competition would wipe them out, or at least, make them less valuable (SPIS 1998). Indeed, cable companies are very attractive to acquirers with their newest fiber-optic networks, which are vastly superior in speed and capacity to all other wireline methods for two-way data transmission.

The most remarkable example of merger and acquisition in the late 1990s media industry was the merger of AT&T with TCI. On June 1998, AT&T, the nation's largest telephone service provider, announced a plan to buy TCI, second to Time Warner among cable operators at that time, and the merger was completed in March 1999. This marked the first major merger between telephone and cable since the 1996 Act (SPIS 1999, 2000). As a result of merger, AT&T went on to be the largest cable system operator in 1999.

This position was cemented with the subsequent pact to acquire MediaOne, which was originally Cablevision, but changed its name to MediaOne after U.S. West's purchase of continental Cablevision.

From the early 2000s, competition among cable, telephone companies, and DBS has heated up. As part of an effort to strengthen their competitiveness, the cable industry was spurred to introduce digital services. Often, digital cable networks, which not only provide clear picture, but also offer a wider array of programming choices, are packaged by genre such as sports, music, movies, family, and Spanish language programming. To make their digital services more compelling, cable companies have begun to provide interactive digital services such as Video on Demand (VOD) and digital video recorders (DVRs).

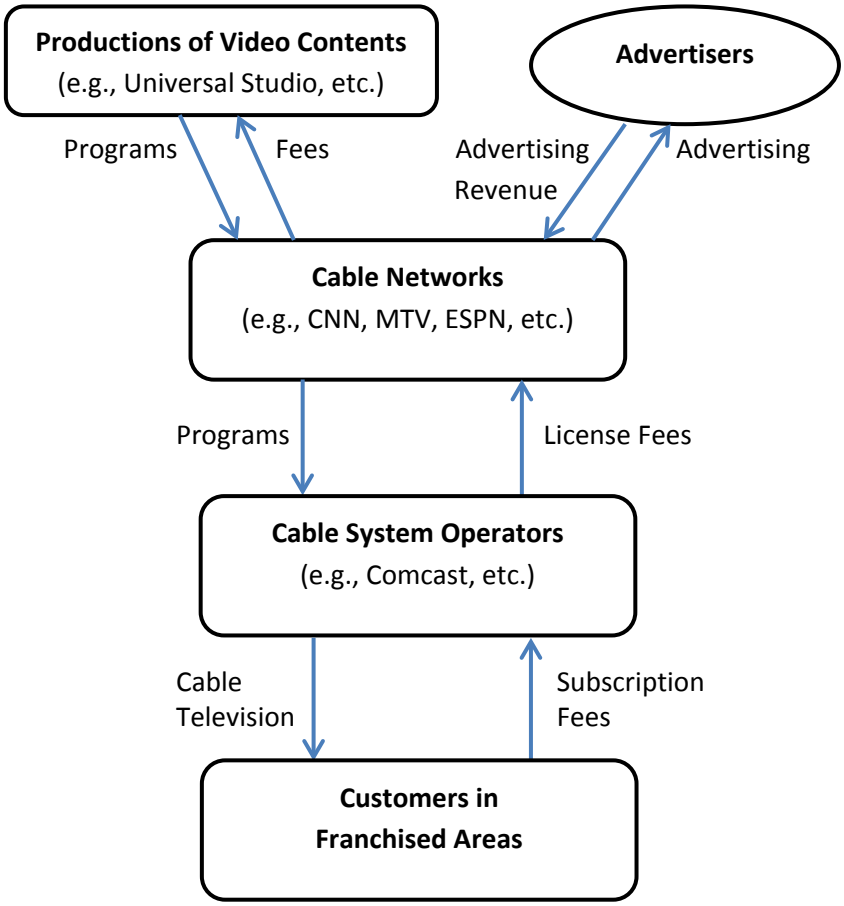
In the meantime, consolidation has been continued. Among the largest deals, Time Warner Cable acquired Adelphia Communications in a joint transaction with Comcast in 2006. Also in 2010, Cablevision acquired Bresnan Communications (SPIS 2011). Consequently, the cable industry has become more top-heavy every year. In other words, consolidation has led to greater market concentration; the biggest players claim a disproportionately large share of market. Although there are thousands of cable system operators in the United States, the industry has been dominated by the top 25 players for many years (SPIS Various issues). When considering multichannel video programming distributors (MVPDs) all together, top ten companies – Comcast, DIRECTV, DISH Network, Time Warner Cable, Cox Communications, Charter Communications, Verizon Communications, Cablevision Systems, AT&T, and Bright House Networks – accounted for nearly 90 percent of the pay TV market in the United States (SPIS 2011).

Meanwhile, ownership concentration for cable programming networks remains relatively high. As of 2007, the FCC's report on video competition (released in 2009) showed nearly 120 of more than 530 national cable channels affiliated with at least one cable MSO. Among the leading cable networks affiliated with other media entities are TNT, TBS, CNN, Cartoon Network, and HBO (affiliated with Time Warner); ESPN, Lifetime, and ABC Family (Disney); Nickelodeon, MTV, and Comedy Central (Viacom); FOX News Channel, FX, and National Geographic (News Corp.); AMC, IFC, and WE (Cablevision); and Showtime (CBS).

Overall, the cable television shows two seemingly contradictory trends: on the one hand, new media technologies have lowered production and distribution costs, thereby expanding the range of available delivery channels; on the other hand, there has been an alarming concentration of the ownership of commercial media, with a small number of media conglomerates dominating the entire media industry.

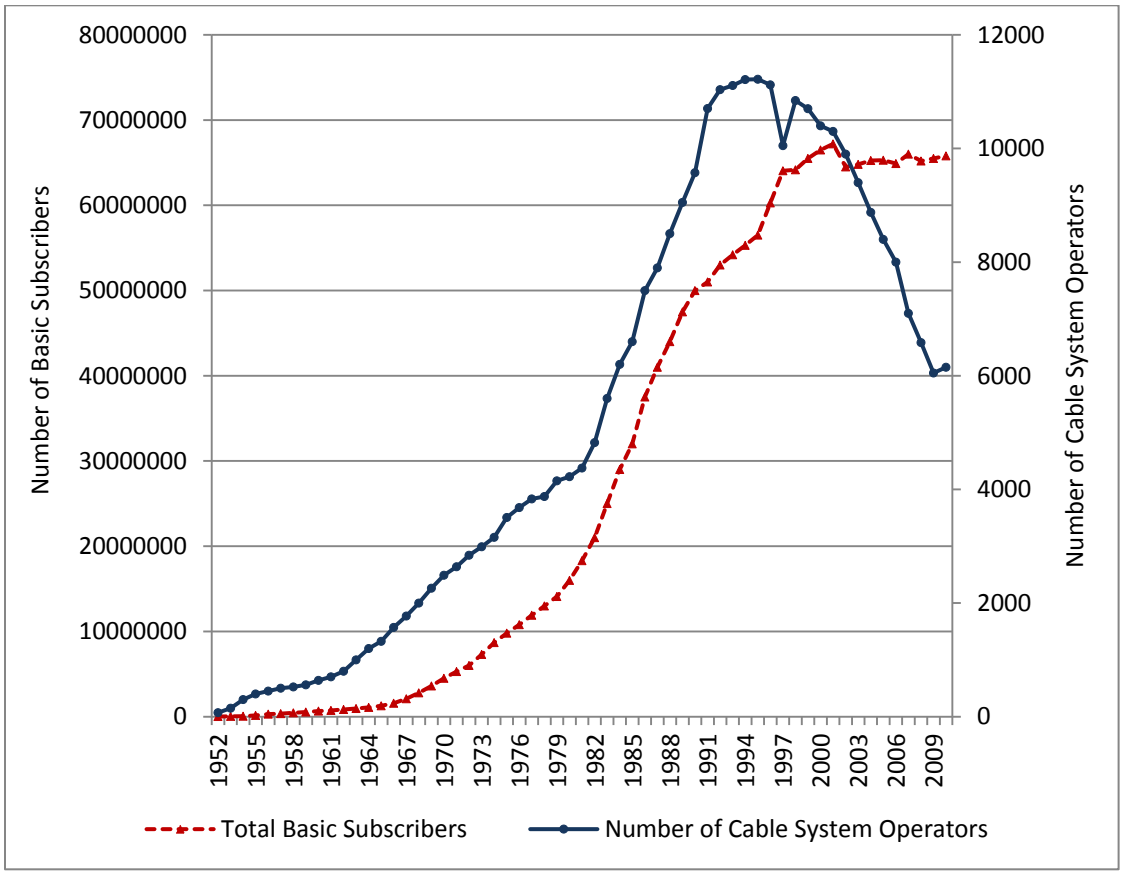
The cable television industry has rapidly changed from its inception. There have been various social, cultural, political as well as technological factors that affecting the development of the industry. The effect of those factors on the growth of cable television industry, and, particularly how those factors have significantly shaped the development of cable programming networks, is the focus of the remainder of this study.

Figure 2-1. The Current Structure of Cable Television Industry



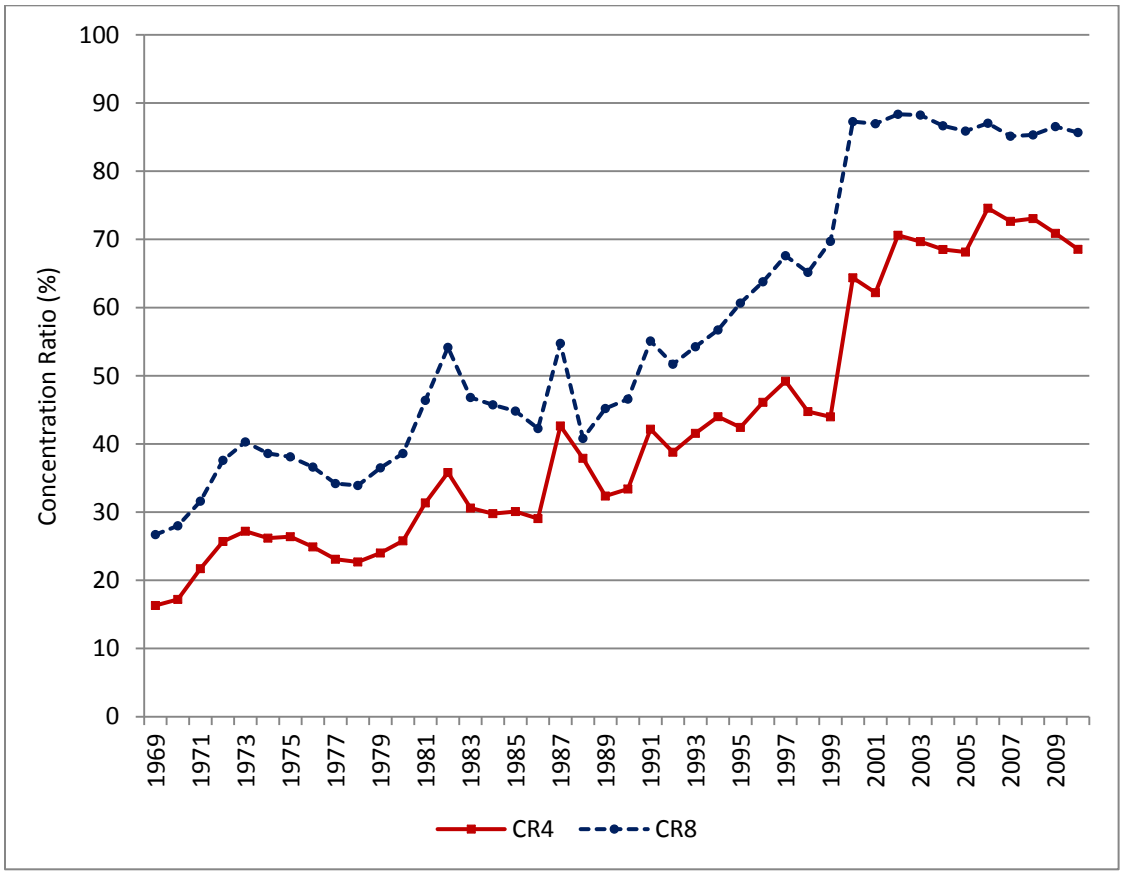
Source: Chipty and Snyder (1999: 328), as modified by the author

Figure 2-2. The Number of Cable System Operators and Basic Subscribers, 1950-2010



Source: Television and Cable Factbook (2011)

Figure 2-3. Concentration in the Cable Television Industry, 1969-2010



Sources: Braunstein (1980: 24) for data through 1979; Television Digest for 1980; Television and Cable Factbook (1982-2011); Standard and Poor's Industry Surveys (1982-2011)

Note: Values for 1988 and 2002 were estimated by using interpolation due to data limitations.

CHAPTER THREE

Entry of Cable Networks: the Impact of Ecology and Policy, 1969-2010

Introduction

Only a few decades ago, the United States only had three or four television channels available. At that time, it might have been hard to imagine that hundreds of commercial cable networks would be available and would compete with broadcast television networks to attract television viewers. In contrast, those who subscribe to cable television today may take numerous channel options for granted. Some people, especially those who have lived in cable subscribing households all their lives, may have trouble distinguishing between broadcast television and cable television. Technically, broadcast television signals are electromagnetic waves, the public airwaves, in the radio frequency that are radiated into space from station transmitters to receiving antennas, whereas cable television is provided by a cable operator via underground cable such as coaxial or fiber optic cable. However, their difference is not limited in technological aspect. They are also different in terms of business models and revenue streams, as well as regulation.

How, then, did cable television emerge and how has it developed to its current state? According to media scholars, most media technologies come on the scene to improve the functions that are already served by existing medium (Mullen 2003). Cable television is no exception. Cable television got its start as a response to the physical limitations of broadcast signals. Because broadcast signals are not only limited in their ability to travel long distances from their origination site but also are susceptible to

interference from such things as severe weather, cable television was created so that people in areas where broadcast signals hardly reached could enjoy watching television retransmission (Crandall and Furchtgott-Roth 1996; Mullen 2008). It worked in a way that a tall antenna, known as a community antenna (CATV), was installed in areas with good reception, such as a hilltop or mountain, picked up broadcast signals and then retransmitted them through a coaxial cable to those households that could not receive clear signals. Indeed, cable television began as a complement to broadcast television in that the primary function of cable television service had been a retransmission of the signals of broadcasting station until the 1970s (Parsons and Frieden 1998). However, cable television has since evolved into a major player in an increasingly dynamic media industry.

As will be shown in detail later, cable television in the United States developed within a frequently changing policy environment. In the early years of cable television, the Federal Communications Commission (FCC), a regulatory agency of the United States charged with regulating all communications, initially ignored or refused to regulate the cable television industry because it thought the cable television was just a stopgap technology that would eventually disappear; in its view, cable television would not pose any threat to the broadcast television industry. After the late 1960s, however, regulations appeared that were meant to protect the interests of broadcast television as the cable television system began to spread. Later regulations then grew more conducive to the companies engaged in cable television – particularly with the deregulation of recent decades. In the face of such changes, the U.S. cable industry experienced dramatic growth.

This chapter addresses the development of cable networks, and their larger cable television industry, in the United States. For reasons discussed in the Introduction, it underscores the impact of ecology and policy regimes on the growth of cable networks – those entities that created programming that compete with the programming of the broadcast networks. I do so by applying population ecology and the new institutional theory.

Population ecologists have focused on the numbers of organizations and their vital rates while the new institutionalists have emphasized culture such as norms and values and its manifestation in such things as rules and regulations (Haveman and David 2008). In other words, population ecologists emphasize the commonality in the process of development in the industries, whereas the new institutionalists emphasize the differences that can arise from the divergent policies that various industries face. As a result, institutionalists tend to give greater attention to historical context than do population ecologists. When heeding historical context, the new institutionalists often pay great attention to the implications of the state and its policies. They argue that state policy provides a framework within which competition among market actors and the ecological dynamics of organizational foundings and failures take place (Meyer and Rowan 1977; DiMaggio and Powell 1983; Fligstein 1990; Dobbin and Dowd 1997; Dobbin and Sutton 1998).

Grounded in the new institutional perspective, this chapter investigates factors that affecting the development of cable television industry in terms of the establishment of new cable networks. It does so by focusing on changes in public policies and by analyzing time series data on the number of cable networks founding.

This chapter proceeds as follows. First, I outline the effect of policy expected by the new institutionalists and then turn to cable television history to develop specific hypotheses. I then enumerate hypotheses derived from research in population ecology and industrial organization economics. After describing the data and methods that I employ for this chapter, findings from the analysis will follow. Then, I conclude this chapter with a general discussion about the results.

The New Institutional Approach

The new institutionalists in organization studies argue that organizations are significantly affected by a broader institutional context that is not limited to their economic and technological environments but also encompassed their social and cultural environment (Meyer *et al*. 1981). They argue that organizations need not only material and technical resources but also cultural endorsement in order to remain viable (Scott 2001 [1995]). In other words, organizations need to be legitimated. From this point of view, institutional approaches in the organizations literature have emphasized that organization survival depends on legitimacy (Johnson *et al.* 2006). Indeed, many scholars think of legitimacy as the central concept in institutional analysis in organization studies (Haveman and David 2008; Deephouse and Suchman 2008).

Many scholars in sociology have defined legitimacy in various ways since Weber (1978 [1924]) introduced the concept into sociological theory when analyzing different types of authority (Johnson *et al*. 2006; Deephouse and Suchman 2008). From an institutional perspective in organization studies, Meyer and Scott (1983) defined legitimacy as follows: “organizational legitimacy refers to the degree of cultural support

for an organization – the extent which the array of established cultural accounts provide explanations for its existence, functioning, and jurisdiction, and lack or deny alternatives" (Meyer and Scott 1983: 210). Suchman (1995) also defined legitimacy as "a generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions" (Suchman 1995: 574). Scott (2001 [1995]) further elaborated the concept of legitimacy by developing three foundations: regulative, normative, and cognitive. Legitimacy resting on a regulative foundation can be obtained by conforming to the laws and regulations that govern organizations. Legitimacy based on a normative foundation can be acquired by complying with generally accepted informal norms and values. Finally, legitimacy resting on a cognitive foundation can be gained by conforming to prevailing, thereby taken-for-granted organizational structures and practices. According to Suchman (1995: 583), the cognitive dimension of legitimacy is "the most subtle and the most powerful" as well as the most difficult to obtain and manipulate.

Although the foundation of legitimacy can be divided into three different foundations, there is one thing in common among the three. Once established, they – for example, legal requirements, professional mandates, and the prevalence of certain organizational forms and practices – define the taken-for-granted ways of structuring and operating their business (Johnson *et al*. 2006).

In empirical research studies, this taken-for-grantedness component of legitimacy is often measured by counting the number of organizations or the number of media articles, with greater numbers indicating greater legitimacy (Deephouse and Suchman 2008). In so doing, the new institutionalists have argued that legitimacy enhances

survival of organizations by improving their ability to access resources and acceptance from customers (Meyer and Rowan 1977). They have demonstrated this argument across a wide range of organizations such as daycare centers (Baum and Oliver 1991), banks (Deephouse 1996) and hospitals (Ruef and Scott 1998, 2000).

Public Policy and Organizational Dynamics

From the institutionalists' point of view, the environment encompassing organizations enforces them to conform to generally accepted belief (Nohria and Gulati 1994). Sources of such pressure include the state, professionals or other organizations (DiMaggio and Powell 1983), which also contribute to foundations of organizational legitimacy. Among other things, some institutionalists have emphasized that the state plays a significant role in shaping organizational environments by way of public policy (Meyer and Rowan 1977; DiMaggio and Powell 1983; Meyer and Scott 1983; Edelman 1990, 1992; Dobbin and Dowd 1997; Edelman and Suchman 1997; Dobbin and Sutton 1998; Mezias and Boyle 2005). In particular, they argue that different policy environments can lead to different patterns of industry development and evolution.

While various industries have been examined, institutionalists have commonly shown that the development of a given industry is not simply shaped by economic processes of supply and demand, or the mere emergence of new technologies; rather, public policies in the form of industry regulation have significant effects on industry development, shaping how firms respond to demand and how they make use of emergent technologies. For example, Dobbin and Dowd (1997, 2000) found that different policy regimes produced different forms of competition in their study of Massachusetts railroad companies. While showing the ways in which public policies such as federal pro-cartel

and anti-trust policies affected the founding rate of railroads, they successfully demonstrated how the introduction of regulations could change the industry and affect the success or failure of individual firms by favoring certain organizational forms over others.

Policy Regimes in the Cable Television Industry

The institutional emphasis on changing policy environments resonates with the history of U.S. cable television. Indeed, its shifting policy has ramifications for my outcome of interest – the founding of new cable networks. Cable television industry has undergone several periods of regulation and deregulation since its inception. While the primary focus of cable regulation has historically been on controlling cable system operators regarding, for example, the issue of prices charged by them, there has also been recent regulatory interest in the organization and operation of the programming market (Crawford 2007). Although there are various ways to distinguish historical periods in the cable television industry, I do so by focusing on changes in policy regimes – specifically two deregulation policies (i.e., the Cable Communications Act of 1984 and the Telecommunications Act of 1996) – in the cable television industry.

Before and After the Cable Communications Act of 1984

In its early years, cable television was neglected by the regulatory agency because policy makers considered it simply as a local retransmissions service that posed no threat to existing broadcast television, a service that would eventually disappear once more television stations had begun services (Mullen 2008). As cable entered the mid-1960s, however, it moved from an unregulated industry to one governed by constricting regulations. This change was triggered by a group of broadcasters who complained about

cable television service. They claimed that cable television's importation of their signals from large market into small towns discouraged advertisers from buying the same time slot on the small town stations; therefore, it would eventually lead to the economic demise of the small town broadcast stations (Parsons and Frieden 1998). Thus, broadcasters claimed that cable television should be subject to regulation of its practices and that the FCC should have authority to regulate cable operators. In the court case of *Cater Mountain Corp. v. FCC* (321 F.2d 359 [1963]), the FCC finally determined to regulate cable television to the extent that cable television's development proved injurious to broadcast television that the FCC was obligated to sustain and promote. The decision affected the industry as a whole and opened the door for a regulatory role for the FCC (Mullen 2008).

After that, the FCC began to take more action by issuing comprehensive sets of regulations – the 1965 Report and Order and the 1966 Report and Order. While asserting its authority over cable operators, the FCC restricted the growth of cable television in the 100 largest broadcast markets by virtually banning microwave signal importation there (Parsons and Frieden 1998; Crawford 2007). Moreover, the FCC imposed an anti-siphoning regulation in 1970 that prevented cable networks from siphoning off programming that otherwise would be seen on the broadcast television, especially sports and feature films, for pay cable channels (Creech 2007). Specifically, it limited the content that cable television could show by preventing the distribution of movies less than ten years old or sporting events broadcast within the previous five years (Crawford 2007). It such restrictive rules reined in the growth of cable television industry by limiting programming options.

However, with increasing social attention to cable television and the development of its technologies, cable television began to be thought of as a means of local community expression, especially in service to minority interests that the broadcast television had failed to serve (Parsons and Frieden 1998). The FCC's "open skies" decision in the early 1970s that authorized domestic communications satellites, which was expected to significantly expand the feasibility of using satellites to disseminate television programs, also contributed to raising the expectations for cable television's potentials, such as serving as a vehicle for community expression. Accompanying the expectation, the FCC issued rules in 1972 (i.e., The 1972 Report and Order) for the purpose of balancing broadcasting and cable television interests. The rules stimulated cable television expansion, but some restrictions still remained to protect broadcast stations. For example, the 1972 rules now allowed cable systems to enter the top 100 market. However, the rules also imposed a host of other requirements, including must-carry[21], franchise standards[22], network program nonduplication[23], and cross-ownership rules[24] (Crawford 2007), as well

[21] The must-carry rule required cable to carry local broadcast stations. In addition to the must carry rule, anti-leapfrogging rules were added; it allowed cable systems to import additional broadcast signals from outside the local market, but those signals had to come from the geographically closest network affiliate stations. Therefore, cable systems could not bypass network signals originating within their market areas in order to bring in distant markets (Crandall and Furchtgott-Roth 1996).

[22] The FCC required cable operators to file a Certificate of Compliance with the FCC before starting new operations or adding signals and a certificate would not be issued unless the cable systems had been franchised in the municipality where it intended to do business. Moreover, the rules granted the right to control rates to municipalities while capping franchise fees at 3 percent (Mullen 2008).

[23] The FCC rules allow networks and affiliates to enter into agreements that prohibit cable systems from duplicating network signals in a single market. It applies to stations within 35 miles of a cable system in the top 100 markets and within 55 miles of a cable system in markets of 101 and above. Broadcasters who wish to invoke the nonduplication rules must notify the cable system of their intent to do so within 60 days of signing a nonduplication contract with a network (Creech 2007: 128).

[24] The FCC prohibited a telephone company or local television station from owning a cable outlet.

as requiring cable television to provide free public, educational and governmental access channels (i.e., “PEG” access program requirement).

Although the cable television industry was still encompassed by a restrictive regulatory environment, there had also been some changes that might be thought of as a boon to the cable television industry. For example, the copyright issue was settled in 1976. The cable industry had frequently faced with the issue of copyright, and it had spent many years in court because the copyright legislation the court and the industry relied upon was one established in 1909; thus, there had been no definitive copyright law to guide cable or any electronic media industry (Parsons and Frieden 1998). However, this finally changed with the new Copyright Act in 1976. In the case of cable, copyright payments were settled through a “compulsory license” system that allows operators to retransmit local signals without paying royalties but which requires a flat payment for programming on distant signals (Mullen 2008). Moreover, in 1975, the FCC completely eliminated anti-leapfrogging rule that was originally introduced to prevent cable systems from bypassing network signals originating within their market areas in order to bring in distant markets (see footnote 21). As a consequence, cable system operators were allowed to import signals from anywhere in the country.

The anti-siphoning rules were also removed. After spending several years in the courts, the U.S. Court of Appeals for the District of Columbia Circuit struck down the rules (*Home Box Office v. FCC* 567 F.2d 9 [1977]). The Court held that, not only did the FCC exceed its authority over cable television in issuing program restrictions for pay-cable, but also that there was no evidence to support the need for regulation of cable programming (Creech 2007). This decision had a huge impact on cable networks in that

they were allowed to show a much wider range of programming, such as recent movies and television series not previously shown on broadcast. The ruling not only was a boon to existing cable networks, but it also encouraged the development of others in the future. In addition, the PEG access program requirement was lifted in 1979 (Parsons and Frieden 1998).

Meanwhile, thanks to the "open skies" policy that the FCC adopted in 1970, cable networks became able to disseminate their programs nationwide cost effectively by bypassing expensive network carriage fees. Home Box Office, which was launched in 1972 as a microwave relay network, first made its satellite debut in 1975. It is often described as a revolution in cable programming because it was the first instance of a non-broadcast-based cable network becoming available to audience nationwide (Mullen 2003: 94). HBO has become a huge success that served as a model for other entertainment companies. Not surprisingly, some other pay-cable competition had emerged for HBO. Following that, a good many other cable networks started businesses in the form of the superstations[25] and basic cable networks such as C-SPAN, ESPN and CNN.

Along with increased numbers of cable networks, cable broke into the urban markets, offering new packages of movies, sports, and broadcast signals imported from around the region and across the country. Accordingly, the competition among cable system operators to acquire big city franchises intensified. Furthermore, the cable industry and local municipalities fiercely disputed issues of regulation. In this circumstance, the Cable Communications Policy Act was established in 1984 for the

[25] A cable superstation is defined by the FCC as "a television broadcast television station, other than a network station, licensed by the FCC that is secondarily transmitted by a satellite carrier." Although the station can be received off the air using home antenna within its originating market, the station functions as a cable network once uplinked to a satellite (Newcomb 2004: 2224).

purpose of striking a balance between the interests of the cable industry and those of the municipalities (Parsons and Frieden 1998; Mullen 2008).

The 1984 Cable Act was the first comprehensive cable legislation establishing general governmental authority over cable television. The Act considerably deregulated the cable industry. For example, the Act prohibited state and federal regulation of nearly all subscriber rates, while authorizing local regulation of basic rates only in cases where "effective competition[26]" did not exist in a given area. As a result, cable systems could charge whatever the market would bear (Parsons and Frieden 1998). Furthermore, in the mid-1980s (1985 to 1987), the must-carry rule was struck down by the U.S. Court of Appeals in that it violated cable operator's First Amendment right of editorial discretion. From then on, cable systems were only required to carry public television signals. In the early development of cable, must-carry rules somewhat benefitted cable system operators in that they were given a free source of quality programming from the major broadcast networks. However, as cable penetration increased and more viable sources of programming became available to cable systems, must-carry rules became a burden to cable operators. Indeed, must-carry rules were very restrictive in that it severely constrained the programming options for cable television operators. Therefore, this decision allowed greater freedom in program and station selection for the system operator.

Overall, the 1984 Act and related rules and court decisions were highly favorable to the cable industry, thereby considerably helping cable industry expansion both in terms of programming and system construction. Therefore, it can be expected that the deregulation policy regime beginning by the enactment of the Cable Communications

[26] The FCC defined "effective competition" as the availability of three or more, unduplicated, over-the-air television channels in the cable system's market area (Crandall and Furchtgott-Roth 1996).

Act of 1984 will raise cable network foundings by reducing restrictive rules and regulations.

> *Hypothesis 1*. The passage of the Cable Communications Act of 1984 will have a positive effect on cable network foundings.

Before and After the Telecommunications Act of 1996

During the time of deregulation, the cable industry also went through change in cable system architecture from coaxial to fiber-optic cable for expand channel capacity, improving system reliability, and reducing operating expenses (SPIS 1984). The cable industry faced significant pressure to increase its cash flow as the construction costs became oppressive. Moreover, the growing number of cable channels required a much wider range of programming. This, in turn, led to increase in programming costs from the programming services. By virtue of the 1984 Cable Act that lifted rate regulation, the larger multiple cable system operators (MSOs) raised subscription fees almost every year. Prices increased by 56 percent in nominal and 24 percent in real terms between November 1986 and April 1991 (Crawford 2007). In this circumstance, Congress passed the Cable Television Consumer Protection and Competition Act in October 1992 to protect consumer in cable television markets.

The 1992 Act represented a reregulation of the cable industry. The 1992 Act re-regulated cable rates differing by tiers of cable service if a system was not subject to "effective competition." It gave local governments the power to regulate rates for basic cable programming under guidelines developed by the FCC. Municipalities, in turn, were subject to FCC established procedures and criteria. Responding to pressure from cable systems, however, the FCC almost immediately began relaxing rate controls by

establishing “Going Forward” in 1994, which allowed cable operators to increase of up to 1.5 dollar per month over two years if up to six channels were added (Hazlett and Spitzer 1997). It was further relaxed by the adoption of “Social Contracts” with major cable providers in late 1995, which allowed cable systems to increase their rates for expanded basic services[27] annually in return for a promise to upgrade their infrastructure (Crawford 2007).

Moreover, the 1992 Act reinstated the must-carry rule and also gave local broadcast stations the option either to demand carriage on local cable system (i.e., must-carry) or to negotiate with those systems for compensation for carriage (i.e., retransmission consent). These rules were upheld by the Supreme Court in 1997 (*Turner Broadcasting v. FCC* 520 U.S.180 [1997]). As expected, cable companies fiercely opposed those provisions and, therefore, broadcasters failed to negotiate direct monetary payments in many cases. Instead, broadcasters settled for channel space on cable systems (Mullen 2003). It was beneficial to broadcasters in the long run because it gave them the opportunity to start their own cable networks: for example, ABC launched ESPN2, and Fox began the fX network (*ibid*).

With regard to competition in the programming market, the 1992 Cable Act introduced two important regulations (Crawford 2007) – the ownership limits and program access rules. In terms of the ownership, the 1992 Cable Act directed the FCC to establish reasonable limits on the number of subscribers a cable system operator may serve (horizontal limit) as well as the number of channels a cable operator may devote to affiliated program networks (vertical limit). These were set at 30 percent for the

[27] The expanded basic service consists of the basic service channels plus a large number of popular national cable networks.

horizontal limit and 40 percent for the vertical limit up to capacities of 75 in 1993 (*ibid*). However, the U.S. Court of Appeals for the D.C. circuit reversed and remanded these rules in the court case of *Time Warner Entertainment Co. I v. FCC* in 2001 because the Court found that the FCC had exceeded its statutory authority (Kang 2009). In terms of program access rules, the 1992 Cable Act prohibited affiliated cable system operators and networks from discriminating against unaffiliated rival in either the programming or distribution markets. It also forbid exclusive agreements between cable operators and networks affiliated with cable operators (Crawford 2007; Kang 2009).

In general, the 1992 Cable Act, however, was unsuccessful in keeping up with the rapidly changing media environment, including cable along with many other technologies that increasingly were intertwined in their operations (Mullen 2008). Consequently, new legislation was enacted within a few years: the Telecommunications Act of 1996.

The Telecommunications Act of 1996 was the first overhaul of U.S. telecommunications law in more than sixty years, amending the Communications Act of 1934. In the 1996 Act, the FCC was once again directed to deregulate the cable television industry. However, at this time, the emphasis was on the promotion of the growth of cable television industry through competition, with the belief that deregulation would produce more competition and lower prices (Newcomb 2004). It once again deregulated rate regulation, and the Act eliminated all rate regulation for expanded basic tiers after March 1999. As a result, regulation of basic service rates remains the only source of rate regulation in the cable television industry (Crawford 2007).

The most remarkable change in the 1996 Act was that it abolished many of the cross-market barriers. This meant that owners of cable systems were now permitted to

provide phone service over their wire, and telephone companies were permitted to provide video programming in their own service areas. The cable television industry now started to face new competition from telephone companies.

Meanwhile, direct broadcast satellite (DBS) systems added further competition. Initially, DBS systems had several weaknesses compared to cable, so that cable systems seemed to be preferred by customers due to their more affordable pricing, wide product offerings, and a more robust signal (SPIS 2002). However, DBS experienced notable growth since the mid-1990s (SPIS 2002; Crawford 2007). Its growth was fueled by the Satellite Home Viewer Improvement Act (SHVIA) in 1999, which removed regulations that allowed satellite systems to provide broadcast network programming only if the household could not receive the local broadcast signal over-the-air. The SHVIA allowed direct broadcast satellite providers to distribute local broadcast signals within local television markets. Since then, satellite systems have provided services comparable to those offered by cable systems for the vast majority of U.S. households.

Increasing competition from outside of cable industry promoted mergers after the enactment of the 1996 Act because of operating economies of scale and sufficient cash flow generation for the company to compete effectively (SPIS 2000). In addition, new technologies such as wireless and fiber-optic also spurred consolidation because only the larger players could afford to invest in them (*ibid*). The most remarkable example of merger and acquisition was that of AT&T with TCI. In March 1999, AT&T, the nation's largest telephone service provider acquired TCI, second to Time Warner among cable operators at that time, and this marked the first major merger between telephone and cable since the 1996 Act (SPIS 1999, 2000). Mergers and acquisitions continued to grow

in the 2000s. For example, Time Warner Cable acquired Adelphia Communications in a joint transaction with Comcast in 2006. Also in 2010, Cablevision acquired Bresnan Communications (SPIS 2011). Consequently, the cable industry has become more top-heavy every year. In other words, increasing consolidation has led to greater market concentration; the biggest companies claim a disproportionately large share of market. Although there are thousands of cable system operators in the United States, the industry has been dominated by the top 25 players for many years (SPIS various issues).

In short, the 1996 Act altered the policy landscape for the entire telecommunications services, including cable television. The FCC began to loosen its control over cable television industry and to promote the growth of the cable television industry through competition. It established a more favorable regulatory framework for the industry, stimulating investment in cable infrastructure as well as programming. Simultaneously, the significant deregulation of the industry has led to increased consolidation. For potential cable programming networks, the increasing consolidation of the industry would not provide favorable business environment. That is to say, increasing market concentration of cable system operators is more likely to raise entry barrier to potential cable programming networks because there are possibilities that the merged large cable system operators may exert their market power in programming acquisition market. Therefore, it can be expected that the 1996 Act, which significantly deregulated cable television industry, will reduce cable programming networks founding.

> *Hypothesis 2*. The passage of the Telecommunications Act of 1996 will have a negative effect on cable network foundings.

