CORPORATE NEWSPAPERS, GLOBAL WARMING, AND THE EDITORIAL VIGOR HYPOTHESIS

By

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To the Faculty of Washington State University	y:			
The members of the Committee appointed to examine the dissertation of Taehyun Kim find it satisfactory and recommend that it be accepted.				
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Abstract

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The purpose of this dissertation was to examine the impact of corporate structure on editorial-page coverage of global warming. Employing a macro-social perspective, this dissertation posits that, contrary to the corporate media critics' claim of pro-industry bias, newspapers become more critical of dominant economic and political elites as they acquire the characteristics of the corporate form of organization. A national probability survey of daily newspapers in the United States was employed to test following hypotheses:

H1: The more a newspaper exhibits the characteristics of the corporate form of organization, the more editorials it will publish about global warming and the Bush administration's policies toward global warming.

H2: The more a newspaper exhibits the characteristics of the corporate form of organization, the more *critical* its editorials will be of the Bush administration's policies toward global warming.

Survey data supported both hypotheses. Corporate structure was positively related to the number of editorial. Also, corporate structure was positively related to the

editorial vigor. Regression analysis was conducted to determine whether the corporate structure would still remain predictors of editorial vigor when controlling for newspaper's political ideology and ownership type (public vs. private). The findings suggest that 1) structural complexity has direct effects on editorial vigor; 2) newspaper ideology mediates effects of public ownership on editorial vigor, and 3) newspaper ideology is directly related to editorial vigor.

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CHAPTER ONE

INTRODUCTION

Environmental activists, scholars and policymakers often argue that U.S. mass media fail to give enough coverage to the issue of global warming. Former Vice-President Al Gore, who won an Oscar Award for his documentary about climate change, *An Inconvenient Truth* (2006), argues in his recent book, *The Assault on Reason*, that this failure is no accident. One of the reasons it took people so long to take the environmental warnings seriously, he writes, is that the nation's "new generation of media Machiavellis" and its political elites are dangerously intertwined (Gore, 2007, p.16). He specifically singles out media tycoon Rupert Murdoch, the special interest lobby, and presidential adviser Karl Rove as aggressively manipulate public opinion and endanger America's democracy.

Questions of fact that are threatening to wealth and power become questions of power. And so the scientific evidence on global warming—an inconvenient truth for the largest polluters—becomes a question of power, and so they try to censor the information (Lawless, 2006).

Information about the global climate change had long been available, Gore contends, but the journalists were too timid to question validity of the fossil-fuel industry or largely ignored it as an issue. He attributes this problem in part to media consolidation and the decline of "family-run media business with deep pride in its independence and a journalistic tradition that has survived over half a dozen generations" (Gore, 2007, p. 99). He says industry and media ridiculed him until *An Inconvenient Truth* was released,

which is now largely responsible for increasing public awareness of the problem of global warming.

Veteran environmental journalist Ross Gelbspan (2000) also argues that mass media have failed to cover global climate change in a way that is commensurate to its scope and potential consequences. In 2000, British newspapers gave three times more coverage on global warming than did U.S. major newspapers (Gelbspan, 2005). According to an article in the German newspaper *Der Spiegel*:

Many Americans had no idea until today that their government and those of the other Group of Eight (G-8) countries were locked in a bitter battle over global warming. The U.S. media has (sic) studiously avoided the issue. *The New York Times* has ignored it for weeks, *the Washington Post* covered it with one short article and *USA Today* contented itself with a wire report from *the Associated Press*. Meanwhile the television networks have apparently decided to run absolutely nothing on the issue (Pitzke, June 1, 2007).

Horton argues that the corporate media are complicit with the Bush administration, which he says is intent on blocking the Europeans from setting an effective agenda to address the global warming (Horton, June 4, 2007). Even when the media do decide to cover global warming, it's usually "low profile, brief, and focuses on some utterly meaningless initiative that President George W. Bush has taken" (Horton, June 4, 2007).

Such criticism of corporate media is nothing new. In fact, many critical scholars, such as Noam Chomsky and Herbert Schiller, have attributed "corporatization" of the mass media as the root cause of media's failure to draw attention to many social, political and economic problems. These critics assert that media corporations are unable to report the truth because their organizations are owned by conglomerates or their boards of

directors are composed of individuals from other nonmedia corporations, who are more concerned about profits than informing the public (Bagdikian, 2000; Herman, 1985; Herman & Chomsky, 1988; Hirsch & Thompson, 1994; Kellner, 1990; McChesney, 1997; McManus, 1994; Murdock & Golding, 1973, 1977; Parenti, 1997; Schiller, 1989; Seldes, 1938; Squires, 1994; Underwood, 1995; Warren, 1989). The public's right to know, critics say, also is poorly served because corporate media owners, whenever possible, will suppress news content that exposes wrongdoings of the parent company or advertisers.

Furthermore, critics argue media conglomerates use their media companies for "cross-promotions," in which news stories promote products or services produced at other company businesses (Bagdikian, 2000; Croteau & Hoynes, 1994, 2005). Critics also argue that corporate media are less concerned than entrepreneurial media with serving the public interest because corporate media are concerned more about profits than entrepreneurial, or family run or independent media organizations. Hence, corporate media allegedly are much likely to substitute cost-intensive in-depth investigative news programs with cheaply produced sensationalistic "infotainment" programs in order to boost profits (Blankenburg & Ozanich, 1993; Lacy, Shaver & St. Cyr, 1996).

Critics argue that corporate media are less likely to produce content that challenges dominant values and institutions because such content might alienate advertisers and jeopardize revenues (Gitlin, 1980; Herman & Chomsky, 1988). As political scientist Michael Parenti (1997) puts it:

The job of the corporate media is to make the universe of discourse safe for corporate America, telling us what to think about the world before we have a chance to think about it for ourselves. When we understand that news selectivity is likely to favor those who have power, position, and

wealth, we move from a liberal complaint about the press's sloppy performance to a radical analysis of how the media serve the ruling circles all too well with much skill and craft.

In short, large-scale corporate media are alleged to have a less critical view of the status quo, are less likely to publish stories that promote social change, and are more critical of dissident groups that challenge the status quo. As a consequence, corporate news organizations are said to produce news and commentary that favor industry over environmental groups (Beder, 2002; Kennedy Jr., 2004; Lee & Solomon, 1991; Nader, 1965, 1970; Molotch & Lester, 1975).

Purpose of This Study

The purpose of this dissertation is to examine the impact of corporate structure on editorial-page coverage of global warming. If the critics are right, corporate media should be less likely than entrepreneurial counterparts to criticize, *among other things*, President George W. Bush's policy on global warming, which has taken a decidedly probusiness stance. In particular, Bush has refused to sign the Kyoto Protocol, which would have helped reduce the amount of greenhouse gas pollution worldwide. Bush has argued that signing the protocol would hurt American businesses. If the critics are right, corporate media might also be expected to exaggerate the economic sacrifices that would have to be made if the United States were to sign the Kyoto Protocol (McCright & Dunlap, 2000, 2003).

Although environmental activists and many scholars are convinced that the growth of the corporate form of organization in journalism is inimical to journalistic ideals and democratic principles, systematic empirical evidence does not provide a strong

support for their position. In fact, most of the evidence suggests just the opposite.

Demers (1996a, 1996b,1998a, 1999a, 2000) has repeatedly shown that corporate newspapers are more, not less, critical of powerful elites and dominant value systems, and that they actually place less emphasis on profits as an organizational goal and more emphasis on journalistic standards. According to his theory, corporate newspapers are more critical of the status quo partly because they are more likely to be located in complex social systems, which contain a greater number and variety of groups and, hence, an informational environment that is more critical of the established groups and elites. He also points out that because corporate newspapers are complex organizations, they are, for a number of reasons, more structurally insulated from parochial political pressures than entrepreneurial newspapers.

The purpose of this dissertation is to test this theory of corporate structure. Although corporate media are, without question, agents of social control (i.e., they produce content that contributes to the maintenance of powerful corporate elites' interests while often marginalizing challenging groups), they also can at times be agents of change that question and challenge the status quo (Donohue, Tichenor, & Olien, 1973; Gitlin, 1980; McLeod & Hertog, 1992, 1999; Molotch, 1979; Olien, Tichenor, & Donohue, 1989; Viswanath & Demers, 1999). More specifically, the primary question to be explored here can be stated as follows: *Are newspapers that exhibit the characteristics of the corporate form of organization more critical of the Bush Administration when it comes to the issue of global warming?*

Drawing on the writings of sociologist Max Weber (1947), corporate mass media are conceptualized as organizations that exhibit the characteristics of a complex

bureaucracy — i.e. an organization that has a complex hierarchy of authority, a highly developed division of labor and role specification, formalized rules and procedures, employment and promotion based on individual merit, and greater rationality in decision-making. Although the term "corporate media" may be extended to any organization that is involved in delivery of mass-mediated messages to large numbers of people, including television, radio and the Internet, the primary focus of this study is the newspaper industry, which empirically has more variance in terms of corporate structure (i.e., the entrepreneurial vs. corporate structure continuum) than most other media industries.

Employing a macro-social perspective, this dissertation posits that, contrary to the corporate media critics' claim of pro-industry bias, newspapers become more critical of dominant economic and political elites as they acquire the characteristics of the corporate form of organization. More specifically, this study will test two hypotheses:

H1: The more a newspaper exhibits the characteristics of the corporate form of organization, the more editorials it will publish about global warming and the Bush administration's policies toward global warming.

H2: The more a newspaper exhibits the characteristics of the corporate form of organization, the more *critical* its editorials will be of the Bush administration's policies toward global warming.

A national probability survey of daily newspapers in the United States is employed to test these hypotheses.

This dissertation contains five chapters. Chapter 2 reviews the literature on global warming, corporate media structure, and the managerial revolution hypothesis. The theoretical model is presented in Chapter 3. The methods and design of the study are

presented in Chapter 4. Data were collected from September through December of 2006 using a national probability survey of editorial editors. Results are reported in Chapter 5. A summary and the conclusion are presented in the final chapter.

CHAPTER TWO

LITERATURE REVIEW

This chapter is divided into six sections: Global warming, policy issues, the critical model, an alternative model, a theory of corporate structure, and the managerial revolution hypothesis.