Population Ecology: Factors Affecting Market Entry

Now, I turn to population ecology. Indeed, institutionalists and ecologists have common interests when studying organizational dynamics. Like institutionalists, ecologists are conceived organizations as entities that are significantly affected by their environment. They both focus on similar phenomena such as legitimacy, the emergence and spread of new organizational forms and features, organizational survival and failures as well as change (Haveman and David 2008). Like institutionalists, ecologists believe that legitimacy is necessary for the persistence and proliferation of existing organizations. However, they consider legitimacy as cognitive taken-for-grantedness that an organizational form can gain as it increases in number (Hannan *et al.* 1995) while institutionalists take regulative and normative dimension into account in addition to cognitive dimension (Haveman and David 2008). Now I look through how ecologists explain the development of an industry. Particular focus is on the factors shown to be important in the studies of population ecologists. These factors provide a focus on general patterns that complements the focus on specific policies. These general factors also may matter for my outcome, the founding of new cable networks.

Population Effects

When studying the development of an industry of a certain type, population ecologists have focused on the environmental resources and the level of competition for such resources. By using populations (i.e., aggregates of organizations that depend on similar resources) as the unit of analysis, they statistically examine the vital rates of organizations – that is organizational founding, failure, growth and change. They have argued that, across a wide range of industries, the vital rates of organizations are a function of population – such as the industry – and that the processes of legitimation and

competition determine the growth and decline of an organizational population (Hannan and Freeman 1977, 1989; Hannan and Carroll 1992).

Density

Population ecologists argue that the vital rates of organizations are dependent on the total number of organizations in the population, such as an industry. Hannan and Freeman (1977) initially argued that density captures the processes of legitimation and competition in the organizational population and those processes create inverted U-shaped relationship with organizational foundings. In the early stages of the development of an organizational population, an increasing density indicates the improved legitimacy of a new organizational form and therefore enhances the capacity of organizations in the industry to acquire resources. As a consequence, the founding rate of those new organizations increases (Hannan and Freeman 1977, 1988; Carroll and Hannan 1989; Singh and Lumsden 1990; Nownes 2010). As density continues to increase, however, competition with others for resources intensifies. Because all industries can only support a certain number of organizations given limited resources ("carrying capacity"), competition functions as a force opposite to legitimation, tending to reduce founding rates. Therefore, over time the relationship between density and the number of organization founding takes the form of an inverted U-shaped curve. Ecologists have modeled this effect of density on founding with a quadratic ($X - X^2$) in which the first term (X) represents legitimacy, and the second term ($- X^2$) represents competition. If population ecology argument holds, then the following should hold:

> *Hypothesis* 3. Density (i.e., total number of cable networks) will have an inverted-U shaped effect on the number of cable networks founded in that year.

Previous Numbers

Population ecologists have also found that previous patterns of founding and failure have significant effect on current founding rates (Delacroix and Carroll 1983; Tucker *et al*. 1990; Haveman 1993). They argue that foundings in one year encourage foundings in the next year by signaling a favorable environment for entry to prospective firms. As foundings increase further, however, competition for acquiring resources increases, thereby discouraging subsequent foundings. That is to say, high numbers of foundings in one year may exhaust available resources, so that it decreases foundings in subsequent year by making it difficult to assemble the resources necessary to found a firm in the next year (Hannan and Freeman 1989). Therefore, prior foundings show an inverted U-shaped effect on current foundings. Like density, the effects of prior founding numbers are modeled by a quadratic term.

> *Hypothesis* 4. The *previous* number of cable network foundings will have an inverted-U shaped effect on the number of new cable networks in the subsequent year.

Previous failures also have analogous effects. Initially, failures free resources that can be assembled into new organizations. However, many failures signal a pernicious environment and thereby discourage foundings (Carroll and Delacroix 1982; Delacroix and Carroll 1983). Thus, prior failures have an inverted U-shaped effect on current foundings. Ecologists have also modeled this inverted U relationship with a quadratic.

> *Hypothesis* 5. The *previous* number of cable network failures will have an inverted U-shaped effect on foundings.

Vitality of Capital Market

Both population ecologists and new institutionalists find that the availability of capital has a positive effect on organizational foundings (Hannan and Freeman 1989; Dobbin and Dowd 1997, 2000). They argue that organizational foundings depend not only on the competition for resources, but also on the availability of resources that can be captured by the vitality of capital market (*ibid*). Therefore, I expect capital market vitality has a positive effect on cable network foundings.

> *Hypothesis* 6. Growth of the U.S. economy in the previous year will have a positive effect on foundings in the subsequent year.

Mutualism in Network-Based Industries / Mass

Population ecologists argue that in mutualistic industries, such as the telephone and rail industries, a new firm's prospect depends on the total number of available connections (Barnett and Amburgey 1990; Hannan and Carroll 1992). In their study on the early telephone industry, Barnett and Amburgey (1990) found that population mass, defined by population density with each organization weighted by its size, has a mutualistic effect on both founding and failure rates. With density controlled for, it means that the founding rate increases and the failure rate decreases as the sizes of organizations grow (Barnett and Amburgey 1990: 98). In the telephone industry, companies often worked together by connecting lines although telephone companies operated in segregated market segments. Barnett and Amburgey argued that a company could benefit from connecting to a large company; it not only expands its reach to lots of customers but also gains the strengths of the large company, such as a political clout (*ibid*).

In the cable television industry, a new cable network's prospect depends on the number of cable system operators that deliver their programming to subscribers. The

more system operators deliver their programming, the more profit they can make. In such industries, mass, or total industry size, may have a positive effect on foundings net of the effect of density (Barnett and Amburgey 1990; Hannan ad Carroll 1992).

Hypothesis 7. Mass will have a positive effect on cable networks founding.

Resource Partitioning, the Impact of Industry Concentration

The resource partitioning model is based on the assumption that environmental resources are distributed in different ways for different types of organizations (Carroll 1985). Within this environment, large generalist organizations choose targets composed of heterogeneous segments while small specialist organizations choose narrow homogeneous targets at the periphery of the market (Carroll 1985; Carroll *et al*. 2002). Because generalists and specialists rely on different resource segments, they do not directly compete with each other. Rather, generalist organizations compete with other generalist organizations to occupy the center of the market where they can exercise economies of scale. When market concentration is low, numerous generalist organizations compete with each other for occupying a wide range of resources. As a result, there is little space for specialist organizations in the market. As competition among generalist organizations intensifies, however, weaker generalist organizations fail. The mortality rates of generalist organizations increase and consequently, market concentration, induced by a few winning generalist organizations, increases. Those few winning generalist organizations leave resources at the periphery of the market that are most likely to be used by specialist organizations. As a result, the founding rates of specialist organizations increase as market concentration increases. In brief, the resource partitioning model predicts that in a market characterized by economies of scale,

increasing concentration increases the mortality rate of generalist organizations while stimulating the founding rate of specialist organizations. Many empirical studies that have tested resource partitioning theory in a wide range of organizational and industrial settings support this resource partitioning argument (Carroll 1985; Carroll and Swaminathan 1992; Swaminathan 1995; Mezias and Mezias 2000).

This type of resource partitioning is relevant to the cable television industry in that the market concentration of a few large networks may create room at the periphery for specialized networks and, thereby, boost cable network foundings. In the cable television industry, cable networks that are affiliated with large cable system operators could possibly be thought of as generalist organizations while independent cable networks can be regarded as specialist organizations. Admittedly, a nuanced testing of resource partitioning would assess founding rates for specialists and generalists separately. That makes sense when looking at foundings for, say, beer breweries (generalists) versus microbreweries (specialists) (Carroll 1985). However, the distinction between generalists and specialists in the cable television industry is not so clear – particularly as the U.S. cable industry has historically provided a "specialist" alternative to the generalist approach of broadcast networks like ABC, CBS, and NBC. Consequently, I take a less nuanced approach to resource partitioning, but a historically informed approach, by assessing the impact of concentration on the founding of all cable networks.

> *Hypothesis 8.* Industry concentration will have a positive effect on cable network foundings.

Resource Availability to Competitors

Since some scholars in organizational studies pointed out the need for the study of interacting organizational population (e.g., Singh and Lumsden 1990), researchers have emphasized the importance of a community context in explaining how organizations work, including the ecology of such a context (Haveman 2000; Freeman and Audia 2006). In their studies, community is conceptualized as sets of relations between organizational forms or as places where organizations are located in resource space or in geography (Freeman and Audia 2006). Community ecology would suggest that the resources available to competing populations could have an impact on the cable industry. Because broadcast television and cable television both seek to provide desirable programming to attract audiences, they have often been considered as strong competitors for each other. Therefore, the resources available to the broadcast television could have an impact on the cable television industry. Those resources could be a challenge or a benefit to foundings of cable networks. Consequently, rather than propose a directional effect, I simply control for the possible impact of advertising revenues.

Hypothesis 9. TV advertising revenue will affect cable networks founding.

Data and Method

Data

The hypotheses listed above require data that are both detailed and longitudinal. As a result, data for this chapter come from various sources. The primary data source is the Television and Cable Factbook (Warren Publishing, 1982-2011). Television and Cable Factbook (hereafter, the Factbook) provides comprehensive information for the television,

cable, and related industries. Regarding cable television industry, it covers more than 6,000 operating cable systems and offers information such as subscriber counts, programming carried and various fees (e.g., installation, monthly service and franchise fees). Moreover, it provides details on key industry organizations and suppliers, such as federal and state regulatory agencies, as well as pay TV, satellite and other programming sources. In particular, the Factbook reports all existing programming networks in a given year from 1982 to the present[28]. It also reports information on those programming networks such as programming type, location and launch year. By using this almanac, I constructed a longitudinal dataset that contains information on founding years and dissolution years of cable networks. Regarding founding years of cable networks, I treat them as the launch years that the Factbooks reported. Regarding dissolution years, if I do not observe a cable network in a given year's Factbook after it appeared in a previous volume, then I assume that the cable network ceased operation (unless I see it again in subsequent years of the Factbook).

The time span of the dataset is from 1969 to 2010. Because 1969 was the earliest founding year of a cable network that the Factbook reported, I set it as the starting year of data. In addition, I used academic and industry sources that offer exhaustive listings of early cable networks (e.g., Crandall and Furchtgott-Roth 1996), thereby ensuring coverage of early cable networks. The dataset ends in 2010 because that was the last complete year for which I had information when I began data collection. I identified 15,449 cable networks across 41 years (from 1969 to 2010).

[28] Because this study focuses on cable television networks that deal with video content, the dataset includes neither audio networks nor text services.

I augmented my dataset by making use of Standard and Poor's Industry Surveys (1982-2011) to get aggregate level, annual information on the industry, such as the annual number of cable system operators and the number of basic subscribers of Top 10 cable system operators in a given year. For the earlier years (i.e., 1969-1981), I referred to Sterling (1984)'s Electronic Media – A Guide to Trends in Broadcasting and Newer Technologies, 1920-1983. In addition, I used Statistical Abstract for the United States (U.S. Census, various years) to collect such annual data as the total revenue for broadcast television and cable television.

Dependent Variable

The dependent variable is a count of cable network foundings in a given year. For existing cable networks that report their launch years, I treated those as their founding years. It should be noted that the Factbook report not only existing cable networks and their launch years, but it also reports cable networks that are planned to operate near future as "planned services." For cable networks that listed as planned services, I treated the first year when they appeared in the Factbook as founding year of them.

It is often pointed out that ecological research on foundings understates organizational diversity because it includes only the outcomes of successful founding attempts while overlooking unsuccessful founding attempts (Delacroix and Carroll 1983). Due to the dearth of data on organizing processes, ecologists rarely distinguish successful events from nonevents in the founding process (Amburgey and Rao 1996). As a result, a sample bias might be introduced because many emerging organizations fail before they start operation due to various reasons (Hannan and Carroll 1992; Amburgey and Rao 1996).

However, the data for this study include cable networks not only that are operating in a given year, but also that are planned to operate in near future. Some of those planned services appeared as operating cable networks a few years later while other disappeared without launching their services. By treating the first year when a planned service appeared in the list as a founding year of that cable network, I try to avoid a sample bias that might occur when including only successful founding attempts.

The ecological hypotheses have an aspect of competition – which means assessing foundings in a relevant context, like a particular market. However, identifying that context sometimes takes work. In his study on the radio broadcast industry, for example, Lippmann (2007, 2008) limited his analysis to the 100 largest broadcasting markets because it was impossible to construct discrete market areas for every station on the dial due to great variation and overlap in radio station market. Informed by Lippmann's studies (2007, 2008), I construct discrete markets of cable networks. Unlike the broadcast television or radio stations, however, a market divided by geographical region does not have critical meaning for cable networks. Instead, for cable networks, the choice of genre is more important than their location. It is one of the major considerations when they decide to enter the cable television industry in that potential programmers have to determine which genre of programming is both underserved and, thereby, likely to draw enough interest and paying customers (Mullen 2008). For this reason, I defined markets by specific genres. Thus, the unit of analysis for this study is the market year, or one observation per market, per year. It also allows investigation of how a particular set of market characteristics and genre-specific circumstances influenced the emergence of

new cable networks in that market. Hence, I assess annual founding among potential competitors.

When constructing genre-markets, I referred to SNL Kagan (i.e., Media & Communication sector of SNL Financial, LLC.). It provides proprietary data on the cable television industry including detailed information on more than 225 cable networks that range from basic cable networks and premium networks to regional sports networks. In particular, SNL Kagan specifies a genre of each cable network in their profiles. According to their classification of genre, cable networks can be classified into one of ten different genres; Arts & Entertainment, Family & Kids, Film, General/Variety, International/Ethnic/Foreign language, Music, News, Niche, Sports, and Women's. I applied SNL Kagan's classification of genre. The Factbook provide a brief description of programming type for each cable network instead of specifying which genre they are in. Based on those descriptions, I identified a genre of each cable network in accordance with the genre classification of SNL Kagan data. However, there are several types of programming that could not be classified into any one of those ten different genres, such as religious programming and adult programming. Therefore, I also created four other genres; religion, adult, home shopping, and lastly, the unidentified for those that did not provide descriptions of programming types. As a result, I constructed fourteen different genre-markets. In this chapter, then, organizational foundings are treated as the number of cable networks that entered a particular market in a given year. Therefore, the total number of observation for the analysis is 574, which is 41 years of foundings (from 1969 to 2010) multiplied by fourteen genres.

When tracking cable networks across the years, for cross-checking, I also used other sources such as Broadcasting and Cable Yearbooks and the web-site of the National Cable Television Association that provides the profiles of current cable networks.

Independent and Control Variables

Policy Regimes

I gauged two deregulation policy regimes with binary variables; one is demarcated by the Cable Communications Act of 1984, and the other is distinguished by the Telecommunications Act of 1996[29]. It is common to measure the impact of policy on industry dynamics with years prior to and including the passage of a certain Act coded as 0 and the subsequent years coded as 1 (Dobbin and Dowd 1997, 2000; Schneiberg and Clemens 2006). Following the common way, I coded two deregulation policy regimes as binary variables. For the first deregulation policy that is the Cable Communications Act of 1984, I coded 0 for years prior to and including 1984 and 1 for years after the 1984 Act (i.e., 1985-2010). Likewise, for the second deregulation policy, the Telecommunications Act of 1996, I coded 0 for years prior to and including 1996 and 1 for years after the 1996 Act (i.e., 1997-2010).

[29] There are a couple of reasons to choose these two Acts. First, both the 1984 Act and the 1996 Act represent a remarkable deregulation of the industry – the 1984 Act considerably deregulated the cable industry by removing several restrictive rules (e.g., must-carry rules and rate regulations) and the 1996 Act significantly deregulated the communications and media industries in a way that opened up markets to competition by removing barriers to entry. Second, although the 1992 Act intended to re-regulate the cable industry, for example, by re-imposing rate regulation, some of those rules were immediately relaxed (see Chapter Two for detail). Moreover, the re-regulation effects, which might be caused by the 1992 Act, were soon to be overwhelmed by the 1996 Act, which intended to deregulate the communications and media industries more broadly. Nevertheless, practical reasons eventually played a role in my analysis, the 1992 Act variable was highly correlated with many other independent variables (e.g., concentration, system mass and other policy variables). Consequently, those variables likely tapped some of the shifts brought on by that Act's intentions. Thus, I excluded it from the analysis but retained my focus on the regulatory shift brought about by the 1996 Act.

Density

Population ecologists find that the number of incumbent organizations (i.e., density) has an effect on the subsequent number of new organization foundings (Hannan and Carroll 1992). To assess the effect of density on cable network foundings, I documented the total number of cable networks in a given year. Following prevailing practice, I coded density as the number of cable network surviving at year's start, calculated as cumulative foundings minus cumulative failures (see below). Second-order terms control for possible non-linear effects of density.

Figure 3-1 shows cable networks foundings and density from 1969 to 2010. It also shows the effect of policy regimes on foundings descriptively. The period before the Cable Communications Act (1984) was enacted can be characterized as regulatory policy regime in that policies related to cable television before that Act were meant to protect the interests of the broadcast television rather than those of the cable television industry. Moreover, the Cable Communications Act (1984) is widely known as an act that deregulated cable television industry. As can be seen in the graph, both the total number of cable networks and cable networks founding had stayed low before the mid-1980s. Figure 3-1 also shows the impact of the Telecommunications Act (1996) – which promoted deregulation of the entire telecommunication industry, including cable and telephone industry, to create a competitive environment for delivering better services to consumers. It is shown that the total number of cable networks has sharply increased after the mid-1990s when the 1996 Act was enacted. In terms of cable network foundings, they also increased noticeably, after 1996, although the fluctuation ranges are relatively bigger then than that in the early years.

Prior Foundings

Population ecologists argue that the number of organizational foundings in the previous year has an inverted U-shaped relationship with the number of foundings in the subsequent year. In other words, an increasing number of organizational foundings leads to more foundings before reaching carrying capacity while dampening it afterward. To examine such effects, lagged foundings and lagged foundings squared are included as independent variables.

Prior Failures

Likewise, the number of failures in the previous year has a similar effect to that of previous foundings; prior failures release resources that can be reassembled into new organizations but further failures discourage foundings by signaling an inhospitable environment. A cable network fails when it ceased operation due to, for example, bankruptcy or when it is acquired by another firm. Although acquisitions are not technically failures, I treat them as such to replicate previous studies (see Dobbin and Dowd 1997, 2000). In order to examine such effects, I include lagged foundings and failures. To detect non-linear effects of those variables, I also include second-order terms in the analyses.

Figure 3-2 shows failures and density over the study period, 1969-2010. Figures 3-1 and 3-2 together show similar patterns. When compared Figure 3-1, it shows that the number of cable networks failure rises and falls with the number of cable networks founding. After the Cable Communications Act of 1984, the number of failures increased and then somewhat decreased in the early 1990s. However, around the year that the Telecommunications Act (1996) was introduced, it soared in the mid-1990s, and then

showed a wide range of fluctuations afterwards. Putting it together, before the Cable Communications Act (1984), when policies were meant to protect the interests of the broadcast television industry rather than the cable television industry, we can see low density and low foundings of cable networks. After the Cable Communications Act, however, we observe both high density and high number of foundings as compared to before. Lastly, after the mid-1990s when the Telecommunications Act (1996) was enacted, we see not only the highest density and number of cable networks founding, but also the highest number of cable networks failures.

Concentration

To examine the effect of concentration on the cable network foundings, I used four-firm concentration ratio (CR_4) as a measure of industry concentration, which show the proportion of total industry revenues accruing to the largest four firms. It is calculated by a formula:

$$CR_4 = \sum_{i=1}^{4} Si \ ,$$

where S_i is the market share of the i^{th} firm. The concentration ratio index ranges between 0 to 100 percent, where 0 percent indicates perfect competition or at the very least monopolistic competition and 100 percent means an extremely concentrated oligopoly. In this study, I used the annual number of basic subscribers of the four largest cable system operators over the total number of basic subscribers to create a four-firm concentration ratio variable. Concentration among cable system operators can be a good indicator because they are inextricably linked to cable networks, as they deliver the programming that cable networks provide.

Figure 3-3 graphs the concentration ratio of top 4 cable system operators from 1969 to 2010. According to the graph, concentration generally increased as the years went by, and it sharply rose after the late 1990s. This might be caused by the fact that mergers and acquisitions have increased steeply as a result of the Telecommunications Act of 1996, which allowed cross-ownerships between cable and telephone companies.

Mutualism in Network-Based Industries / Mass

To code mutualism and mass, I used three indicators – system mass, subscriber mass and revenue mass. System mass was measured by the total number of cable system operators at the beginning of the year. I collected data on system mass from the Factbook, which has reported annual number of cable system operators from 1952 to present. Subscriber mass was measured by total number of basic subscribers at the beginning of the year. Like the number of cable system operators, the Factbook has reported total number of basic subscribers from 1952 to present. Revenue mass was measured by total revenue of cable television industry. I gained data on revenue mass from the U.S. Census Statistical Abstract[30].

In addition to revenue mass, the number of subscribers and number of cable system operators can be fine indicators for measuring mass of cable networks in that one of cable networks' primary sources of income is a license fee from cable system operators, and those fees are based on the number of subscribers the cable system has (Newcomb 2004). Therefore, cable networks in general try to obtain channel space on as

[30] Data for total revenue of cable television were from the U.S. Census Statistical Abstract, various years. However, it indicated that the source of data was SNL Kagan's various publications. For the early years (before 1975), data were available only for every five years. Therefore, there were some missing values. I interpolated missing values (i.e., values for a year of 1969 as well as years from 1971 to 1974) by using total cable TV revenue in 1965 and 1970 as a metric.

many cable systems as possible to maximize their viewing audience so as to make a high profit. Both population ecologists (Barnett and Amburgey 1990; Hannan and Carroll 1992) and the new institutionalists (Dobbin and Dowd 1997) have found that mass has a positive effect on foundings in network-based industries.

Vitality of Capital Markets

Population ecologists invented a measure of capital market vitality by counting the number of months of the economy held steady or grew in the previous year (Hannan and Freeman 1989). To replicate population ecology studies, I included a measure of capital market vitality by using the Gross Domestic Product (GDP) of the United States (Bureau of Economic Analysis, U.S. Department of Commerce)[31]. I operationalized it with the number of quarters the economy held steady or grew in the previous year because GDP is only available in quarterly increments.

Competition for Available Resource

Some population ecologists, namely community ecologists[32], expand their areas of research beyond studies of single population to broader communities consisting of multiple populations differentiated by function and resource place (Haveman 2000). Community ecologists suggest that the resources available to competitors could have an impact on the cable industry. From this perspective, we can think of broadcast television networks and cable networks as multiple organizational populations in the same

[31] I examined another measure of broader economic conditions by way of the S&P500 index. However, it is highly correlated with density (over .67), concentration (over .91), and the 1996 Act (over .93). Thus, the broader economic conditions are overlapping with many of the key variables in this analysis, with the vitality of the capital market variable capturing additional yet important aspects of those conditions.

[32] They conceptualize an organizational community as a set of coevolving populations linked by ties of cooperation, competition or interdependence (Ingram and Simons 2000; Aldrich and Ruef 2006).

community. I measured the competition for available resources by noting the total advertising revenues for broadcast television. Both broadcast television and cable television seek to provide desirable programming to attract audiences. For this reason, cable television historically has often been considered as a strong competitor of broadcast television. Because they compete with each other for the same resources, the resources available to broadcast television could have an impact on the cable industry. I obtained that information from Sterling (1984) and from Standard and Poor's Industry Surveys.

Table 3-1 lists the independent variables used in the analysis and specifications omitted from results reported here. Those omitted were due to being highly correlated with other independent variables (see Appendix 3-1).

Methods

I used negative binomial regression to model cable network foundings. The dependent variable, the annual number of cable network foundings in various markets, has non-negative, integer values, and it is longitudinal. Because certain assumptions of ordinary least squares (OLS) regression, such as homoscedasticity, are violated when the outcome variable is non-negative and integer value (Berry 1993), analysts often employ another statistical method. Specifically, a count process, such as annual organizational foundings, is modeled by a statistical distribution in the Poisson family. It should be noted that Poisson regression is based on a restrictive assumption: the variance and mean of the event counts are equal.

$$Var(Y_t) = E(Y_t) \qquad (1)$$

When the data are overdispersed, in other words, when the variance exceeds the mean, the use of Poisson estimates is not appropriate because they can lead to deflated standard errors and, in turn, erroneous rejection of the null hypothesis. The quadratic parameterization of negative binomial regression corrects this problem with the specification (Barron 1992),

$$Var(Y_t) = E(Y_t) + \alpha\, E(Y_t)^2 \qquad (2)$$

A t-test of the hypothesis that the overdispersion parameter, α, differs significantly from zero indicates the need for negative binomial regression. If α is equal to 0, then equation (1) and (2) are the same, therefore we can use Poisson regression estimates. However, if it is not equal to 0, then the negative binomial specification, which is equation (2), is used to correct for the overdispersion (Barron 1992).

I used the statistical package LIMDEP to derive both Poisson and negative binomial models via maximum likelihood estimation (Greene 1992). In each model, I lagged the independent variables, so that each predicts the effect of variables in $year_{(t-1)}$ on the number of cable network foundings in $year_{(t)}$.

The interpretation of the regression coefficients is follows: the impact of independent variables is given by the formula, 100[exp (coefficient) – 1]. This represents the effect that a one-unit change in an independent variable has on the expected number of cable network foundings in the following year. The goodness-of-fit of a regression model is given by comparing the log-likelihoods of nested models represented by the formula, (-2)[(log-likelihood of model A) – (log-likelihood of model B)]. This formula gives a likelihood ratio chi-squared by which to gauge the improvement in fit, where the

degrees of freedom correspond to the number of variables that are unique to Model B (Dowd 2004).

Findings

Table 3-2 contains the models by which I analyzed the data. The dataset contains 14 different genre-markets over the study period, 1969-2010; therefore, the N is 574. For each model, I generated both Poisson and Negative binomial estimates. However, no model in Table 3-2 met the assumptions of Poisson regression since the overdispersion parameter (α) of each significantly differed from zero (Barron 1992). As a result, I report only the negative binomial regression estimates.

Table 3-2 presents the results of the negative binomial models of cable network founding, from 1969 to 2010. Starting with general factors as a baseline, before turning to historical specifics, Model 1 contains the three sets of ecology variables previously used to test resource availability and competition: density, prior-year foundings, and prior-year failures. This model offers a significant improvement in fit when compared to the null model ($\chi^2 = 314.1$; $df = 6$). It shows that density and prior-year founding have significant effects on cable networks founding in the following year. In particular, density has an inverted U-shaped effect on cable networks founding; an increasing number of cable networks in the previous year paves the way for more cable networks founding in the subsequent year, as a growing number of cable networks legitimates the organizational form of cable networks. However, this positive effect of density grows less pronounced as density further increases and eventually reaches a point of carrying capacity. After reaching carrying capacity, density started dampening the later cable networks founding

(as shown by the -.125 coefficient). Likewise, prior-year foundings also significantly shape current cable networks founding in an inverted U-shaped fashion. It means that a low to moderate number of cable networks founding in one year stimulates an increasingly high number of cable networks founding in the following year (see the .158 coefficient); however, a high number of cable networks founding has the opposite effect (see the -.003 coefficient). On the other hand, prior-year failures do not have a significant effect on cable networks founding in the following year. In results not reported here, I examined the effects of density, foundings, and failures separately. All of three sets showed significant effects in an inverted U-shaped fashion. Yet, only two sets reach significance when all are considered simultaneously.

Model 2 adds a variable measuring system mass, which is the number of cable system operators. It provides a significant improvement in fit over Model 1 ($\chi^2 = 55.12$; $df = 1$). The significant effects of density and prior-foundings are robust in the presence of system mass variable. Regarding the impact of mutualism in network-based industry, ecologists expect that network size, measured as total capitalization, will stimulate organization foundings (Barnett and Amburgey 1989; Hannan and Carroll 1992). The positive and significant result for system mass is consistent with the ecologists' hypothesis. In results not reported here, I introduced another measure of network size, total revenue of cable television (i.e., revenue mass) to Model 2, instead of system mass. Those result also supported the ecologists' prediction[33].

[33] Due to multicollinearity, I could not enter both system mass and revenue mass together in the same model. I reported here the model including system mass, measuring it as the number of cable system operators, because it gave a better improvement in the fit of the model.

Model 3 adds two more variables to Model 2; one is a variable for gauging industry concentration via the Top 4 cable system operators, and the other is a variable for controlling vitality of capital market measured by counting number of quarters the U.S. economy hold steady or grew in the previous year. This model does not provide a significant improvement over model 2 ($\chi^2 = 0.274$; $df = 2$) while it does over model 1 ($\chi^2 = 55.41$; $df = 3$). Two sets of ecological variables measuring the effects of density and prior-year founding continue to be significant in an inverted U-shaped fashion. In terms of concentration, ecologists argue that concentration in industries will stimulate foundings through the process of resource partitioning (Carroll 1985; Carroll *et al*. 2002). The negative and significant result for the concentration ratio of Top 4 cable system operators does not consistent with ecologists' argument[34]. Due to high correlation between this concentration measure and policy variables, however, I dropped it from Model 4 and Model 5[35].

Model 4 adds three variables; two policy variables representing deregulation policy regimes and a variable controlling for the vitality of capital market. Note that this model does not offer a significant improvement in fit over the previous models; however, there are a couple of points to address. First, the effects of three sets of ecology variables stay the same as in the previous models; both density and previous founding have significant effects on cable networks founding in an inverted U shaped fashion. Second, a

[34] In results not reported here, I examined the effect of concentration separately. It showed a positively significant effect on cable network foundings when entered alone. However, concentration's effect turned negative once ecological variables were entered. This changing coefficient of concentration from positive to negative is not problematic given that adding that variable to the model did not significantly improve the goodness of fit.

[35] See the Appendix 3-1 for the correlation matrix.

variable that measures vitality of capital market turned out to be significant. Third, two variables representing deregulation policy regimes also have significant effects on cable networks foundings. However, those effects run in different direction; the Cable Communications Act of 1984 significantly promotes more foundings while the Telecommunications Act of 1996 promotes less foundings. These results suggest that, even though those two Acts intended to deregulate the industry, their respective impact on cable networks is somewhat different. Let's take a look at next model while keeping it in mind that this model does not significantly improve in fit over the previous model.

Model 5 provides the best and final model. It offers a significant improvement in fit over Model 2 ($\chi^2 = 35.772$; $df = 2$). The results are consistent with those of earlier models[36]. Note that the significant effects are highly stable and the coefficients are roughly the same as those in the previous models as well as their directions of effects. Consider first the ecology variables. Density and prior-year foundings have significant and curvilinear effects on cable networks founding in the subsequent year, while prior-year failures do not. Additionally, system mass measured by the number of cable system operators still has a positively significant effect on cable networks founding. Now, consider the policy effect. The Telecommunications Act (1996) has a robust impact on cable networks founding; it significantly decreases cable networks founding. However, this is not the case for the Communications Act (1984) in that adding the variable for the Communications Act (1984) does not improve in fit over other models (i.e., Model 4). Note that, in this model, the coefficient of the Telecommunications Act (1996) is comparing years before the Act (i.e., 1969-1996) to years after the Act (1997-2010).

[36] Note that I dropped the concentration measure in this Model 5 due to its high correlation with system mass variable.

What this model shows is that the Telecommunications Act of 1996 actually made the cable television industry less vital in terms of entries of new cable networks. As described in the policy regimes section, industry consolidation has increased since the Telecommunications Act (1996) was passed. Therefore, the 1996 Act can be thought of as consolidating the power of existing cable networks, as they faced less new competitors after the Act was passed. In results not reported here, I entered a variable of total revenue of cable television in place of the number of cable system operators (i.e., system mass). The results provided comparable results to those obtained using system mass. Indeed, model 5 including total revenue of cable television instead of number of cable system operators offers a better improvement in the fit of the model over Model 2 (Log likelihood = −1000.069).

In sum, results of negative binomial regression analyses presented in Table 3-2 support both ecologists' argument and institutionalists' argument. It shows that density and prior-year foundings significantly shape current cable networks founding, as does the annual number of cable system operators (Hypotheses 3, 4 and 7). Moreover, the Telecommunications Act of 1996 marked a shift to a reduction in foundings (Hypothesis 2). In other words, the process of legitimation actually works in the cable television industry in a way that affects cable networks founding.

However, it could not be shown whether these results are robust when considering other factors, particularly market-performance related factors, due to data availability. In results not presented here, I analyzed factors that affecting the growth of cable networks by using a different, yet smaller dataset I constructed from SNL Kagan (SNL Financial, LLC.), which provides rich data on media and communications business including cable

programming networks (see Appendix 3-2 for more detail). In brief, the results confirmed what we have seen in the results presented above. It shows that prior-year failures significantly shape current cable networks founding, as does the annual number of cable system operators. Although it is shown that the public policy does not significantly affect cable networks founding, it does have a significant lagged effect on cable networks founding in a positive direction. In other words, the Telecommunications Act of 1996 promotes more cable networks founding, however, in a lagged fashion. Notably, none of the market-specific economic factors has significant effect on cable networks founding. As a consequence, the results from both datasets demonstrate that the development of the cable television industry is not simply shaped by economic factors. Rather, the processes of legitimation and competition represented by the number of cable networks and public policy significantly affect the growth of cable television industry in a way that shapes cable networks founding.

Conclusion

What factors affect the development of cable television industry? To address this question, I drew on two prominent perspectives in organization studies – the new institutionalism and population ecology. They both emerged as oppositions to the rationalists and adaptionists perspectives, conceiving organizations as entities that could be adapted to external conditions in the rational way to improve their performance (Haveman and David 2008). Rather, both theories turned attention to the impact of external environment and focused on how organizations respond to their environment at the aggregate level.

Population ecologists have long argued that common dynamics revolving around the number of organizations affect industrial development through the processes of legitimation and competition. They have pointed out that the level of legitimation and competition vary with the density of a population. At first, the more organizations of a particular form that exist, the more legitimate that organizational form becomes and the more likely it encourages foundings. As the density further increases, however, competition for scarce resources from the environment begin to overwhelm the impact of increasing legitimacy. The growing competition increases organizational failures while diminishing foundings (Hannan and Freeman 1977, 1988; Carroll and Hannan 1989). Therefore, the impact of legitimation is strong when a population has a handful of organizations whereas competition becomes salient when a population becomes more crowded.

Meanwhile, the new institutionalists in organization studies have turned their attention to external factors such as the laws and regulations, and have investigated how organizations respond to them and how those responses confer legitimacy on organizations. They argue that, for example, different governmental policies can lead to different patterns of industry development by altering the environment in which organizations operate. They also point out that, even though public policies seem to be simple external forces, the responses of organizations are not simple in that such policies in many cases allow discretion in their interpretation and application (Edelman 1992; Dobbin and Sutton 1998). Hence, the 1996 Telecommunications Act could have certain intentions to enliven competition, but consolidation actually occurred in the post-1996 cable television industry.

Both theories consider the process of legitimation is essential to understand the development of an industry although there are differences in their explanation of legitimacy. For ecologists, an organizational form can be legitimated when its existence and prevalence are taken for granted (Hannan and Carroll 1992). In other words, they conceive legitimacy to be cognitive in nature, which increases as the number of organization of a certain form increases. For institutionalists, on the other hand, legitimacy rests not only on cognitive foundation but also on regulative and normative foundations (Scott 2001 [1995]). That is to say, institutionalists consider that a particular organizational form can be legitimated as it increases in number (cognitive dimension), as it conforms to governmental regulations (regulative dimension), or as it comply with professionals' mandate (normative dimension). The difference in the conceptualization of legitimacy between ecologists and institutionalists leads to difference in the ways they have measured organizational legitimacy. To capture legitimacy, ecologists count the number of organizations in the focal population while arguing legitimacy is difficult to measure directly. On the other hand, institutionalists emphasize the necessity for more contextually sensitive measure of legitimacy which covers all three foundations of legitimacy (Haveman and David 2008). Although there are some differences between ecologists and institutionalists in ways to conceptualize organizational legitimacy and in ways to measure in empirical research, they share the notion that the process of legitimation is the key to understanding the growth of an industry.

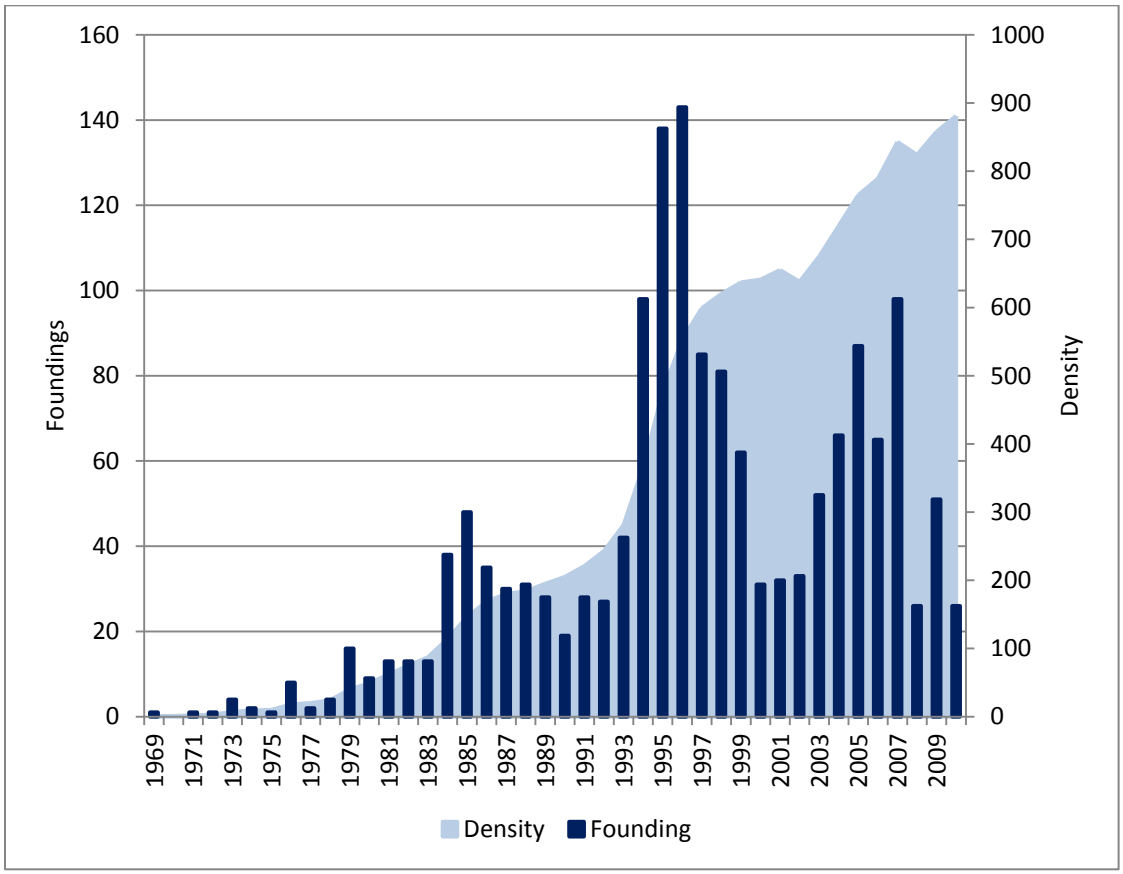
The results of negative binomial estimates for cable networks founding from 1969 to 2010 clearly support both population ecologists' arguments and the new institutionalists' arguments on organizational legitimacy and the growth of an industry.

From ecologists' perspective, the processes of legitimation and competition represented by density (i.e., total number of cable networks) significantly shape cable networks founding. From the institutionalists' perspective, organizational legitimacy conferred by the public policy (i.e., in this case, the Telecommunications Act of 1996) as well as increasing number of cable networks significantly affect cable networks founding. This indicates that public policies have palpable effects on the growth of cable networks and its effects cannot be reduced to counts.

The results are further confirmed by supplemental analysis which used in-depth data of cable networks including performance information (e.g., advertising revenues) from 1989 to 2010 (see Appendix 3-2). Note that none of the economic factors such as gross advertising revenues and market concentration has significant effects on cable networks foundings. Therefore, I argue that the development of cable television industry cannot be fully explained by economic factors. Rather, the processes of legitimation and competition are keys in shaping the industrial development of cable television.

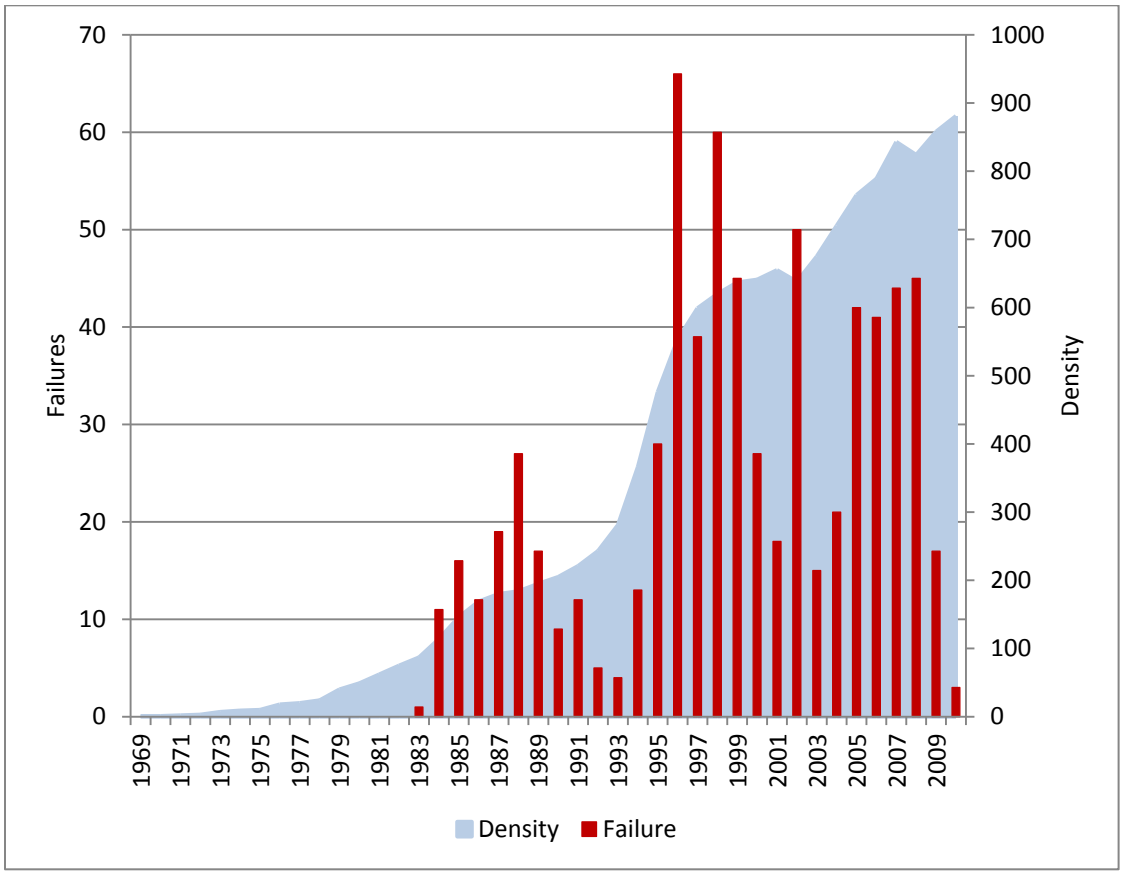
In addition, note that prior-year foundings significantly shape current cable networks founding in an inverted U-shaped fashion while prior-year dissolution not in the results. However, in the results from supplemental data that covers later years (i.e., 1989 to 2010), prior-year dissolution has a significant effect on cable network founding in the subsequent year in a U-shaped fashion. From this, it can be inferred that the impact of legitimation is strong when a population has a handful of cable networks whereas the impact of competition becomes salient when a population has more cable networks than its carrying capacity.

Figure 3-1. Cable Networks Foundings and Density, 1969-2010



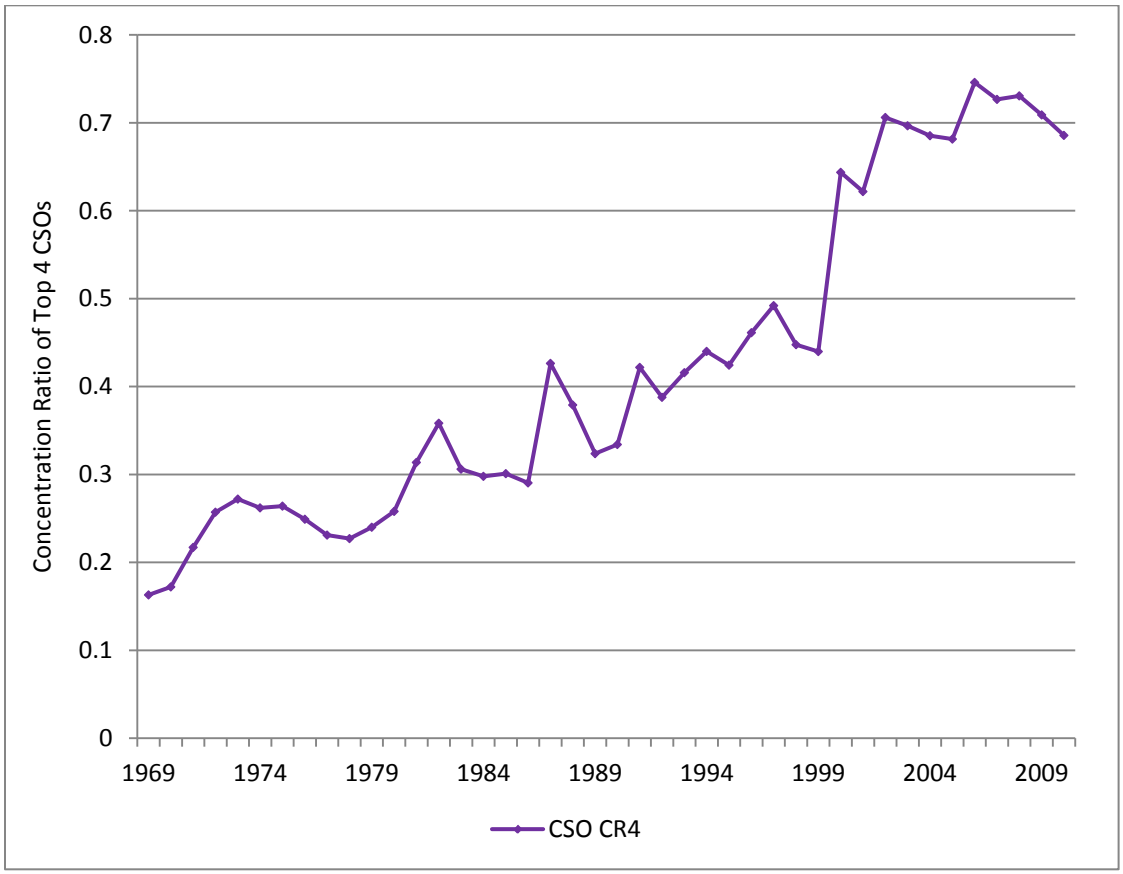
Source: Television and Cable Factbook, 1982-2011

Figure 3-2. Cable Networks Failures and Density, 1969-2010



Source: Television and Cable Factbook (1982-2011)

Figure 3-3. Concentration Ratio of Top 4 Cable System Operators, 1969-2010



Sources: Television and Cable Factbook (1982-2011); Standard and Poor's Industry Surveys (1982-2011)

Table 3-1. Independent Variables for Negative Binomial Analysis

Independent Variables	
Variable	**Definition**
Density	The number of cable networks in existence in a given market at the beginning of the year
$Density^2$	Square of density
$Foundings_{t-1}$	Number of cable networks founded in a given market in previous year
$Foundings^2_{t-1}$	Square of foundings in a given market in previous year
$Failures_{t-1}$	Number of cable networks failed in previous year
$Failures^2_{t-1}$	Square of failures in previous year
System $mass_{t-1}$	Number of cable system operators
4-firm $concentration_{t-1}$	Combined market share in terms of the number of basic subscribers of four largest *cable system operators*
The Cable Comm Act (1984)	Binary variable for regulatory period before and after the Cable Communications Act of 1984
The Telecom Act (1996)	Binary variable for deregulatory period before and after the Telecommunications Act of 1996
Capital $availability_{t-1}$	Quarters U.S. economy held steady or grew in t-1
Specifications Omitted from Reported Results	
Log revenue $mass_{t-1}$[a]	Log of total revenue of cable television industry
Log television ad revenue	log of TV advertising revenue
Subscriber $mass_{t-1}$	Number of basic subscribers
GDP_{t-1}	Gross Domestic Product, 1969-2010
$S\&P500_{t-1}$	S&P500 Index, 1969-2010

Note. The variable of log revenue $mass_{t-1}$ listed in the specifications omitted from reported results is for the supplement dataset.

Table 3-2. Negative Binomial Regression Estimates of Cable Network Foundings, 1969-2010

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Intercept	-.245** (.078)	-1.220** (.155)	-1.107** (.466)	-1.55** (.437)	-1.412** (.426)
Foundings $_{t-1}$	.158** (.026)	.127** (025)	.109** (.026)	.091** (.026)	.086** (.026)
Foundings$^2_{t-1}$	-.003** (.001)	-.002** (.001)	-.002* (.001)	-.002* (.001)	-.002* (.001)
Failures $_{t-1}$	-.012 (.052)	-.027 (.048)	-.020 (049)	-.039 (.048)	-.007 (.047)
Failures$^2_{t-1}$	-.003 (.004)	-.001 (.004)	-.002 (.004)	-.001 (.003)	-.001 (.003)
Density	.030** (.005)	.018** (.004)	.023** (.005)	.032** (.005)	.029** (.005)
Density ^{2}	-.125** (.024)	-.051* (.025)	-.067** (.026)	-.106** (.025)	-.086** (.025)
Concentration of cable operators (CR_4) $_{t-1}$			-.772* (.423)		
System mass $_{t-1}$		.158** (.021)	.168** (.022)		.169** (.021)
Vitality of capital market $_{t-1}$			.021 (.111)	.224* (.109)	.048 (.108)
The Cable Comm. Act (1984)				1.034** (.140)	
The Telecom. Act (1996)				-.675** (.132)	-.620** (.131)
α	.737** (.085)	.605** (.075)	.597** (.074)	.560** (.072)	.541** (.071)
Log likelihood	-1053.297	-1025.728	-1023.918	-1019.715	-1014.536

*p < .05; ** p< .01; one-tailed tests
Standard errors are in parentheses.

Appendix 3-1.

Table 3A-1. Correlation for Variables in the Analyses

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Founding $_{t-1}$	1.00	-	-	-	-	-	-	-
(2) Failure $_{t-1}$	.57	1.00	-	-	-	-	-	-
(3) Density	.69	.59	1.00	-	-	-	-	-
(4) Concentration $_{t-1}$	.31	.39	.63	1.00	-	-	-	-
(5) System Mass $_{t-1}$	.39	.36	.42	.58	1.00	-	-	-
(6) Vitality of Capital Market $_{t-1}$	.03	-.05	-.20	-.31	.05	1.00	-	-
(7) The 1984 Act	.38	.39	.49	.69	.88	-.13	1.00	-
(8) The 1996 Act	.30	.45	.61	.86	.47	-.21	.55	1.00

Appendix 3-2. Negative Binomial Regression Estimates of Cable Network Foundings, 1989-2010 (Supplement Data)

Data for this supplement analysis come from SNL Kagan (Media & Communication sector of SNL Financial, LLC.) which provides proprietary data on the media and communication industry including cable television networks, both in the aggregate and for individual firms. Regarding cable networks, it offers information on more than 225 cable networks including basic cable networks, premium networks, and regional sports networks. Although it covers a relatively short period of years (1989 - 2010), it provides detailed information, such as performances of each cable network (e.g., gross advertising revenue, net operating revenue, and so on). Table A-1 shows the negative binomial regression estimates of cable networks founding using the supplementary dataset. The N for this dataset is 210 (i.e., Ten different genre-markets across 21 years of data).

Model 1 reports the impact of ecology variables (i.e., prior founding, prior failure and density). It offers a significant improvement in fit when compared to the null model ($\chi^2 = 41.541$, $df = 5$). The results show that all of ecology variables have significant effects on cable networks founding. Prior-year failures significantly shape cable networks founding in the expected fashion: a low to moderate number of cable networks failures in one year encourages cable networks founding in the following years by releasing resources that can be reassembled into new cable networks; however, further failure discourages foundings as it signals a hostile environment. Prior-year foundings also have a significant effect cable networks founding in the following year, but its effect is linear, not curvilinear. Likewise, the impact of density on cable networks founding is linear; more cable networks in the previous year, more foundings in the subsequent years. In results not reported here, I also test three ecology variables separately. Prior-year foundings have significant monotonic effect on current foundings. Prior-year failures and density have significant effects on cable networks foundings in the following years in an inverted U-shaped fashion.

Model 2 adds three variables to model 1 – two of them are revenue mass and system mass measuring mutualism /mass and one is the Herfindahl index in each genre-market measuring market concentration of cable networks in a particular genre. This

model offers a significant improvement in fit over model 1 ($\chi^2 = 16.86$; $df = 3$). It shows interesting results. First, the impact of ecology variables stays the same as the previous model containing only ecology variables. Second, revenue mass measured as gross advertising revenue of each market does not have a significant effect on cable networks founding, while system mass measured as number of cable system operators has a significant effect. Third, the impact of market-concentration on cable networks founding is not significant. Note that both revenue mass and concentration here take market characteristics into account. Interestingly, both of these variables do not have significant effects on cable networks foundings. Only system mass, an industry-level variable, significantly affects cable networks founding. In results not reported here, I test a model including only three industry variables. In that model, market concentration has a significant effect on cable networks founding in the negative direction: cable networks foundings decrease as market concentration increases. However, revenue mass does not significantly affect cable networks founding. Therefore, it seems that concentration effect washes out in the presence of ecology variables.

Model 3 builds on the previous one by adding a variable controlling for the vitality of the capital market. It offers no significant improvement in fit over model 2 ($\chi^2 = 1.78$; $df = 1$). This is not surprising because the one variable added to the model fails to attain statistical significance. It indicates that the vitality of capital market, measured by number of quarters the U.S. economy held steady or grew in the previous year, does not have a significant effect on cable networks founding.

Model 4 introduces the policy variable to the previous model, and provides the final model. The results are consistent with those of the previous models. Consider first the ecology variables. The impact of those ecology variables stays significant in the presence of the policy variable; density and prior-year foundings have significant linear effects on current cable networks founding in the positive direction while prior-year failure has significant curvilinear effect on current cable networks founding. Second, three industry variables also show the same results as the previous model: revenue mass and market concentration (the HI) have no significant impacts on cable networks founding while system mass does have. Third, the policy variable does not have significant effect on cable networks founding. Note that the policy variable here is

comparing cable networks founding 1989-1996 to 1997-2010. In other words, the Telecommunications Act (1996) does not significantly stimulate more foundings than is seen in the seven years before this Act was enacted. In results not reported here, however, I entered the policy variable by lagged one year from its enactment. The results show that the Telecommunications Act of 1996 significantly promotes more cable networks founding in a lagged effect (coefficient is .503 with P value of less than .01).

Table 3A-2. Negative Binomial Regression Estimates of Cable Network Foundings, 1989-2010

	Model 1	**Model 2**	**Model 3**	**Model 4**
Intercept	-.811** (.237)	-3.960** (1.064)	-4.560** (1.187)	-4.856** (1.222)
Foundings $_{t-1}$	.172** (.056)	.145** (.053)	.133** (.053)	.131** (.053)
Failures $_{t-1}$	.665* (.352)	.809** (.347)	.795** (.341)	.789** (.343)
Failures^2 $_{t-1}$	-.235* (.114)	-.243* (.111)	-.231* (.108)	-.230* (.108)
Density	.047* (.026)	.064* (.030)	.062* (.029)	.058* (.029)
Density ^{2}	-.520 (.432)	-.610 (.459)	-.593 (.458)	-.520 (.466)
Log revenue mass $_{t-1}$ (log gross ad revenues)		-.010 (.039)	-.011 (.039)	-.013 (.039)
Concentration (the HI) $_{t-1}$		-.106 (.573)	-.034 (.568)	.128 (.590)
System mass $_{t-1}$		.314** (.081)	.240** (.096)	.275** (.103)
Vitality of capital market $_{t-1}$			.350 (.266)	.298 (.272)
The Telecomm. Act (1996)				.257 (.264)
α	.720** (.195)	.566** (.170)	.538** (.166)	.540** (.166)
Log likelihood	-278.282	-269.852	-268.962	-268.486

*p < .05; ** p< .01; one-tailed tests
Standard errors are in parentheses.

CHAPTER FOUR

Concentration and Diversity in the Cable Television Industry

> "There has already been a tremendous amount of consolidation and that has had some severe consequences. These are changes of terrible importance to the future of the country, and it is hard to see how further deregulation promotes diversity, competition and localism."
> -- FCC Commissioner Michael Copps, in Labaton, Stephen. "Give-and-Take F.C.C. Aims to Redraw Media Map." *The New York Times*, May 11, 2003.

Introduction

Social scientists have long been concerned the impact of market concentration on diversity. In particular, concentration in media industry has been received great attention. One of major concerns arising from such concentration is that there are very few media owners in the market that reach out to the masses. The expansion of large media firms leads to fears that mass media are increasingly controlled by only a few numbers of firms, thereby resulting in a homogenization of media products. In other words, there is the risk of reduced diversity of issues and perspectives from a few affecting the people. For this reason, Gomery (2000: 507) once argued that "no research in mass communication can ignore questions of mass media ownership and the economic implications of that control." Researchers have been especially interested in the ways such ownership patterns influence the diversity of the media in terms of both form and content (Croteau and Hoynes 2002).

One widely adopted argument has been that increasing concentration among media companies may lead to products that lack diversity. In a seminal study of production of culture, Peterson and Berger (1975, 1996) examined the impact of

industrial concentration among producers of popular music on diversity in the music recordings produced by them from 1948 to 1973. They found that concentration and diversity are inversely related; high market concentration leads to homogeneity, whereas a competitive market leads to diversity. Moreover, they argued that long periods of high concentration and low diversity are occasionally punctuated by relatively brief periods of low concentration and high diversity. Influenced by Peterson and Berger's study (1975, 1996), subsequent research studies have elaborated their thesis to take into account new organizational forms in the recording industry. For example, Lopes (1992) and Dowd (2004) revisited the issue of concentration and diversity in the music recording industry. From the new institutional perspective on the production of culture, they argued that the impact of concentration on various market outcomes is not uniform but is dependent upon logics of production. Specifically, Dowd (2004) argued that when dominant firms adopted logic of centralized production, high concentration dampens diversity – in terms of the number of new acts and firms, as well as musical complexity; however, when dominant firms adopted logic of decentralized production, the negative effect of high concentration is reduced if not eliminated.

Meanwhile, some scholars incorporate regulatory changes on media ownership when they analyze the impact of market concentration on diversity (e.g., Bielby and Bielby 2003; Kunz 2009). For example, Bielby and Bielby (2003) argued that the broadcast television industry in the United States has grown more concentrated as a result of regulatory changes. In particular, they paid attention to whether the expiration of the Financial Interest and Syndication rules (the Fin-Syn Rules) had a significant effect on the broadcast television industry. According to Bielby and Bielby, the major broadcast

television networks (e.g., ABC, CBS) increasingly relied on in-house production after the demise of Fin-Syn Rules in 1995. They argued that, as with the centralized production, described by Dowd (2004), increasing concentration in prime-time program market reduces the diversity of the program supply, in terms of the number of prime-time program suppliers.

Resource partitioning theory in organization studies provides a different perspective on the impact of market concentration on diversity. It argues that under certain environmental and organizational situations, the increased concentration of large generalist organizations in an industry will improve the life chances of small specialist organizations (Carroll and Hannan 2000). Scholars in this perspective hold that environmental resources are distributed in a particular way; generalist organizations seek a wide range of resources while specialist organizations seek a homogenous and narrow range of resources. Because they rely on different resource segments, generalist organizations and specialist organizations do not directly compete with each other. Therefore, in a market concentrated by a few large generalist organizations, small specialist organizations can exploit more of the available resources without engaging in direct competition with those generalist organizations (Baum and Amburgey 2002). The resource partitioning perspective has been applied to many studies that assessing the impact of concentration on diversity in various industries (e.g., Carroll 1985; Barnett and Carroll 1987; Carroll and Swaminathan 1992, 2000; Dobrev 2000; Mezias and Mezias 2000). For example, in their study on film industry, Mezias and Mezias (2000) found that increased concentration among generalists firms in film industry had a positive effect on the founding of specialist producers and specialist distributors.

In this chapter, I examine the relationship between market concentration and diversity in cable television industry. As will be shown in detail later, the cable television industry experienced regulatory changes regarding cable ownership. Grounded in the new institutional perspective, I examine (1) trends in concentration of cable system operators, as well as cable programing networks in cable television industry; (2) the impact of cable ownership limits rules on those trends; and (3) whether periods of high concentration among cable system operators are associated with low diversity in cable programming networks both in total and in particular genre-markets. I explore these issues at two levels. First, I examine the rhetorical claims made by proponents and opponents of the cable ownership limits regulations. Specifically, my focus is on the terms of the debate over market concentration and programming diversity. Second, by using quantitative data on cable system operators and cable programming networks, I assess whether the cable ownership limits rules have an effect on diversity in cable programming networks.

This chapter is organized as follows. First, I present theoretical accounts dealing with the issue of market concentration and its impact on diversity. Second, I describe the policy history of cable ownership limits, focusing on how and when they introduced, changed and disappeared. Third, I introduce the data and methods employed to analyze the impact of market concentration on diversity in cable programming networks. After presenting findings, I conclude this chapter with a discussion about the results.

Theoretical Accounts

Before emergence of the production of culture perspective in the 1970s, “culture” used to be considered broadly as the values or norms that upholds and supports social reality (e.g.,

the Marxist perspective) or that determines the structure of society (e.g., the functionalist perspective) (Peterson and Anand 2004). The production of culture perspective challenged those dominant ideas that "culture and social structure mirror each other" (Peterson and Anand 2004: 312). It considers "both culture and social structure as elements in an ever-changing patchwork (Berger and Luckmann 1966; Peterson 1979; Schudson 2002)" (*ibid*). Peterson and Anand (2004) explained that "the production of culture perspective focuses on how the symbolic elements of culture are shaped by the systems within which they are created, distributed, taught, and preserved" (Peterson and Anand 2004: 311). It thereby leads to studies that emphasize the specific context within which cultural products are produced, – such as media industries – rather than society as a whole.

From the production of culture perspective, cultural objects produced throughout mass media are shaped by the attributes of specific industries. As DiMaggio (1977) pointed out, "the extent of diversity and innovation available to the public – and, conversely, the degree of massification of culture – has more to do with the market structures and organizational environment of specific industries than with strongly felt demand of either the masses or their masters for certain kinds of homogeneous cultural materials" (DiMaggio 1977: 448). In order to empirically analyze the milieu that shape the symbolic products, Peterson suggested a set of facets – technology, law and regulation, industry structure, organization structure, occupational careers, and market (Peterson 1982, 1985; Peterson and Anand 2004)[37] "which alone, or in combination,

[37] Initially, Peterson (1982) proposed five facets that are considered to constrain or facilitate the production of popular culture – technology, law, market, organizational structure, and occupational careers. However,

often constrain or facilitate the evolution of culture" (Peterson 1982: 143). These facets constitute institutional and organizational constraints that may explain changes in the symbolic products (Peterson and Anand 2004). Peterson and Anand (2004) used these facets to theorize within the production of culture perspective in a wide range of research.

Among other things, the production of culture perspective has been concerned with how a specific industry structure impacts the diversity of cultural products. In this research, some scholars pay great attention to the impact of market concentration and media ownership. There are competing accounts on this issue. One line of this research emphasizes the negative effect of concentration on diversity of media products, while another stresses the mitigated effect of concentration. Still another underscores the positive effect of concentration on diversity.

The Negative Effect of Market Concentration

In a pioneering study, Peterson and Berger (1975, 1996) argued that high market concentration among producers of popular music leads to homogeneity, while a competitive market leads to diversity. They considered two types of diversity; the sheer number of records and performers reaching the top ten weekly charts and the number of new and established artists who made the top ten weekly charts, both in the U.S. popular music single recording market over the period 1948-1973. By conducting a longitudinal analysis, Peterson and Berger (1975) showed that market concentration and diversity in popular music industry is inversely related: the measures associated with diversity (i.e., number of songs and number of new artists) increased at times when market

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when he analyzed the publishing industry (Peterson 1985), industry structure had been added to the previous five.

concentration decreased. Furthermore, they found that the effect of concentration was embedded in a cyclical pattern: long-term trends of high concentration and low diversity are periodically punctuated by relatively short periods of low concentration and high diversity. According to Peterson and Berger, long periods of concentration can occur as large firms (i.e., majors) hinder small firms (i.e., independents) by expropriating artistic talent and distribution channels. Because there are no competitors, these large firms rely on the types of musical products that produced success in the past rather than responding to the shifting demands of current consumers. On the other hands, short periods of competition can occur when unique historical factors – in their study, radio's shift from a national orientation to local markets – produce a gap in the majors' control. When given such chances, small firms exploit these factors in order to gain access to a wide consumer audience. Once these small firms gain attention from consumers whose tastes are not served by the majors, a period of competition and diversity is initiated and continues until large firms absorb this new challenge. Many other scholars have studied the relationship between concentration and diversity in media industry since Peterson and Berger (1975) presented their study on the production of popular culture.

For example, Bielby and Bielby (2003) examined the relationship between market concentration and diversity of prime-time network program suppliers in the broadcast television industry. They firstly focused on the FCC's ownership regulation, the Financial Interests and Syndication Rules (hereafter, Fin-Syn rules). The Fin-Syn Rules were established by the FCC in the early 1970 to prevent the Big Three broadcast television networks (ABC, CBS, and NBC) from having a financial interest in programming that they broadcast or having a stake in the syndication of programming subsequent to its

airing. In so doing, regulators expected “to promote diversity and competition in the supply of prime-time entertainment programming and to forestall the kind of vertical integration that dominated the film industry during the studio era” (Bielby and Bielby 2003: 574). Bielby and Bielby (2003) first analyzed the rhetorical claims used by proponents and opponents of the Fin-Syn Rules to argue their positions when the FCC removed the rules, and then Bielby and Bielby (2003) examined the impact of deregulation on broadcast networks’ reliance upon outside programming suppliers for new prime-time series. When analyzing the rhetorical claims, they focused on the terms of the debate over market concentration and programming diversity and whether the elimination of the Fin-Syn Rules has shifted the balance of market power among suppliers of prime-time network programming. They found that both parties in the debate argued their position by invoking the logic of a market concentration model. While independent producers employed the rhetorical strategies emphasizing the impact of market concentration on homogeneity of cultural products, television networks executives insisted that they would need to continue seeking new series from diverse sources in order to remain competitive; therefore, deregulation would have no harmful impact on independent producers. However, Bielby and Bielby (2003) found that, among other things, the range of programming sources such as independent production companies declined as the four major broadcast television networks accounted for a greater share of programming after the Fin-Syn Rules were eliminated. In other words, they found that the demise of the Fin-Syn Rules has resulted in a shift in market power among suppliers of prime-time network programming from the major studios and smaller independent production companies to the television networks.

Kunz (2009) confirmed the impact of the expiration of the Fin-Syn Rules on prime-time television program ownership. According to Kunz, the elimination of the rules accelerated joint control of studio and network control, and they resulted in high concentration in prime-time program ownership. Specifically, he found that after one year from the repeal of the rules, the big three broadcast television networks either produced in-house or had financial interests in about half of all prime-time programming. In the 2004-2005 through 2009-2010 seasons, the six major media conglomerates – Disney, National Amusements (Viacom and CBS), NBC Universal, News Corp., Sony, and Time Warner – held a financial interest in at least 85.9 percent of programs on the debut prime-time fall schedules each season. As a result, independent producers were largely left out of this closed system of production. Both of the studies on the broadcast television prime-time marketplace (i.e., Bielby and Bielby 2003; Kunz 2009) demonstrated that the increasing market concentration among media companies, precipitated by deregulation of ownership rules, can reduce the diversity of programming in terms of the range of production companies.

The Mitigated Effect of Concentration – The New Institutionalism

Influenced by Peterson and Berger (1975)'s pioneering work of the production of popular music, many scholars have elaborated the relationship between market concentration and diversity of the music recordings. Some scholars pay attention to the fact that the nature of firms does not remain uniform and that dominant firms may pursue different logics at different times (Lopes 1992; Dowd and Blyler 2002; Dowd 2004; Dowd *et al*. 2005).

For example, Lopes (1992) revisited the same question that Peterson and Berger (1975) had. In line with Peterson and Berger's (1975) argument, he observed increasing

market concentration between 1969 and 1990, however he found little evidence that musical diversity had suffered. Lopes explained that is because the system of production in the music industry was changed from what he characterized a “closed” system to an “open” system. He argued that diversity in popular music in a period of high market concentration depended on the system of production used by major record companies. In a closed system, major companies used a limited number of channels to produce and distribute the music that dominated the charts. In an open system, on the other hand, the major record companies control large scale manufacturing and distribution but draw on semiautonomous independent producers to maintain the vitality of the popular music market. Lopes (1992) pointed out that the open system is the key to the continued diversity within the industry despite high market concentration.

Dowd (2004) provided a more elaborated and comprehensive argument in his study of the U.S. mainstream recording market from 1940 to 1990 by adjudicating between the cyclical account suggested by Peterson and Berger (1975) and the open system account suggested by Lopes (1992). By using time series data from weekly *Billboard* mainstream charts, he examined factors affecting the diversity of U.S. music recording industry. He measured diversity in two ways; the number of new acts each quarter year, and the number of new firms in a given quarter year. In order to gauge the level of concentration, he employed a Herfindahl index measuring total number of firms and their respective market shares. The results show that the open system account is upheld: when centralized production reigns (1940s - early 1950s), high concentration reduces diversity in terms of the number of new acts and new firms. On the other hand, when decentralized production, which was measured by the quarterly number of labels

that had hits relative to number of recording firms that had hits, increases (mid-1950s onward), high concentration has less of a negative effect on diversity, until it no longer has any effect. This mitigated effect of concentration on diversity persists despite controlling for numerous ecological and historical variables. From this result, Dowd (2004) argued that, in the periods when firms adopted the logic of centralized production, Peterson and Berger (1975)'s argument was right. In other words, when majors relied on an extensive bureaucracy and sought to restrain the success of independents, then this led to high levels of concentration and to reduced diversity in the mainstream market. However afterwards, dominant firms adopted the logic of decentralized production. The majors adopted various strategies, such as establishing a host of semi-autonomous divisions and pursuing contractual alliances with numerous independents. By doing so, the majors were organizationally prepared for addressing changing demand. The successful pursuit of this logic led to high concentration but not to low diversity (Dowd *et al*. 2005). Thus, these studies suggest that the relationship between market concentration and diversity of media products is not simply linear. Other factors, in particular the logic of production that dominant companies in the industry adopted, have a significant effect on the way that market concentration affects diversity.

The Positive Effect of Concentration – Resource Partitioning

As described above, Peterson and Berger (1975) argued that increasing market concentration reduces diversity of cultural products. Some empirical studies in organization studies, however, have shown that diversity can increase at the same time with high level of concentration within the same market. Carroll (1985) proposed resource partitioning theory that addresses this seemingly ironic relationship between

market concentration and diversity: “under certain environmental and organizational situations, the increased dominance of large organizations in an industry will enhance the life chances of specialist organizations” (Carroll *et al*. 2002: 1).

Resource partitioning explains the dynamics of organizational populations in markets characterized by economies of scale[38], and it focuses on the fact that specialist organizations can proliferate at the same time as there is high market concentration among a few generalist organizations (Carroll *et al*. 2002). According to Carroll, organizations initially attempt to find a viable position within the market by targeting their products to various resource segments; large generalist organizations choose targets composed of heterogeneous segments while small specialist organizations choose narrow homogeneous targets (Carroll 1985; Carroll *et al*. 2002). Therefore, generalists and specialists do not compete directly with each other because they rely on different segments of resources. Large generalist organizations compete with other large generalist organizations to occupy the center of the market where they can exercise economies of scale. When market concentration is low, numerous generalists are competing with each other for a wide range of resources. As a result, there is little space for specialists in the marketplace. As competition among generalist organizations intensify, weaker generalists fail. In other words, the mortality rate of generalist organizations also increases as the level of concentration increases. As a result, a few large generalists remain and they get larger by absorbing resources left by the failures of other generalists. At the same time, those few winning generalists leave some resource space in the periphery of the market unused. Because much of the peripheral space emerges as market concentration increases,

[38] An economy of scale exists when one large firm can supply a product at lower cost than can a combination of small firm (Carroll 1985: 1263).

greater numbers of small specialist organizations, which address particular demands not covered by competing generalist organizations, can enter the peripheral resource space of the market. In short, high market concentration caused by competition among large generalist organizations leads to high mortality rates of large generalist organizations and to proliferation of small specialist organizations.