Global Warming

Providing extensive explanations for the causes and effects of global warming is beyond the scope of this dissertation. But some review of the global warming policy debate is necessary. Global warming may be defined as a rise of the Earth's average surface temperature caused by concentrations of *Greenhouse Gases* in the atmosphere. According to National Climatic Data Center at the National Oceanic and Atmospheric Administration (2002), the ecosystem on earth is dependent upon the warming capacity of these gases, referred to as the "greenhouse effect," for maintaining a habitable climate. Indeed, it is this greenhouse effect that accounts for the abundance of life on earth (Rosa, 2001).

Because of greater sophistication in the modeling of climatic patterns, scientists now believe human activities are having substantial impact on the global climate (Hansen, Ruedy, Sato & Reynolds, 1996). The Pew Center on Global Climate Change study shows that dramatic growth of human industrial activities has exponentially increased the concentration of greenhouse gases in the atmosphere — mostly carbon dioxide from combustion of fossil-fuel, such as coal, oil, and gas. According to the United Nations

Intergovernmental Panel on Climate Change (IPCC), 2,500 scientists from more than 50 countries now believe that concentrations of atmospheric carbon dioxide are about 26 percent higher now than they were 100 years ago. Over the last century, the global mean temperature has increased somewhere between 0.3 and 0.6 degrees centigrade (IPCC, 1996). The 1980s were the warmest decade recorded on a global scale (Mahlman 1989). The mean global temperatures in 1990 and 1995 were the warmest ever recorded (Hansen et al. 1996). These findings suggest that humans may be altering the atmosphere in ways that will bring on an irreversible climate change (Bruce & Haites, 1996; Houghton, Meiro Filho, Callander, Harris, Kattenberg & Maskell, 1996; Watson, Zinyowera & Moss, 1996). Unless the current rates of combustion of carbon based fuels, coal, gas, oil, are reduced, the IPCC warned, temperatures will rise between 1.8 and 6.3 degrees Fahrenheit over the next century.

Temperature changes in the middle level of that scale could cause a 20-inch rise in sea levels that would flood coastal low lands and tropical islands. In addition, the temperature changes are expected to cause weather extremes and global damage to forests and crop lands. By the end of the 21st century, scientists expect carbon dioxide concentrations to rise anywhere from 75 to 350 percent above the pre-industrial concentration level, according to the IPCC's Special Report on Emission Scenarios (SRES).

Policy Issues

What makes controlling global warming complicated is that global warming is a truly "global" phenomenon (Grubb, Vrolijk & Brack, 2001; King, 2004; Liverman, 2004;

Young, 1989, 1994, 2002; Victor, 2001). The amount of greenhouse gas emission varies significantly from country to country, depending on industry types and energy uses, and not every country is equally affected by consequences of global climate changes (Rabe, 2002). Thus, it can be argued that conventional "one-size-fits-all" and "command-and-control" approach from a national level may not be successful. As a consequence, some have argued that global climate change control policy should take into consideration the high degree of variance in global warming impacts and idiosyncratic characteristics across state-by-state (Rabe, 2002).

Another challenge is the limitation of global climate science. Global warming is a product of highly complex interactions between climatic, environmental, economic, political, institutional, social and technical processes around the world (Rosa, 2001; Rosa & Dietz, 1998). Greenhouse gases remain in the atmosphere for decades and possibly centuries, and there is a long lag time between when gases are emitted and when the climate consequences of those emissions appear. Scientists' ability to quantify the human influence on global climate is currently limited because of natural climate variability, and discrepancy between surface and satellite records of climate change.

Such scientific complexity surrounding global warming has fueled contentious economic and political disputes. Some skeptics have repeatedly questioned whether increasing global temperatures are a result of human activities or natural variation (Anderson & Leal, 2001; Avery & Singer, 2007; Baliunas, 2002a, 2002b; Baliunas & Soon, 2001a, 2001b, Christy & Spencer, 2006; Inhofe, 2006; Kemp, 1997; Lindzen, 2001, 2006; Michaels, 1992, 2004, 2005; Michaels & Balling Jr., 2000; Moris, 1997; Singer & Seitz, 1999; Soon & Baliunas, 2003; Soon, Baliuas, Idso, Idso & Legates, 2003).

According to Singer and Seitz (1999), "climate science is not settled; it is both uncertain and incomplete. The available observations do not support the mathematical models that predict a substantial global warming and form the basis for a control policy on greenhouse gas emissions."

Singer and Seitz further (1999) argue that: 1) The fate of anthropogenic CO₂ in the atmosphere is uncertain: Its uptake into the ocean; the biological pump; the missing carbon sink; 2) The temperature record of the last hundred years is of poor quality and shows many discrepancies. Surface temperatures disagree with recent measurements from satellites and balloons. The urban heat island effect may skew the record; 3) General Circulation Models (GCMs) vary by 300 percent in their temperature forecasts, require arbitrary adjustments, and cannot handle crucial processes; 4) GCMs cannot account for past observations: the temperature rise between 1920 and 1940, the cooling to 1975, and the absence of warming in the satellite record since 1979. Moreover, Singer and Seitz argue that global agriculture will likely benefit from climate warming and increased precipitation; increased CO₂ leads to more rapid plant growth; increased nocturnal and winter warming leads to a longer growing season.

Such scientific disagreements have served as a lighting rod for aggressive, antienvironmental lobbying groups who represent the interests of fossil-fuel industries, including energy companies, oil refinery industries, manufacturing industries, mining industries, and automobile industries (Cushman Jr., April 26, 1998; ExxonSecrets.org, 2007; Gelbspan, 1998a, 2004b; Greenpeace, 2002; Union of Concerned Scientists, 2007). Powerful corporations have made a concerted effort to discredit scientific research on global climate change, while at the same time exaggerating the fear of losing economic sovereignty to international organizations (Gelbspan, 1998b, 2004b; Kennedy Jr., 2004; McCright & Dunlap, 2000, 2003; Rampton & Stauber, 2001).

One of the most influential groups in attacking the science, economics and diplomatic foundations underlying the climate crisis is the Global Climate Coalition (GCC) — the main lobbying arm of the oil, automotive and heavy manufacturing sectors in the arena of climate change (Greenpeace, 2002; Stevens, August 5, 1997). The GCC is a coalition of business trade associations and private companies and its board members include: American Forest & Paper, Chevron, Exxon, Ford, General Motors, Mobil, National Mining Association and the general membership includes Amoco, BP, Dow, Goodyear, Shell, and Union Carbide Texaco (Ozone Action, March 1998). The political agenda of the GCC has been to stall action on reducing greenhouse gas emissions. The GCC has tried to undermine the broad scientific consensus that climate change is a legitimate threat, has spent large sums of money on public relations that has confused the public while directly lobbying governments to ignore the threat of climate disruption. According to Greenpeace (2002), the GCC launched a \$13 million advertising campaign in the United States against any agreement aimed at reducing greenhouse gas emissions internationally. This campaign was run through an organization called the Global Climate Information Project, which was sponsored by both the GCC and the American Association of Automobile Manufacturers, among others. The advertisements falsely claimed "It's Not Global and It Won't Work" (Greenpeace, 2002).

Before August of 1997, the GCC largely focused on creating confusion in the general public about the state of science (Greenpeace, 2002). Despite the fact that the IPCC has provided more information about climate change than has ever been known

about any previous global threat, the GCC has been unrelenting in its attacks on the IPCC process and the scientists themselves. The GCC's premise was that until there was "certainty," the government should do nothing.

On the contrary, environmentalists and scientist argue that the balance of evidence suggests that there is a "discernible human influence" on global climate (IPCC, 1995). In December of 1997, the United Nations Framework Convention on Climate Change (UNFCCC) developed the Kyoto Protocol, which calls for industrialized nations to reduce emissions of greenhouse gases. Because of increasing pressure from international communities, the Clinton-Gore administration signed the Kyoto Protocol during the United Nation IPCC meeting in Buenos Aires, Argentina, November 12, 1998. However, the treaty was never ratified by the U.S. Senate.

One of the two operational mechanisms established at Kyoto is called emissions trading. It would allow a country or private company to achieve its cuts partly by buying reductions from a country or company that has reduced its emissions more than required. The other arrangement, called the clean development mechanism, is intended to enable rich countries to invest in emissions reduction projects in poor countries (Grubb, Vrolijk & Brack, 2001)

Currently, the United States is, by a wide margin, the world's largest greenhouse gas-producing country, responsible for 36 percent of GHG emitted in the world even though it has only 4 percent of the world's population (National Environmental Trust, 2001). The Kyoto Protocol would require the United States to cut the emission to 1990 levels over the next 10 or 15 years. As of 1998, United States emissions of carbon dioxide were about 10 percent higher than in 1990 (Cushman Jr., November 11, 1998).

Victor (2001) argues that by the end of 1999, U.S. emissions had risen about 12 percent above 1990 levels and are on track to rise another 10 percent by 2008. Yet the Kyoto Protocol requires a 7 percent cut *below* 1990 levels-in total, about a 30 percent cut. Victor (2001) states that turning the economy around to meet the Kyoto target could cost over \$1,000 per household per year, which is similar to the annual spending on all federal clean air and water programs combined. The cost would be high because most emissions of greenhouse gases come from burning fossil fuels for energy, and the economic lifetime of energy equipment, like power plants, buildings, and automobiles is long (two decades or more). Compliance with a sharp 30 percent cut would force the premature disposal of some of the "capital stock" of energy equipment and retard significant parts of the U.S. economy (Victor, 2001). Electric power generation is especially vulnerable. About half of U.S. electric power is supplied by coal, which is the most greenhouse gas intensive of all fossil fuels (Victor, 2001).

Anderson and Leal (2001) ask whether meeting the Kyoto reduction standard will be worth incurring these costs. The best guess is that doing everything proposed in the Kyoto accord will reduce the predicted rise in temperature by only one-tenth of one degree by 2050 and that such a reduction will hardly reverse the consequences of global warming (Moore, 1998, p. 142).