Resource partitioning theory was initially developed in the context of newspapers publishing industry (Carroll 1985) and was used to analyze the developments in other various industries including media industry (e.g., Carroll and Swaminathan 1992, 1993; Boone *et al*. 2000; Dobrev 2000; Mezias and Mezias 2000; Boone *et al*. 2009). In his study on the U.S. newspapers from 1800 to 1975, Carroll (1985) demonstrated that many small, specialized newspaper firms (e.g., foreign language publication) have longer life spans when market concentration is high rather than low. Mezias and Mezias (2000) examined the viability of specialists in the U.S. film industry from 1912 to 1929. In their study, generalists were referred to any firms that were involved in both production and distribution activities and vertically integrated, while specialists were referred to any firms that only engaged in either production or distribution activities. They constructed their dataset of all commercial firms listed on the American Film Institute Catalog of Motion Pictures from 1912 to 1929. They examined whether concentration among large generalist firms were associated with higher rates of founding of specialist producers and specialist distributors. Mezias and Mezias found that increased concentration among generalists has a positive effect on the founding of specialist producers and specialist distributors. That is to say, the number of small specialist organizations – both producers and distributors – increases as the market concentration among large generalist

organization increases. Moreover, they found that the specialists firms more actively participated in the creation of new film genres, thereby benefitting content diversity (Mezias and Mezias 2000: 1526).

Most media industries are often dominated by a relatively small number of generalist firms that are very large in terms of their economic size as measured, for example, by total assets, and yearly sales or circulations (Von Kranenburg and Hogenbirk 2005). Resource partitioning theory suggests that when markets are highly concentrated and dominated by a few generalist media firms, opportunities for specialist media firms arise because more resource space is left for small specialist firms.

Concentration in the Cable Television Industry – Cable Ownership Limits Rules

The concerns that academics have with market concentration resonate with the concerns of those involved in policy and regulation. In general, policy makers regard concentration in media industries as undesirable because it seems to hurt democracy in that it hinders people from having access to a variety of views and voices created by diverse individuals and communities. For such a reason, monitoring, if not restraining, media concentration is central to the mission of the FCC, the federal agency that regulates communications by radio, television, satellite and cable. In this chapter, I take a close look at regulations that prevent excessive market concentration in the cable television industry – Cable ownership limits regulations.

As the cable television industry had rapidly expanded and developed in the 1980s, policy makers began to be concerned that the undue market power of large cable system operators might hinder the growth of cable programming networks, especially by exerting

bargaining clout in the programming acquisition market. As a result, in the Cable Consumer Protection and Competition Act of 1992, Congress required the FCC to establish a reasonable numerical limitation on the ownership of cable system operators. Following the direction, the FCC promulgated the Cable Ownership Limits Rules in 1993. In the following part, I describe briefly cable ownership limits rules before and after the enactment of the 1992 Cable Consumer Protection and Competition Act.

Before the 1992 Cable Act

The FCC had been concerned with the adverse effects of cable system concentration long before Congress enacted the Cable Consumer Protection and Competition Act in 1992 (Kang 2009). In 1968, the FCC issued a Notice of Proposed Rule Making and Notice of Inquiry, and it proposed rulemaking on the multiple ownership of cable system that "would limit the total number of systems on a nationwide basis, based on the number of subscribers, the size of the communities, and the regional concentration" (FCC 1968: 417, 426, as in Kang 2009). At the time, the FCC's proposed rulemaking received fierce opposition from the industry (Kang 2009). For example, the National Cable Television Association (NCTA) asserted that the rule making should be deferred until the largest cable system operators cover as many homes as are reached by the affiliates of broadcast television networks such as ABC and CBS (Kang 2009).

The FCC, however, later issued another Notice of Proposed Rulemaking and Notice of Inquiry (FCC 1970, hereafter the 1970 Notice). In the 1970 Notice, the FCC argued that it would be better to prevent problems that might be caused by large cable system operators than wait until those problems would be encountered. The 1970 Notice proposed that "No CATV system…shall be permitted to carry the signal of any television

broadcast station if such system directly or indirectly owns, operates, controls, or has an interest in more than 50 CATV systems…" (FCC 1970: 836-837). In addition, the FCC proposed that "No CATV system…shall be permitted to carry the signal of any television broadcast station if such system directly or indirectly owns, operates, controls, or has an interest in, serves more than 200,000 subscribers" (FCC 1970: 837). The proposed rules were not directly limiting the size of cable system operators; they proposed simply not to allow a cable system operator from carrying the signals of broadcast television stations if the cable system operator has more than 50 cable systems or 200,000 subscribers. This is because the FCC, at the time, did not have statutory authority to regulate the cable television industry unless the matter is clearly related to the terrestrial broadcasting industry over which the FCC had its jurisdiction (Parsons 2003; Kang 2009). In effect, therefore, a cable system operator could exceed those limits if that cable system does not carry the signals of broadcast television stations.

Additionally, note that the FCC did not provide sound explanation on why it chose the specific levels of limitations when it proposed those rules – 50 cable systems or 200,000 subscribers. In other words, the FCC's rationale for those limits was questionable. As will be shown later, the FCC sometimes lays out no clear justification for enacting such limits regarding the media ownership. As a result, judges often require the FCC to provide concrete research and rationale to justify such limits when such numbers are challenged in court.

After the 1992 Cable Act

The cable television industry had grown rapidly since the Cable Communication Act largely deregulated the industry in 1984, as seen in Chapter Three. As cable penetration

(that is, the percentage of homes passed that subscribe to cable) levels soared, so did cable subscriber rates. The latter led to the rage of customers and politicians and, thereby, finally led to passage of the Cable Consumer Protection Act of 1992. At the time, Congress and the FCC started being concerned about the increasing market power of the large multiple cable system operators. Among other things, they were concerned about the possibility that horizontally concentrated and vertically integrated cable systems would unfairly impede the growth of cable programming networks by exerting their excessive market power in the programming acquisition market (Waterman and Weiss 1997). In other words, Congress believed that large multiple cable companies "could discourage entry of new programming services, restrict competition, impact adversely on diversity, and have other undesirable effects on program quality and viewer satisfaction" (H. R. Rep. No. 102-628 at 43, 1992). In this circumstance, Congress enacted the Cable Television Consumer Protection and Competition Act (Public Law 102-385) in October 1992. In this 1992 Act, Congress amended the Communications Act of 1934 to address anticompetitive effect of cable system concentration. In order to do so, a new subsection, Section 11(c) of the 1992 Cable Act was added to Section 613(f)(1) to the 1934 Communication Act.

> SEC. 11. LIMITATIONS ON OWNERSHIP, CONTROL, AND UTILIZATION
>
> (f)(1) in order to enhance effective competition, the Commission shall, within one year after the date of enactment of the Cable Television Consumer Protection and Competition Act of 1992, conduct a proceeding –
>
> > (A) to prescribe rules and regulations establishing reasonable limits on the number of cable subscribers a person is authorized to reach through cable systems owner by such person, or in which such person has an attributable interest.

> (B) to prescribe rules and regulations establishing reasonable limits on the number of channels on a cable system that can be occupied by a video programmer in which a cable operator has an attributable interest.

Congress also asked the FCC to consider seven public interest objectives in prescribing the rules and regulations. These public interest objectives are as follows:

> (A) ensure that no cable operator or group of cable operators can unfairly impede, either because of the size of any individual operator or because of joint actions by a group of operators of sufficient size, the flow of video programming from the video programmer to the consumer;
>
> (B) ensure that cable operators affiliated with video programmers do not favor such programmers in determining carriage on their cable systems or do not unreasonably restrict the flow of the video programming of such programmers to other video distributors;
>
> (C) take particular account of the market structure, ownership patterns, and other relationships of the cable television industry, including the nature and market power of the local franchise, the joint ownership of cable systems and video programmers, and the various types of non-equity controlling interests;
>
> (D) account for any efficiencies and other benefits that might be gained through increased ownership or control;
>
> (E) make such rules and regulations reflect the dynamic nature of the communications marketplace;
>
> (F) not impose limitations which would bar cable operators from serving previously unserved rural areas; and;
>
> (G) not impose limitations which would impair the development of diverse and high quality video programming."
>
> (Sec. 11(c)(f)(2) The Cable Television Consumer Protection and Competition Act of 1992)

Following the direction of Congress, and through a series of rule-making processes, the FCC promulgated regulations in 1993, including national subscriber limit that prohibits a cable system operator from serving more than 30 percent of national cable television

subscribers (horizontal limit). Also, in order to prevent vertically integrated cable systems from favoring their affiliate programmers over non-affiliated program providers, the FCC imposed a 40 percent of channel occupancy limit that restricts the number of channels that can be occupied by video programmers affiliated with the particular cable system (vertical limit).

In terms of their choice of 30 percent of national subscriber limit, the FCC concluded that "a 30 percent ownership limit is generally appropriate to prevent the nation's largest MSOs[39] from gaining enhanced leverage from increased horizontal concentration. Nonetheless, it also ensures that the majority of MSOs continue to expand and benefit from the economies of scale necessary to encourage investment in new video programming services and the deployment of advanced cable technologies" (FCC 1993: 8577, as in Waterman and Weiss 1997: 153)[40]. Regarding the vertical limit (i.e., channel occupancy limit), the FCC defined vertical integration as common ownership of both cable systems and cable programming networks, channels, services of production companies. All interests of 5 percent or greater are recognized as common ownership unless there is no possibility of such interests exerting control or influence over the cable

[39] A Multiple system operator (MSO) is an operator of multiple cable television systems. A cable system in the United States, by FCC definition, is a facility serving a single community or a distinct governmental entity, each with its own franchise agreement with the cable company.

[40] In the process of rule-making, the FCC asked commentators to suggest reasonable levels of ownership limit on cable systems; "whether a limit in the range of 25% to 35% of home passed would be reasonable or whether some other percentage would be more appropriate" (FCC 1992: 217, as in Kang 2009). Several cable commentators, such as Time Warner, TCI, and NCTA (National Cable Television Association) argued that a 40 percent limit is reasonable while several non-cable commentators such as MPAA (Motion Picture Association of America) and INTV suggested more strict limits, 25 percent and 10 percent of subscriber limit, respectively (*ibid*). The FCC initially concluded to adopt a 25 percent limit, but changed it to 30 percent. The FCC argued that, at the time, the largest cable system operator, TCI had an interest in cable system operators passing about 23.8 million homes, which is equivalent to 27 percent of home passed nationwide, and the FCC found that it has no abusive market power. Therefore, the FCC concluded that 30 percent is the appropriate level of cable ownership limits (Kang 2009).

system (Parsons and Frieden 1998). However, this vertical ownership restriction applied only to the first seventy five channels on a cable systems; capacity beyond seventy five channels was not regulated (*ibid*).

In 1999, the FCC issued a Third Report and Order and amended its thirty percent ownership limit to reflect the market changes that came about due to the development of new technologies for delivering television video programming. While deciding to maintain its rules on cable ownership, the FCC eased the limits. The FCC adopted a new way of calculating company's share of total cable households. In this Third Report and Order (FCC 1999), the FCC determined to use actual subscriber numbers, instead of cable home passed, in order to reflect the market power of a multiple system operator more accurately. In addition, considering that other non-cable providers such as Direct Broadcast Satellite (DBS) had a growing impact on the cable television market, the FCC determined to take into account the number of all multiple video programming distribution (MVPD) subscribers, rather than cable subscribers alone. Therefore, no cable operator can serve more than 30 percent of all multichannel video programming subscribers nationwide through multichannel video programming distributors owned by such operator or in which such cable operator holds an attributable interest. By limiting the cable system ownership, the FCC seeks not only to prevent the concentration of local cable systems but also to limit the ability of multiple system operators to exercise undue influence in the program acquisition market.

However, this 30 percent subscriber limit had been reviewed in the court several times because many cable system operators believed that the FCC's argument violated their First Amendment rights. Moreover, they argued that the FCC's argument behind the

limit was insufficient to explain why the level of horizontal limit should be set at 30 percent. Cable system operators argued that the FCC failed to prove a cable system operator with more than 30 percent national market share is sufficiently large to exercise its market power and hinder the growth of new cable programming networks.

Immediately after Congress enacted the 1992 Cable Act, large cable system operators started to challenge the legality of the statue. In court case of *Daniels Cablevision, Inc. v. United States* (835 F. Supp. 1 [1993]), cable system operators Daniels Cablevision and Time Warner challenged the constitutionality of Section 11(c) of the 1992 Cable Act by arguing that it directly interferes with the operators' ability to speak to as large an audience of their choice as possible; in other words, it violates their First Amendment rights. The U.S. District Court for the District of Columbia upheld the arguments of cable system operators and struck down the subscriber limits but ruled that the channel occupancy provision was constitutional. The federal government immediately appealed against this court decision, and brought the case to the appellate court while postponing it taking effect until final decision would be made by the Court.

In 2000, the U.S. Court of Appeals for the D.C. Circuit partially reversed the lower court's ruling (i.e., *Daniels Cablevision v. U.S.* in 1993) and ruled that the FCC's cable system ownership limits are content-neutral speech limit and, therefore, do not conflict with the First Amendment. The Appeals Court reversed as to the national subscriber limits provision, holding that, having determined that concentration had grown dramatically in the cable industry, "Congress reasonably concluded that concentration in the cable industry could threaten diversity of information available to public and could block entry of new cable programmers" (*Time Warner Entertainment Co. I v. U.S.* 211

F.3d 1313 [2000]). Moreover, the Appeals Court affirmed channel occupancy limit, holding that "Congress had a reasonable concern in wanting to prevent cable operators from favoring affiliated programmers and possibly excluding others" (*ibid*). In other words, the Court of Appeals affirmed the constitutionality of the ownership clause of the 1992 Cable Act. Furthermore, it ruled that the FCC does indeed have the authority to promulgate rules that place limits on cable ownership.

A year later, however, in the court case of *Time Warner Entertainment Co. II v. FCC & U.S.* (240 F.3d 1126 [2001]), a federal appeals court reversed and remanded both national subscriber limit and channel occupancy limit. The Appeals Court decided that the FCC's cable ownership cap is in excess of its statutory authority, and the FCC's economic arguments behind the limits failed to justify why such limits are appropriate level of ownership limits. Regarding 30 percent of national subscriber limit (horizontal limit), the Appeals Court found that the FCC did not show that number was minimum needed to assure that new programmers could get adequate carriage. Regarding the channel occupancy limit (vertical limit), the Appeals Court found that the FCC had failed to justify its vertical limit with record evidence, and it had failed adequately to consider the benefits and harms of vertical integration or current MVPD market conditions in its analysis. The court said that it "seems to have plucked the 40 percent limit out of thin air" (*Time Warner Entertainment Co. II v. FCC & U.S.*, 240 F.3d 1126 [2001]). As a result, a federal appeals court struck down the FCC's implementation of the clause and sent the rules back to the FCC for revision.

Although the Appeal Court reversed and remanded the FCC's cable system ownership limits, Section 11(c) of the 1992 Cable Act was still valid because the courts

have supported the legality of the statues in previous court cases. Therefore, the FCC still had to fulfill congressional obligation to set numerical limits on the cable system ownership. In 2008, the FCC released an Order to establish the 30 percent national subscriber limit using more recent and empirical data to reach this result. Also, the FCC issued a Further Notice of Proposed Rulemaking in 2008, seeking comments on the appropriate vertical ownership limit, including the appropriate method for determining the limit and how to define the relevant programming and distribution markets. However, just a few months after the resurrection of cable ownership limit, Comcast took the FCC to the court over its 30 percent national subscriber limit (*Comcast Corp. v. FCC*, 579 F.3d 1 [2009]). In this court case, the Court found that the FCC once again failed to demonstrate that allowing a cable operator to serve more than 30 percent of all cable subscribers would impede the growth of cable programming networks. Therefore, the Court finally vacated the horizontal ownership limit without remand.

Figure 4-1 illustrates important legal events related cable ownership limit rules in chronological order. As we have seen so far, cable ownership limits rules were not legally in effect; rather, they created uncertainty in the cable television industry. However, it is an undeniable fact that the rules were clearly there as possibilities for those in the cable television industry. That is also why there had been the debate over cable ownership concentration and deregulation between the policy makers and the industry.

Data and Methods

Having described policy concerns with ownership limits and concentration, I now empirically examine the rhetoric found in the ensuing debate (inspired by Bielby and

Bielby 2003) and the implications for diversity. The data for this chapter come from multiple sources. First, to acquire information about FCC's regulations and rules related to cable ownership limits (e.g., the Cable Television Consumer Protection and Competition Act of 1992), I retrieved various documents from FCC's official website. For the records of the Court's decisions involving cable companies, I used LexisNexis Academic database of legal cases. From these sources, I established ground information for the analysis.

There are two parts to the analysis in this chapter. First, I analyze the rhetorical strategies used by two parties to the debate over cable ownership limits rules, showing how they invoke the logic of market concentration to argue their positions. The data for this analysis are therefore qualitative, taken from industry news publications such as Communication Daily, Broadcasting & Cable, Warren's Cable Regulation Monitor, and Daily Variety, and from major national newspapers, including New York Times and Washington Post. I identified relevant news articles by searching the Lexis-Nexis Academic news database for all news containing the term "cable ownership limit". A search produced a population of 197 articles from January 1, 1992 to December 31, 2001.

Figure 4-2 graphs the number of newspaper articles dealing with the issue of cable ownership limits from 1992, when Congress enacted the 1992 Cable Act, to 2010. As Figure 4-2 shows, the number of newspaper articles containing "cable ownership limit" reached its peak in 2001 when the Court of Appeals reversed the rules in the court case of *Time Warner II* against *FCC* and *the U.S.* After 2001, the number of news articles substantially declined. Therefore, it is reasonable to see that the FCC's cable ownership limits rules had been influential during those years the rules were in existence. Therefore,

I restrict time span for this analysis from 1992, when Congress mandated the FCC to establish reasonable numerical limits on cable ownership in the 1992 Act, to 2001, when the Court of Appeals reversed the rules, at the same time, when debate over the rules marked its culmination. By analyzing those news articles, I inductively develop a classification of common themes that characterized the public positions taken by the parties to the debate on cable ownership limits rules. I examine the rhetorical strategies adopted by deregulation advocates, and then I analyze the strategies adopted by deregulation opponents.

Next, I examine trends of market concentration in the cable television industry. It requires quantitative and longitudinal data. To collect data about cable system operators, I used the Television and Cable Factbook (Warren Publishing, 1982-2010) and Standard and Poor's Industry Surveys (1982-2010). On one hand, the Television and Cable Factbook has reported the annual number of cable system operators from the early 1950s to present. On the other hand, Standard and Poor's Industry Surveys (1982-2010) provide the number of basic subscribers of Top 10 cable system operators in a given year. These data sources allowed me to construct Four-firm concentration ratios (CR_4) that reflects the proportion of total market share accruing to the largest four firms. It ranges between 0 to 100 percent, where 0 percent indicates perfect competition and 100 percent indicates an extremely concentrated oligopoly. Similar to Chapter Three, I used the annual number of basic subscribers of the four largest cable system operators over the total number of basic subscribers in a given year to show the level of concentration among cable system operators.

For cable programming networks, the primary data source was SNL Kagan, media and communication sector of SNL Financial, LLC. SNL Kagan has provided source for in-depth analysis and proprietary data on the media and communication industry, both in the aggregate and for individual companies since 1989. Regarding cable programming networks, they provide detailed information on more than 270 cable networks, including basic cable networks, premium networks, and regional sports networks. It should be noted that, however, SNL Kagan does not provide information on all cable networks that exist in a given year. It does not cover the networks having less than 1 million subscribers. Moreover, it does not report certain types of cable programming networks; local cable networks other than regional sports networks, shopping networks, networks with adult contents, or networks specific to one operator (typically, owned and operated networks).

The data that SNL Kagan provides can be categorized into two types. One is cable networks profiles, and the other is financial data related to the performance of those cable networks. Cable network profiles present description of the network, its status (i.e., On Air/Off Air), genre, language, and ownership, as well as launch year of the network. In particular, SNL Kagan identifies a genre of each cable network in their profiles. According to their classification of genre, cable networks can be classified into one of 10 different genres; Arts & Entertainment, Family & Kids, Film, General/Variety, International/Ethnic/Foreign language, Music, News, Niche, Sports, and Women's. On the other hand, data related to the performance of cable networks include number of subscribers, revenues (e.g., gross advertising revenue, net operating revenue, etc.) and expenses (e.g., programming expenses) as well as cash flow.

With performance information of each cable network and identification of genre in which each cable network engaged, SNL Kagan data enabled me to measure the level of concentration both in total and in a particular genre-market in a given year. Specifically, I employed Herfindahl indices for both. The Herfindahl index (HI) assesses the total number of firms and their respective market shares. It is proportional to the average market share, weighted by market share. Its formula is given by:

$$\text{Herfindahl Index} = \sum_{i=1}^{N} (Si)^2,$$

where S represents the percentage share of individual firm *i*, and *N* is the number of firms in the market. It is constrained to range from 0 to 1.0, moving from a perfectly competitive market to a monopoly. I constructed the Herfindahl indices to measure both concentration among genres (between genre-concentration) and concentration in each of ten genres (within genre-concentration). First, between genre-concentration indicates the extent to which cable networks in a certain genre represent the entire cable networks in ten different genres. It was calculated by summing the squared number of cable networks in a particular genre in a given year, which was divided by the total number of cable programming networks in that year. Second, within genre-concentration indicates the level of concentration among cable networks in a particular genre in a given year. For this, the Herfindahl index gauges the market share of cable networks in a given year based on cable networks' subscriber numbers reported. It was calculated by summing the squared number of subscribers for each one of cable programming networks in a particular genre in a given year, which was divided by the total number of subscribers for that genre in that year. For comparison, I also construct the Herfindahl index that represents the level

of concentration among the entire cable programming networks in the data, regardless of genres[41].

From these data sources, I examine trends of industry concentration in cable television industry. In particular, the focus is on twofold: on the one hand, I examine whether the cable ownership limits rules have substantial effects on cable television industry. On the other hand, I assess the impact of concentration of cable system operators on diversity of cable programming networks.

Framing the Debate

The debate over the issue of cable ownership limits began after the FCC announced the rules in 1993. However, it started in earnest when AT&T sought to merge with MediaOne Group in 1999. As the Telecommunications Act of 1996 allowed cross-ownership between cable companies and telephone companies (telcos), the cable industry started to face new competition from the telcos. Increasing competition from outside of cable industry promoted merger and acquisition because it helps operating economies of scale, as well as provides sufficient cash flows generation for the company to compete effectively (SPIS 2002). Moreover, the development of new technologies, such as wireless and fiber-optic also spurred consolidation, because only the larger players can afford to invest in them (*ibid*).

The most remarkable example of merger was the merger of AT&T with Tele-Communications Inc. (TCI)[42]. In 1999, AT&T, the nation's largest provider of telephone

[41] The Herfindahl index for cable programming networks in total was calculated as follows: regardless of genre, summing the squared number of subscribers of the cable programming networks, which was divided by the total number of subscribers in a given year.

service, acquired TCI, second to Time Warner among cable system operators at the time. This marked the first major merger between telcos and cable companies since deregulation, and it created the nation's largest cable operator. After acquired TCI, AT&T made a bid for MediaOne Group, Inc. in the same year. On July 7 and 15, 1999, AT&T and MediaOne requested FCC approval of the transfer of control to AT&T of licenses and authorizations held by subsidiaries of MediaOne and entities controlled by MediaOne (FCC 2001). This transfer of control would take place as the result of a merger of AT&T and MediaOne, with AT&T becoming the parent company of MediaOne.

Although there had been the debate between consumer unions supporting cable ownership limits rules and cable system operators opposing the rules before, serious debates over the rules emerged around the AT&T's merger attempt with MediaOne. Because AT&T already owned big stakes in other cable systems (e.g., TCI), it would reach about 43 percent of total market if it merged with MediaOne. Moreover, in addition to AT&T's 10 percent stake in Time Warner itself, MediaOne owned 25.5 percent of Time Warner. With those systems thrown into the mix, people anticipated that AT&T would have a decisive effect on decisions affecting about 60 percent of the nation if the merger was completed (USA Today, April 26, 1999). In this circumstance, cable system operators, including AT&T, the FCC Commissioners, and consumer unions became involved in a heated debate over the issue of cable ownership rules.

The Opponents to the Cable Ownership Rules: Competition

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[42] For more information about the merger of AT&T and TCI, see FCC's AT&T-TCI Merger Page which is available at http://transition.fcc.gov/mb/att_m1.html.

Many of those who spoke on behalf of the cable system operators consistently argued that the FCC's cable ownership rules are outdated and not relevant to the current market situation. They argued that, unlike 1992 when the rules were put into place, the current market for video becomes highly competitive not only because the number of cable companies increases but also because they face competition from Direct Broadcast Satellite (DBS) and broadband. National Cable Television Association and a cable system operator, Time Warner, claimed as follows:

> Horizontal concentration limits are "regulation from a prior era" when there was no significant competition to cable, NCTA said. Assn. said FCC should rely on antitrust enforcement, consider actual subscribers rather than homes passed, allow MSOs' internal growth to cause expansion beyond limit….. Time Warner said "time is ripe" for FCC to eliminate or ease ownership rules and attribution standards, given the evidence of an increasingly competitive independent video on programming industry.
>
> (Communications Daily, August 18, 1998)

> Four out of 5 new [pay-TV] customers now go to satellite, NCTA Senior Vp-Law & Public Policy Dan Brenner said: "We face lots of competition." Speaking at Schwab Capital Markets conference in Washington Fri., Brenner said trend supported cable industry's argument that it should be deregulated further by government. "I think it's high time for the Commission to conclude the market for video is a competitive one," he said, noting that cable operators had spent $36 billion to upgrade their plant over last 5 years in response to competition.
>
> (Communications Daily, September 12, 2000)

The argument that competition rendered the rules outdated was not just from the cable system operators or the people who involved in the industry. This competition theme was voiced in arguments put forth by some politicians.

> Ten members of House Commerce Committee, led by Rep. Oxley (R-O.), sent letter to FCC Sept. 24 asking Commission to relax cable ownership limits. They said market has changed since rules were put into place in 1992, citing expansion of DBS and potential for broadband, as well as cable's role in providing competition to telcos.
>
> (Communications Daily, October 1, 1999)

While criticizing the cable ownership limits rules as obsolete, cable system operators, specifically AT&T began campaigning and lobbying for FCC to modify cable ownership

rules. This demonstrated that, even though the rules were not being legally in effect, it was clear that the cable system operators were concerned about the existence of the rules. In other words, the threat of regulation can have an impact, as well as the actual regulation itself.

> …..Armstrong (C. Michael Armstrong, Chairman and CEO of AT&T) continued to express confidence that FCC wouldn't find AT&T was exceeding cable ownership limits, adding that he "will work with the FCC" and already has had discussions with agency. Commission has proposed limiting any operator to reaching 30% of homes. "We think the 30% should be moved [and] will be moved," Armstrong said.
>
> (Communications Daily, April 26, 1999)

In order to make the FCC to revise the cable ownership rules, cable system operators had to indicate the flaws of the rules. They pointed out that the rules contravene the Telecommunications Act of 1996. The Telecommunications Act (1996) intended to promote local phone competition through convergence of industries.

> One of the problems with the current rules [capping MSOs at 30% of U.S. homes] is that they look at a world of video programming as a world apart from all other communications, Washington attorney said. Common theme among critics was that with Telecom Act's focus on achieving local competition for telephony, hampering best means for that competition through cable ownership restrictions would be counterproductive.
>
> (Television Digest, May 3, 1999)

Therefore, cable system operators insisted that in order to meet the purpose of the 1996 Act, some changes in proposed rules would be necessary for them to be a local exchange competitor in a meaningful way.

Even after the FCC eased the rules by changing the way how to calculate market share from cable home passed to number of actual MVPD subscribers in 1999, and thereby enabled AT&T to acquire MediaOne, AT&T continuously argued that the 30 percent cable ownership limits were unfair to cable companies when considering the FCC's treatment of others.

> AT&T Gen. Counsel James Cicconi called number "arbitrary," and NCTA Pres. Robert Sachs said that in view of Commission's approval day earlier of merger of SBC and Ameritech, "who together will control one-third of local telephone lines in the U.S.," and higher 35% broadcast ownership cap, "continuation of the 30% cable ownership cap does not seem justified." ….. Armstrong said that if court doesn't overturn cap, he "probably will be going to convince the Commission or through other vehicles" to change it. He said more appropriate figure would be 40%.
>
> (Television Digest, October 11, 1999)

Critiques on the rules come not only from the industry, but also from the FCC. Harold Furchtgott-Roth, the commissioner, criticized that the cable ownership rules do not correctly reflect the goal of the 1992 Cable Act. Moreover, he pointed out that there is no clear evidence for why the level of horizontal limit should be set at 30 percent.

> Furchtgott-Roth said continuation of 30% cap represents "fundamentally flawed" reading of Cable Act, which he said requires that operators be barred from exercising monopoly power, not to "guarantee the success of new networks." … Furchtgott-Roth said there's "no empirical evidence" that size of MSOs is linked directly to inability of new programmers to get carriage, especially since "expansion of channels" can "mitigate the interest and incentive to control programming." He said he would have set caps "well beyond" 30%.
>
> (Television Digest, October 11, 1999)

Although AT&T continuously argued against the rules, it at the same time emphasized that it would comply with the rules, with the key being having MediaOne's 25.5 percent interest in Time Warner Entertainment counted under new exemption for partners that do not influence programming decisions. As part of an effort to acquire government approval of its pending purchase of MediaOne Group, AT&T proposed "safeguards" for limiting its influence over video programming market in April 2000.

In filing with FCC, AT&T listed steps it would take in order to avoid involvement in programming operations of Time Warner Entertainment, which it would acquire as a result of its merger with MediaOne, as well as Liberty Media and Rainbow Media holdings operations, in which it already held sizable interests. AT&T also proposed series

of compliance moves including appointment of corporate compliance officer and independent auditor, in addition to penalties ($100,000) and enforcement measures that FCC could impose if the company violated those safeguards. Moreover, AT&T suggested steps that FCC should take if they do not comply with FCC's cable ownership limits; they proposed transferring cable systems and video programming assets in violation of ownership limits into irrevocable trust for ultimate sale.

Despite all the criticism of the rules and AT&T's efforts, the Court of Appeal unanimously upheld the constitutionality of cable system and programming ownership limits on cable system operators on May 19, 2000 (*Time Warner I v. U.S.*). As a result, no company could control more than 30 percent of the MVPD market share. Also, the FCC could require cable companies to share their cable systems with other programmers and stations, rather than block out any other non-affiliate programming. AT&T did not take part in this court case, but it had filed suit with several other cable companies challenging the FCC's rationale for its cable ownership rules.

The merger that would most likely be affected by this decision was the deal between AT&T and MediaOne because the combined entity would reach way over 30 percent of the total market if the merger was approved. Nonetheless, the FCC decided to give a conditional approval to the AT&T's merger with MediaOne[43]. The conditions were placed in order to keep AT&T below the Commission's 30 percent limits. The FCC gave the companies a choice of which programming and cable subsidiaries and

[43] For more information about the merger of AT&T and MediaOne, see FCC's AT&T-MediaOne Merger Page which is available at http://transition.fcc.gov/mb/att_m1.html.

investments to sell to comply with its rule[44]. The FCC ordered AT&T to complete the divestitures within one year. Also, the FCC required AT&T to inform the FCC, within six months of completion of the merger, what interests it will divest to come into compliance with the FCC's horizontal ownership rule. At first, AT&T welcomed the FCC's decision by saying that FCC's action "helps fulfill Congress's goal of turning cable into a viable competitor to the local phone monopolies…" (Communications Daily, June 6, 2000). Also, they emphasized that the merger would be benefit to consumers in that it would provide a real choice and lower prices in local phone service, faster Internet access and better cable TV. However, AT&T soon argued that FCC should further loosen its revised cable ownership rules.

> AT&T said FCC should loosen its recently revised cable ownership rules so MSOs could control more than 30% of all cable and satellite households. AT&T, which repeatedly has criticized 30% cap and is seeking to overturn rules in court, contended that "arbitrary" limit especially made no sense when govt. allowed broadcast networks to reach up to 35% of TV homes.
>
> (Communications Daily, September 12, 2000)

Although the rules were opposed by the cable industry in general, they particularly affected AT&T because its acquisition of MediaOne pushed it over the cable ownership cap to about 42 percent. Accordingly, AT&T actively lobbied Congress and FCC to loosen cable ownership cap while criticizing that the rules unfairly restrict the growth of cable companies, especially market where other monopolists occupied.

> Speaking at Schwab Capital Markets conference in Washington Sept. 8, Cicconi (AT&T Gen. Counsel) argued that "arbitrary" 30% limit could force nation's largest MSO to sell less lucrative smaller and rural cable systems to comply with government's rules because it now was close to

[44] Specifically, the FCC required MSO to shed either MediaOne's 25.5 percent stake in Time Warner Entertainment, its Liberty Media and Rainbow Media programming interests or cable systems serving total of 9.7 million subscribers. Or, AT&T and MediaOne, which together have interests in 41.8 percent of the cable and satellite television markets, could shed 11.8 percent, or about 9.7 million subscribers, to lower the share of the market to 30 percent.

> cap, exacerbating digital divide. He also contended that it wasn't fair for cable operators to be so restricted when DBS, Baby Bell, wireless and other rivals weren't limited. "We're capped and the incumbent monopolist is not," he said, referring to Bells.
>
> (Warren's Cable Regulation Monitor, September 18, 2000)

In speech at National Press Club on February 7, 2001, AT&T chairman C. Michael Armstrong once again urged the elimination of the rules while strongly criticizing incumbent local exchange carriers' behavior.

> Five years after Congress passed the Telecom Act, consumers are still waiting for a competitive choice in local telephone service. And rather than make competition work, monopoly companies have been working to make competition disappear….. The Bells' monopoly power throws a dark shadow over the entire telecom industry…… So what can be done to help ensure a competitive marketplace? I would suggest three critical actions...… Second, abolish rules that keep competitors out of the market, rules like cable ownership limits. Companies that want to compete with monopolies shouldn't be under more constraints than the monopolies themselves.
>
> (Federal News Service, February 7, 2001)

The cable system operators, led by Time Warner and AT&T, continued their legal attack on federal ownership limits and channel occupancy restrictions. For example, oral argument took place as AT&T continued lobbying efforts in Congress and the executive branch to waive cable subscriber limits, so it could hold MediaOne without making any divestitures. Furthermore, AT&T chairman Armstrong asked President Clinton to support his company's drive to waive those limits, prompting immediate outcry from critics.

> In letter to Clinton Oct. 17, Armstrong argued that AT&T wasn't seeking change in cap itself, but in FCC's interpretation of cap. Armstrong said those rules would hamstring AT&T by unfairly preventing it from adding more cable systems and competing more vigorously in local phone market. He said rules also would impede "important public interest goals" and "create other perverse results," including exacerbating digital divide by possibly forcing AT&T to sell its less profitable systems. He argued that such rivals as BellSouth, DirecTV, SBC and Verizon "face no such limits."
>
> (Television Digest, October 23, 2000)

After the Appeals Court upheld the constitutionality of the rules on cable ownership limits, it took only one year for the situation to be completely changed. On March 2, 2001,

the Court of Appeals once again overturned the previous court decisions; it struck down regulations on cable ownership limits. The case had been brought by AOL Time Warner Inc.[45], and was later joined by AT&T Corp., the country's two largest cable providers. While the ruling upheld the constitutionality of the law that granted the FCC authority to impose limits, it struck down the limits themselves as unconstitutional and arbitrary. This was a major victory for the large cable system operators such as AT&T and AOL Time Warner.

As a result of the court decision, the FCC was pressured to suspend the deadline for AT&T to divest cable interest, which was the condition of its approval of AT&T's merger with MediaOne, not just from the industry but also from the commissioners who had opposed to the rules in general.

> In light of Appeals Court ruling on cable ownership limits, FCC ought to suspend deadline for AT&T to divest cable interests until agency decides how to respond to court, FCC Comr. Furchtgott-Roth said Fri. Action by U.S. Appeals Court, D.C., has left agency without 30% cable ownership cap, making it hard to force AT&T to comply with it, he told reporters at breakfast briefing. "It's impossible to compel a company to come into compliance with rules the court said are unconstitutional," he said. Court decision, Furchtgott-Roth said, "places in substantial doubt what happens to the AT&T merger conditions."
>
> (Communications Daily, March 12, 2001)

Consequently, the FCC freed the MediaOne deal compliance conditions, suspending two pending deadlines for the company to dispose of some key cable assets. The FCC, however, emphasized that it was not eliminating the condition, but only suspending the established benchmarks for compliance pending further consideration. In any case, AT&T welcomed that decision.

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[45] The FCC approved the merger between America Online, Inc. (AOL) and Time Warner Inc. in January 2001.

As the above excerpts from news articles show, competition is the central rhetorical theme found in arguments of opponents to the cable ownership limits. First, they argued that the rules are not relevant in current market environment because current market for video had become highly competitive. In a market where they confront competition not only from cable companies but also from other video programming delivery systems such as DBS and broadband, they argued that it was unfair that the government imposes restrictions only on cable companies. Second, they insisted that, as the Telecommunications Act (1996) intended to foster competition in the local market, the rules that keep competitors out of the market, such as cable ownership limits, should be removed in order for cable companies to be viable competitors to local exchange carriers dominating local telephone market. Moreover, they continuously argued that they would not be involved in any activity that might affect programming decisions; therefore, a lack of cable ownership limits was not a threat to programming diversity.

The Proponents to the Cable Ownership Limits: Diversity and Consumer Protection

Protecting consumer and assuring programming diversity are two central themes to the arguments of proponents to the cable ownership limits rules. Among others, consumer groups, some of the FCC commissioners, and rivals of cable companies (e.g., incumbent local exchange carriers) stood out as being supportive to the rules.

Since the FCC announced the cable ownership limits in 1993, the Consumer Federation of America (CFA) and the Center for Media Education (CME) have insisted that the FCC should lower the limits under the current 30 percent of horizontal limit and 40 percent of vertical limit.

> CFA/CME asked FCC to lower MSO ownership limits from current 30% to as little as 10% of all cable subscribers and to reduce percentage of channels on systems that could carry cable networks in which MSO has interest to 20% from FCC-set 40-45%. Consumer groups also said that, in case of telco-cable mergers, number of telephone subscribers should be added to cable subscribers for calculation of ownership limits.
>
> (Communications Daily, February 16, 1994)

Some politicians, as well as consumer groups, were especially concerned that the possibilities of telco-cable mergers could create greater cable concentration, thereby hampering the development of competition in the cable industry. After the FCC approved AT&T - TCI merger in February 1999, AT&T made a bid for MediaOne group. When AT&T's bid was known to public, proponents of the rules began to argue in earnest the need for the rules that pose the limits on cable ownership.

> ….. 2 leading members of Senate Antitrust Subcommittee warned Commission and other lawmakers to give "serious look" before approving what they called "another major change in the fast-moving telecommunications market." Purchase would be "big roll of the dice for consumers," said Chmn. DeWine (R-O.) and ranking Democrat Kohl (Wis.). They said that, while merger "has the potential to increase telephone competition - especially in local residential markets - it also raises many tough questions regarding cable concentration and ownership caps, program exclusivity and competition throughout the industry." Combination also is expected to be opposed by consumer groups, which have pushed for tough ownership limits and have called for open access and other requirements on AT&T-TCI deal. Consumers Union Washington Co-Dir. Gene Kimmelman told New York Times that group would challenge deal because it would "create an enormous obstacle to the development of competition in the cable industry."
>
> (Communications Daily, April 26, 1999)

The merger between AT&T and MediaOne provoked much more controversy than before, because the AT&T and MediaOne combined would greatly exceed the ownership limits on how many cable subscribers one company could control. News articles began to point out that the FCC's cable ownership rules could pose a threat to the merger. At the same time, they also noted the danger of allowing AT&T to exercise great influence on programming services.

> Still, federal regulators might pose daunting obstacles. They could challenge the deal as a violation of cable ownership limits or on antitrust grounds….. One big issue will be whether AT&T might exceed federal limits on how many cable subscribers one company can control. …. The fear is that AT&T would become a gatekeeper in determining which programming services survive on cable and what policies shape the industry's drive toward high-speed Internet connections.
>
> (USA Today, April 26, 1999)

Specifically, Andrew Schwartzman, president of Media Access Project, asserted that increasing market concentration caused by large multiple system operators could seriously affect the survival of cable programming services.

> Horizontal ownership rules still are needed to prevent large MSOs from controlling program access, Media Access Project's Andrew Schwartzman said Wed. AT&T or other large MSO "could still use [household] penetration as a club" in negotiating carriage deals, even to point of insisting on equity interest in programmers. "You can't get a national programming service off the ground without 35 to 50% penetration" because you can't sell ads, he said, but "if one entity commands 30 to 40% of homes, they have the ability to tell the programmer" to get lost.
>
> (Communications Daily, April 29, 1999)

While AT&T continuously argued that they would not control programming decision through its minority stakes in companies such as Cablevision Systems and Time Warner, their argument was not accepted to people who supported cable ownership limits.

> Although I would love to see local competition, Campbell (Georgetown U. Prof. Angela Campbell) said, "I'm quite skeptical that's AT&T's goal." ….. Meanwhile, she asked, …, "why do they need all this concentration in cable programming?" Campbell said she didn't think AT&T "has made the case they need to have MediaOne... to offer telephony. They have TCI." … Campbell said that Congress in adopting cable ownership limits was concerned about influence -- not just about control.
>
> (Communications Daily, September 17, 1999)

Nevertheless, in October 1999, the FCC loosened the cable ownership limits. On this matter, the FCC said it was necessary in that the market situation had changed considerably since the rules were introduced in 1992. Although the FCC acknowledged it might be very troublesome if big cable companies want to consolidate for video, it emphasized that eased rules were intended to make a "balance between allowing cable

system operators too much freedom to extend their dominance into video programming market and preventing them from acquiring reach needed to provide new services such as telephony and broadband" (Television Digest, October 11, 1999). Moreover, the FCC stressed that the new order "harmonizes the objectives" of Cable Act (1992) and Telecommunications Act (1996) to encourage local phone competition.

Responding to the FCC's decision to ease the rules, thereby allowing for greater media concentration, consumer advocates severely criticized FCC by pointing out that they made 'bad political judgments' (Daily Variety, October 14, 1999).

Meanwhile, telephone companies added their voice to the arguments. SBC Communications Inc. sent an open filing to the FCC and urged the FCC to reject the proposed AT&T merger with MediaOne on the grounds of cable ownership limits. In this filing, SBC Communications Inc. warned of the danger that a combined AT&T and MediaOne might exert their influence over Time Warner's video programming.

> SBC argued that the deal will allow AT&T to dominate the cable industry through ownership interests in systems passing nearly two-thirds of the homes in the US. "Further, the merger would position AT&T at the center of an extensive web of relationships that spans the former TCI, MediaOne, Time-Warner Entertainment, and other major cable companies, and extends to both key video programming services and leading cable equipment manufacturers - as well as the two major cable Internet service providers," the filing said. ….. "When the entire web of interrelationships that would exist between AT&T/TCI/MediaOne and Time Warner is taken into consideration, the notion that the combined ownership of AT&T and Time-Warner would bear no influence on Time-Warner's video programming-related activities becomes inconceivable," the filing added.
>
> (Newsbytes, December 15, 1999)

In May 2000, the Court of Appeals affirmed cable ownership limits rules (*Time Warner I v. U.S.*). The ruling, written by Judge Douglas Ginsburg, concluded that both provisions of cable ownership limits – national subscriber limit and channel occupancy limit – were content neutral and advance important government interests (*Time Warner Entertainment*

Co. I v. U.S., 211 F.3d 1313 [2000]). The FCC welcomed the court decision. FCC chairman Kennard said that it would help "promote programming diversity and protect consumers against undue consolidation in the cable television marketplace" (Communications Daily, May 22, 2000).

Not long after the proponents enjoyed a legal victory, however, the FCC approved AT&T and MediaOne merger with conditions. Although the FCC unanimously approved the AT&T – MediaOne merger, some commissioners spoke out against the decision in that it seriously harms the diversity of media voices.

> Tristani (FCC commissioner) contended that "Commission has failed to consider seriously the significant impact that an AT&T-MediaOne combination could have on the diversity of media voices," saying that AT&T could end up owning all or part of 22 of 59 (37%) of major basic cable networks if it chooses to hang onto TWE, Liberty, Rainbow. Along with ABC/Disney, CBS/Viacom, News Corp./Fox and NBC, she said, new AT&T would thus be one of 5 companies controlling 40 of 59, or 68%, of major cable networks, top 4 pay cable channels and all 4 major broadcast networks. "It's time for the FCC to realize that we are not dealing with bottled water or sneakers but with the dissemination of news and information -- the lifeblood of our democratic way of life," she said.
>
> (Communications Daily, June 6, 2000)

Although the FCC explained that the merger they approved was very different from AT&T's initial application, in that it would strike the appropriate balance between promoting competitions in local telephone service and protecting consumers in cable service, consumer groups condemned the FCC in strong words. Furthermore, they asked Federal Trade Commission (FTC) to force AT&T to divest its minority holding in Time Warner Entertainment. They pointed out that the merger between AT&T and MediaOne, if it proceeded, would hinder consumers from receiving diverse cable programming by intervening in decisions on programming activities.

> In its letter to FTC, CU (Consumer Union) argued that unless ownership links between 2 companies were cut, AT&T-MediaOne and AOL-Time Warner would have "incentive to

> disadvantage programmers who compete with TWE and Time Warner because AT&T will receive an economic benefit from carrying TWE's program networks and from not carrying competing programming." In addition, group contended, "AT&T might discourage TWE from distributing on comparable terms its valuable programming to AT&T's MVPD (multichannel video programming distributors) competitors, particularly cable overbuilders in AT&T's territories."
>
> (Communications Daily, June 27, 2000)

In addition, several consumer groups such as Consumers Union, Consumer Federation of America, Media Access Project and Center for Media Education, sent a letter together to President Clinton asking him to veto any legislation that allows AT&T to crackdown on the cable ownership cap.

Notwithstanding many efforts of consumer groups, the Court of Appeals once again overturned its decision. In March 2001, the Court of Appeals struck down the FCC's regulations that limited the cable system ownership. The Appeal Court ruled that the FCC's cable system ownership cap is in excess of its statutory authority. In particular, the Appeal Court found that the FCC had failed to justify its horizontal and vertical limits with record evidence. Consumer groups lamented the decision by the Appeals Court in that it "creates a greater incentive for cable companies to limit programming choices" (Communications Daily, March 5, 2001).

The Court decision opened the floodgate for cable system operators to merge; for example, Comcast announced that it would acquire the assets of the AT&T Broadband (AT&T's spun-off cable television service) in 2001. Consumer groups immediately raised antitrust concerns about the deal. They, once again, blamed the government and the FCC for making it possible to create a cable monopoly.

> Consumers Union spokesman said it would make "the cable monopoly... more and more powerful" and lead to ever-spiraling cable prices for consumers. Spokesman complained that Bush Administration "has given the business community every conceivable signal that it's not

> going to be tough on business mergers." He also lambasted FCC Chmn. Powell for giving "green light to companies like Comcast" to increase their industry dominance.
>
> (Communications Daily, July 10, 2001)

Regarding this proposed deal, policy analysts Blair Levin (Legg Mason analyst) and Scott Cleland (Precursor Group CEO) anticipated that the FCC's cable ownership limit would not pose a problem for Comcast to pursue the merger. Accordingly, in 2002, Comcast acquired all assets of AT&T Broadband; thereby, it became the largest cable television company in the United States. This merger of Comcast and AT&T Broadband was feasible only after the court decision to strike down cable ownership limits (The Denver Post, July 9, 2001).

In sum, promoting programming diversity and protecting consumers' right from cable monopoly are central rhetorical themes found in the arguments of proponents for cable ownership limits. Although cable system operators insisted that they would not involve in programming related activities, the proponents of the rules dismissed their claims by arguing that it would become inconceivable when considering the entire web of interrelationship that would exist as a result of merger and acquisition. They emphasized that increasing cable ownership concentration would enable big companies to exert their bargaining clout in determining which programming services they delivered. In so doing, they may unfairly discriminate in the prices or terms and conditions of the sale of cable programming networks that are not affiliated with large cable system operators in favor of ones that are affiliated with. In other words, they could use their monopoly status in the cable industry to thwart competition among cable programming networks and thereby harm consumers.

As the above excerpts from news articles show, parties on both sides of the debate over cable ownership limits have used the language of market competition, programming diversity and consumer protection to make the case that their position best serves the public interest. In short, the opponents of cable ownership limits used increasing market competition in the new environment of the industry as a central theme whereas the proponent of the rules utilized concepts such as diversity and consumer protection. Table 4-1 summarizes the debate over the abolition of the cable ownership limits regulations – participants of the debate and selected themes.

The Impact of Cable Ownership Limits Rules on Cable Television Industry

It is important to note that the cable ownership limits rules, even if they had not been legally in effect most of the time, had an impact on cable system operators. That is to say, cable system operators cared about the cable ownership limits especially when their behavior might violate the rules. Then, what was the impact of cable ownership limits rules on the cable television industry, especially on the diversity of cable programming networks in a particular genre-market? Does diversity in cable programming networks increase or decrease depending on the existence or nonexistence of cable ownership limits regulations? In order to answer these questions, I investigate trends in concentration in the cable television industry.

When discussing the diversity of media products, it has been operationalized in various ways. Some scholars focus – but not exclusively – on the diversity of producers (e.g., Dowd 2004) while others focus on the diversity of content, for example, of music recordings (e.g., Peterson and Berger 1975; Dowd 2004). Still others focus on the

diversity of the workforce or performers within individual media industry (e.g., Dowd and Blyler 2002; Bielby and Bielby 2003; Dowd *et al*. 2005). In this chapter, I focus on the diversity of producers – in the form of cable programming networks in a particular genre-market. First, I present trends in the concentration of cable system operators, and then I turn to the concentration of cable programming networks. By analyzing trends in the concentration of cable system operators and cable programming networks, I thus explore the impact of cable ownership limits regulations.

Trends in the Concentration of Cable System Operators

Before examining the impact of concentration of cable system operators on cable television industry, it is necessary to look over the process of the development of cable system operators historically. Cable television was initially considered as a local mom-and-pop affair (Parsons and Frieden 1998; Mullen 2003, 2008; Parsons 2003, 2008). From its inception in the late 1940s to the mid-1950s, the businesses were typically small, and most of them were locally owned and operated (Parsons 2003). However, as the businesses began to prove themselves economically, larger interests gravitated toward the industry and ownership structures began to change (Parsons and Frieden 1998). Particularly, cable television at that time was very attractive business not only because there was high demand for cable television due to dearth of broadcast television stations, but also because it was largely unregulated business (Parsons 2003: 25). As a result, the cable industry rapidly expanded in the latter 1950s and early 1960s. However, changes in regulations, as well as need for massive capital investment to wire the large cities, drove many of the small firms out of the business and promoted merger and acquisition in the 1970s (*ibid*).

As cable entered the 1980s, the regulatory climate changed to deregulation. Moreover, the development of national cable programming networks stimulated by the introduction of satellite transmission technology led to industry growth in the 1980s. However, emerging digital communication technology that enabled integrated communication services, including cable, telephone and other key communication services, once again, required enormous capital investment in the 1990s. In this circumstance, only large companies able to manage those expenses would survive (Parsons and Frieden 1998). This too promoted new waves of acquisition and merger (Parsons 2003). As some of cable systems grew larger and larger, policy makers started worrying about their market power. As a result, policy makers decided to place some restrictions on cable industry, and the FCC promulgated the cable ownership limits rules in 1993, as Congress mandated through the 1992 Act.

Figure 4-3 shows the number of cable system operators and concentration ratio of four largest cable system operators from 1969 to 2010. As can be seen, the number of cable system operators had continuously increased until the early 1990s when Congress enacted the Cable Consumer Protection and Competition Act in 1992. However, it began to decline around 1993 when the FCC announced cable ownership limits rules, and the number continuously decreased thereafter with one short fluctuation in the mid-1990s.

In the meantime, the concentration ratio of four largest cable system operators (CR_4) has generally increased with some fluctuations. As Figure 4-3 shows, CR_4 started low in the late 1960s. Although it increased in the early 1970s, it stayed – if not declined – between 20 percent and 30 percent, which indicates low concentration. According to Parsons (2003), industry concentration was not high despite mergers and acquisitions in

the 1970s because the industry itself was enormously expanding. With a relaxed regulatory climate, the number of cable system operators sharply increased in the 1980s. Concentration ratio at the same time increased generally although there were some fluctuations. Between the late 1990s and early 2000s, we can see that concentration ratios sharply increased. As described earlier, these were the years when the FCC relaxed its cable ownership limits rules (1999) and conditionally approved AT&T's merger with MediaOne (2000). Even though it was conditional approval, it would be a propitious sign to many other large cable system operators or telephone companies willing to join in cable industry. They might expect more hospitable regulatory environment in near future. Reflecting those expectations, CR_4 sharply increased in the late 1990s and early 2000s, and reached over 70 percent in 2002. In contrast, the number of cable system operators has continuously declined since around 1993. When considering rising CR_4, the diminishing number of cable system operators indicates active consolidation in the cable industry, not a declining industry.

Trends in the Diversity of Cable Programming Networks

Now I turn to the cable programming networks. Because of data availability, analysis of cable programming networks is restricted from 1989 to 2010. Regarding the market of cable programming networks, I examine the level of concentration and diversity at two different levels; trends in the concentration of cable network genres (between genre-concentration) and trends in the concentration of cable programming networks in each of ten different genre-markets (within genre-concentration). First, I assess trend in the between genre-concentration in the cable programming networks. As described in Data and Methods section, there are ten different genres in every year from 1989 to 2010.

Treating the number of cable programming networks in a particular genre in a given year as market share of that genre, I construct the Herfindahl index for measuring genre-concentration in a given year.

Figure 4-4 graphs trends in concentration of cable programming networks from 1989 to 2010. Before the FCC promulgated cable ownership limits rules in 1993, the Herfindahl index scores were between 0.16 and 0.18, which means the concentration of cable programming market by certain genres were between 16 percent and 18 percent. In other words, the number of cable networks in certain genres were disproportionally larger than number of cable networks in other genres. After the cable ownership limits were announced, the level of concentration began to decline and it reached approximately 13 percent in 2001, when the Court of Appeals reversed the rules. Afterwards, it began to increase slightly again. Therefore, this indicates that concentration in cable programming market by certain genre had decreased during the period of cable ownership limits rules. Of course, there might be another significant factor affecting the decrease of market concentration of cable programming networks. However, as Figure 4-4 shows, trends are quite responsive to the establishment and reversion of cable ownership limits rules.

How about trends of concentration of cable programming networks in a particular genre? In other words, how did the level of concentration of cable programming networks in, for example, film genre change from 1989 to 2010? To figure it out, I assess the level of concentration in each of ten cable programming networks genres from 1989 to 2010. Treating the number of subscribers for each one of cable programming networks in a particular genre as market share of that cable network, I constructed different Herfindahl indices for ten different genres in a given year.

Figure 4-5 shows trends in the genre-market concentration of ten different genres. In each one of those ten graphs, the solid line represents the level of concentration for cable programming networks in a particular genre, while the dash line represents the level of concentration for cable programming networks in total – regardless of genre. As can be seen, levels of concentration for cable programming networks in all ten genres keep decreasing. Moreover, the rate of decrease is more or less steep during from 1993 to 2001. Therefore, it does indicate that, in general, levels of concentration in cable programming networks in each of ten genres decreased, and the rates of decreasing rates slightly increase during period of cable ownership limits rules existed. This indicates increasing competition and, thereby, suggests increasing diversity.

Recall that the purpose of cable ownership limits rules was to prevent horizontally concentrated and/or vertically integrated cable system operators from hindering the development of cable programming networks. Therefore, by setting cable ownership limits rules, regulators expected to prevent large cable system operators from exerting undue market power in the programming acquisition market, thereby promote more diversity in cable programming networks. Both Figure 4-4 and Figure 4-5 show that the existence of cable ownership limits rules did have an effect on diversity of cable programming networks by lowering the level of genre-concentration, as well as increasing market competition in all ten genres. It implies that the threat of regulation can indeed have an impact, as well as the regulation itself.

Conclusion

Concentration in media industry has always been a critical issue. It is often considered to have a detrimental effect on democratic systems by hampering the development of diverse media products reflecting various ideas, viewpoints and opinions that exist in a society. It does so by enabling large market players to close the market to new entrants and independent producers or to drive out weaker competitors. Therefore, restraining media concentration, and thereby promoting diversity of media products, has been a crucial task of the FCC, which is in charge of regulating communications industries including radio, television, wire, satellite and cable.

In the case of the cable television industry, policy makers believed that the level of diversity in cable programming depends primarily on the industry environment that determines the ease of entry and growth of new cable programming networks (Kang 2009). From the first, the entry of cable programming networks was not easy due to several reasons. Technically, for example, the channel capacity of local cable systems is limited. Because the number of cable network startups far outpaced the increase in individual cable systems' channel capacity, cable programming networks had to convince operators to carry them (Mullen 2008). However, the underlying reason is due to the unique structure of cable television industry; the local multichannel video programming distributor (MVPD) market is dominated by local monopolistic cable systems and the national multichannel video programming market is open to competition (Kang 2009). For this reason, regulators have been concerned that the excessive market power of large cable system operators can impede the growth of cable programming networks by, for example, exerting bargaining clout in the programming acquisition market and using their

gate-keeping power to choose programming networks. Those concerns finally led to the establishment of cable ownership limits regulations.

In 1992, Congress required the FCC to establish reasonable limits on the number of cable subscribers served by an individual cable system operator through its ownership or control of a local cable system. In 1993, the FCC announced rules prohibiting any individual operator from reaching more than 30 percent of all homes passed nationwide by cable. Moreover, the FCC imposed a 40 percent limit on the number of channels that can be occupied by cable programming networks affiliated with the particular cable system. However, these cable ownership limits rules were not fully implemented due to constant legal challenges from the industry. Consequently, in 2001, these cable ownership limits rules were finally reversed by the Court of Appeals (*Time Warner II v. FCC & U.S.*). Although the rules were not legally in effect, I showed that the cable television industry had been troubled by the rules via an analysis of news articles from 1993 to 2001. In sum, when AT&T tried to acquire MediaOne in the late 1990s, deregulation advocates, represented by AT&T, actively argued against the cable ownership limits rules by invoking the logic of market concentration in two different ways; on the one hand, facing opponents who argued relaxing or removing cable ownership limits would result in diminishing programming diversity, they asserted that they would not involve any activities related to programming after merger. On the other hand, they strongly claimed that in order to compete with monopolistic local telephone companies, which were allowed to enter the cable industry by the Telecommunications Act of 1996, cable ownership limits should be seriously relaxed or eliminated.

Then, what was the consequence of deregulation? As trends of concentration showed, the level of concentration of cable system operators generally increased but stayed below 50 percent until the late 1990s, and then sharply increased from the very late 1990s to early 2000s. On the other hand, the levels of concentration of cable programming networks continuously declined, both in terms of the genre-concentration in the cable programming market in total and market concentration in each of ten different genre-markets – indicating both increasing competition and, thereby increasing diversity in cable programming networks. These results can be interpreted as follows. The cable ownership limits rules had been potential obstacles to the industry, especially when the behavior of market actor would violate the limits that the rules prescribed. However, the FCC's relaxation of the rules in 1999 and its conditional approval of AT&T's merger with MediaOne in 2000 might have led the industry to expect further relaxation or even the repeal of the rules in the near future. And those expectations likely lead to a further increase in the concentration of cable system operators.

When considering the purpose of the cable ownership limits, it was not just to control the cable system operators directly, but to promote diversity of cable programming networks by restricting excessive power of cable system operators in programming acquisition market. As the cable ownership limits rules intended, the levels of concentration of cable programming networks have continuously decreased. That is to say, competition has been increasing among cable programming networks, which also implies more diversity in that programming market is not dominated by few networks.

In their study on the broadcast television industry, Bielby and Bielby (2003) found that the reliance of television networks on outside suppliers of prime-time

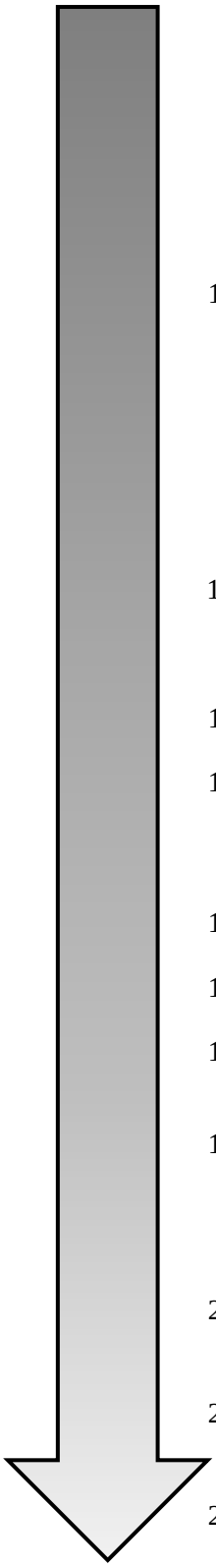
programming was reduced after 1995, when the Fin-Syn Rules were eliminated, and at the same time, television networks began favoring series that they owned fully or in part. As a result, the elimination of the Fin-Syn Rules resulted in increasing concentration of ownership of prime-time programming. While discussing their results, they stressed differences between music recording industry and broadcast television industry in terms of the impact of market concentration on the diversity of media products. According to Bielby and Bielby (2003), in the music recording industry, "concentration in the number of suppliers and their share of the market became decoupled from diversity in the number of new products when the large media conglomerates successfully employed decentralized production that offered substantial autonomy to individual artists and producers" (Bielby and Bielby 2003: 592). However, they concluded that is not the case for the broadcast television industry. They argued that in that industry, the major television networks increasingly relied on in-house production in the wake of deregulation and high production costs. With increasingly deregulated market environment, the market power of the large corporations that control access to channels of distribution[46] has made it more difficult for independent producers to survive in the industry (Bielby and Bielby 2003: 593). With this logic of centralized production that large corporations adopted, the diversity of the prime-time program suppliers declined as market concentration increased.

Then, what about cable television industry? Cable ownership limits rules did have an impact on cable television industry in a way that decreased the level of concentration

[46] With the expiration of Fin-Syn Rules, three television networks (i.e., CBS, ABC, and NBC) were added to the major studios that dominated television production from 1970 to 1989. For example, Disney acquired ABC in 1995, and Viacom merged with CBS in 2000 (Bielby and Bielby 2003: 591).

of cable programming networks while increasing the level of concentration in cable system operators. These results imply that cable television industry is more similar to the music recording industry than broadcast television industry. In his study on the music recording industry, Dowd (2004) argued that when dominant firms embraced the logic of decentralized production, concentration's negative effect on diversity in media products, in terms of both new performances and new recording firms, was diminished and finally eliminated. Therefore, the successful adoption of the logic of decentralized production leads to high concentration but not to low diversity. Similar to the music recording industry, the quantitative results in this chapter showed that the level of concentration in cable system operators continuously increase, but it does not lead to low diversity in cable programming networks. These results suggest that the large dominant cable companies adopt the logic of decentralized production, thereby diminishing concentration's negative effect on diversity in cable programming networks. In that regard, this chapter confirms the fact that market structure and the logic of production adopted by dominant firms significantly shape the diversity of media products.

Figure 4-1. Significant Events Related to Cable Ownership Limits (Chronological Order)



1992. 10. 8 – The Cable Television Consumer Protection and Competition Act

1993. 9. 16 – *Daniels Cablevision v. U.S.*
(The Court reversed the rules)

1993. 10. 20 – FCC: Cable Ownership Limits Rules announced
(Second Report and Order)

1996. 2. 8 – The Telecommunications Act

1998. 6. – AT&T announced a plan to merge with TCI

1998. 9. 14 – AT&T and TCI filed joint application to FCC, requesting approval of the merger

1999. 2. 18 – FCC approved AT&T's merger with TCI

1999. 5 – AT&T made a bid for MediaOne

1999. 7. 7 – AT&T and MediaOne filed joint application to FCC, requesting approval of the merger

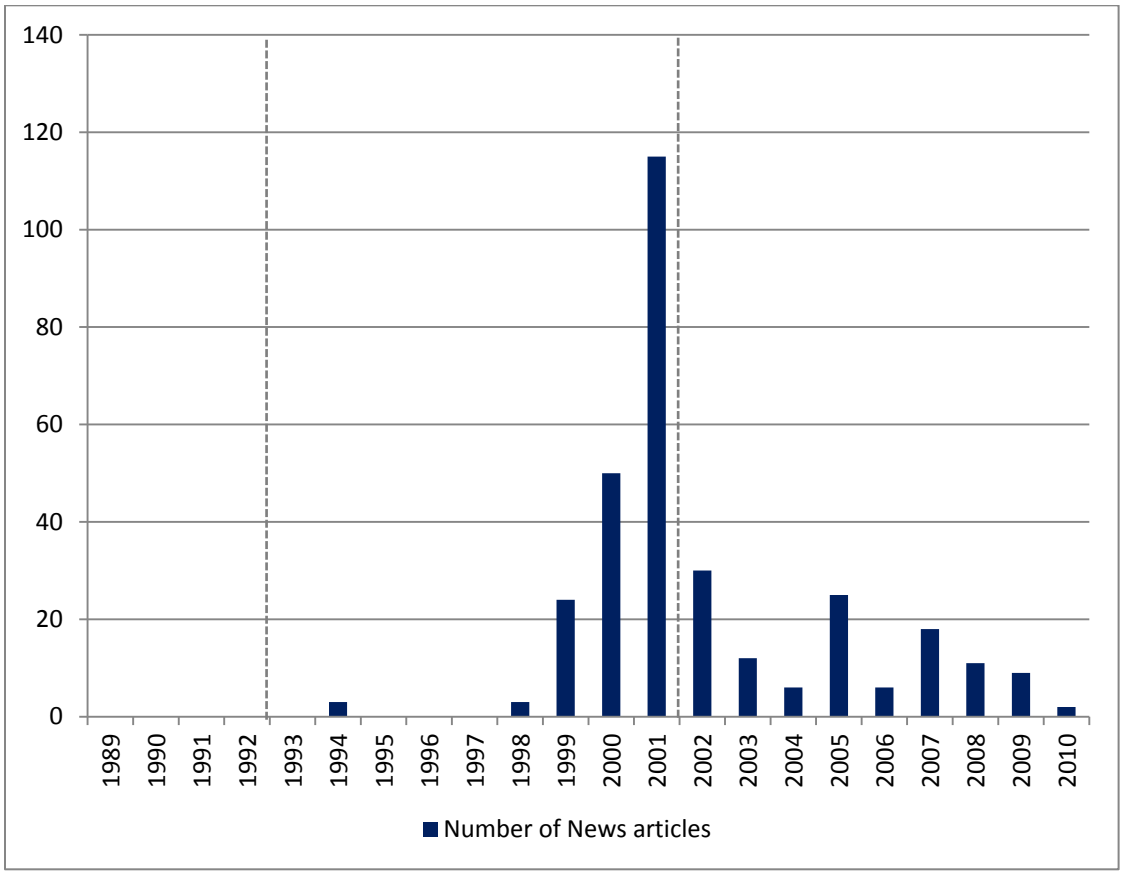
1999. 10. 20 – FCC eased the Cable Ownership Limits Rules
(Third Report and Order)

2000. 5. 19 – *Time Warner Co. I v. U.S.*
(The Appeals Court affirmed the rules)

2000. 6. 5 – FCC gave a conditioned approval on AT&T's merger with MediaOne

2001. 3. 2 – *Time Warner Co. II v. FCC & U.S.*
(The Appeals Court reversed the rules)

Figure 4-2. Number of News Articles Including “Cable Ownership Limits”, 1989-2010



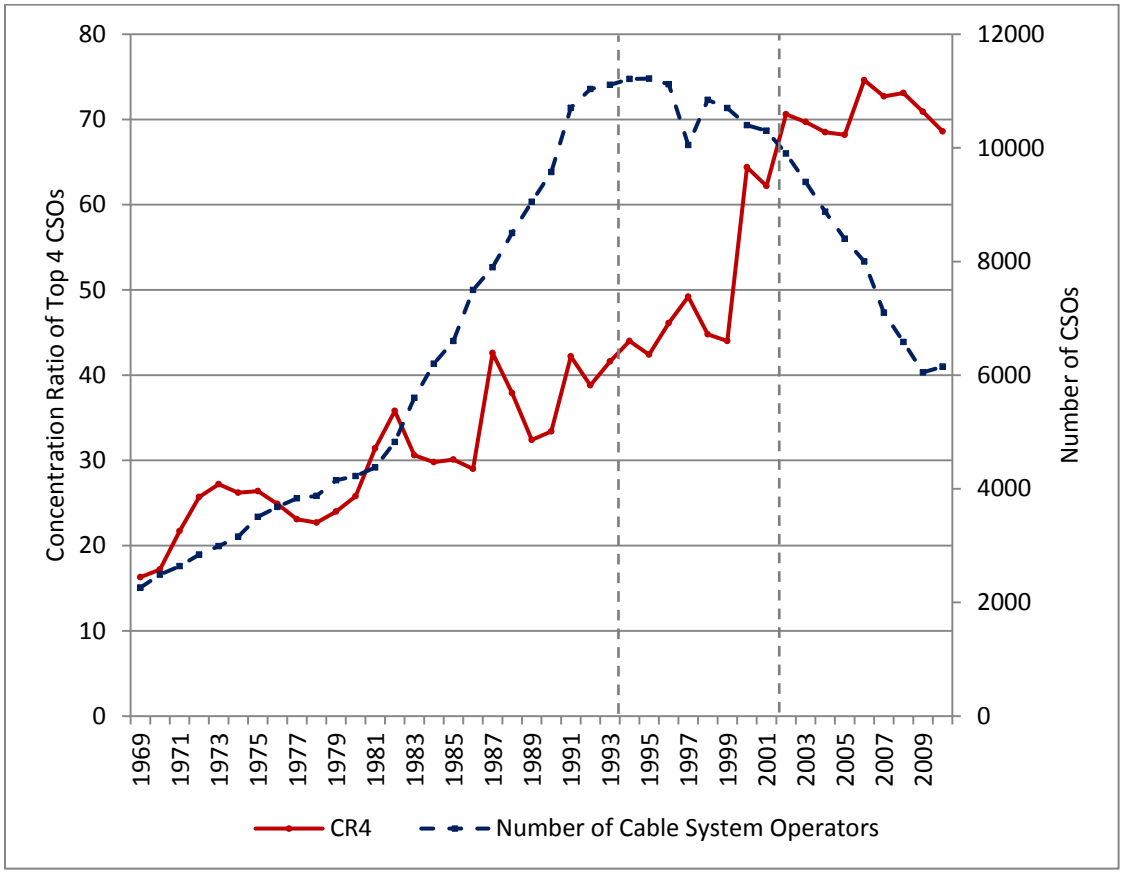
Source: LexisNexis Academic News Database

Table 4-1. Parties to the Debate over the Cable Ownership Limits Rules and Selected Themes

	Opponents to the Rules	**Proponents to the Rules**
Participants	• AT&T • Time-Warner • NCTA • Some commissioners (e.g., Furchtgott-Roth*)	• Consumer groups (e.g., Consumer Federation of America) • Incumbent local exchange carriers (e.g., SBC Communications Inc.) • Some commissioners (e.g., Tristani**) • Media professionals (e.g., Andrew Schwartzman, a president of Media Access Project)
Selected Themes	• Outdated rules - "Regulation from a prior era" when there was no significant competition to cable • Impeding local competition for telephony - Unfairly restricting the growth of cable companies • Arbitrary limits - "No empirical evidence" that size of MSOs is linked to inability of new programmers to get carriage	• Protecting diversity of media voices • Ensuring survival of cable programming services - Preventing MSOs from becoming gatekeepers in determining which programming services survive • Protecting consumers right to receive diverse cable programming • Preventing cable monopoly getting more and more powerful

Note: * Harold Furchtgott-Roth served as a commissioner of the FCC from 1997 to 2001.
** Gloria Tristani served as a commissioner of the FCC from 1997 to 2001.