In order to preempt the Clinton-Gore administration's efforts to ratify the treaty, U.S. Senate passed July 25, 1997 the Byrd-Hagel resolution 95-0 (Roll Call Vote No. 205, U.S. Senate Republican Policy Committee Policy Paper, October 21, 1997). Senator Chuck Hagel, a Republican from Nebraska, and Senator Robert Byrd, a Democrat from West Virginia (where cuts on emissions of carbon dioxide from burning coal would

damage the state's mining industry) warned that the resolution must not be approved until developing nations, such as China and India, whose emissions of greenhouse gases are projected to surpass those of the United States in the next few decades, agree to join industrial nations in cutting emissions (Cushman, November 10, 1998). Also, the Byrd-Hagel Resolution prohibits any spending "to develop, propose, or issue rules, regulations, decrees, or orders for the purpose of implementation, or in contemplation of implementation, of the Kyoto Protocol" (U.S. Senate, 1997).

According to anti-Kyoto lobbying groups, U.S. industry would face increased production costs for virtually all goods in order to meet the reduction goal set by the Kyoto. For instance, Kemp (July 25, 1997) reports that Charles River Associates, an econometric modeling firm, estimates that the Kyoto Protocol would increase U.S. unemployment by 0.25 percent and reduce the gross domestic product by 3.3%. Other studies suggest that 250,000 American jobs would be lost and GDP would be reduced annually by 2 to 3 percent. The AFL-CIO also opposed the Kyoto Protocol, saying the treaty would mean the loss of 1.25 to 1.5 million jobs. Energy prices will rise dramatically. Individual Americans will pay for this treaty either in their electric bills, at the gas pump, or by losing their jobs (Bast, Taylor & Lehr, 2003; Francl, Nadler & Bast, 1998; Kemp, July 25, 1997; Singer, July 25, 1997).

By March of 2001, newly elected president George W. Bush had officially walked away from the Kyoto Protocol, and the United States had pulled out of all debate and negotiations with the rest of the world on global warming. During a White House press conference on June 11, 2001, Bush said:

Kyoto is, in many ways, unrealistic. Many countries cannot meet their Kyoto targets. The targets themselves were arbitrary and not based upon science. For America, complying with those mandates would have a negative economic impact, with layoffs of workers and price increases for consumers. And when you evaluate all these flaws, most reasonable people will understand that it's not sound public policy (Bush, 2001).

Prior to his withdrawal from Kyoto, President Bush declared he would not accept the findings of the IPCC, because they represented "foreign science" (even though about half of the 2,000 scientists who contribute to the IPCC are from the United States).

Instead, Bush called on the National Academy of Sciences (NAS) to provide "American science." However, three years before the IPCC determined that humans are changing the climate, the NAS urged strong action to minimize the impacts of human-induced global warming (Gelbspan, 2004b).

Environmental activists argue congressional opponents of the Kyoto Protocol are not acting in a vacuum. They contend that U.S. withdrawal of Kyoto Protocol is a product of fossil fuel lobby groups' seven-year campaign of deception and disinformation, much of which has been aimed at the science of global warming. In April of 1998, *The New York Times* disclosed the existence of a \$5 million public relation campaign by the American Petroleum Institute (Cushman Jr., April 26, 1998). The plan, supported by Exxon, Chevron and the Southern Company, called for recruiting the leading "greenhouse skeptics," such as Robert Balling Jr., Patrick Michaels, and S. Fred Singer (Gelbspan, 1998b; Sample, 2007).

Environmental sociologists McCreight and Dunlap (2000, 2003) contend that the campaign's success can be measured not only by legislative changes but also by how effective it has been in keeping the issue of global warming a nonissue, one that is off the public radar screen. For instance, according to two polls by *Newsweek*, 35 percent of

Americans said they thought global warming was a very serious problem in 1991. Five years later, in 1996, even though the scientific evidence had become far more robust and the IPCC declared that it had found human influence on the climate, only 22 percent thought global warming was a very serious problem (Gelbspan, 1998a, 2005).

The Critical Model

Although environmentalists and policy makers are often critical of the way the corporate news media cover the issue of global warming, they rarely provide satisfying reasons for why this may be the case. Most often, they complain that corporate media are concerned only about profits, not product quality or informing the public. But there is no systematic explanation why this is so. On the other hand, sociologists and mass communication scholars have long been concerned about the impact of corporate structure on organizational performance. Most of these concerns can be traced to the writings of Karl Marx, a German sociologist.

In the mid-1800s, Marx predicted that competition in capitalism would produce a paradox – competition would decrease rather than increase as capitalism progressed. The reason was centralization of ownership; that is, larger, more efficient companies would purchase smaller ones, leading to the combining of capitals already formed and fewer competitors in an industry over time (Marx & Engels, 1995). Concentration of wealth in the capitalist class, Marx said, would produce greater disparities in income between the rich and poor. Growing exploitation of working class workers would produce a class struggle and inevitably lead to the overthrow of capitalism and the emergence of the desired state of communism.

During the 1910s and 1920s, Marx's followers began to question his theory because no advanced capitalist systems had produced a revolution. Why not? Antonio Gramsci and the so-called Frankfurt School responded with a theory of ideology. The working class failed to revolt because mass media and other cultural institutions produced cultural content that prevented the development of class consciousness, which presumably was necessary for the emergence of a revolutionary movement (Adorno & Horkheimer, 1970; Gramsci, 1979; Marcuse, 1964). Gramsci coined the term "hegemony" to refer to the process. He defines hegemony as the ability of the ruling classes to dominate or control private groups in civil society (media, churches, and schools), which in turn manipulate knowledge, values and norms to serve the interests of the ruling classes. Gramsci's idea, in fact, closely resembles Marx's definition of dominant ideology:

The ideas of ruling class are in every epoch the ruling ideas: i.e., the class which is the ruling material force of society, is at the same time its ruling intellectual force. The class which has the means of material production at its disposal, has control at the same time over the means of mental production, so that thereby, generally speaking, the ideas of those who lack the means of mental production are subject to it. The ruling ideas are nothing more than the ideal expression of the dominant material relationships, the dominant material relationships grasped as ideas; hence of the relationships which make the one class the ruling one, therefore, the The individuals composing the ruling class ideas of its dominance. possess among other things consciousness, and therefore think. Insofar, therefore, as they rule as a class and determine the extent and compass of an epoch, it is self-evident that they do this in its whole range, hence among other things rule also as thinkers, as producers of ideas and regulate the production and distribution of idea of their age: thus their ideas are the ruling ideas of epoch (Marx & Engels, 1938, p. 39).

Mass media, according to the Frankfurt school and its descendants (e.g., critical theorists), function as a hegemonic institution that keeps ordinary citizens from recognizing the evils of capitalism (Gitlin, 1980; Herman & Chomsky, 1988). Critical scholars further argued that mass media have a conservative bias that produces content that delegitimizes challenging groups, such as anarchists, feminists, racial minorities, environmental activists, organized labor and homosexuals. According to critical scholars, mass media protect the status quo and interests of the capitalist class. As sociologist Todd Gitlin puts it:

I work from the assumption that the mass media are, to say the least, a significant social force in the forming and delimiting of public assumptions, attitudes, and moods—of ideology...Such ideological force is central to the continuation of the established order....economic and political powers of twentieth century capitalist society, while formidable, do not by themselves account for the society's persistence, do not secure the dominant institutions against the radical consequences of the system's deep and enduring conflicts (Gitlin, 1980, p. 9).

Similarly, Kellner writes:

Mainstream commercial broadcast media in the United States are....best interpreted at this juncture in history as capitalist media, as ideological mouthpiece for the corporate capitalist system. The broadcast media during the 1980s were captured (and corrupted) by the same conservative economic interests that captured the state, and they constitute essential elements of the conservative hegemony of the 1980s. It is thus incorrect to conceptualize today's media (especially network television) as a "fourth estate" (i.e. as an autonomous journalistic force), for they willingly serve their capitalist masters and the dominant conservative forces (Kellner, 1990, p. 173).

According to University of Pennsylvania's Edward Herman (1990, p. 90), "The dominant media companies are large profit-seeking corporations, owned and controlled by very wealthy boards and individuals. Many are run completely as money-making concerns, and for the others as well there are powerful pressures from stockholders, directors, and bankers to focus on the bottom line." U.S. media critic Norman Solomon (1997) adds that "consolidation of media ownership has been so rapid in recent years that now just 10 corporations control most of this country's news and information flow...

Those conglomerates are in business to maximize profits. They are hardly inclined to provide much media space for advocates of curtailing their power."

Critics say growing media conglomeration reduces diversity, gives consumers limited and homogenized choices, and erodes local control. As Robert F. Kennedy Jr. (2004) puts it:

Radio stations play the same music, giving little opportunity for new or alternative artists. Corporate consolidation had reduced news broadcast quality and has dramatically diminished the inquisitiveness of our national press. As fewer companies own more and more properties, marketplace is withering. TV stations are no longer controlled by people primarily engaged in their communities, and news bureaus are no longer run by news people. Driven solely by the profit motive, many of these companies have liquidated their investigative journalism units, documentary teams, and foreign bureaus to shave expenses (Kennedy Jr., 2004, p. 178).

If the primary goal of corporate media is bottom-line and profit-maximization, then presumably they would be less willing to invest in producing news coverage with rich scientific substance or public policy implications. Instead, it can be assumed that such an esoteric topic would be less likely to meet the corporate media's profit-oriented editorial criteria (Mazur & Lee, 1993). Thus, critics argue, corporate media's editorial

coverage of global warming problems would be simplistic, fragmented and shallow, which might result in American citizens poorly informed about the intensity, extensity, and urgency of the global warming issues.

The Tyndal Report, which analyzes television content, surveyed environmental stories on TV news for 2002. Of the 15,000 minutes of network news that aired 2002, only 4 percent was devoted to the environment, and many of those minutes were consumed by human interest stories (Environment Writer, 2003). Journalism professionals point out that a journalist cannot adequately cover global warming without a deep understanding of highly complex interactions between climatic, environmental, economic, political, institutional, social and technical processes (Beck, 1992; Rosa, 2001; Rosa & Dietz, 1998). In addition, in order to cover global warming adequately, journalists need to "sniff out the use of front groups, dubious economic claims, disguised or concealed lobbying strategies, and pressure tactics that are not readily apparent" (Gelbspan, 2000).