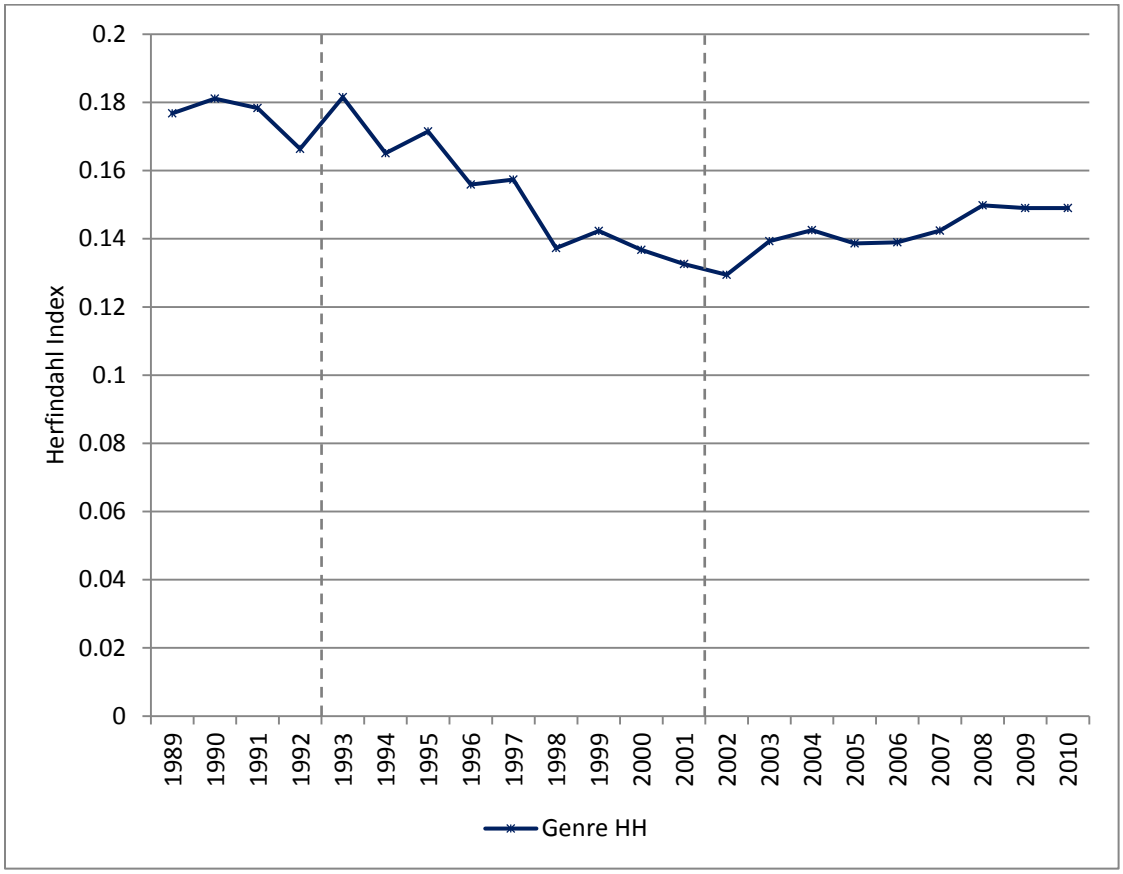
Figure 4-3. Number of Cable System Operators and Concentration Ratio of Top 4 Cable System Operators, 1969 – 2010



Sources: Braunstein (1980: 24) for data through 1979; Television Digest for 1980; Television and Cable Factbook (1982-2011); Standard and Poor's Industry Surveys (1982-2011)

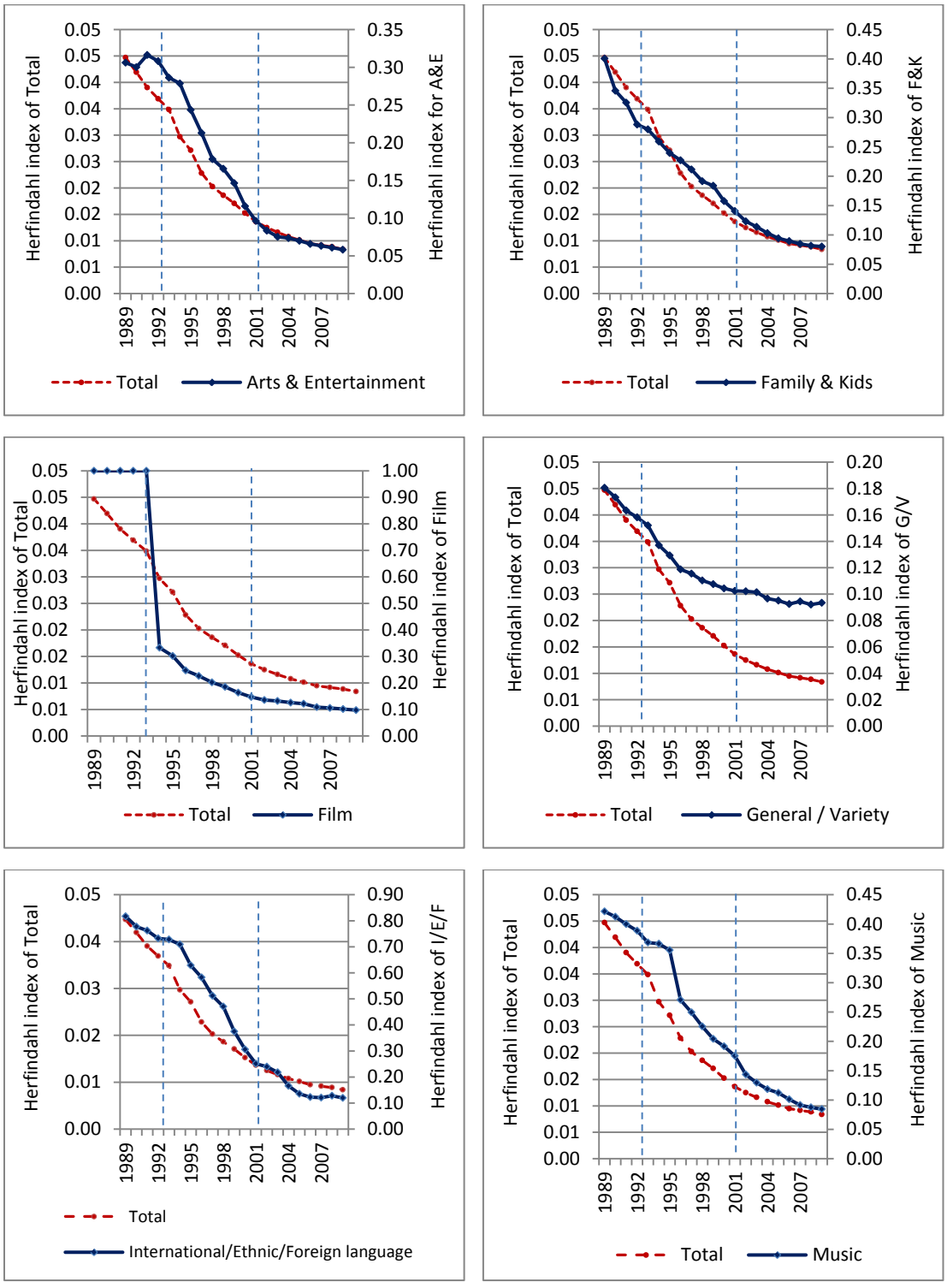
Note. CR_4 values in 1988 and 2002 were estimated by using interpolation due to data limitations.

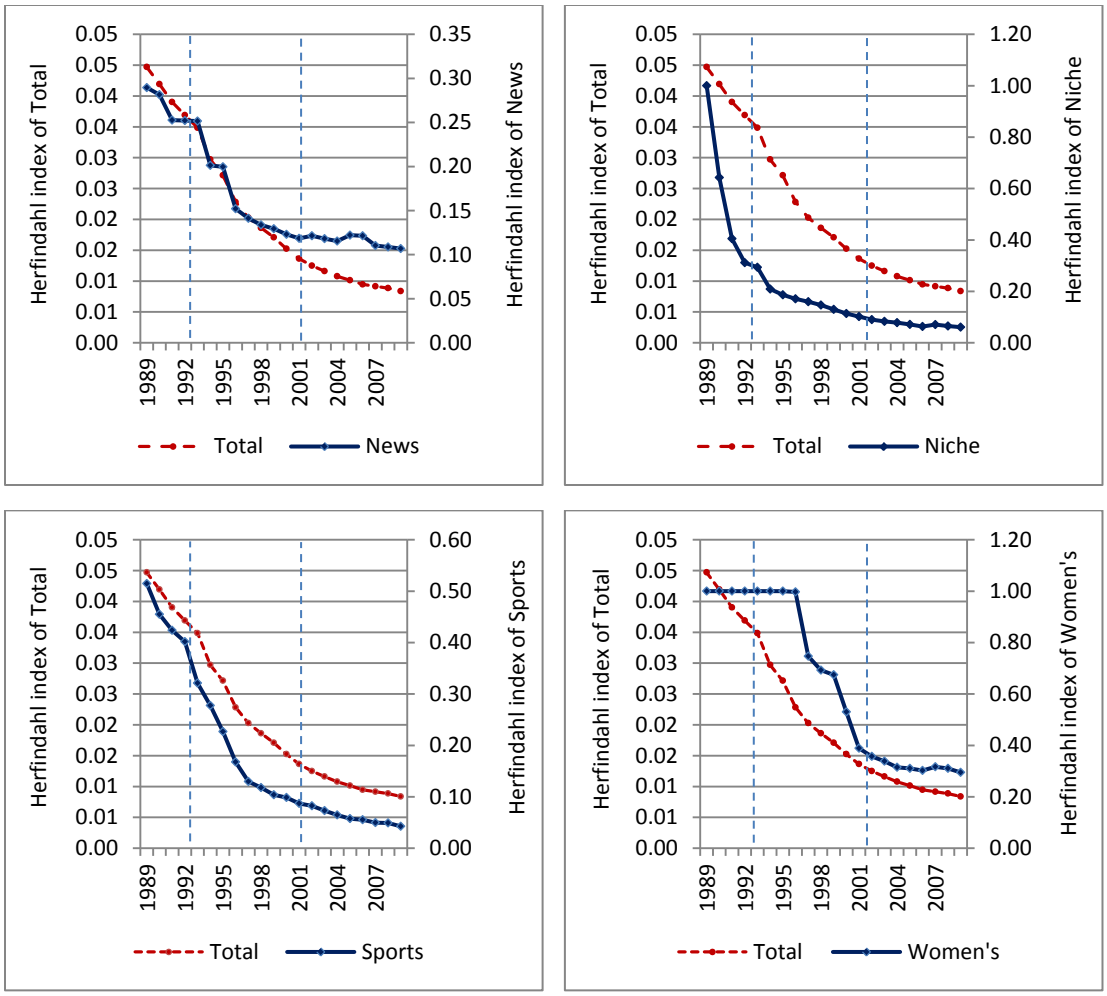
Figure 4-4. Concentration of Cable Programming Networks, 1989-2010 (the Herfindahl Index)



Source: SNL Kagan

Figure 4-5. The Herfindahl Indices of Cable Networks in Ten Genre-Markets, 1989-2010





Source: SNL Kagan

CHAPTER FIVE

Regulation and Competition: Factors Affecting Cable Networks Survival, 1989-2010

Introduction

The cable television has existed for more than sixty years in the United States. As previously discussed, this has experienced seemingly cyclical variations of regulation and deregulation since its origins. After passing through a restrictive regulatory regime, the cable television industry was significantly deregulated by the Cable Communications Act of 1984. This change in regulatory environment played a significant role in the development of cable television industry. Numerous scholars view that there was dramatic growth both in programming and system construction after the 1984 Act went into effect (e.g., Crandall and Furchtgott-Roth 1996; Parsons and Frieden 1998; Parsons 2003; Mullen 2008). As I showed in Chapter Three, the Cable Communications Act of 1984 did significantly promote new cable networks foundings and its effect was not reducible to the impact of ecology factors. However, the 1984 Act brought an adverse effect, too. For example, rate deregulation allowed cable system operators to raise subscription fees almost every year. Rising rates for cable services resulted in a call for cable rate re-regulation. Moreover, increasing concentration of cable system ownership through horizontal and vertical integration was enough to draw the attention from policy makers. As a consequence, Congress enacted the Cable Television Consumer Protection and Competition Act on October 1992, and thereby the cable television industry was once again under the restrictive regulations.

The stated purposes of the 1992 Cable Act are "to provide increased consumer protection and to promote increased competition in the cable television and related markets and for other purposes" (the 1992 Act). As a way of actualizing those goals, Congress mandated the FCC to establish a reasonable numerical limitation on the ownership of cable system operators. Following that direction, the FCC announced cable ownership limits rules in 1993 with national subscriber limits (horizontal limits) and channel occupancy limits (vertical limits). These rules, however, were not fully implemented due to continuous legal challenges from the industry. Eventually, the cable ownership limits rules were reversed by the Court of Appeals (*Time Warner II v. FCC & U.S.*) in 2001. In the previous chapter, I argued that, although the rules were not legally in effect, the cable television industry had been affected by the possibility of cable ownership limits rules. In particular, I showed that the rules had an effect on cable television industry in a way that decreased the level of concentration among cable programming networks.

In this chapter, I step forward to examine the impact of the cable ownership limits rules on the development of cable programming networks. Specifically, I analyze the effect of cable ownership regulations on the dissolution rates of cable programming networks during the years when regulatory shift occurred. Once again, I do so by turning to population ecology and the new institutionalism. Drawing upon the new institutionalism, I show that the development of a given industry is not simply shaped by processes of supply and demand or the mere emergence of new technologies. Rather, public policies in the form of industry regulation have significant effects on industry

development, shaping how firms compete with each other – in other words, shaping the logic of competition.

This chapter proceeds in the following manner. First, I briefly address the history of media ownership limits regulations, both for broadcasting and the cable television industry. Next, I discuss the theoretical considerations that are relevant to this study. And then, I introduce the data and method I employed to assess the dissolution rates of cable programming networks. After presenting the results of analysis, I conclude by discussing the implications of this study.

Regulation and Competition: Media Ownership Limits

The FCC's Regulation of Media Ownership

Recent years have witnessed the expansion of large media firms in the United States and increasing media concentration has led to fears that an ever-shrinking number of media companies determine what programming people watch and hear (Noam 2009: 9). However, it is not just a recent phenomenon; concentration in media industry has long been a critical issue since the FCC was given authority to regulate the media industry. The history of media ownership regulation is almost as long as the history of broadcasting.

The primary objective of communications regulation in the United States has been to serve the public interest (DeFrancia 2002). Because the public airwaves are scarce, they were considered a limited and precious resource and, therefore, would be subject to government rules and regulation. Besides its scarcity, another reason for regulating media ownership has been to encourage diversity.

The Communications Act of 1934 required the Federal Communications Commission (hereafter, the FCC), which was created by the 1934 Act as a permanent regulatory agency, to distribute rights to use the broadcast spectrum in a manner that serves the "public interest, convenience, and necessity" (The Communications Act of 1934, 47 U.S.C. §310(d) as in Candeub 2008). In general, the FCC's ownership limits regulated media industry in a way of licensing practices that developed into formal rules and then changed under various political and industrial pressures (Candeub 2008). The FCC considered that a diversity of viewpoints on the airwaves served the public interest and that it was best achieved through diversity in media ownership. That is to say, excessive media concentration might threaten the public's access to important information or diverse viewpoints. Therefore, the FCC has restricted media ownership in radio since the agency's inception nearly 80 years ago, preventing one individual or firm from owning too many radio stations (*ibid*). Increasing diversity in media ownership was a goal of the FCC in awarding radio licenses, and later it was applied to television broadcast licenses.

Media ownership rules that prohibited a firm from reaching particular percentage of households was not imposed until the 1940s, when the FCC established the national ownership limits of broadcast stations. Prior to that, in 1938, the FCC conducted research and found that more than half of total commercial radio stations in the United States were affiliated with one of four national networks – NBC (the Red and the Blue), CBS, and the Mutual Broadcasting System (Sadler 2005). The FCC soon established the first national ownership limits, the Chain Broadcasting Rules in 1941, given fears that the networks might exert their power for controlling the programming on affiliate stations. The 1941

Rules resulted in NBC being forced to sell one of its two networks (the Blue Network)[47]. Upheld by the Supreme Court in 1943 (*National Broadcasting Co. v. United States* 319 U.S. 190 [1943])[48], the Chain Broadcasting Rules regulated the large national radio networks in their behavior in relation to local stations (Candeub 2008). These regulations included ownership rules prohibiting a radio network from owning more than one broadcast station within the same market area, reflecting the FCC's view that limits in local ownership would serve the public interest. Shortly after the Supreme Court's decision in National Broadcasting Co. in 1943, the FCC passed further regulations limiting national ownership of radio. For example, the FCC prohibited FM radio station owners from owning more than six stations nationally (*ibid*).

In 1953, the FCC established the "Rule of Sevens". It stated that one entity could not own more than seven AM, seven FM and seven TV stations nationwide (no more than five can be VHF). The Rule of Seven remained in place for about thirty years, until the FCC raised the limit from seven to twelve in 1984. The FCC, however, balanced this relaxation by limiting the size of the audience that any one media firm could reach. When the FCC increased the limit on AM, FM, and television station from seven to twelve, it also prohibited any one entity from owning or controlling television stations that in total reached 25 percent of the national audience (Candeub 2008). Afterwards, the numbers

[47] RCA (the Radio Corporation of America), the owner of NBC at the time, sold the Blue Network to Life Savers magnate Edward J. Noble, completing the sale on October 12, 1943 (The New York Times, October 13, 1943). The Red Network became known simply as NBC. In 1945, Noble's network officially changed its name to the American Broadcasting Company (ABC) (Sadler 2005).

[48] The FCC established Chain Broadcasting Regulations in 1941, which governed the licensing and content of chain broadcasting stations (Sadler 2005). The National Broadcasting Company (NBC) took the regulations to the court. The U.S. District Court for the Southern District of New York dismissed the arguments of NBC, ruling for the government and NBC appealed. The Supreme Court, however, affirmed the dismissal of the complaint in 1943, ruling that the government had the power to enact and enforce the regulations (*NBC Inc. et al. v. United States et al*. 319 U.S. 190 [1943]).

kept increasing: for example, the Rule of Twelve became, eighteen AM, eighteen FM and twelve TV station in 1992, and became twenty AM, twenty FM and twelve TV stations in 1994. The FCC argued that relaxing ownership limits was needed because the number of radio stations continued to increase thereby increasing competition (*ibid*).

In addition to national and local limits on the number of stations one entity could control, the FCC has imposed various cross-ownership rules limiting one entity's ownership or control of more than one type of media within a local market, designed rules to ensure that there is a diversity of voices and opinions on the airwaves. In 1970, the FCC established cross-media ownership limit between FM radio stations and television stations within in the same market area. Subsequently, in 1975, the FCC adopted newspaper and broadcast cross-ownership rules prohibiting the ownership of a daily newspaper and any full-power broadcast station that serviced the same local market area (FCC 2011).

The cross-ownership rules had been strictly imposed on the media industry. Not until the late 1990s did the FCC allow cross-ownership of radio and television under certain conditions. In particular, the Telecommunications Act of 1996 was an influential act for media cross-ownership. The first overhaul of U.S. telecommunications law in more than sixty years, amending the Communication Act of 1934, the general objective of the 1996 Act was to open up markets to competition by removing unnecessary regulatory barriers to entry. It relaxed cross-ownership and other business regulations that prohibited broadcasters, cable and telephone companies from engaging in similar activities (Creech 2007). Among other things, one of the most controversial issues was Title 3 "Cable Services", which allowed for media cross-ownership between telephone

and cable (The Telecommunications Act of 1996, Title III. Sec. 302). It allowed telephone companies and cable operators to enter each other's markets, and it resulted in the subsequent mergers of several large companies (e.g., AT&T and Tele-Communications Inc. in 1999, AT&T and MediaOne in 2000, and AOL and Time-Warner in 2001). Indeed, it has generated a great deal of controversy in the cable television industry, especially in relation to cable ownership limits. Although a full-fledged discussion about cable ownership limits began in the early 1990s when Congress directed the FCC to establish reasonable limits on cable system ownership through the Cable Consumer Protection and Competition Act of 1992, the FCC had been concerned about the issue long before the 1992. Next, I focus on the cable ownership rules.

Cable Ownership Limits[49]

Although the FCC was concerned with the adverse effect of cable system concentration back in the late 1960s, it could not establish ownership rules until Congress enacted the Cable Consumer Protection and Competition Act in 1992. As previously described, the cable television industry had significantly expanded both in programming and system construction in the 1980s, and it was stimulated further by the introduction of the Cable Communications Act of 1984. After the remarkable period of deregulation, however, policymakers started worrying about the excessive market power of cable companies, especially those of the large cable system operators that kept growing through horizontal and vertical integration in the wake of deregulation. As mentioned previously, the local multichannel video programming distributors are dominated by local monopolistic cable systems, while the multichannel video programming markets are competitive. Given this

[49] The more detailed history of cable ownership limits regulations was provided in Chapter Four.

industry structure, policymakers have long been concerned that the excessive market power of large cable system operators can impede the growth of cable programming[50]. To prevent the adverse effect of concentration, Congress, through the 1992 Cable Act, mandated the FCC to establish a reasonable numerical limitation on the ownership of cable system operators. Following the direction, FCC promulgated the cable ownership limits rules in 1993, which included national subscriber limit (horizontal limit) that prohibits a cable system operator from serving more than 30 percent of national cable television subscribers and channel occupancy limit (vertical limit) that restricts the number of channels that can be occupied by video programmers affiliated with the particular cable system. However, these rules were challenged by cable companies immediately after Congress enacted the Act in 1992 because they viewed the rules as violating their First Amendment rights. Furthermore, they claimed that the FCC's argument behind the limits were not sufficient to prove why the level of horizontal and vertical limits should be set at thirty and 40 percent, respectively. The court struck down the national subscriber limits (*Daniels Cablevision, Inc. v. U.S.* 1993). The federal government appealed this court decision, and it postponed taking effect until final decision would be made by the Court.

In the meantime, the FCC amended its national subscriber limit in 1999; instead of using cable home passed, it adopted using all multichannel video programming subscribers to calculate the limit. In practice, this change relaxed the limit. Nevertheless, the cable ownership limits rules kept being challenged by cable system operators as well

[50] According to media scholars, the dominant market power of a platform company (e.g., cable system operators) over content providers (e.g., cable programming networks) is closely related to vertical and/or horizontal integration, and it affects channel lineup, program license fee, and discrimination against the content provider in competition (Waterman and Weiss 1997; Chipty 2001)

as by those who had a plan of merger with cable company (e.g., AT&T). Consequently, both national subscriber limits and channel occupancy limits were reversed in the Court of Appeals in 2001 (*Time Warner Entertainment Co. II v. FCC & U.S.*).

Therefore, the cable ownership limits rules had not been legally in effect since those rules were established in 1993. As I showed in the previous chapter, however, the cable ownership limits rules did influence the industry; cable system operators did care about the cable ownership limits, especially when their behavior might violate the rules. Moreover, I descriptively showed that the rules had an effect on cable television industry in a way that decreased the level of concentration among cable programming networks.

In this chapter, I take one step further to investigate the effect of cable ownership regulations on the development of cable television industry. Specifically, I examine the impact of cable ownership limits regulations on the dissolution rates of cable programming networks during the years when regulatory shift occurred. Once again, I do so by applying two theoretical perspectives on organization studies – population ecology and the new institutionalism.

Theoretical Concerns

When studying the dynamics of the organization world, both organizational ecology and the new institutional theory highlight the importance of the environmental effects on the behavior of organizations. However, there are some differences between two perspectives. Population ecologists have focused on the environmental resources and the level of competition for such resources. Using the population as the level of analysis, population ecologists statistically examine the vital rates of organizations – that is organizational

founding and dissolution – to understand the conditions under which organizations emerge, grow, and die. In their works, a population means that "aggregates of organizations share a common dependence on material and cultural environments" (Haveman and David 2008: 574)[51].

On the other hand, the new institutionalism in organization studies addresses the behavior of organizations as motivated by forces in wider society. The new institutionalists, therefore, often focus on the broader level of analysis that is the organizational "field" – the "set of organizations that, in the aggregate, constitute a recognized area of institutional life; key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products" (DiMaggio and Powell 1983: 148-149). However, the concept of the organizational field encompasses much more than simply a discrete list of constituents (Wooten and Hoffman 2008). That is to say, "organizational field" in the new institutionalism provides a much wider and more encompassing terrain than the "population" of population ecologists. Drawing upon these theoretical perspectives, I now examine factors affecting the dissolution rates of cable programming networks.

Organization Characteristics and Performance

Age Dependence

Previous studies on organizational mortality suggest that mortality (e.g., dissolution) rates vary with organizational age. Scholars have studied the relation between organizational

[51] Hannan and Freeman (1977) initially referred to a population of organizations as the set "consisting of all the organizations within a particular boundary that have a common form." (1977: 936).

age and the mortality rates of organizations for a long time; however, empirical evidence has often been in conflict with each other (Le Mens *et al*. 2011).

The theoretical explanation about the relation between organizational age and organizational mortality rates goes back to Stinchcombe's (1965) observations that new organizations have higher mortality rates than older ones because they often lack resources, experience and connections. Hannan and Freeman (1984) elaborated this idea and argued that, in modern societies, selection processes favor structurally inert organizations capable of demonstrating reliability and accountability, which require high reproducibility. Because reproducibility, achieved through institutionalization and routinization, increases with age, older organizations should be less likely to fail than young ones – the liability of newness (Hannan and Freeman 1984). Many early studies found a significant negative relation between age and mortality across various organizational populations, which support the liability of newness hypothesis (Carroll and Delacroix 1982; Freeman *et al*. 1983; Freeman and Hannan 1983; Carroll and Huo 1986; Singh *et al*. 1986; Hannan 1988).

However, some later research found that the mortality rates of organizations do not always decrease monotonically from foundings. They found that the mortality rates sometimes increase during a brief early period of the life span before decreasing over most of the life span, which is referred to as the "liability of adolescence" (Carroll and Huo 1988; Fichman and Levinthal 1991). The liability of adolescence predicts an inverted U-shaped relationship between age and mortality: the organizational mortality rate begins low due to the initial stock of assets (e.g., resources available at founding), and then rises during the early years as those initial endowments are depleted. After this

adolescence period, the mortality rates fall as predicted by the liability of newness argument.

Meanwhile, some ecologists have focused on processes affecting older organizations and predicted that old organizations have higher dissolution rates than younger ones, which is known as the liability of aging (Baum 1989; Barron *et al*. 1994; Ranger-Moore 1997). Barron *et al*. (1994) reviewed research that support the positive age dependence, and they characterized two explanations known as the liability of obsolescence or the liability of senescence. The former is caused by a growing external mismatch with the environment. Because organizations become increasingly inert with age, old organizations tend to adapt their environmental change slowly. This leads organizations' products and routines to lose fit in the contemporary environment over time, thereby increasing their mortality rates. On the other hand, the latter happens due to internal inefficiencies arising from the aging of the organization. Organizations may ossify as they grow older. Accumulated routines or structures lower organizational performance by reducing efficiency. As a result, their survival chances decrease as they grow older.

The liability of newness and the liability of aging may seem to be conflicting arguments. Some studies find that ageing lowers mortality rates while others find the opposite pattern. Hannan *et al*. (1998) argued that this divergence reflects partly an overly simple specification of the effects of age and size. That is to say, the effects of size on mortality rates differ by age group. By using data on organizational populations of automobile manufacturers in four different countries (Britain, France, Germany, and the United States), they showed that the impact of age on the mortality rates varies in its

direction, depending partly on the size of organizations. In other words, ageing decreases mortality rates for the largest organizations while it increases mortality rates for small organizations in three countries except Britain: the pattern was the reverse in the British population of automobile manufacturers. I address this in the next section, but here I first set a hypothesis about the effect of organizational age on the dissolution rates of cable networks.

> *Hypothesis 1-1.* (Liability of newness and liability of oldness) Both young and old cable networks will be more likely to disband.
>
> *Hypothesis 1-2.* (Liability of adolescence) Both young and old cable networks will be less likely to disband.

Size Dependence

Related to age dependence, population ecologists have examined how organizational size influences the mortality rates of organizations. Hannan and Freeman (1984) argued that the level of structural inertia increases with organizational size, and because selection processes favor organizations with greater structural inertia, large organizations have lower mortality rates. This propensity that small organizations are more likely to have higher mortality rates is known as the liability of smallness (Freeman *et al*. 1983).

Population ecologists have provided several reasons underlying the liability of smallness. Large organizations are less likely to fail than small organizations because they convey advantage in competition. This advantage might stem from scale economies in production or disproportionate influence over suppliers and distributors (Hannan and Carroll 2000). On the other hand, smaller organizations have higher mortality rates because, compared with large organizations, they are more likely to have problems with raising capital, recruiting and training a workforce, and paying higher administrative

costs (Aldrich and Auster 1986). They also have legitimacy problems with external stakeholders (Baum and Oliver 1992, 1996). As organizations grow in size, however, they increasingly demonstrate greater reliability and accountability and, therefore, are less vulnerable to mortality. Many empirical studies find a negative monotonic effect of size on mortality rates, which supports the liability of smallness prediction (e.g., Freeman and Hannan 1983; Singh *et al*. 1986; Barnett and Carroll 1987; Delacroix and Swaminathan 1991; Baum and Mezias 1992; Ranger-Moore 1997).

Meanwhile, there is another argument about the impact of organization size on mortality rates. Based on the Hannan and Freeman's (1977) argument that organizations in the center of size distribution have a poor chance of survival, more recent research suggest a non-monotonic relationship between organization size and mortality rates. Initially, Hannan and Freeman (1977) argued that organizations of different sizes employ different structures and strategies because they rely on a different mix of resources. And, organizations relying on the same mix of resources compete more intensely than organizations that rely on a different mix of resources. This implies that organizations compete most intensely with those of a similar size – 'size-localized competition' (Hannan and Freeman 1977). While small and large organizations do not compete with each other because of their reliance of different resources, organizations of medium size compete not only with those of similar size but also with both small and large organizations for the same resources. Consequently, it leads to higher mortality rates for the medium sized organizations – a "liability of the middle". In other words, medium-sized organizations are selected out (e.g., Amburgey *et al*.1994). This argument suggests that an inverted U-shaped relationship between organization size and mortality may

characterize some populations of organizations. It is also supported by empirical evidence from research on different populations of organizations, such as health maintenance organizations (Wholey *et al*. 1992), and credit union (Amburgey *et al*. 1994).

Although the liability of smallness is a significant question in itself, another reason it has been pursued can be found in its relation to the liability of newness (Singh and Lumsden 1990; Baum and Amburgey 2002). Because new organizations tend to be small, liabilities of newness and smallness are confounded if small organizations have higher mortality rates. For this reason, many studies of liability of newness also focus on the liability of smallness (Singh and Lumsden 1990: 176). Therefore, I include hypotheses on the effect of organizational size on its dissolution rate in addition to the effect of organizational age.

Hypothesis 2-1. Small cable networks are more likely to disband.

Hypothesis 2-2. Medium cable networks are more likely to disband.

Hypothesis 2-3. Large cable networks are more likely to disband.

Organizational Performance

It is conventional wisdom that organizational performance has an effect on survival of that organization. Successful performance helps them continue to exist. In contrast, poor organizational performance is often considered as a factor leading to organizational death. Indeed, scholars tend to consider the disappearance of an organization as the endpoint on the scale of unsuccessful performance (Carroll and Delacroix 1982: 170).

However, an organization fails not only when it closes down its operations but also when it is acquired by another organization. Although acquisitions are not

technically failure, it can be regarded as a failure in that, at least, an organization ceases its operation. As mergers often show, however, not all failures are the result of poor performance. Some merger partners are highly successful and their success makes the organizations attractive as takeover targets. Therefore, the organization failure does not logically implying failure in its organizational performance (*ibid*).

Despite this analytical separation of organizational performance and failure, I expect that the poor performance of organization has a positive effect on organizational failure. In other words, I expect that organizations are more likely to disband as their performance declines. As will be discussed in detail later, none of the cable networks in the dataset went off-air as the result of a merger. Therefore, I set a hypothesis about the effect of organizational performance on cable network dissolution as follows:

> *Hypothesis 3*. Cable networks are more likely to disband as their performance declines.

Population Ecology of Competition

Population ecologists have developed various models to test their hypotheses about factors determining the vital rates of organizations. It would be very difficult for a single researcher to provide an exhaustive overview of all variations of models that have been used in their studies. Fortunately, Singh and Lumsden (1990) have identified six different themes in how population ecologists have approached the study of organizational mortality – the liability of newness, the liability of smallness, population dynamics and density dependence, resource partitioning theory, fitness set theory and the impact of founding conditions on organizational mortality (Singh and Lumsden 1990: 164-165). In the previous section, I focused on the organizational processes involving such as age-

dependent processes (e.g., liability of newness) and size-dependent processes (e.g., liability of smallness). In this part, I concentrate on population level of arguments, particularly density dependence and population dynamics, as well as the resource partitioning argument[52]. Given that cable television industry can be characterized as a mutualistic industry, I also discuss factors affecting organizational mortality in such industries.

Population Dynamics and Density Dependence

Population ecologists predict that the vital rates of organization, which are the rates of founding and the rates of mortality, are dependent on the number of organizations (density) in the population. The basic logic of the relationship between density and organizational mortality is analogous to the relationship between density and organizational foundings, which I discussed in a previous chapter. Hannan and Freeman (1977) initially argued that density captures the processes of legitimation and competition in the organizational population. An increasing density in the early stage of the development of a certain organizational population increases the institutional legitimacy of the population, thereby decreasing the mortality rate. As density continues to rise, however, competition for limited resources overwhelms the effect of legitimation, thereby increasing the mortality rate. Therefore, the rate of organizational mortality is nonmonotonically related to density; it declines initially and then increases as density continues to rise. This process suggests a U-shaped relationship between density and mortality (Hannan and Carroll 1992).

[52] I could not examine the last two themes – fitness set and founding conditions – due to data availability.

A large number of research studies have examined the density dependence model and have provided evidence in favor of it. For example, Hannan and Freeman (1988) analyzed the mortality rates of the entire population of American national labor unions from 1836 to 1985, and they showed that mortality rates first decrease but then increase as density rises from low to high. Moreover, they showed that this pattern of density effects remains the same when controlling for other variables, such as age as well as economic, political and social environments. Carroll and Swaminathan (1991) also found strong evidence for the density dependence model in their study on American breweries from 1633 to 1988. They showed that both founding rates and mortality rates are nonmonotonically related to density in ways predicted by the model. Like Hannan and Freeman (1989), they also found the pattern of density dependence remained even when the rate functions are specified with different socio-economic control variables (Carroll and Swaminathan 1991: 155).

However, not all empirical evidence has agreed with the model of density dependence. For example, Delacroix *et al*.'s (1989) analysis of California wineries from 1940 to 1985 provided non-supportive findings to the density dependence model – no significant impact of density on the mortality rates of wineries. They argued that the nonmonotonic relationship between density and mortality rate does not hold for the California wine industry. Rather, dynamic processes of prior foundings and prior dissolution which, according to their arguments, were obscured by density dependence model better account for the observed dissolution rates of wineries. As a consequence, they conclude that the general claim of the density dependence model fits well with non-profit organizations, such as labor union (Hannan and Freeman 1988), and political

organizations, such as newspapers (Carroll 1987), as well as government sponsored organization, but not with market-oriented business organizations. They argued that, for business organizations, legitimacy is usually not an obstacle to the emergence of new business form, and it is seldom a factor with regards to mortality. Moreover, they argued that because business organizations have the ability to escape overcrowding by migrating to a neighboring niche or by enlarging the initial niche, competition is as likely to lead lateral migration as to elimination (Delacroix *et al*. 1989: 258-259).

Barnett and Amburgey's (1990) study on the telephone industry provides another example. Although their findings partially supported the density dependent model, they interpreted those findings somewhat differently. They pointed out that density dependence presumes that all organizations, regardless of size, have an equal impact on the vital rates of organizations. So, the observed effect of density might be the result of other factors, such as market size. Therefore, they urged researchers to use population mass, population density weighed by organizational size. According to Baum and Shipilov's review (2006), however, mass dependence findings are also mixed (Baum and Shipilov 2006: 82).

In response to those criticisms, population ecologists argued that the model of density dependent organizational evolution is still valid because the differences in results that various studies have shown are usually due to the fact that they do not have data on the complete history of the population they studied, especially early period data (Carroll and Hannan 1989; Carroll and Swaminathan 1991). Carroll and Hannan (1989) argued that ignoring data in the early period is particularly problematic for the legitimation effect in the density dependence model because the legitimation process usually occurs in that

period. Despite the refutations, still others pointed out that their arguments might not explain all the inconsistent results for the density dependence of mortality rates. They suggested that there might be systematic differences across populations in patterns of density dependence of mortality areas (Singh and Lumsden 1990: 179).

The cable television industry can be characterized as one consisting of market-oriented business organizations. At the same time, it has been subject to government regulations, except in the very early period from its inception in the late 1940s to the late 1960s. Moreover, the structure of the cable television industry is often considered as a unique one in that it consists of local cable system operators that distribute cable programming in a franchised area are local monopolists, while the cable networks that produce programs are competitive. Given this uniqueness, it provides an interesting opportunity to test the density dependence model, as well as the impacts of population dynamics.

In light of the density dependence argument, I set up a hypothesis to test whether the density of cable networks (i.e., the total number of cable networks in a given year) shape the dissolution rates of cable networks. If the density dependence model holds, density should have a significant effect on cable network dissolution in a U-shaped fashion.

> *Hypothesis 4.* Cable network density will have a U shaped effect on the dissolution rates of cable networks.

In addition, in light of population dynamics argument, I test the impact of prior-year foundings and prior-year dissolution on the dissolution rates of cable networks.