In sum, Gelbspan contends that the American mainstream media have been "too lazy to look at the science and too intimidated by the fossil fuel lobby to tell the truth" (Gelbspan, 2000). For instance, Fox News president Roger Ailes once stated that "the networks don't cover environment stories because environmental stories are not fast-breaking" (Kennedy Jr., 2004, p. 179). High-profile murders and celebrity gossips may sell papers, but it leaves little room for the environmental news that realty affects our lives. A veteran journalist and corporate media critics Cheryl Seal (2002) argues:

Because of the methodical blackout by the mainstream media of investigative pieces on "political hot potatoes" such as the environment, industrial practices,....information on these topics are relegated to "opinion piece" status or must be published in "fringe" publications. As a

result, the general public does not see serious, in-depth treatments of these topics. Instead, what they are allowed to see, at best, are emotional diatribes in the letters to the editor. This is by design, make no mistake. Through this strategy, the media's corporate/political puppeteers can perpetuate their favorite myth: that environmentalists and liberals of any type are the "hysterical fringe element"

Even when global warming issues are covered, the content is mostly manipulated to serve the interests of economically powerful fossil-fuel industry's lobbying (McCright & Dunlap, 2000, 2003). Environmentalists argued that the main reason for the failure of corporate media to adequately cover the climate crisis lies in an extremely effective campaign of disinformation by the fossil fuel lobby. For the longest time, this industry's well-funded disinformation campaigns have led reporters into practicing a profoundly distorted form of journalistic balance (Gelbspan, 2005). In the early 1990s, the coal industry paid a small number of "greenhouse skeptics" to deny the reality of climate change (Gelbspan, 2005; Greenpeace, 2007). Moreover, the Greening Earth Society, a creation of the Western Fuels Coal Association, trumpets the idea that more warming and more carbon dioxide is good for the world because it will promote plant growth and create greener, healthier, and more natural world. The media, however, continue to report the issue as though the science was still in question, giving the same weight to the greenhouse skeptics as they do to mainstream scientists (Gelbspan, 2000). Gelbspan quotes a ranking editor at one network: "We did include a line like that once. But we were inundated by calls from the oil lobby warning our top executives that it is scientifically inaccurate to link any one particular storm with global warming. Basically, our executives were intimidated by the fossil fuel lobby" (Gelbspan, 2000).

Corporate media are more vulnerable than their entrepreneurial counterparts to the fossil fuel lobby because owners of fossil-fuel industries often share ownership with major media corporations and would "cross-promote" their subsidiary businesses in an attempt to create a synergistic advantage. As a result of such pressure, it can be argued that corporate media would impose self-censorship and would shun away from investigating environmentally harmful industry practices (Bagdikian, 2000; Beder, 2002; Herman & Chomsky, 1988; Kellner, 1990; Lee & Solomon, 1991; McChesney, 1997; Nader, 1965, 1970; Underwood, 1993).

In addition, in order to protect the corporate elites' status quo as well as elites' dominant values of free-market industrial-capitalism, it can be argued that the corporate media would marginalize environmental activists' calls for progressive environmental social changes, such as boycotting gas-guzzling SUVs, using renewable energy or imposing greenhouse gas taxes. As the argument goes, corporate media would exert hegemonic control by giving more credibility to corporate elites and discredit or marginalize the voices of the activists. That is, even when those issues do receive media coverage, they tend to reflect Bush administration's "wait-and-see" and "do-nothing" approach and seldom challenge dominant values of industrial-capitalism. According to Edward Herman and Noam Chomsky (1988),

U.S. news media are effective and powerful ideological institutions that carry out a system-supportive propaganda function by reliance on market forces, internalized assumptions, and self-censorship, and without significant over coercion. This propaganda system has become even more efficient in recent decades with the rise of national television networks, greater mass-media concentration, right-wing pressure on public radio and television, and the growth in scope and sophistication of public relations and news management (Herman & Chomsky, 1988, p. 306).

In short, the critics view corporate media as agents of the status quo, of the powerful groups, rather than as agents of change for the environmental groups. They promote powerful corporate elites' interests and delegitimize environmental activists' voices. In fact, some environmental activists argue the rapid growth of corporate media is detrimental to their environmental causes (Beder, 2002; Nader, 1965, 1970). Since the turn of the century, powerful corporations have oppressed numerous environmental movements, and muckraking journalists who tried to expose wrongdoings of corporations had been ostracized by editors and publishers. The latter include Ida Tarbell's expose of Standard Oil (1904); Upton Sinclair's *Jungle* (1985), which documented inhuman working conditions in the meatpacking industry and Rachel Carson's *Silent Spring* (1962), which reported on the consequences of DDT use by agricultural chemical industries.

Kennedy Jr. (2004) argues that many major media outlets are controlled by companies that have a vested interest in keeping environmental disasters under wraps. In 2003 two former Fox TV investigative reporters Jane Akre and Steve Wilson lost their jobs at Tampa's WTVT station when they refused to doctor a news report that had displeased Monsanto. The reporters had visited regional dairies and discovered that Monsanto's controversial bovine growth hormone (BGH) was being injected to cows by virtually every dairyman in the region. In various studies BGH has been linked to cancer and is banned by many countries, including Canada, New Zealand, and the European Union. The day before airing the show, the station yanked the segment because Monsanto hired a powerful law firm to complain to Fox News. The station was worried about losing advertisers and spending money to defend a lawsuit (www.foxbghsuit.com).

Another target of similar criticism is the General Electric Company (GE). GE is U.S.'s the second-largest nuclear energy vendor, with 39 nuclear power reactors in the United States, and the third-leading nuclear weapons producer worldwide (Beder, 2002). One of its most well known subsidiary companies is National Broadcasting Company (NBC), but GE has been accused of pressuring NBC to produce content with a pronuclear bias (Lee & Solomon, 1991). For instance, in 1987, one year after the General Electric Company's acquisition of National Broadcasting Company, NBC aired a documentary titled *Nuclear Power: In France It Works*. The special documentary juxtaposed French citizens' acceptance of nuclear technology with American citizens' "emotional" anti-nuclear sentiments. The advertisement of the documentary reads:

The French Lesson. Can the French teach us a thing or two about atomic power? America's nuclear industry is stumbling, but France's generates three quarters of that nation's electricity. And French townspeople welcome each new reactor with open arms. Where did France go right? Tonight's NBC News Special comes up with intriguing answers (Beder, 2002).

More interestingly, one month after the documentary was broadcast, a couple of accidents occurred at two French nuclear power stations. Immediately, strong antinuclear sentiment erupted in France, with public opinion polls showing about one-third of the French public opposing nuclear technology. However, NBC never followed up on the accidents or the French public's outcry. Instead, *The Christian Science Monitor* and some other U.S. newspapers covered the story (Beder, 2002; Lee & Solomon, 1990).

Nevertheless, the NBC documentary won a Westinghouse-sponsored prize for science journalism the following year. Like GE, Westinghouse is a military-industrial

powerhouse with large investments in nuclear power and weapons, as well as in broadcast media. Westinghouse owns Group W Cable Production and is the second largest radio station operator in the United States (Beder, 2002).

In addition, when New York state officials banned recreational and commercial bass fishing on the Hudson River, NBC news never reported that its parent company was partly responsible because it had polluted the river with 400,000 pounds of carcinogenic PCBs in 1986. Also, the worldwide consumer boycott of GE products launched by INFACT was never reported by NBC. INFACT's TV commercials, urging consumers not to buy GE products, were banned by NBC and other television broadcasters (INFACT, 1990). Similarly, *BusinessWeek* never mentioned GE's Superfund troubles, or the trouble GE has given thousands of citizens living near their contaminated Superfund sites. While CEO John Welch's "philosophy" of "leadership" was examined in the article, no insight was offered on GE's strategy of seeking to remove their toxic cleanup liability through backdoor legislative efforts in both the Congress and state legislatures.

One month later, on July 9, EPA Administrator Carol Browner testified before the Environmental Conservation Committee of the New York State Assembly to condemn GE's campaign to deny the health risks posed by PCBs. Browner castigated GE for its public statements that "living in a PCB-laden area is not dangerous." Three days later, on July 13, GE CEO Jack Welch and First Lady Hillary Rodham Clinton were featured on NBC's Today show with host Maria Shriver. The first lady was praising Welch for GE's contribution of \$5 million to help restore a museum for Thomas Edison. Neither the first lady nor Shriver raised the issue of EPA Administrator Browner's testimony and charges

of GE's irresponsible corporate conduct during the part of the segment that was broadcast on the GE-owned TV network. (Public Interest Research Group, 1998)

As another example, NBC's *Today* show dropped a reference to GE when it reported on substandard products used by the NASA space program on November 30, 1989. The report focused on a federal investigation of inferior bolts used by GE and other firms in building airplanes, bridges, nuclear missile silos and equipment for the NASA space program. It said that 60 percent of the 200 billion bolts used annually in the United States may be faulty (Beder, 2002).

Critics argue that GE/NBC is not an isolated case of corporate dominance of media subsidiaries. In fact, in 1998 ABC News dropped a 20/20 investigative report about pedophilia and lax security at Walt Disney World. The network said it was not influenced by the fact that the proposed story was about its parent company. Notably, CapCities/ABC and CBS were interlocked with other huge conglomerates that are part of the military-industrial complex. The boards of directors of the Big Three networks are composed of executives, lawyers, financiers and former government officials who represent the biggest banks and corporations in the United States, including military and nuclear contractors, oil companies, agribusiness, insurance and utility firms.

Even the nation's leading newspapers are not free from the same constraints, critics say. *The New York Times*, for example, has numerous interlocking directorates with the nuclear and energy industries, and critics argue that these ties are responsible for *The New York Times*' support of nuclear weapons and atomic power plants (Beder, 2002). AOL Time Warner, the world's biggest media corporation, also has many interlocks with powerful industries. Directors include representatives from General

Dynamics, Mobil Oil, Atlantic Richfield, Xerox and a number of major international banks.