> *Hypothesis 5*. The *previous* number of cable network foundings will have a U shaped effect on the likelihood of dissolution for cable networks in the subsequent year.
>
> *Hypothesis 6*. The *previous* number of cable network dissolution will have U shaped effect on the likelihood of dissolution for cable networks in the subsequent year.

Resource Partitioning: The Impact of the Market Concentration

The resource partitioning model explains the dynamics of organizational populations in markets characterized by economies of scale[53], and it focuses on the impact of market concentration on the vital rates of organizations. According to Carroll (1985), organizations initially attempt to find a viable position within the market but the position is differed by type of organizations – generalist and specialist. Generalists seek to occupy heterogeneous resource segments while specialists aim for narrow homogeneous resource segments (Carroll 1985). Under conditions of resource partitioning, generalists and specialists differently react to market concentration. When market concentration is low, numerous generalists compete with each other for occupying wide range of resources; thereby there is little room for specialists in the market. When market concentration is high, however, the increasing mortality rates of generalists due to intense competition for the same segments of resources at the center of the market leave resources at the periphery; thereby it attract specialists to enter the market. In brief, the resource partitioning model yields the prediction that increasing market concentration raises the mortality rate of generalists while it lowers the mortality rate of specialists. This model has been tested and supported in a wide range of organizational settings, including

[53] An economy of scale exists when one large firm can supply a product at lower cost than can a combination of small firms (Carroll 1985: 1263).

newspaper publishers (Carroll 1985; Dobrev 2000), telephone companies (Barnett and Carroll 1987), beer breweries (Carroll and Swaminathan 1992, 2000), wineries (Swaminathan 1995), automobile manufacturers (Dobrev *et al*. 2002), and film companies (Mezias and Mezias 2000).

In this study, I use resource partitioning model to examine the impact of market concentration on the dissolution rate of cable networks. Market concentration among a few large cable networks may create room at the periphery for specialized cable networks. As noted in the previous chapter, we can view all cable networks as specialists in terms relative to the broadcast networks that are generalists. With this understanding, we can somewhat modify the resource partitioning argument for the cable television industry, expecting that the dissolution rates of cable networks will decline as market concentration among a few large cable networks increases.

> *Hypothesis 7.* Cable networks are less likely to disband as market concentration increases.

Mutualism in Network-Based Industries / System Mass

Population ecologists argue that in mutualistic industries, such as the telephone and rail industries, a new firm's prospect depends on the total number of available connections with other firms (Barnett and Amburgey 1990). This can also be applied to the cable television industry. In this industry, a new cable network's prospects depend on the total number of cable systems and the channel capacity of those cables system operators. The more system operators that deliver networks' programming, the more profit they can make, because one of their revenue sources is a per subscriber fee (Newcomb 2004). Channel capacity affects both the total number of program services carried and the

probability of carriage for a particular program service. In the early years of cable television, cable system operators were able to carry only a limited number of cable programming networks because the analog channel capacity of local cable systems was relatively constant. Afterwards, however, cable television channel capacity has kept expanding since the mid-1990s, driven in large part by the extensive diffusion of digital compression technology (Chen and Waterman 2007). That technology generally allows twelve or more digital channels of comparable video quality to be offered in place of one analog channel (*ibid*).

An increasing number of cable system operators and an expanding channel capacity might be a boon for cable networks in that more channel space with more local cable system operators can indicate more chances to be delivered. Meanwhile, although the channel capacity of cable systems has substantially increased since the mid-1990s, it is still limited because the number of cable networks from which cable system operators can choose to carry is still several times that of capacity (Kang 2009). Therefore, for cable networks, especially for new entrants, it is still hard to persuade local cable systems to carry their programming. Some of previous studies on the carriage decision of a cable network have included the analog channel capacity as an explanatory variable (Waterman and Weiss 1997; Chipty 2001; Chen and Waterman 2007; Kang 2009). With the development of digital cable networks, however, the analog channel capacity of a cable system becomes less important than previously in that adding the channel capacity variable did not change the results significantly (Ji 2012).

Informed by those previous research studies, I set the hypothesis that predicts the impact of the total number of available connections to cable networks, in terms of the number of cable system operators, as well as their channel capacity.

> *Hypothesis 8*. Cable networks are less likely to disband as the number of available connections to cable system operators (i.e., number of cable system operators and/or channel capacity) increase.

The New Institutionalism: Regulation of Competition

The new institutional perspective on organization has very similar concerns to those of population ecology, as they both are interested in the evolution and development of industries. The new institutional perspective, however, emphasizes that organizations are significantly affected by a broader institutional context that is not limited to their economic and technological environments. It conceives organizations to be encompassed by their social cultural environment. With its emphasis on social and cultural processes within and across organizations, the new institutionalism has offered more comprehensive sociological framework to study organizational world.

Population ecologists focus primarily on the resource availability that organizations need to survive (Carroll and Hannan 2000). In this view, organizations can remain viable only when sufficient market resources exist to support their existence. The resource partitioning argument, as I discussed above, also focuses on the availability of resources that help certain types of organizations emerge and survive (Carroll 1985).

The new institutionalism, on the other hand, emphasizes that legitimacy is embedded in the larger societal context. Specifically, when studying the evolution and development of organizations, this perspective focuses on the cultural and cognitive

environments in which organizations operate (Meyer and Rowan 1977; DiMaggio and Powell 1983). From the new institutional perspective, organizational survival does not just depend on the availability of market resources. Rather, it is important for the viability of organization to gain sufficient legitimacy from the states, customers, and other organizations (DiMaggio and Powell 1983).

Among other things, the new institutionalists often pay great attention to the implications of the states and its policies (Meyer and Rowan 1977; DiMaggio and Powell 1983; Dobbin and Dowd 1997, 2000; Dobbin and Sutton 1998; Lippmann 2007, 2008). It emphasizes that the state and its policies in the form of industry regulations have a significant effect on shaping organizational dynamics in a given industry by providing a framework for organizations on how they do their business. Therefore, the new institutionalists speak of "policy regimes" in which regulations and law shape the common way that organizations within an industry conduct their business. For example, in his study on the broadcasting markets of the United States from 1920 to 1934, Lippmann (2007) showed that the consolidation of commercial broadcasting stations' interests, as enshrined in the Federal Radio Act of 1927 altered the logic of competition between part-time noncommercial stations and full-time commercial stations. When comparing the period of regulation (1927-1934) to the period of non-regulation (1920-1926), he found that the number of full-time commercial stations grew rapidly whereas the number of part-time commercial stations and noncommercial stations gradually declined. He also found that the failure rates of noncommercial stations increased while those of full-time commercial stations decreased. Therefore, Lippmann concluded that changes in the institutional environment of radio broadcasting, marked by the 1927

Federal Radio Act, shaped the way that market forces allowed to play out in the industry in a way to grant legitimacy on full-time commercial stations.

I argue that the cable ownership limits rules have significant effects on the cable television industry by altering the logic of competition. As illustrated before, the purpose of cable ownership limits rules were to place restrictions on the increasing market power of large cable system operators, thereby diverse cable programming networks, especially those that are not affiliated with cable system operators, can have opportunities to be delivered by them. Although cable ownership regulations had not been legally in effect, I showed that market actors including cable system operators were concerned about those regulations especially when their behaviors seemed to violate them. Therefore, I expect in a period where cable ownership regulations were posed to limit the market power of cable system operators, from 1993 when the FCC promulgated the cable ownership limits rules to 2001 when the Court of Appeals reversed the rules, cable programming networks were less likely to disband. However, when those potential regulations were swept aside, the expanded market power of cable systems made cable networks more likely to disband.

> *Hypothesis 9*. Cable networks are less likely to disband when cable ownership regulations were posed to limit the ownership of cable system operators, from 1993 to 2001.

Data and Methods

Data

The primary data source for this study is SNL Kagan (Media & Communication sector of SNL Financial, LLC.), which provides proprietary data on media and communications

business. Specifically, it has provided financial and operational information on more than 250 cable networks since 1989[54]. It tracks how each cable network is performing against key benchmarks. For example, it presents network type (basic, premium, and regional sports network), programming genres, ownership, and status (On Air/Off Air). It also provides detailed financial data for cable networks, including the number of subscribers, various revenues (e.g., advertising revenue, affiliate revenue, and operating revenue) and expenses (e.g., programming expenses and operating expenses). I chose SNL Kagan data as the primary data source because it is the one that provides performance data of individual cable programming networks from 1989 to present.

Regarding programming genres, SNL Kagan classifies cable networks into ten different genres and specifies one particular genre for each one of cable networks in their profiles. According to their genre classification, cable networks can be classified into the following: Arts & Entertainment, Family & Kids, Film, General/Variety, International/Ethnic/Foreign language, Music, News, Niche, Sports, and Women's. As will be described later, I applied SNL Kagan's genre classification to generate genre levels of variables.

From this data source, I constructed life histories of each cable network in the market from 1989 to 2010, including the year of cable network founding and dissolution, as well as the number of years each cable network was in existence. In case that SNL

[54] SNL Kagan covers all of the for-profit networks that are widely carried on cable, DBS, or telco video. The conditions that a network should meet in order to be under SNL Kagan coverage are as follows: (1) the network should be working towards national distribution, other than regional sports networks; (2) It should have a minimum of 1 million subscribers; (3) It should be a for-profit network; (4) It should not be a retail a shopping network; and (5) it does not cover networks with adult content. Therefore, cable networks having number of subscribers less than 1 million, local cable networks (other than regional sports networks), home shopping, and networks dealing with adult contents were not included in the analysis.

Kagan did not provide the founding year of a cable network, I first checked the *Television and Cable Factbook* (Warren Publishing), which has reported extensive number of existing programming networks in a given year since 1982, and then checked the website of National Cable Television Association (NCTA), which provides the list of current cable networks profiles, to see whether any of them provides the launch year of that cable network. If none of them provided such information, then I treated the first year that any of its financial data was recorded as the founding year. In cases where the year that a cable network went to off-air was missed in the SNL Kagan data, I treated the last year that any of its financial data was reported as the exit year of the cable network.

Data for this study were supplemented with additional information obtained from several sources. For example, I used the Standard and Poor's Industry Survey and the Television and Cable Factbook to collect aggregate level of annual data on the cable television industry, such as the number of subscribers of the Top 10 cable system operators in a given year and the annual number of cable system operators. I also made use of various industry reports to get information, for example, on merger and acquisition to determine whether the cable networks dissolution was associated with a merger. In addition, I used government documents and court records to figure out the processes of rulemaking related to the cable television industry.

Dependent Variable

The dependent variable for this study is the likelihood of cable network dissolution. A cable network was considered as disbanded when it ceased operation due to various reasons, such as bankruptcy or being acquired by another company. In this study, a cable network was coded as a disbanded when the data source (SNL Kagan) first indicates it as

"Off-air" or once there was no record of the network in the financial data. In the latter case, mortality was recorded for the final year of known operation. As briefly mentioned above, there was no cable network disbanded due to a merger in the dataset. In total, there are 54 cable networks that went off-air between 1989 and 2010. I compared cable networks that went off-air in a given year to an industry report, *Cable Program Investor* (SNL Kagan, January 2013) that provided cable network deals since 2000 as well as the biggest cable network deals in history. Because most of cable networks – 50 cable networks out of 54 – went off-air after 2000, it is reasonable to assume that there was not cable network in the data disbanded due to a merger. In addition, in order to replicate previous studies on organizational dissolution, I assume that cable networks that went off-air in this study are the result of organizational dissolution.

In total, the 277 cable networks in the dataset yield a total of 3,212 annual spells (cable network–by–year observation).

Independent and Control Variables

I collected data on independent variables from the SNL Kagan, except where otherwise noted. Each of the independent variables is measured annually, that is, each varies over time.

Density

Population ecologists have found that the total number of organizations (i.e., density) has a significant effect on dissolution in a U-shaped fashion (Hannan and Freeman 1988; Hannan and Carroll 1992). To assess the effect of density on cable networks dissolution, I documented the total number of cable networks in a particular market in a given year.

Note that density here means genre specific values in a given year. Following prevailing practice, I coded density as the number of cable network surviving at year's start, calculated as cumulative foundings minus cumulative dissolution. Second-order terms control for possible non-linear effect of density.

Prior-Year Foundings

Population ecologists argue that the number of organizational foundings in the previous year has a U-shaped relationship with dissolution. To examine the effect of previous foundings on the dissolution rates of cable networks, I include the number of cable networks foundings in a particular genre-market in the previous year. Second-order terms are also included to control for possible non-linear effect of previous founding.

Prior-Year Dissolution

Prior year dissolutions have a similar effect on organizational dissolution, a U-shaped pattern. To assess the effect of previous dissolution on the current dissolution rates of cable networks, I include the number of cable networks dissolution in a particular genre market in the previous year. Second-order terms are also included.

Figure 5-1 displays the yearly variation in the counts of foundings and density, and Figure 5-2 graphs the yearly variation in the counts of dissolution and density over the study period, 1989-2010.

Organizational Age

Scholars in organization studies have argued that organizations are subject to a liability of newness and aging, with each having a monotonic relationship with mortality. In the meantime, the liability of adolescence argument expects an inverted U-shaped

relationship between age and dissolution. To address these hypotheses, I include a variable that represents cable network's age. Measured in years, this variable was computed by subtracting year of founding from current calendar year for each cable network in each year of operation. Second-order effects are also included to control for possible non-linear effects of organizational age, as is the case for the liability of adolescence.

Organizational Size

Organizational size is usually measured with assets; however, it has also been measured with a number of different variables that represent productive capacity, especially when the complete data on assets are not available (Dobbin and Dowd 2000). For the same reason, I use an alternative measure of organizational size – the number of subscribers. One of the primary sources of income for cable network is a license fee from cable system operators, and those fees are based by the number of subscribers. That is to say a cable network that has a large number of subscribers can charge more than a cable network that has a small subscriber number. For example, Kang (2009) found that the size of subscribers is positively correlated with a cable network's profitability. Therefore, a cable network's subscriber size is used as a measure of organization size.

Organizational Performance

To test the effect of organizational performance on the dissolution rates of cable networks, I include various revenues variables that were available in the main data source (i.e., SNL

Kagan) – gross advertising revenue, net advertising revenue, affiliate revenue, and operating revenue[55].

With these data, I created two different levels of performance variables, which are organizational performance and genre performance. Organization level performance variables are the above mentioned four variables for each of the cable networks in a given year. To assess genre level performances, I summed each one of organizational level of four variables for all cable networks in a particular genre in a given year. In this way, I created four different genre level performance variables.

Concentration

To examine the effect of market concentration on the cable network dissolution, I used two variables of concentration: one representing the level of concentration among cable system operators in a given year, and the other representing the level of concentration among cable programming networks in a given year in a given genre-market. Due to data availability, the former was measured by four-firm concentration ratio (CR_4) and the latter was gauged by the Herfindahl Index (HI). First, four-firm concentration ratio (CR_4) reflects the proportion of total industry market share accruing to the largest four firms. The concentration ratio index ranges between 0 to 100 percent. If the CR_4 were close to zero, this value would indicate an extremely competitive industry because the four largest firms would not have any sizable market share. On the other hand, if the CR_4 were close to 100, this value would indicate an extremely concentrated industry. Same as the

[55] Gross advertising revenue indicates revenue from carrying advertisements, before expenses of ad agency. Net advertising revenue is revenue from carrying advertisement, after expenses of ad agency. Affiliate revenue means revenue from multichannel providers. Net operating revenue is all operating revenue associated with the business.

previous chapters, I used the number of basic subscribers of four largest cable system operators over the total number of basic subscribers in a given year to create four-firm concentration ratio variable. I drew on Standard and Poor's Industry Survey (1989-2010) to collect data on the number of basic subscribers of four largest cable system operators in a given year. From Television and Cable Factbook, I collected annual number of basic subscribers from 1989 to 2010.

Figure 5-3 shows the concentration ratio of the largest four cable system operators from 1989 to 2010. As can be seen, the concentration of cable system operators has generally increased as the years have gone by, and it steeply increased after the late 1990s.

To assess cable network concentration in a given genre-market, I used the Herfindahl index. As described in Chapter Four, this index (HI) assesses the total number of firms and their respective market shares. Moreover, these market shares are squared in the calculation to place more weight on the larger firms. It is constrained to range from 0 to 1.0, moving from a perfectly competitive market to a monopoly. In this study, the HI is calculated based on cable networks' subscriber numbers reported. Graphs that show the Herfindahl indices of cable networks in each of ten different genre-markets from 1989 to 2010 are presented in Chapter Four (Figure 4-5).

Mutualism in Network-Based Industries

To examine the effect of system mass on the dissolution rates of cable networks, I used two indicators – system mass and channel mass. System mass was measured by the total number of cable system operators at the beginning of the year. Data for this variable came from the Television and Cable Factbook, which reports total number of cable system operators from 1952 to present.

Figure 5-4 presents the number of cable networks and the number of cable system operators in each year, from 1989 to 2010. In Figure 5-4, the number of cable networks had increased in the early 1990s, but it has generally shown a decreasing pattern. On the other hand, cable system operators had generally increased until the late 2000s, then decreased afterwards.

In addition to system mass, I include a variable representing channel capacity. Data for this variable came from the Television and Cable Factbook (1989-2010). Because channel capacity differs by individual cable system, the Factbook provides several ranges in the number of channels accompanied with number of cable systems and number of subscribers. Those ranges are as follows: (1) below 5, (2) 5 only, (3) 6 to 12, (4) 13 to 19, (5) 20 to 29, (6) 30 to 53, (7) 54 to 90, (8) 91 to 124, and finally (9) 125 and over. Only the first seven ranges were reported up to 1999. It was 2000 when the last two ranges, which indicates large channel capacity (i.e., 91 and over) first appeared in the Factbook. Therefore, I created a binary variable by coding 0 for the years before the largest two ranges appeared (1989-1999), and coding 1 for the years afterwards (2000-2010).

Policy: Cable Ownership Rules

To test the impact of cable ownership rules on dissolution, a binary variable for that regulatory period is employed. As described above, cable ownership limits were not legally in effect; rather, they created uncertainty in the cable television industry. However, it is an undeniable fact that the rules were clearly there as possibilities for those in the cable television industry. That is also why there had been the debate over cable ownership concentration and deregulation between the cable system operators and the

rule makers and consumers (see Chapter Four). Based on the fact that the number of newspaper articles dealing with "cable ownership limits" reached its peak in 2001 when the Court of Appeals reversed the rules and sharply decreased afterwards, I set the period of cable ownership limit rules from 1993 when the FCC promulgated the rules to 2001 when the Court of Appeals reversed the rules (*Time Warner II v. FCC & U.S.* 2001).

It is a common way to measure the impact of policy on industry dynamics that the years prior to and including the passage of a certain Act will be coded as 0, and the remaining the years will be coded as 1 (Dobbin and Dowd 1997, 2000; Schneiberg and Clemens 2006). Following that approach, the years when the cable ownership limit rules were pending (i.e., 1993-2001) were coded as 1, while the remaining years (i.e., 1989-1992 and 2002-2010) were coded as 0.

In all the models, except organizational level variables such as age, size and organizational performance variable, I measure the effect of end-year values on the likelihood of an event in the subsequent year, therefore ensuring that causal variables are measured prior to outcomes.

Table 5-1 lists the independents variables used in the analysis and specifications omitted from results reported here. Those omitted were due to being highly correlated with other independent variables.

Economic Conditions

To control for broad economic conditions, I used the natural log of Gross Domestic Product (GDP) of the United States (Bureau of Economic Analysis, U.S. Department of

Commerce). I used the natural log of GDP, rather than the actual GDP, so that it measures the impact of economic growth rate on the dissolution rate of cable networks.

Methods

Organizational mortality is often analyzed using event history analysis (Allison 2010 [1995]). Event history analysis can be defined in terms of three attributes: first, data units move along a finite series of states; (2) at any time point, changes (i.e., events) may occur, not just at certain time points; and (3) factors influencing events are of two types, time-constant and time-invariant (Coleman 1981: 1). Event history models focus on the hazard function, which has to do with the probabilities that an event will occur after any given duration.

Because data on cable networks for this study were released in annual intervals and the exact date of dissolution is not known, discrete time methods are used to model cable networks' survival chances. Moreover, this method is suited to the analysis because it allows for the inclusion of time-varying covariates. In particular, I use event history methods to model cable networks dissolution, employing LOGISTIC procedure in SAS.

The unit of analysis is the network-year, so each cable network comprises a number of observations equivalent to the number of years it was in operation. The original set of cable networks was divided into a dataset containing 3,212 network years.

To explore the impact of the discontinuous institutional change, the probability of cable network dissolution (P_{it}) is estimated as a function of the explanatory variables using a complementary log-log transformation. The complementary log-log model provides several advantages. For instance, it allows us to assume an underlying

continuous-time distribution of events (Kraatz and Zajac 1996; Lippmann 2007). For this analysis, it is suitable to the data for this study in that actual dissolution of cable networks could occur at any time during the year, but could only be measured in yearly intervals. Moreover, the complementary log-log model generates coefficients that are identical to those in the proportional hazard model, and the model is invariant to the interval length at which time was measured (Allison 2010 [1995]). The basic model is

$$\log[-\log(1 - P_{it})] = \alpha + \beta X_{it}$$

where P_{it} is the probability of dissolution for cable network *i* occurring at time *t*, given that cable network dissolution has not already occurred, and βX_{it} is a vector of time-varying independent variables for each cable network *i* at each time *t* .

Findings

Table 5-2 presents the results of the event history analysis for cable network dissolution. Model 1 includes variables measuring the impact of organizational age and size only. In this model, cable network size has a significant effect on cable network dissolution while cable network age has no significant effect on cable network dissolution. Specifically, cable network size has a significant effect on cable network dissolution in a U-shaped fashion, indicating that medium size cable networks are less likely to disband than small and large cable networks. In other words, small and large cable networks are more likely to disband, thereby showing liability of newness and oldness. In results not reported here, the age of cable networks alone has a significant effect on cable networks dissolution in the negative direction. When entering age and size together, however, the effect of age disappeared while the effect of size remained significant. These results agree with the

previous ecology argument on the impact of organizational age and size. Baum and Amburgey (2002) pointed out that studies controlling for time-varying size generally do not find evidence of the liability of newness.

Model 2 adds ecology variables previously used to test resource availability and competition: density, prior-year foundings, and prior-year dissolutions. This model offers a significant improvement in fit over model 1 ($\chi^2 = 14.23$; $df = 4$). Both prior-year foundings and prior-year dissolution have a significant effect on cable networks dissolution. Prior cable network founding does so in a negative direction, which indicates cable networks are less likely to disband when there are more cable network foundings in the previous year. On the other hand, prior-year dissolutions does so in a positive direction, indicating cable networks are more likely to disband as more cable networks disbanded in the previous year. This result can be interpreted as follows: more cable networks founding in the previous year may signal the hospitable market environment, thereby existing cable networks are more likely to survive. On the contrary, more cable networks dissolution in the previous year may signal unfavorable market environment, thereby leading more cable networks dissolution in the subsequent year. Meanwhile, density has no significant effect on cable network dissolution. The impact of cable network size on cable network dissolution remains significant.

Model 3 introduces the organizational performance variable to Model 2. Its inclusion significantly improves the fit of the model ($\chi^2 = 4.15$; $df = 1$). Organizational performance has a significant effect on cable networks dissolution in the negative direction, indicating that cable networks are less likely to disband as their performance improves. In other words, cable networks are more likely to disband when performing

poorly, as one would expect. This model also shows that density now has a significant effect on cable network dissolution in an inverted U-shaped fashion. Note that density is the total number of cable networks in a particular genre in a given year. The positive main effect of density in this model indicates competition, not from cable networks in other genre, but from cable networks in the same genre. The negative squared term suggests self-dampening density effect, with competition increasing at a decreasing rate as the number of cable networks in the same genre grows. The impact of prior-year foundings on cable networks dissolution remains significant in the negative direction, while the impact of prior-year dissolutions disappears in the presence of density variables. Meanwhile, the impact of size of cable networks on dissolution remains significant.

Model 4 adds genre-market performance variable to the previous model. The inclusion of this variable significantly improves the fit of the mode ($\chi^2 = 31.48$; $df = 1$). Interestingly, genre-market performance shows significant effect on cable network dissolution in the positive direction, which indicates that cable networks are more likely to disband as their genre-market performance improves. At the same time, the effect of organization level performance washes out in the presence of genre-market level of performance variable. This result suggests that cable networks are more likely to disband as the market is getting bigger, so that competition among cable networks in the same genre market becomes more intense. In the meantime, the impact of cable network size and the impact of the ecology variables showing significance in the previous model, which are density and prior-year foundings, remain significant.

Model 5 introduces system mass variable to the previous model. It provides a significant improvement in fit over Model 4 ($\chi^2 = 7.31$; $df = 1$). It has a significant effect

on cable networks dissolution in a negative direction, meaning that cable networks are less likely to disband as the number of cable system operator increases. It supports hypothesis 8 that predicts a cable network's prospect is significantly affected by the total number of available connections[56]. Size of the cable network still has a significant effect on cable network dissolution in a U-shaped fashion. The density effect also remains significant in an inverted U-shaped, while the effect of prior-year foundings disappears. The genre-market level performance variable still shows its significant impact on cable network dissolution in the positive direction.

Model 6 adds a measure for genre-market concentration. The inclusion of genre-market concentration variable provides a significant improvement in fit over the previous model ($\chi^2 = 9.74$; $df = 1$). The results are striking. The impact of density turns out to be insignificant in the presence of the genre-market concentration variable. Consequently, all ecology variables, used to test resource availability and competition, have no significant effect on cable network dissolution. Moreover, the effect of genre-market performance on cable network dissolution is also washed out by the inclusion of genre-market concentration variable. The size of the cable network still has a significant effect on cable network dissolution in a U-shaped fashion.

Meanwhile, genre-market concentration has a significant effect on cable networks dissolution in the negative direction. It indicates that cable networks are less likely to

[56] In results not reported here, I tested the effect of channel capacity on cable network dissolution as well. It had a significant effect on cable network dissolution but in the opposite direction. However, I decided to use a system mass variable rather than a variable for channel capacity because channel capacity is a binary variable that only distinguished the larger number of channel capacity from the small number of channel capacity while a variable measuring system mass is a continuous variable based on the annual number of cable system operators. Moreover, the variable for channel capacity is highly correlated with the policy variable so that it could not be entered into the final model.

disband as market concentration increases. Specifically, cable networks became almost 12 percent less likely to disband per one unit increase in the genre-market level of concentration. This result supports the resource partitioning hypothesis (Hypothesis 7). Cable networks have a higher chance of survival when there is a big player, such as CNN and MTV in their genre, news and music, respectively. It might be difficult for the audience to perceive the existence of a certain genre-market unless there is prominent and popular cable programming network in that genre. In other words, a big player in a certain genre may make it easier to people to access other networks in the same genre. For example, the audience may try to look for other music cable networks if they enjoy watching MTV.

Model 7 introduces the policy variable to the previous model, and it provides the best model. This model offers a significant improvement in fit over model 1 ($\chi^2 = 3.84$; $df = 1$). The results are consistent with those of the previous model. Consider first the organization level of variables. Consistently, cable network size has a significant impact on the cable network dissolution in a U-shaped fashion. Second, all of the ecology variables, which are density, prior-year founding, and prior-year dissolution, have no significant effect on cable network dissolution. Third, both organization level performance and genre-market level performance variables do not have significant effect on cable network dissolution. Fourth, the negative effect of genre-market concentration variable on cable network dissolution remains significant in the presence of the policy variable. It again means that cable networks are less likely to disband as genre-market concentration increases. Finally, the policy variable has a significant effect on the dissolution of cable networks in the negative direction. It indicates that, during the period

of proposed cable ownership limits rules (1993-2001), cable networks became approximately 68 percent less likely to disband than in the periods before and the after the rules were posed. Therefore, Hypothesis 9 is supported. This result once again confirms that even if the cable ownership rules were not legally in effect, the very existence of the rules has some significant effect on the industry.

In Model 8, I introduce a control variable for economic conditions – the natural log of GDP, lagged by one year. Note that this model does not offer a significant improvement in fit over the previous model. In this model, GDP does not have a significant influence on the dissolution rates of cable networks; however, variables that have shown their significance in previous models (i.e., size, concentration and policy) remain their significance after controlling for economic conditions[57].

Overall, this final model implies that factors affecting the fate of cable networks in the industry are neither the sheer number of cable networks nor how they perform. Rather, it might be determined by the balance of market share that those networks involved. Note that the effect of network size remains significant in this model. It can be inferred that cable networks in a particular genre are more likely to survive either if there are handful number of medium size cable networks in that genre or if there is a big player in the same genre. In addition, policy has a significant effect on the dissolution of cable networks that is not reducible to the effects of organizational characteristics and performance, as well as the impact of market concentration. As the new institutionalists

[57] In addition to GDP, I considered another control for economic conditions, which is the S&P500 index, but I was concerned given the high correlation it had with concentration and the odd signs it produced when in the model. Therefore, I instead opted to rely on GDP as an appropriate measure – especially given its low correlation with the other variables and the expected direction of its net effects.

have argued, changes in policy regimes do have a significant effect on the dissolution rates of organizations by shifting the logic of competition in the industry.

Conclusion

This chapter presents an analysis of the factors that influencing the dissolution rates of cable programming networks in the cable television industry. To ground my analysis, I drew on the new institutionalism and population ecology. When studying the development of industries, population ecology has emphasized that the density dependent processes of legitimation and competition determine the development an organizational population over time. On the other hand, the new institutionalism has emphasized the development of a given industry is affected social and cultural context. The new institutionalists have long argued that the development of a given industry is not simply shaped by the sheer number of organizations. Rather, a particular interest to them has been the role of the state and the influence of the regulatory environment in leading organizations to develop appropriate responses by shaping the logics of production and competition. Drawing upon the new institutional theory, I examined factors affecting the dissolution rates of cable programming networks from 1989 to 2010.

The cable television has evolved from a retransmission device regarded simply as an auxiliary service of the broadcast television to a full-fledged mass medium that providing various programming as well as competing with the broadcast television. From its inception in the late 1940s until the 1970s, the primary function of cable service was a retransmission of the signals of broadcasting stations (Mullen 2003, 2008). However, with an increasingly favorable policy environment and technological innovations that

enabled satellite-carried cable channel, the cable television industry began to rapidly expand in the 1980s. In particular, the Cable Communication Act of 1984 considerably helped the cable television industry expansion both in programming and system construction (Parsons and Frieden 1998; Mullen 2008). As the industry kept growing, merger and acquisition also began to increase. The larger and successful cable companies became more consolidated the industry became. It was not only horizontal integration between cable systems, but also vertical integration between cable systems and cable programming networks. As the industry was increasingly concentrated as a result of merger and acquisition, the market power of the large cable system operators kept growing. By the benefit of the deregulation, they were able to increase subscriber rates while consolidating operations and negotiating huge amount of discounts from cable programming networks (Mullen 2008).

In these situations, policymakers started worrying that the presence of a few large cable system operators has an adverse effect on the diversity of cultural production, in this case, cable programming. Given the unique structure of cable television industry, policymakers were concerned that horizontally concentrated and vertically integrated cable system operators unfairly impeded the growth of cable programming networks by exerting their undue market power in the cable programming acquisition market. As a result, Congress enacted the Cable Consumer Protection and Competition Act in 1992, and it required the FCC to establish reasonable limits on the cable ownership. Following the direction, the FCC announced cable ownership limits rules in 1993. The national subscriber limit prohibited a cable system operator from serving more than 30 percent of national cable television subscribers (horizontal limit), and channel occupancy limit

restricted the number of channels that can be occupied by programmers affiliated with the particular system (vertical limit). However, these cable ownership limits rules were not implemented fully due to constant legal challenges from the industry. Consequently, in 2001, these cable ownership limits rules were finally reversed by the Court of Appeals (*Time Warner II v. FCC & U.S.* 2001). Although the rules were not legally in effect, they still exerted an impact on the industry.

Using comprehensive cable network data from 1989 to 2010, I tested a competing set of hypotheses derived from population ecology and the new institutional theory that deal with the development of a given industry. The findings of this chapter strongly support new institutionalism. The cable ownership limits regulations, even though not legally in effect, did have a significant effect on the dissolution rates of cable programming networks. These results suggest that the dissolution rates of cable programming networks are largely shaped by the industry regulations that led to shift the logic of competition in the cable television industry. The existence of the cable ownership limits regulations may create stable market environment for the cable programming networks in that the rules delimited the bargaining clout of cable system operators in programming acquisition market, thereby assuring certain portion of the market cable networks can capture. In contrast, the absence of the cable ownership limits rules might create highly unstable market environment for cable programming networks, thereby increasing their dissolution rates.

Among the organizational characteristics, the size of the cable networks has a significant effect on the dissolution rates of cable networks; the small and large cable networks are more likely to disband than cable networks of middle size. When

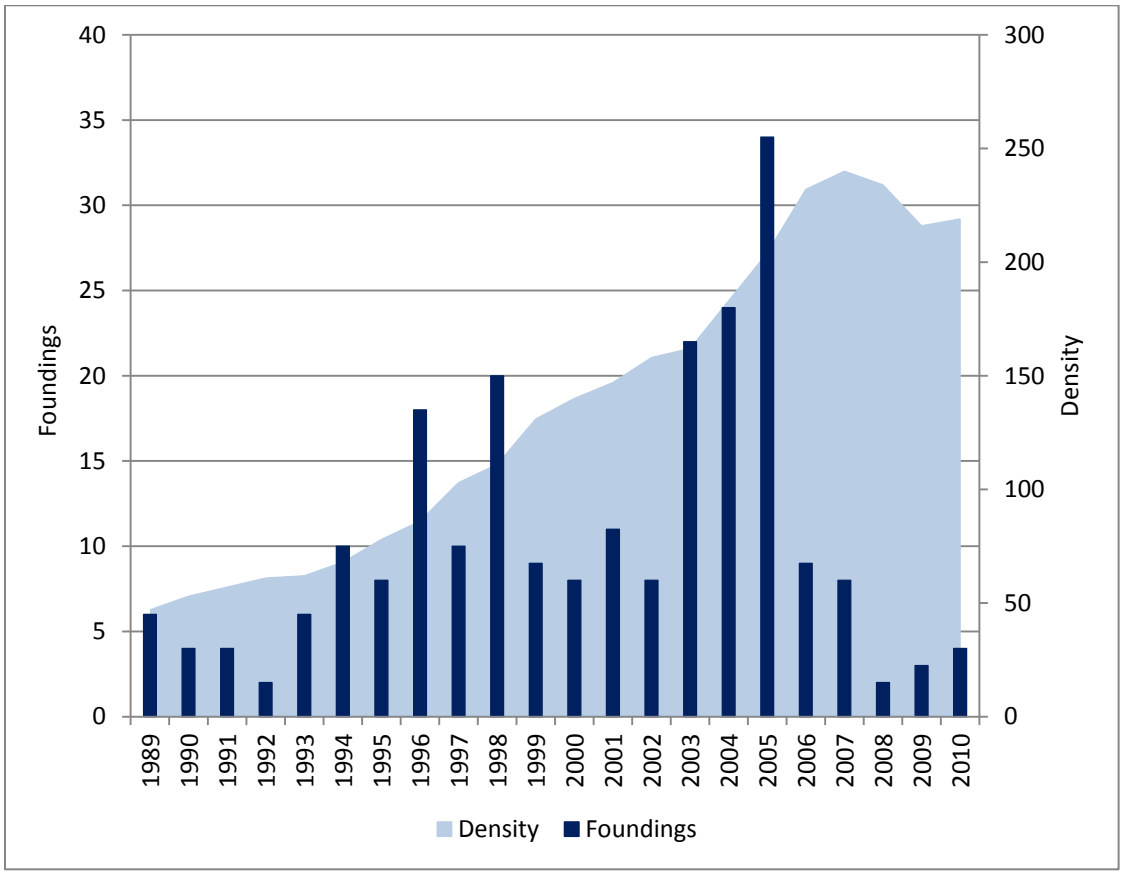
considering the cost structure of cable programming, the reason why small cable networks are more likely to disband than others is clear. Once a cable networks produce their first-copy, its cost to serve an additional subscriber is almost zero. Therefore, a cable network's average cost per subscriber will decrease as it has more subscribers. This cost structure of cable networks may cause great difficulties for small network to survive. As for large cable networks, they may experience more competitive pressures from other large cable networks in the same genre-market. Those pressures may increase the dissolution rates of the large cable networks. What's more, it appears that cable networks are less likely to disband as genre-market concentration increases. This indicates that the presence of a few large and successful cable networks in a given genre-market has supportive effect on other cable networks in the same genre-market, as their presence decreases cable networks' dissolution rates. It seems that a few but highly successful cable networks – those big players – appear to play a role that drawing viewers' attention to the genre in which they are involved, thereby lowering dissolution rates of other cable networks in the same genre-market.

Note that the cable ownership limits regulations were designed to restrict the ownership of cable system operators. This implies that to understand the dynamics in the development of cable programming networks, population level of analysis may provide a partial explanation. It is necessary to broaden the scope of analysis as the new institutionalism has suggested – organizational fields consisted of organizations that interact with each other while having enduring relationships.

Of course, my data prevent me from examining the entire population of cable programming networks. The primary data source of this study, SNL Kagan, does not

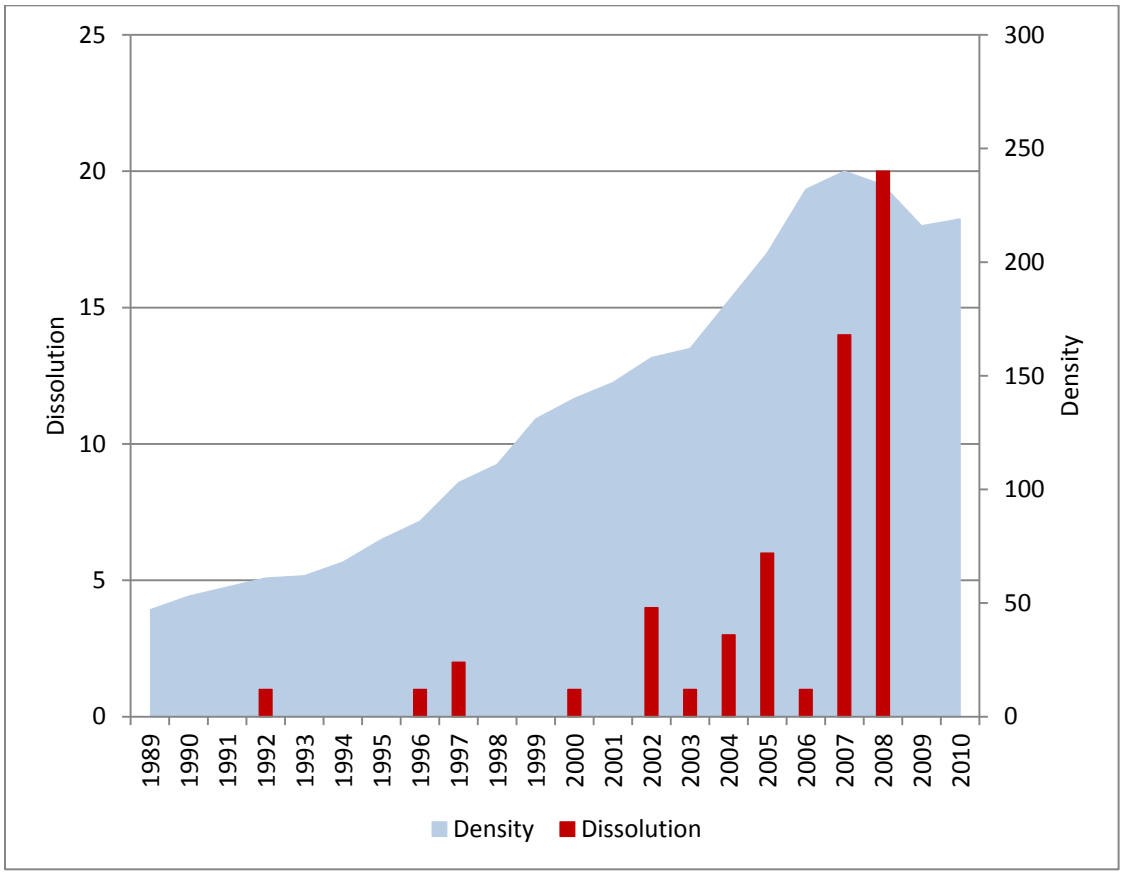
contain local cable networks (other than regional sports networks), shopping networks, networks with adult contents, or networks specific to one operator (typically, owned and operated networks). Moreover, it does not cover the networks having less than 1 million subscribers. Therefore, it should be noted that the dissolution rates of cable networks in general may increase when including other cable networks, specifically those that only have a small number of subscribers. Furthermore, my data do not contain data on the complete history of the population, especially the early period of data. As Carroll and Hannan (1989) argued earlier, omitting data in the early period might be problematic for the legitimation effect in the density dependence model. However, my more modest goal in this chapter was to point out that the impact of industrial policy on the growth of cable programming networks by shaping the logic of competition in the cable television industry – a goal that was clearly met.

Figure 5-1. Foundings and Density of Cable Networks, 1989-2010



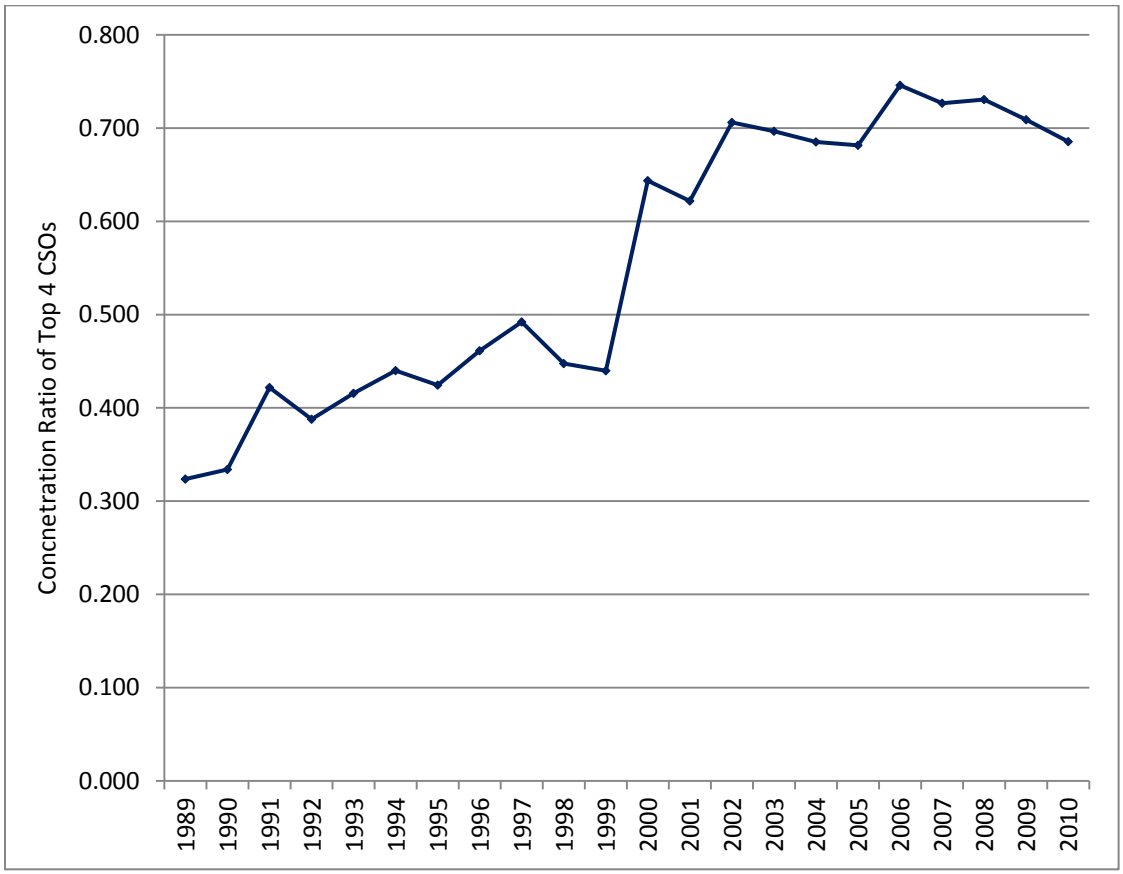
Source: SNL Kagan

Figure 5-2. Dissolution and Density of Cable Networks, 1989-2010



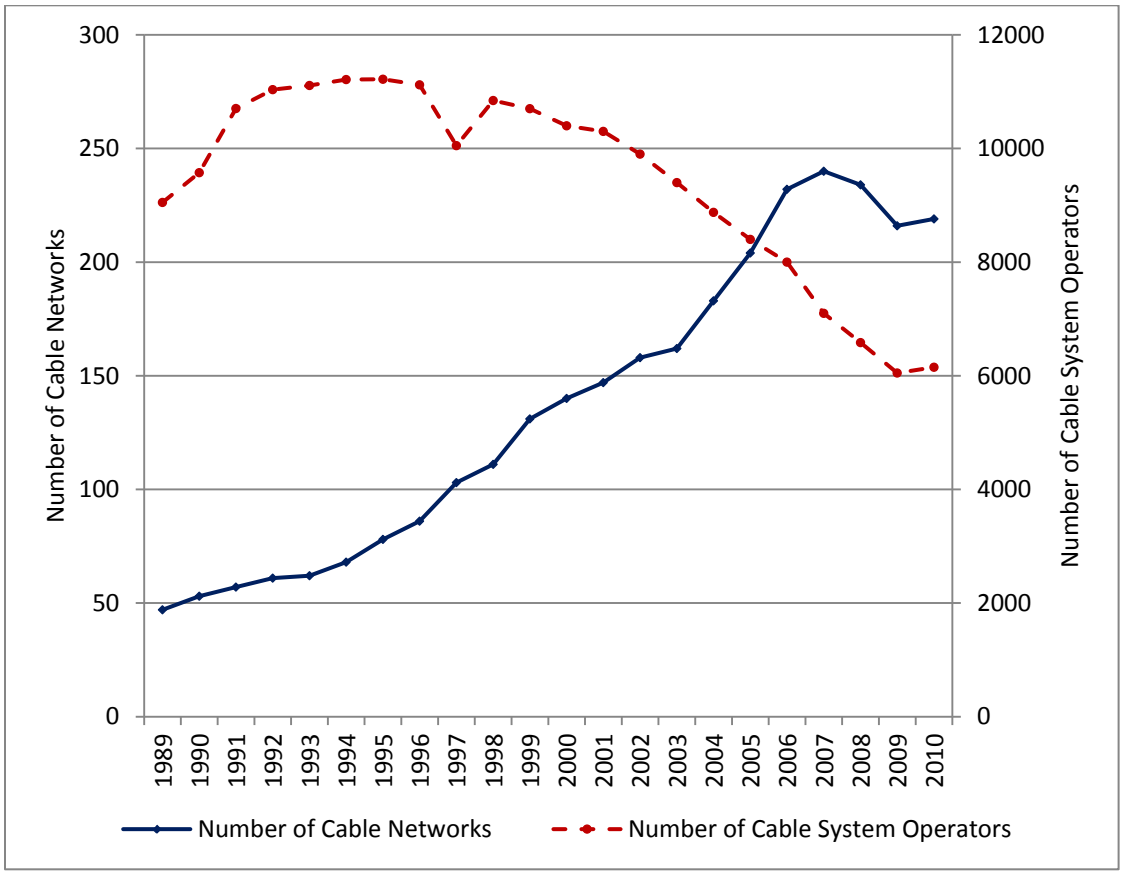
Source: SNL Kagan

Figure 5-3. Concentration Ratio of Top 4 Cable System Operators, 1989-2010



Sources: Television and Cable Factbook (2011); Standard and Poor's Industry Surveys (1988-2011)

Figure 5-4. Number of Cable Networks and Cable System Operators, 1989-2010



Sources: SNL Kagan (number of cable networks); Television and Cable Factbook, 2011 (number of cable system operators)

Table 5-1. Independent and Control Variables for Discrete Time Event History Analysis

Independent Variables	
Variable	**Definition**
Organizational age	Subtracting year of founding from current calendar year for each cable network in each year of operation
Size	Log of the number of subscribers for each cable network for year it operated
$Size^2$ /1000	Square of size, divided by 1000
Density	The number of cable networks in existence in a given genre-market at the beginning of the year
$Density^2$/1000	Square of density, divided by 1000
$Foundings_{t-1}$	Number of cable networks founded in a given genre-market in previous year
$Foundings^2_{t-1}$	Square of foundings in a given genre-market in previous year
$Dissolution_{t-1}$	Number of cable networks disbanded in previous year
$Dissolution^2_{t-1}$	Square of dissolution in previous year
Organization Performance	Log of gross advertising revenues
Genre Performance $_{t-1}$	Log of aggregate gross advertising revenues in a given genre-market
Genre Concentration $_{t-1}$	Herfindahl concentration index; sum of squares of market share of cable networks
System mass $_{t-1}$	Log of number of cable system operators
Policy	Binary variable for the cable system ownership limits (1993-2001)
GDP (log) $_{t-1}$	Log of GDP
Specifications Omitted from Reported Results	
Organization Performance	Log of net advertising revenue of cable networks
	Log of affiliate revenue of cable networks
	Log of net operating revenue of cable networks
Genre Performance $_{t-1}$	Log of aggregate net advertising revenue of cable networks
	Log of aggregate affiliate revenue of cable networks
	Log of aggregate net operating revenue of cable networks
4CSO concentration $_{t-1}$	Combined market share in terms of the number of basic subscribers of four largest *cable system operators*
Channel Capacity $_{t-1}$	Binary variable for expanding channel capacity of cable system operators
	(1 for years after 2000 when number cable system operator whose channel capacity exceeded 54 were reported)
S&P500/100 $_{t-1}$	S&P500 index, divided by 100

Table 5-2. Results from Discrete Time Event History Analysis of Cable Network Dissolution Using CLL[a], 1989 – 2010

Variables	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Intercept	-2.552** (0.200)	-3.088** (0.542)	-3.207** (0.554)	-18.801** (3.2631)	3.946 (8.961)	7.692 (8.747)	-1.989 (9.958)	1.872 (10.808)
Age	0.007 (0.025)	-0.011 (0.028)	0.013 (0.030)	0.007 (0.029)	0.002 (0.030)	0.008 (0.030)	0.009 (0.030)	0.009 (0.030)
Size	-0.382** (0.085)	-0.388** (0.087)	-0.330** (0.085)	-0.404** (0.089)	-0.411** (0.087)	-0.439** (0.087)	-0.433** (0.086)	-0.427** (0.085)
Size ^{2}/1000	3.504** (0.863)	3.570** (0.893)	3.037** (0.872)	3.603** (0.890)	3.599** (0.873)	3.842** (0.869)	3.791** (0.863)	3.733** (0.852)
Genre Density		0.054 (0.037)	0.088* (0.041)	0.081* (0.045)	0.082* (0.047)	0.017 (0.049)	0.026 (0.050)	0.028 (0.050)
Genre Density^2/1000		-0.677 (0.544)	-1.026* (0.576)	-1.396* (0.616)	-1.582** (0.634)	-0.873 (0.648)	-0.935 (0.673)	-0.942 (0.663)
Genre founding $_{t-1}$		-0.144* (0.066)	-0.154** (0.066)	-0.122* (0.071)	-0.054 (0.074)	-0.054 (0.074)	-0.083 (0.075)	-0.092 (0.077)
Genre dissolution $_{t-1}$		0.214* (0.107)	0.167 (0.106)	0.127 (0.099)	0.064 (0.100)	0.070 (0.101)	0.070 (0.103)	0.052 (0.102)
Org. Performance (log gross ad. rev)			-0.121* (0.057)	-0.033 (0.058)	0.004 (0.060)	0.046 (0.061)	0.050 (0.061)	0.052 (0.060)
Genre Performance $_{t-1}$ (log gross ad. rev)				1.142** (0.222)	1.056** (0.211)	0.351 (0.275)	0.403 (0.276)	0.348 (0.282)
System Mass $_{t-1}$					-2.386** (0.890)	-1.433 (0.952)	-0.479 (1.051)	-0.328 (1.073)
Genre-market Concentration. $_{t-1}$						-0.130** (0.050)	-0.101* (0.047)	-0.104** (0.046)
Policy (Ownership Limit, 1993-2001)							-1.131* (0.614)	-1.200* (0.618)
GDP (log) $_{t-1}$								-0.477 (0.497)
-2LL	445.52	431.29	427.14	395.66	388.35	378.61	374.77	373.965
Number of spells	3176	3128	3128	3128	3074	3128	3128	3128
Number of events	54	54	54	54	54	54	54	54

*p< .05 ** p< .01 (one-tailed test)

a. Complementary log-log model

Appendix 5-1.

Table 5A-1. Correlations for Variables in the Analyses

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Age	1.00	-	-	-	-	-	-	-	-	-	-
(2) Size	.54	1.00	-	-	-	-	-	-	-	-	-
(3) Genre density	.04	-.30	1.00	-	-	-	-	-	-	-	-
(4) Genre foundings $_{t-1}$	-.12	-.27	.47	1.00	-	-	-	-	-	-	-
(5) Genre dissolution $_{t-1}$	.06	-.03	.41	.09	1.00	-	-	-	-	-	-
(6) Org. Perf. (log)	.39	.53	.16	-.02	.10	1.00	-	-	-	-	-
(7) Genre Perf.$_{t-1}$ (log)	.09	.13	.37	.11	.21	.39	1.00	-	-	-	-
(8) Genre Conc. $_{t-1}$	-.13	-.14	-.45	-.14	-.26	-.21	-.60	1.00	-	-	-
(9) System Mass $_{t-1}$	-.20	-.16	-.39	.09	-.38	-.12	-.33	.41	1.00	-	-
(10) Policy	-.12	-.10	-.31	-.11	-.25	-.06	-.29	.33	.67	1.00	-
(11) GDP $_{t-1}$ (log)	.07	.03	.19	.09	-.03	.10	.20	-.22	-.10	-.13	1.00

CHAPTER SIX

Discussion and Conclusion

In this concluding chapter, I briefly summarize the main findings of this dissertation and suggest a couple of potential directions for future research. Indeed, the cable television industry is a potentially rich site of research, especially for sociologists who are interested in organization and culture. Vast amount of quantitative data sources on the cable companies and massive archival data on the political process are readily available. Surprisingly, however, the cable television industry seems to remain understudied area by sociologists. This dissertation has attempted to address this omission. As such, it provides a foundation for further analysis of the cable programming networks, and their larger cable television industry.

Summary

In this dissertation, I explored how the cable television industry emerged and developed in the United States while considering the processes through which cable television becomes institutionalized as it now is – providing various programming competing with broadcast television networks.

Cable television, originally called as Community Antenna Television or CATV, emerged in the late 1940s for communities unable to receive over-the-air broadcast signals due to terrain or distance from broadcast television stations. Cable system operators located antennas in areas with good reception, such as on the tops of large

mountains, picked up broadcast station signals and then distributed them by coaxial cable to subscribers for a fee.

In the early years, cable television was neglected by the regulatory agency because policy makers considered it simply as a local retransmissions service that would eventually disappear once more television stations had begun services. However, as the cable television system began to spread by using advanced technologies, the need for regulation was aroused by broadcast television networks as they claimed that, for example, cable television service did harm to their business. For those reasons, broadcasters asked the FCC to regulate cable television, and finally, in the mid-1960s, cable television moved from a virtually unregulated industry to one governed by constricting rules and regulations that were meant to protect broadcast television networks from the cable television industry.

However, increasing social attention directed to cable television and the FCC's authorization of domestic communications satellites, which would be expected to considerably help disseminate television programs nationwide, contributed to raise expectations about cable television's potentials as a vehicle for community expression. Also, with a change in the general political climate from a strong government regulation to a deregulation in the 1980s, the FCC began to reconsider rules on cable television so that some of the restrictive rules were revised or repealed.

Among other things, the Cable Communications Act of 1984, the first comprehensive cable legislation, significantly deregulated the cable television industry. One of the objectives of this Act was to balance power between cable system operators and local government, which previously was tilted towards local government. To achieve

this goal, the Act established regulations such as franchise standards and proceeds that would attempt to strengthen the development of cable system. As a result, the 1984 Act helped the cable industry expand both in programming and system construction.

However, there were some side effects from the 1984 Cable Act, a deregulation of cable television. For example, by virtue of the 1984 Cable Act that lifted rate regulation, the larger multiple cable system operators (MSOs) raised subscription fees almost every year. Moreover, the large cable system operators increased their market power by enlarging ownership in the industry horizontally and vertically. Hence, Congress enacted the Cable Television Consumer Protection and Competition Act in October 1992 to protect consumers in cable television markets, as well as to attempt to restrict the excessive market power of large multiple cable systems. Among other things, the 1992 Act required the FCC to establish reasonable limits on the number of subscribers a cable system operator may serve (horizontal limit), as well as the number of channels a cable operator may devote to affiliated program networks (vertical limit). However, those rules had not been legally in effect due to continuous challenges from the industry.

A few years later, new legislation was enacted to keep pace with the rapid changes in the mass media industries – the Telecommunications Act of 1996. The 1996 Act represented a major overhaul in American telecommunication law. The Act's objective was to open up markets to competition by removing regulatory barriers to entry. Above all else, this Act abolished cross ownership barrier between cable and telephone business, and as a consequence, it has led to increasing consolidation in the industry. For potential cable programming networks, the increasing consolidation of the industry would not provide a favorable business environment. That is to say, increasing market

concentration of cable system operators is more likely to raise entry barriers to potential cable programming networks because there are possibilities that the merged large cable system operators may exert their market power in programming acquisition market.

As illustrated above, cable television in the United States developed within a frequently changing policy environment. This dissertation consisted primarily of three empirical analyses of the development of cable television industry. In the first analysis, I focused on the evolutionary and ecological dynamics in the cable television industry from 1969 to 2010. By using data set that I constructed from various sources such as the Television and Cable Factbook (Warren publishing 1984 -2010) and Standard and Poor's Industry Surveys (1982-2010), I examined factors – ecology, public policies, and economic factors – that affect the founding of cable programming networks. The results of negative binomial estimates for cable networks founding show that the processes of legitimation represented by density (i.e., total number of cable networks in a given year) significantly shape the growth of cable networks founding. Moreover, organizational legitimacy conferred by public policy (i.e., the Cable Communications Act of 1984 and the Telecommunications Act of 1996), as well as increasing number of cable networks, significantly affect cable programming networks founding. This indicates that public policies have palpable effects on the growth of cable networks, and its effects cannot be reduced to counts.

In the second analysis, I focused on market concentration and diversity of programming networks. The Federal Communications Commission (FCC) introduced cable ownership limits regulations in 1993 in order to prevent large cable system operators from exerting excessive market power in programming acquisition markets,

thereby impeding the growth of cable programming networks. However, the rules had not been fully in effect due to continuous legal challenges from the industry, and eventually, were reversed by the Court of Appeals in 2001 (*Time Warner Co. II v. FCC & U.S.*). By using archival data (e.g., industry publications, legal reports, and FCC documents) and a quantitative data set that I constructed from various sources (e.g., SNL Kagan's TV network data and Standard and Poor's Industry Surveys), I analyzed rhetorical strategies that the proponents and opponents of the cable ownership limits rules adopted and then examined whether the cable ownership limits rules have substantial effects on market concentration and diversity of cable networks. I found that, even though the cable ownership limits rules had not been legally in effect, the rules did have effects on the industry as potential threats, affecting the cable television industry in a way of decreasing the level of concentration of cable programming networks while increasing the level of concentration among cable system operators. These results suggest that the large dominant cable companies adopted the logic of decentralized production, thereby diminishing concentration's negative effect on diversity in cable networks.

In the third analysis, I examined factors affecting the dissolution rates of cable programming networks. In relation to the second analysis, I elaborated analysis to assess the impact of cable ownership limits regulations by employing event history analysis. By using comprehensive data on cable networks from 1989 to 2010, which contained information of organizational performance (i.e., SNL Kagan's TV network data), I examined factors affecting the dissolution rates of cable programming networks during which a period of regulatory shift occurred. The results show that the dissolution rates of cable programming networks are largely shaped by the industry regulations. The

existence of cable ownership limits rules might create stable market environment for the cable networks in that the regulations delimited the bargaining clout of cable system operators in programming acquisition market, thereby assuring certain portion of the market cable networks can capture. In contrast, the absence of cable ownership limits rules seem to a highly unstable market environment for cable programming networks, thereby increasing the dissolution rates of them.

Contributions to Sociological Theory and Research

In this dissertation, I attempted to incorporate population ecology and the new institutional perspective in organizations studies and applied it to the development of the cable television industry in the United States. Population ecology and the new institutionalism in organizations studies have similar concerns in that both are interested in the emergence and development of industries. At the same time, however, they are remarkably different in that population ecology aims to provide a few universally applicable models of industrial development, while the new institutionalism is more attentive to the contextualized explanation that is specific to a certain organization field. Differences in their theoretical orientation have led to differences in constructs, predictions and methods (Haveman and David 2008). In other words, population ecology and the new institutionalism in organizations studies have been seeking to understand the same phenomena through different lens. For that reason, researchers have often emphasized differences between two theories and tried to find which one is more suitable to understand the emergence and development of a given industry.

Despite the differences they have, there are increasing numbers of studies that attempt to combine ecological perspective with institutional insights (e.g., Baum and Oliver, 1991; Haveman 1993; Dobbin and Dowd 1997, 2000; David and Strang 2006). This dissertation adds to this line of research by taking the cable television industry as the focal industry. In doing so, it attempted to provide more comprehensive framework to understand the development of a given industry. In addition, this dissertation shows how public policy influences the relationship between market concentration and diversity in the cable television industry. By focusing on the political process behind the regulations of cable ownership limits, it has shown that how issues of market concentration and programming diversity are invoked in industry debates over whether to continue or abolish the cable ownership limits regulation. Furthermore, it has also shown that the regulation, even though it has never been fully in effect, did have substantial effects on the industry as possibilities by showing trends in the level of concentration among cable systems and diversity of programming networks during years of a seemingly uncertain regulatory environment.

In sum, this dissertation shows that ecological dynamics revolving around the number of organizations (in this case, cable programming networks) do not fully explain the development of cable television industry in the United States. Rather, public policies, even if they are not legally enforceable, have had palpable effects on industry development, shaping how organizations respond to changes in regulations, for instant. As Haveman and David (2008) pointed out earlier, ecological analysis, while offering highly rigorous research framework to explain organizations' vital rates, can be considered as nested within institutional analysis; ecological studies have often focused

on the characteristics of the focal organizations and populations whereas institutional studies provide an inclusive framework – however sometimes being considered as a framework that is not highly coherent – by embracing other factors exiting outside of the focal population, such as the state, social and political movements, and socially-constructed belief system (Haveman and David 2008: 588-589). It does not mean that either one of these two perspectives is superior to the other; rather, as this dissertation suggests, incorporating two perspectives will generate more comprehensive framework to understanding the emergence and development of an industry.

The cable television industry indeed provides a highly intriguing opportunity to study organizational dynamics engaged in an industrial development; it has a unique industrial structure in which a distribution market is monopolistic whereas the programming market is competitive, and it is an industry in which intensive regulatory debates have occurred. In this dissertation, I attempted to understand the emergence and development of the cable television industry through sociological perspective. While this dissertation is by no means a definitive account of the cable television industry, I hope that this dissertation provides foundations for further research – including that described next as my own next steps.

Future Research

A Comparative Study of the Development of the Cable Television Industries in the U.S. and South Korea

First, I will conduct a comparative study on the development of cable television industry by taking the cable television industry in South Korea as a comparable nation. It is

especially enticing, as the cable television industries in these two countries have experienced seemingly different processes of development. First of all, the development of cable television industry spanned several decades in the United States, whereas in South Korea it emerged in an accelerated fashion.

The cable television in Korea emerged to retransmit and boost broadcast signals, which is the same as how the cable television got its start in the U.S. (Shim and Jin 2007; Nam 2008). The development of the Korean cable television industry, however, shows quite different trajectory from that of the United States. Until the late 1980s when the government started considering the licensing of cable networks and system operators, there had been virtually no attempt, either from the state or the market, to lay cable lines to television households to offer original and diverse television programs (Nam 2008). Some researchers argued that, for the pre-democracy Korean governments, it was necessary to keep only a small number of centralized broadcast networks under their control (Jin 2006; Shim and Jin 2007; Nam 2008). After the late 1980s, when the historic democratization movement occurred, cable television first appeared as part of presidential campaign. The government organized a presidential task force in 1990 to build an integrated cable television infrastructure with a plan to begin operation in 1995 (KCTA 2000, 2005). During the preparation, the government enacted the Composite Cable Broadcasting Act of 1992, the first cable-related statutory law in Korea was passed by the national Congress (Law no. 4494) (KCTA 2000, 2005).

From its beginning, the Korean cable television industry showed unique features. For example, the government played a leading role in setting up the industry. Moreover, the government established the independent regulatory body for the cable television

industry, the committee on the Composite Cable Television, which was distinguished from the regulatory body for the terrestrial broadcasting television industry (KCTA 2005). Regarding industry structure, the Korean cable TV industry was initially divided into three subcomponents as mandated by the 1992 Cable Act: program provider (PP), the system operator (SO) and the network operator (NO). The program provider, which corresponds to cable programming networks in the U.S., produced programs and sells them to system operators. The system operator delivered program services directly to subscriber. Unlike the U.S., the Korean cable television industry had the network operators separate from the system operators. The network operator built and managed the infrastructure such as hybrid fiber coaxial cable, so that the system operators could use it to deliver the programming to subscribers. The government's rationale for designing the industrial structure of cable in the tripartite way was, on the one hand, to ensure the fast growth of the industry and on the other, to promote structural diversity in the industry both horizontally and vertically (Bae and Baldwin 1998: 373). For those reasons, the 1992 Cable Act placed rigid restrictions on cross-ownership between the three sectors, such as prohibiting one system operator from owning multiple cable television system and banning media cross-ownership (KCTA 2000, 2005).

In June 1993, the Korean Ministry of Information (MOI) announced a set of criteria, such as financial capacity and technical readiness, to screen and select service providers in each of three sectors. Because the government framed the new cable television industry as "a goose that lays golden eggs" (Han and Won 1995: 2), hundreds of applications from various corporation, media production companies and state-owned entities applied to MOI for getting licenses. At the time, the cable television industry was

seen as an enabler for bringing diversity to the monolithic Korean television culture (Park 2004). From the late 1993 to mid-1994, the government had gone through the selection processes. As a result, the Korean cable TV industry was set up by twenty seven program providers, fifty four system operators, and two of network operators. While licensing them, the MOI required system operators to deliver all channels of program providers during the three-year period of a licensing term in order to prevent an excessive competition between SOs and PPs (KCTA 2000).

The Korean cable television was officially launched in March 1995, as scheduled. Despite the government's effort, it went through a difficult time in attracting audiences due to the enormous political and cultural influence that the established broadcast networks had already had for several decades (Nam 2008). The cable television business could not make a profit because of the slow increase in subscribers and, therefore, the shortage of advertising. To make the situation worse, the economic crisis in 1997 seriously affected media industries just as it had other industries. Many of the initial licensees either had to declare bankruptcy or sell their licenses to others.

In order to revive the cable television industry, the government licensed twenty-four additional SOs in 1997. Additionally, the government eased the cap on foreign-produced programming, which was set at twenty percent at that time. This was seen as an easy and relatively inexpensive way to fill the increased air-time (Byun 1997). After this, there was a rush to import foreign programs on cable.

After experiencing the economic crisis and some fundamental economic reform, the cable industry was exposed to new regulatory changes – the Broadcasting Act of 2000 (Law no. 6139). The Act significantly deregulated the entire mass media industry. For

example, it allowed conglomerates and news agencies to form multiple system operators (MSO), as well as allowed them to own up to one-hundred percent equity in cable program providers. As a result, the tripartite structure of cable industry that divided into three subcomponents (i.e., SO-PP-NO) was changed to the bipartite structure (i.e., SO·PP – NO) (KCTA 2005). The Act also permitted various types of cross-ownership. Most notably, broadcasters were able to set up PPs so that they could re-run their popular programs on cable channels. As a result of this significant deregulation, the cable television industry has increasingly consolidated (Kwon and Oh 2005). Increasing consolidation, in turn, has led to greater industry concentration.

As illustrated, the Korean broadcasting industry has developed in the particular context of its political and economic environment. In contrast to the United States, the cable television industry in South Korea was marked by the active involvement of the government – particularly the role it took in setting up the industry – and by a short, "compressed" period of development that spanned a decade or so. Similarly to the United States, Korean cable has experienced a recent period of deregulation – with companies gaining more control from the government.

How are we to understand, then, the development of cable television in both countries? Given these two different cases, I would like to examine factors affecting the evolution of cable television industry in two countries. As Dobbin and Dowd (1997) pointed out earlier, we know a great deal about the effects of population characteristics and industry structure on competition within a stable policy regime, however, we know little about the effects of different policy regimes. Several research studies have focused on the effect of different policy regimes on industry competition (e.g., Dobbin and Dowd

1997, 2000; Mezias and Boyle 2005; Lippmann 2007). However, most of them deal with the impact of different regimes to a certain industry in the same country.

According to the new institutionalism in organizational studies, organizational behaviors are considerably constrained by broader social contexts (Meyer and Rowan 1977; DiMaggio and Powell 1983). Among other things, they have taken the state and its policies into account by arguing that those policies shape organizational forms and practices in various organizational fields. When considering the state and its policies as a source of institutional change, the new institutionalists emphasize that policies are rooted in national political and institutional cultures (Dobbin 1994; Dobbin and Sutton 1998). For example, Dobbin and his colleagues have argued that, in the United States, several distinct features of the federal government have influenced how it regulates organizational life (Dobbin 1994; Dobbin and Sutton 1998). Those features are "its structurally limited administrative capacity, dispersal of authority across levels of government, decentralization of decision making at the national level, and ideological deference to the efficiency of the market and the natural virtues of civil society" (Dobbin and Sutton 1998: 442). Due to these characteristics, the state often proposes ambiguous mandates to organizations and enforces its rules in an indecisive way. Many scholars, however, have shown that although these features cause it to appear weak, they produce a peculiar kind of state strength (Edelman *et al*. 1992, 1999; Dobbin and Sutton 1998). They argue that the federal law in the U.S. typically provides broad requirements to organizations regarding what they should not do rather than mandates specific instructions about how they should meet these requirements. Consequently, professionals and other organizational actors develop new practices that alleviate operational

uncertainty in response to the law. If this pattern is unique in the United States, other nations may show different effects of the state policy on shaping organizations and industries. Regarding the strength of a state, South Korea has been known for building strong state structure in order to achieve rapid economic development. In the process of compressed development, markets were strongly intervened in by the government. Therefore, one can expect that Korea may present different effect of policy on organizations and industries from that of the United States.

From this perspective, I will examine the effect of different policy regimes on the cable television industry in two different countries. In doing so, it will be possible to show that for example, whether the similar deregulation policy regimes in two countries – especially policy regimes in recent years – may lead to similar patterns of industrial development.

Discourse Analysis

I will further demonstrate the institutionalization of cable television by using extensive archival data such as news articles and legal documents. As I mentioned Chapter Two, cable television in the form of community antenna service was simply a way to improve reception of over-the-air broadcast signals for many years. As some media scholars argued, the main purpose of cable television service had been a retransmission of broadcast television signals until the 1970s (Mullen 2003, 2008). However, it has evolved into a medium that provides diverse programming to subscribers. How the cable television grows to such a prominent position in mass media? How did it accomplish this remarkable transformation?

As I mentioned in Chapter One, the new institutionalists have often focused on the process of policy formation as well as the effect of policy change on organizational forms and populations (e.g., DiMaggio 1988; Fligstein 1990; Dobbin and Dowd 1997, 2000; Lippmann 2005, 2007). According to Lippmann (2005, 2007), the political process is vitally significant to the fate of organizational forms and to the structure of organizational population. According to this perspective, what determines the rise of organizational form is socio-political legitimacy, which is defined as "the acceptance by which key stakeholders, the general public, key opinion leaders or governmental officials accept a venture as appropriate and right." (Aldrich and Ruef 2006: 186, 198). Meanwhile, some scholars pointed out that socio-political legitimacy itself is a socially constructed outcome resulting from the concerted efforts of organizational actors (Lippmann 2007: 477). By gaining socio-political legitimacy, a new organizational form can receive favorable treatment in government legislation or can exert influence on the policy formation process (DiMaggio 1988; Aldrich and Ruef 2006).

In this dissertation, I showed that public policy does have a palpable effect on the development of cable television industry; some policies (e.g., the Cable Communications Act of 1984) promote the growth of cable programming networks while others (e.g., the Telecommunications Act of 1996) impede it. As I investigated in Chapter Four, I will focus on the cultural and organizational frames that competing groups employ when trying to influence the legislative process. I will do so by employing discourse analysis of regulatory hearings, various industry publications, and other relevant documents. It may help shed further light on some of the results garnered from this dissertation on the development of cable television industry in the United States.

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