In sum, the pro-industry bias in corporate media, critics say, stems from the interlocking ownership structure of media conglomerates as well as the emphasis on profits (i.e., corporate media essentially are thought to be "greedier"). As Ben Bagdikian (1997) puts it,

It is normal for all large businesses to make serious efforts to influence the news, to avoid embarrassing publicity, and to maximize sympathetic public opinion and government policies. Now they own most of the news media that they wish to influence (Bagdikian, 1997: 26).

According to Lee and Solomon, "Nowadays, General Electric doesn't need to marshal the press to persuade the masses; it owns the press — or at least a sizable chunk of it" (1991, p. 82). Douglas Kellner (1990) writes,

Control of television by powerful groups ensures that certain issues will not be adequately covered and that certain points of view will not be articulated. Can one seriously expect GE/NBC to critically cover nuclear energy and the military-industrial complex when it is one of the nation's largest defense contractors and producers of nuclear energy plants?.... (Kellner, 1990, p. 180).

From a structural perspective, the presumed inability of corporate media to objectively cover environmental problems can be interpreted as benefiting powerful corporate elites. Corporate media appear to function as a hegemonic institution that helps weaken revolutionary elements in society not by coercive measures, but by controlling news and cultural information (Gitlin, 1980).

An Alternative Model

Although social scientists in general overwhelmingly subscribe to the critical model when it comes to understanding the actions of modern corporate mass media, other scholars point out that if this model is true, then how does one explain the existence of progressive social change during the 20th century? Challenging groups have been able to pass legislation that has allowed some of the most remarkable social changes in world history. These include the Civil Rights Act (1965), Affirmative Action (1965), Clean Air Act (1970), and Fair Trading Act (1999), all of which have helped level the playing field in terms of political, environmental and economic equality. The creation of various government agencies, such as the National Labor Relations Board (1935), Equal Employment and Opportunity Commission (1964), Federal Trade Commission (1914), and Environmental Protection Agency (1970), also has helped protect, to some degree, the interests of powerless ordinary workers and citizens from powerful business.

Todd Gitlin (1980) argues that media are not simply instruments of elite power; they have their own political and economic interests, and to maintain their claims to legitimacy, media at times must report ideas or beliefs that run counter to the interests of the dominant class. Such was the case during the latter part of the Vietnam War, when the anti-war movement in the United States grew in power and respect.

The (television) network's claim to legitimacy, embodied in the professional ideology of objectivity, requires it, in other words, to take a certain risk of undermining the legitimacy of the social system as a whole. The network's strategy for managing this contradiction is to....tame, to contain, the opposition that it dares not ignore (Gitlin, 1980, p. 259).

However, some critical scholars argue that these progressive social changes might have occurred in spite of the mainstream media, not because of them (Beder, 2002; Kennedy Jr., 2004; Nader, 1965, 1970). In fact, since the turn of the century, powerful corporations have oppressed numerous environmental movements, and muckraking journalists, in turn, fought to expose unjust actions of large corporations.

As noted above, corporate media critics back up most of their theoretical arguments with case studies and anecdotes. There is little doubt that corporate media have failed, on occasion, to live up to journalistic ideals and have failed to serve the public interest. However, case studies and anecdotes can also be misleading, because they may not represent the population of mass media that are being analyzed. Interestingly, although media scholars are overwhelmingly critical of corporate media, systematic empirical research fails to support their model.

Although ownership of newspapers is becoming more concentrated in terms of the number of companies that control media outlets (but not in terms of the number of owners, which have increased with the advent of pension funds and public offerings), there is little evidence showing that this trend has led to a reduction in message diversity (Compaine, 1985; Demers, 1996; McCombs, 1987) or that other media sectors, like magazines and broadcast television stations are experiencing the same trends (Compaine, Sterling, Guback & Noble, 1982). In fact, some studies have found that media in larger, more pluralistic communities cover a broader range of topics and contain more news (Davie & Lee, 1993; Donohue, Olien & Tichenor, 1985).

An alternative view is that current declines in newspaper circulation and national network television penetration reflect increasing differentiation of the social structure and

that such differentiation can, under some circumstances, promote more criticism of established institutions and greater diversity in media content (Demers, 1998a). And even though research shows that small, community newspapers often omit news that is critical of established institutions and elites (Breed, 1958; Janowitz, 1952), media in more pluralistic communities are much more likely to publish news that is critical of elites or conflict oriented (Donohue, Olien & Tichenor, 1985; Tichenor, Donohue & Olien, 1980).

Other studies support the idea that media can, under certain conditions, challenge dominant ideas and groups. Meyers showed that veteran reporters at mainstream newspapers can write stories that challenge components of the dominant ideology.

Studying Canadian press coverage of disarmament, peace and security issues, Bruck (1989) reported that commentaries, columns, op-ed pieces often challenged the dominant view of bureaucrats.

Demers (1996b) reviewed seventeen studies that have examined the effect of corporate structure on editorial-page content or staff. All employed chain ownership (chain vs. independent newspapers) or some variant of it (e.g., number of newspapers in chain) as the independent variable. Of the seventeen studies examined, three generally support the critical model, seven show no relationship or have mixed findings, and seven suggest that chain organizations are more vigorous or create conditions conducive to greater diversity.

The earliest study was published in 1956 by Borstel, who wanted to know whether "home-owned, non-chain papers show a greater interest in local affairs of public interest than chain papers where the owners live hundreds or thousands of miles away," or whether "chain papers, because of their greater financial strength, show greater

forthrightness, greater tendencies to speak frankly, regardless of consequence, on local questions." He content-analyzed editorials, columns, letters to the editor, and cartoons during a six week period in twenty small dailies located in northern cities with population under 25,000. He found no consistent differences by ownership structure.

In 1971, Grotta published the findings from a study which examined the impact of ownership on size of editorial staff, size of news hole, percentage of local news, size of the editorial-page news hole, and the percentage of editorials as content. Regression analysis found no significant differences between independent and chain-owned newspapers. Four years later another study reached similar conclusions. Wagenberg and Soderlund (1975) studied Canadian newspapers and found no correlation between ownership structure and slant in the treatment of competing political parties or the number of articles written about a variety of editorial themes, including welfare, federalism, and tax reform.

In contrast to those studies, Wackman, Gillmor, Gaziano, and Dennis (1975) examined newspapers' editorial endorsements of presidential candidates from 1960 to 1972 and concluded that chain newspapers exhibit a high degree of homogeneity.

In 1977, a quasi experimental study by Thrift also disputed the comments of the chain spokespersons. He compared editorials in twenty-four West Coast chain and independent newspapers before and after the chain-owned newspapers were purchased by a chain. He found that after the purchase, newspapers that became part of a chain were less likely to write editorials that dealt with topics of controversy, local or otherwise, and were less likely to write "argumentative" (as opposed to explanatory) editorials. In contrast, independently owned newspapers posted significant increases on these measures.

He concluded: "Independently owned daily newspapers' editorials do become less vigorous after the newspapers have been purchased by chains."

In contrast to Thrift's findings, a 1980 survey by the American Society of Newspaper Editors found that editors at chain-owned newspapers were more, not less, likely than those at independently owned newspapers to: (1) take stands that would be opposed by their publishers, (2) choose who their newspaper would endorse in a national election, and (3) say they never had to check with a newspaper's headquarters or owner before taking a stand on a controversial issue. A study by Goodman three years later also produced results that generally supported the ASNE study. He read three months of editorials in forty-five chain-owned and twenty-five independent Illinois weeklies and found that, although independent newspapers published a slightly higher proportion of editorials about local and state subjects, independent papers published fewer editorials overall. The chain weeklies actually published more editorials and more column inches of editorials, and made more political endorsements than independent weeklies.

Daugherty's Ph.D. dissertation in 1983 also supported these studies. Examining the editorial content of thirty-six chain and thirty-two independent daily newspapers, he reported that chain papers published more letters to the editor and more editorials, and had more editorials about local issues. No differences were found in the number of presidential endorsements.

A book edited by Ghiglione in 1984 that presented the findings of ten different case studies of newspapers purchased by chains drew mixed results about the effects of ownership structure. The authors concluded that in three cases the newspapers had

improved, in three cases there were no significant changes, and in four cases they deteriorated.

In 1986, St. Dizier reported the findings from a survey of editorial page editors, which found that chain newspapers were more likely to endorse the Republican candidate for U.S. president in the 1980 election (i.e., Reagan). St. Dizier also found that chains were more likely to have Republican publishers. However, in the same year a study of fifty-one California newspapers by Rystrom found that chains were more likely to endorse Democratic candidates and that the gap had widened from 1970 to 1980.

In 1988, Hale studied the editorial-page content of twenty-eight daily newspapers when they were independently owned and after they had been purchased by a large chain (groups that own six or more dailies). He concluded that for most of the papers the change in ownership resulted in "only modest change and slight improvement or deterioration." The papers published about the same number of editorial pages, editorials, and letters to the editor after the conversion. For only one of sixteen measures was there a significant change: Chain newspapers published slightly fewer miscellaneous articles.

In 1988, Romanow and Soderkind also reported that the purchase of the (Toronto) *Globe and Mail* - which is considered to be Canada's "national newspaper"-by the oftencriticized Thomson Newspaper chain resulted in few editorial changes. The chain actually doubled the number of local reporters after acquisition, and, editorially, it was somewhat more vigorous editorially on international issues that involved Britain or the United States.

In 1989 Gaziano expanded the Wackman et al. (1975) data set to include later elections and concluded that chains still tend to be homogeneous in their presidential choices; however, as chains increase in size the degree of homogeneity declines.

Busterna and Hanson (1990), on the other hand, contend that there is little evidence to substantiate the chain homogeneity argument.

Akhavan-Majid, Rife, and Gopinath (1991) found a high level of agreement among editorial positions taken by Gannett newspapers compared with a matched sample of independently owned newspapers; however, the Gannett newspapers were far more likely to editorialize on the three national issues studied and to oppose the positions taken by dominant elites (e.g., President, Supreme Court). A more recent study by Akhavan-Majid and Boudreau (1994) found that editors at chain newspapers are more likely than their counterparts at independently owned newspapers to say that the role of their newspaper is to provide critical evaluation of local government performance and to function as a watchdog of business on behalf of consumers. Large newspapers also were more likely to say the role of their newspaper is to function as a watchdog of business.

And, finally, Wilhoit and Drew (1991) found that editorial editors at group-owned newspapers are far more likely than those at family or independently owned newspapers to say publishers have no influence or very little influence when it comes to "determining the priority given to editorial topics."

Research by Demers, which is reviewed in the next section, also fails to support most key aspects of the critical model. Chain or corporate newspapers actually are slightly more vigorous editorially or have the capacity to be more vigorous than independent newspapers.

Theory of Corporate Structure

According to Demers (1993, 1996a, 1996b, 1998b), one of the problems in the critical literature is that scholars have failed to provide a formal definition of "corporate structure." The term "corporate" is often used as a synonym of profits or greed. Critics have failed to provide theoretical imagery that shows why corporate media should produce the adverse effects the critics claim they do. As noted above, much of the criticism focuses on interlocking directorships or the vague notion that corporate structures are greedier than entrepreneurial forms.

The modern corporation traces its roots to the Middle Ages and the growth of guild groups and, later, joint-stock companies (Smith, 1952; Demers, 1994b). The corporate form of organization is largely a product of increasing industrialization and urbanization. The growth of newspapers was largely a function of the growth of a community, such that the biggest communities ended up with the biggest newspapers. A more sophisticated analysis comes from the German sociologist Max Weber, who wrote extensively about corporate organizations and bureaucratic structures. Drawing on Weber (1947), Demers (1993, 1996a, 1996b, 1998c) defines a corporate organization as one that contains:

- 1) Complex hierarchy of authority
- 2) Highly developed division of labor and role specification
- 3) Formalized rules and procedures
- 4) Employment and promotion based on technical qualifications
- 5) Greater rationality in decision making
- 6) Complex ownership structure (1996a:10).

Demers (1994b, 1998a) juxtaposes the corporate form of media organization with entrepreneurial form, which is the small, family-owned media organization – typically less rational and less efficient. This conceptual definition enables one to take into consideration the varying degrees of structural complexity of media organizations. To most critics, the corporate media are a monolithic entity that receives direct commands from their corporate owners. Such a concept is becoming increasingly outdated and inadequate to explain newly emerging characteristics of media corporations as they rapidly transform themselves through merger and acquisition and spin-offs at an unprecedented speed and scale.

Demers (1996b, 1998c) argues that media in more pluralistic communities are much more likely to publish news that is critical of elites or that is conflict oriented. That is because criticism and social conflict are much more common features of large, pluralistic communities. Pluralistic systems contain a greater number and variety of special interest groups that compete for social, political and economic resources.

Decision-making in such communities is often expected to take into account diverse perspectives and views, and such communities are structurally equipped to deal with various ranges of conflicts, for instance, boards of inquiry, formal labor-management negotiators, formalized grievances procedures, and administrative law judges. In short, as structural pluralism increases, the probability that media content will reflect that diversity increases (Hindman, Ernst, & Richardson, 2001; Hindman, Littlefield, Preston, & Neumann, 1999; Hindman, 1999; Tichenor, Donohue, & Olien, 1980).

More specifically, Demers (1996a) argues that corporate media are:

- More critical of existing power structures because they are more insulated from parochial political pressures.
- 2) More insulated because their owners, managers and journalists are less likely to grow up in the community their newspaper serves.
- 3) More likely to employ journalists who are oriented more toward the organization than the community and also work there for a shorter period of time factors that insulate them from local parochial political pressures.
- 4) More likely to create an environment in which professional norms and values play a more prominent role in day-to-day decision-making (1996a).

More specifically, the growth of the corporate newspaper should be conceptualized as a consequence of increasing social complexity and economic competition. As social systems grow and become more complex (i.e., become more structurally pluralistic), competition between mass media for limited resources (e.g., advertising and audiences) increases, which intensifies social and technological innovations that promote via economies of scale the growth of large-scale media organizations. Chain ownership is one indicator of this process of organizational growth and change. Other measures include division of labor and role specialization, hierarchy of authority, rationality in decision making, formalized rules and procedures, and a highly skilled and educated staff.

Another problem with the critics' argument is their zero-sum assumption that corporate newspapers place greater emphasis on profits and less on product quality or the information needs of the community. While there is some evidence to suggest that chains

place more emphasis on profits, recent national probability surveys have found that corporate newspapers actually place less emphasis on profits as an organizational goal and more emphasis on product quality than entrepreneurial newspapers. Research suggests, in fact, that highly profitable companies appear to spend a larger proportion of their profits on editorial production and that corporate organizations have a greater capacity to pursue more goals (Demers, 1996c, 1998b)

Managerial Revolution Hypothesis

One of the theoretical problems with the critical model is that fails to answer a key question: How can corporate organizations place more emphasis on profits when they are controlled and managed not by the owners, who benefit directly from the profits, but by professional managers — such as editor-in-chief, executive editor, or metro editor—who obtain most of their income through a salary (Berle & Means, 1932; Burnham, 1941; Chandler, 1977; Demers & Merskin, 2000)?

The critical corporate model assumes that those in charge of the corporation maximize rewards for themselves. But if professional managers are in control and their compensation is not solely determined by profits, then why should they be more profit-maximizing than entrepreneurs (i.e., owner-managers), who benefit directly and immediately from profits? The argument that professional media managers—such as editor-in-chief, executive editor, or metro editor—are more profit-maximizing is illogical, according to John Kenneth Galbraith (1978), who calls it the "approved contradiction." Galbraith writes:

[I]t is now agreed that the modem large corporation is, quite typically, controlled by its management. The managerial revolution--the assumption of power by top management--is conceded. So long as earnings are above a certain minimum, it would also be widely agreed that such management has little to fear from the stockholders. Yet it is for these stockholders, remote, powerless and unknown, that management seeks to maximize profits. Management does not go out ruthlessly to reward itself--a sound management is expected to exercise restraint. Already at this stage, in the accepted view of the corporation, profit maximization involves a substantial contradiction. Those in charge forgo personal reward to enhance it for others (pp. 109-110).

Although resolution of the "approved contradiction" is critical to the development of a logically consistent critical theory of corporate structure, to date none of the critical scholars has addressed this problem.

The managerial revolution also supports the notion that corporate media will produce content that is more critical of the power structure (Berle & Means, 1932; Demers & Merskin, 2000; Galbraith, 1978). This is the notion that as a corporation grows and becomes more structurally complex, the owners play less and less of a role in day to day decision-making. Instead, the professional managers—such as editor-in-chief, executive editor, or metro editor—play the key role. Berle and Means (1932) assert that the separation of ownership and control occurs as a result of the increased capital requirements of the large corporation and stock ownership. In general, the larger the company, the more likely its ownership to be diffused among a multitude of individuals. That is, the companies' suddenly increased capital requirements have created a need for a dispersion of stock ownership.

According to Berle and Means (1932), most of the businesses in America were once small companies. There were the creations of entrepreneurs who provided them with much of their initial investment capital and managerial expertise. During the first

few decades of their existence, these companies were typically owned and managed by a small group of individuals, many of whom were related to the founder by blood or marriage. However, as these small companies grew larger, the management of these companies became the almost exclusive domain of managers. Overtime, numerous small companies, owned and managed by a founding entrepreneur and his descendents, grew into a large corporation, owned by countless small stockholders and run by managers who have only small stockholdings in the company.

In short, the managerial revolution hypothesis posits that control of corporate organizations in modern societies has been shifting from the owners, or capitalists, to professional managers and highly skilled technocrats (Bell, 1976; Berle & Means, 1932; Burnham, 1941; Dahrendorf, 1959; Demers, 1993, 1994a, 1995; Galbraith, 1971, 1978; Parsons, 1953). The managerial revolution hypothesis occupies a prominent place in postindustrial theories of society, which contend that theoretical knowledge, rather than capital, is becoming the key source of power or the axial principle of society (e.g., Bell, 1976). According to these theories, the managerial revolution is being fueled by at least four key factors or trends: (a) The death of major entrepreneurial capitalists or stockholders, whose concentrated economic power is dispersed over time as it is divided among heirs; (b) organizational growth, which forces companies to draw capital from more and more sources, diluting the proportion of ownership of any single owner; (c) increasing complexity in the division of labor and market competition, which forces owners to rely more and more on the expertise of highly skilled professional managers and technical experts to manage day-to-day operations of the organization; and (d) the growth of pension, insurance, mutual and trust funds, which invest heavily in corporate

stocks and are managed by professional investors, not the owners. Over time, these factors and others are expected to promote the growth of a professional-technical class that will replace existing capitalists as the new ruling class.

Although empirical research generally supports the idea that owners of the means of production play a relatively limited role in day-to-day operations at large corporations, social scientists disagree on the question of whether power is really shifting in the system. Studies by some economists and mass communication researchers (Demers, 1996c, 1998b; Demers & Merskin, 2000; Larner, 1970; Monsen, Chiu, & Cooley, 1968) suggest that large-scale organizations, including corporate newspapers, place less emphasis on profits and serve the interests of managers and professionals before the owners.

Demers (1996a, 1998b) has argued that a positive correlation between managerial control and high profit rates is compatible with the managerial revolution thesis. The corporate form of organization is structurally organized to maximize profits, but it is expected to place less emphasis on profits as an organizational goal. As noted earlier, several national probability samples of daily newspapers in the United States support this argument (Demers, 1996a, 1996c, 1998b). Corporate newspapers are more profitable, Demers argued, because they benefit from economies of scale and superior management and human resources. However, Demers also found that corporate newspapers place less emphasis on profits as an organizational goal and more emphasis on other, nonprofit goals, such as product quality, maximizing growth of the organization, using the latest technology, worker autonomy, and being innovative. They place less emphasis on profits

because, he argued, they are controlled by professional managers and technocrats, not the owners.

Demers also reports that journalists at corporate newspapers are more satisfied with their jobs because they have more autonomy, status, and prestige than journalists at noncorporate or entrepreneurial newspapers (Demers, 1993, 1994a, 1995). Furthermore, as organizations become more corporatized, editorials and letters to the editor published in them become more, not less, critical of mainstream groups and ideas (Demers, 1996b), and established news sources (mayors and police chiefs) in communities served by corporate newspapers also believe that those newspapers are more critical of their policies and city hall (Demers, 1998c). These latter findings contradict many neo-Marxist theories that hold that media become more hegemonic as they become more corporatized (e.g., Tuchman, 1988). Demers (1994b, 1996a) traces the growth and development of the corporate newspaper to the economic and social division of labor in society (i.e., structural pluralism) and argues that the corporate form of organization helps to explain many of the social changes that have taken place, especially in the last century.

Another test of the managerial revolution hypothesis can be found in Demers and Merskin's study (2000). They theorized that as the scale and size of a newspaper organization increases, owners and publishers would lose control over editorial content because of increasing role specialization. More specifically, as an organization grows, roles generally become more specialized and the division of labor expands. These structural "forces" increase the productive capacity of the organization and reduce costs; however, they also increase the complexity of the decision-making process. A highly complex organization depends heavily on a highly educated and skilled workforce to

achieve its goals. At newspapers, this means that editors and other newsroom experts, not the owners and publishers, have the requisite knowledge and skills to make such decisions. Owners (whether proprietors or absentee stockholders) and other top-level managers (publishers) depend heavily on experts and highly skilled managers to run the organization. And the owners' and publishers' roles also become more specialized; that is, they tend to focus more on budgetary matters and long-term planning rather than day-to-day matters.

CHAPTER THREE

THEORETICAL PERSPECTIVE

Are corporate newspapers less critical of the Bush administration's global warming policy than entrepreneurial newspapers, as the critics contend? Or can corporate newspapers under some circumstances publish contents that is more critical of powerful elites and that promotes social change?

Contrary to the corporate media critics' claim of pro-industry bias, this study hypothesizes that newspapers become more critical of dominant economic and political elites (i.e. Bush administration and fossil-fuel industries) as they acquire the characteristics of the corporate form of organization. More specifically, it is hypothesized here that:

H1: The more a newspaper exhibits the characteristics of the corporate form of organization, the more editorials it will publish about global warming and the Bush administration's policies toward global warming.

H2: The more a newspaper exhibits the characteristics of the corporate form of organization, the more *critical* its editorials will be of the Bush administration's policies toward global warming.

The first hypothesis can be explained largely by structural features of a community. Corporate media are products of larger, more pluralistic systems. Because they have more resources at their disposal, such as advertising revenues, news hole and staff, they are more likely to publish more editorials.

The second hypothesis focuses on the nature of that content. Corporate media are expected to be more critical partly because they are more likely to be located in communities that contain more social conflict and criticism of dominant groups. Larger pluralistic environments contain a larger number of groups and organizations (including environmental groups) that compete for limited resources and opportunities, which would subsequently generate greater power differential between the haves-and have-not. Thus, various grassroots social movement organizations tend to emerge in such conflict-oriented pluralistic communities. Social movement organizations make concerted effort to gain access to the media and control media coverage primarily because in pluralistic community, social movement organization cannot mobilize resources — member recruitment and fundraising — without mainstream media coverage.

On the other hand, the amount of social conflict and criticism of mainstream institutions and values in smaller community newspapers is low partly because the community contains a limited number of alternatives or challenging groups and organizations. Small communities also do not encourage or tolerate a wide range of behaviors, opinions or values. Elites in small, homogenous communities share similar interests, values, goals and worldviews (Tichenor, Donohue, & Olien, 1980).

The amount of social conflict and criticism of mainstream institutions and values in these community newspapers is low in part because the community contains a limited number of alternative or challenging groups and organizations. Small communities also do not encourage or tolerate a wide range of behaviors, opinions, or values, at least openly. Elites in small, homogenous systems share similar interests, values, goals, and world views. Decision making relies more heavily on consensus than debate. But even

when conflict emerges between different groups of elites or challenging groups, media in small communities tend to limit reporting of such conflicts. Social conflict usually is perceived to be disruptive of community solidarity, and these communities are not structurally equipped to deal effectively with open conflict. Conflicts often are handled informally and decisions on crucial issues are reported by local media after the fact.

In contrast, social conflict is a much more common feature of large, pluralistic communities because they contain a much greater variety of special interest groups competing for limited social, political, and economic resources. Decision making in such communities is expected to take into account diverse perspectives and views, and such communities are structurally organized to deal with conflict, having mechanisms such as boards of inquiry (e.g., racial discrimination commissions, civilian police review boards), formal labor-management negotiators, formalized grievance procedures, and administrative law judges. Although stories, editorials, and letters to the editor that contain conflict or criticism are often viewed as threatening to the social order, such content often plays a significant role in contributing to system stability because it introduces alternative ideas or innovations that enable organizations and institutions to adapt to changing conditions.

The second reason that corporate newspapers would be expected to generate editorial content that is more critical of dominant institutions and values is that their publishers and editorial staffs are more insulated from special interests and political pressures. The owners and top managers at corporate newspapers are more insulated because (1) they are less likely to grow up in the community their newspaper serves; (2) they work at the newspaper for a shorter period of time; (3) they are oriented to the larger

corporation, not the local community; and (4) the decisions they make are more heavily influenced by professional norms and values, which place a higher premium on truth and criticism than on local parochial interests. Publishers and managers who have spent a lot of time in the community their newspaper serves often develop close personal ties to local elites and organizations. Such ties may foster a greater concern with the issues and problems facing the community; however, they also may lead to greater constraints on the editorial process. Friendships create obligations, and the ability of the newspaper to impartially report on controversial issues or matters, especially those that portray local social actors in a negative way, may be compromised to the extent that a top-level manager is highly integrated into a community. The effect of such ties is particularly acute in a small town, because the local entrepreneurial newspaper depends on a smaller number of advertisers for its livelihood.

While it is true that no newspaper can afford to alienate all or a substantial number of its advertisers and expect to be financially self-supporting over a long period of time, corporate newspapers are more financially stable, which means they are less dependent upon any single advertiser. Top-level managers of corporate organizations also are more insulated from political pressures because they spend less time working at those newspapers and move more frequently from job to job. Many of these managers, including top-level editors, are interested in climbing the corporate ladder. This means they must be oriented to the larger corporate or chain organization, not the local community. An orientation to the corporation may lead to less concern with local issues, but it also reduces the probability that local special-interest groups will unduly influence the news production process, giving corporate newspapers a greater capacity to criticize

local groups. Perhaps more important than living in a community and climbing the corporate ladder, though, is the effect of professional norms and values on the editorial process. Professional codes of ethics define public conflict and criticism as newsworthy and condemn news that promotes local parochial interests over truth and the public good.

While professionalism exists to some degree at most newspapers, at corporate newspapers professionalism is more advanced. Contrary to popular belief, the growth of corporate or bureaucratic institutions generally promotes - it does not negate - the development of professional norms and values. The division of labor and role specialization that accompanies the growth of large-scale organization facilitates the development of professional norms and values in part because those organizations have a larger number of editorial employees who are structurally separated from workers in other functional areas. This separation facilitates the development of specialized skills and knowledge as well as professional codes of conduct. Large, complex corporate newspapers, in fact, are much more likely to have written ethical codes of conduct and to enforce them.

Professional codes of conduct are designed, of course, to control the behavior of professionals and, admittedly, they can, under certain circumstances, inhibit the diversity of ideas. But they also help to expand diversity by insulating journalists from special interest groups (e.g., advertisers, politicians, government), who seek to use the media to serve exclusively their own needs and interests. Professional norms limit or constrain the authority of non editorial personnel in the news production process. When it comes to producing the news and editorial content, the editors *are* the experts, and only they have the authority to make decisions that affect the editorial production process. Professional

norms also help justify and legitimate the role of journalists in producing news for the broader society.

Another reason why corporate media would be expected to be more critical of Bush Administration's withdrawal from Kyoto Protocol is that their publishers and editorial staffs are more insulated from special interests and political pressures. Owners and top managers of corporate newspapers are less likely to grow up in the community their newspaper serves. They also work at the newspaper for a shorter period of time, are oriented more to the larger corporation than to the local community, and are more strongly committed to professional ethics, which place a high priority on truth and criticism at the expense of local boosterism. Strong ties to a local community inhibit criticism of local elites and powerful industries.

In contrast to the critical model, the key strength of the structural model presented here is that it helps to account for social change and the role that mass media often play in promoting such change. As social systems, communities and the nation as a whole, become more pluralistic, news media become more critical of traditional ways and established institutions. Media reflect to some degree the diversity of the communities they serve, and increasing role specialization and professionalization, by-products of community growth, insulates journalists from outside pressures. The increased level of criticism that emerges from these structural forces contributes to discourse that often places pressure on existing institutions to change. Although corporate newspapers increase the probability that editorial content will be critical of established or mainstream groups, it is important to point out that the structural or cultural changes that sometimes result from these pressures are rarely radical.

CHAPTER FOUR

METHODOLOGY

One of the best ways to study the impact of corporate structure on media content would be to conduct a content analysis of editorials. However, getting newspapers to send random samples of editorials is not an easy task, because it can be very time consuming. An alternative approach, and the one used in this study, is to survey editorial page editors and ask them to provide information about how their newspaper has editorialized on global warming in the past. It was assumed that most editorial page editors are knowledgeable about the positions their newspapers take on various issues. Unlike news stories or syndicated columns, editorials written by newspapers' editorial board members reflect the newspaper's institutional positions. Some studies have suggested that editorial orientations of a newspaper even set the tone of news sections (Gerbner, 1964).

This study collected data through a probability mail survey of editorial-page editors at 500 randomly selected U.S. daily newspapers. *Bacon's Newspaper Directory* 2004 was used as a sampling frame because the directory includes newspaper circulation, mailing address, and personnel information of all daily newspapers in the United States, which is a target population of the survey. Samples for this survey were organized primarily by circulation size of newspapers, rather than geographic locations. Previous studies of newspaper organizations showed that newspaper circulation size is one of the major determinants of the newspaper's characteristics (Demers, 1996a, 1996c, 1998c).

The unit of analysis for the study is the newspaper, not the editor. The questions focused on the newspaper's positions in editorials. Only several questions asked about the respondent's position. Thus, the editors are serving as surrogates or units of observation for the organization.

Because the circulation of U.S. newspapers is not a normal distribution curve (i.e., most dailies have a circulation of 25,000 or less and only a handful have circulations of 500,000 or more), a stratified nonprobability random sampling method was used.

According to Babbie (1995), stratified random sampling is a method that allows a proportional representation of heterogeneous samples (p. 218).

Table 1 shows that samples are assigned to five circulation brackets: 1) under 24,999; 2) 25,000 to 49,999, 3) 50,000 to 99,999, 4) 100,000 to 24,999 and 5) over 250,000. To correct for skewed sample distribution, newspapers under circulation 24,999 were slightly under-sampled, while newspapers with circulation over 250,000 were oversampled. That is, to ensure there is enough cases to show variances exist among large circulation newspapers. This is a form of restricted random sampling, but the method of selection within each stratum is still random (Moser & Kalton, 1972). The intended sample size was calculated based on the most conservative assumptions (50/50 split answers with a 95% confidence level and acceptable amount of ±5% sampling error).

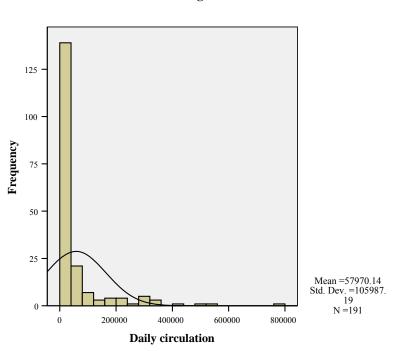
According to the formula (Dillman, 2000: 206), about 300 completed surveys are adequate for the population size of 1,500. In a previous national probability mail survey of newspapers, Demers (1993) achieved a 55 percent response rate. Due to limited budget and manpower, 500 survey packets were mailed out in September of 2006.

TABLE 1 Stratified Random Sampling and Response Rates

Circulation Brackets	Survey Population	Intended Samples	Achieved Samples	Response Rate
1. Under 24,999	1030 (69.8%)	346 (68.6%)	109 (57.0%)	31.5
2. 25,000 to 49,999	207 (14%)	67 (13.3%)	32 (16.8%)	47.8
3. 50,000 to 99,999	126 (8.5%)	41 (8.1%)	20 (10.5%)	48.8
4. 100,000 to 249,999	70 (4.7%)	21 (4.2%)	17 (8.9%)	80.9
5. Over 250,000	43 (2.9%)	29 (5.8%)	13 (6.8%)	44.8
Total	1476 (100%)	504 (100%)	191 (100%)	37.9%

FIGURE 1
Sample Distribution

Histogram



Non-response and Measurement Errors

Non-response error occurs when a significant number of people in the survey sample do not respond to a survey and have different characteristics from non-respondents (Dillman, 2000, p. 10). One way of reducing non-response error is achieving high enough response rate, and a number of survey methods has been developed to deal with the non-response problem. The current study followed a widely known *Tailored Design Methods* (Dillman, 2000).

The survey packet included a 46-item questionnaire printed in a double-sided white colored paper; a cover letter printed in an official university letterhead; a postage-paid return envelope; and \$1 financial incentive. First-class stamps were affixed to all envelopes and official university envelopes were used in all outgoing mails. All letters and postcards were signed by hand in blue ink. A week after the initial mailing, the postcard reminders were sent out (see Appendix A).

To minimize the potential measurement errors as well as other unforeseen problems, a pilot survey was conducted in July 2006. The survey packages were sent to editorial editors at 22 randomly selected daily newspapers. A week after the initial mailing, the postcard reminders were sent out to all 22 newspapers. A month later, eight newspapers' editorial editors (36%) returned their surveys. Objective measures — such as circulation, population, and ownership type — were cross-referenced with existing data obtained from the *Bacon's Directory* and the *MediaOwners.com* website (www.mediaowners.com). The total number of global warming editorials was compared with the *Lexis-Nexis* search results. Overall, the pilot survey did not indicate any major systematic measurement errors in the questionnaire.

However, during the follow-up telephone calls to non-responders, it was revealed that the use of a generic title — "Dear Editorial Editor" — caused a delivery problem at newspapers that do not have an editorial editor or have multiple editorial editors. Some of the newspapers threw the questionnaire in the trash. Additionally, some respondents advised using a post office box address rather than physical street address in case of possible relocation of the office.

Main Survey

On September 19, 2006, after putting a P.O. Box address and actual names of editorial editors, 500 survey packets were mailed out (See Appendix A). Postcard reminders with personal signatures were mailed on September 26, 2006, a week after the initial mailing. About 136 responses arrived by the mid-October; subsequent responses were returned at a slower rate. On October 20, 390 follow-up mailing packets were mailed out (See Appendix B). The follow-up packets included a new cover letter stating the importance of the study and quick responses. In this mailing, a \$1 financial incentive was not offered. The follow-up mailing didn't improve response rate much. By November 9, only about 20 more responses arrived. As the third follow up, telephone calls were placed to 50 non-responders. Non-respondents were randomly selected. Calling started November 20 and continued until January of 2007, until total of 191 responses were collected.

Independent Variables: Corporate Newspaper Structure

A primary independent variable in this study is corporate structure. Respondents were asked to provide information on 15 individual measures (See Appendix A). The first set of measures was designed to measure the division of labor, or organizational complexity. Three measures were employed: Number of full-time reporters and editors (Q13a); full-time employees (Q13b); and beats or departments (Q11).

Hierarchy of authority, which is another sub-concept of bureaucracy, was operationalized as the number of promotions needed for a reporter to become editor-in-chief (Q12). Three indicators of the presence of rules and procedures were used: Whether the newspaper has its own formal, written code of ethics (Q6a); whether the newspaper has its own employee handbook of rules and procedures (Q6b); and whether the newspaper has its own style book different from Associated Press or United Press International style books (Q6c).

Staff expertise was measured by a question which asked whether reporters normally need a bachelor's degree to be considered for employment at the newspaper (Q7). Five measures of ownership structure were included: whether the newspaper was owned by chain or group (Q4); whether public ownership was possible (Q15); whether the newspaper was a legally incorporated business (Q14); whether the newspaper was controlled by one family or individual (Q16); and the number of daily newspaper, weekly newspapers, television and radio station owned by chain (Q21, Q22, & Q23).

The 15 items were factor-analyzed using principal components, oblique rotation.

A factor loading of .60 was used as a cut-off to determine whether a measure should be included with a particular factor, and measures that had two or more loadings greater than .30 and less than .60 were considered problematic.

Using an Eigen value of 1.00 as a minimum for defining a factor, the analysis initially produced a four-factor solution. As expected, the division of labor items loaded heavily together on the first factor, but the hierarchy of authority measure also loaded strongly there. The first factor was defined as structural complexity. Newspapers that score higher on those items are defined as more complex.

The ownership items loaded heavily together on the second factor, with one exception: Legally incorporated business, which also loaded high on the fourth factor. Because of these mixed loadings, this item was excluded from the ownership index. The third factor included two of the three rules and regulations measures: Whether the newspaper has an employee handbook of rules and a formal, written code of ethics. The other measure, whether the newspaper has its own stylebook, loaded most highly on the fourth factor and posted the lowest final communality estimate. As such, it was also excluded from subsequent analysis. The fourth factor consisted solely of the hire college graduates, which was a measure of staff expertise.

In sum, the factor analysis produced four empirically distinct factors composed of 12 of the 15 original measures, which altogether explained 65 percent of the total variance in those variables. An overall corporate index variable was created after the values for the individual measures were standardized and combined: a) Structural Complexity, b) Ownership, c) Rules & Regulation, and d) Staff Expertise.

TABLE 2 Corporate Newspaper Measures Factor Analyzed^a (2006)

	Factor Loadings			<u>CE</u> ^b	
Corporate Measures	<u>F1</u>	<u>F2</u>	<u>F3</u>	<u>F4</u>	
1. Structural Complexity					
No. of full time reporters	.89	.09	.12	05	.82
No. of full time employees	.93	.05	.17	05	.87
No. of beats employing full time reporters	.88	01	.37	11	.80
No. of promotions needed for reporter to become top editor	.72	.01	.36	01	.55
2. Ownership Structure					
Owned by chain or group	.01	.75	.14	.18	.58
Public ownership possible	.32	.71	.31	14	.61
Legally incorporated business ^c	.10	.28	.16	.73	.62
Not owned/controlled by one family	.02	.82	.20	.05	.68
No. of daily newspapers in chain	11	.76	.04	.08	.61
3. Rules & Regulations					
Has employee handbook of rules	.11	.14	.77	02	.62
Has formal, written code of ethics	.21	.28	.77	15	.62
4. Hire College Graduates					
Bachelor's degree is required to work as a reporter	.17	.12	.25	74	.61
Has own style book ^c	.44	.06	.61	.004	.45
EIGEN VALUES	3.61	2.46	1.32	1.04	8.43
PERCENT OF VARIANCE	28%	19%	10%	8%	65%

^aPrincipal Components, oblique rotation (N=151) ^bCommunality estimates (i.e. total variance explained) ^cMeasure excluded from index because of low or mixed loadings

Zero-order correlations among the four factors are shown in Table 3. Structural complexity is correlated with rules and procedures, staff expertise, but not with ownership structure. The finding is consistent with recent research which has found little or no correlation between circulation and chain ownership in cross-sectional studies.

The factor exhibiting the strongest intercorrelations was rules and procedures. All of the zero-order correlations between other factors are greater than .18. This finding supports the argument that rules and procedures may be at the heart of the bureaucratic structure (Blau & Meyer, 1987; Mansfield, 1973; Weber, 1947) and it is the one element in this data that links all of the other dimensions together. Overall, ownership structure and staff expertise are the two weakest indicators of corporate structure.

Dependent Variable: Editorial Vigor on Global Warming

The primary dependent variable in this study is U.S. daily newspapers' editorial position on global warming. Editorial editors were asked to report how many global warming-related editorials their newspaper published during the past 12 months (see Appendix A).

Then, editorial editors were asked to rate 13 statements designed to measure the newspaper's editorial position on global warming issue. A crucial distinction that the respondent was asked to make was that these editorial positions were not his or her personal opinion, but the newspaper's position. The following statement preceded the first question: "By editorials, we mean those opinion pieces that represent the voices of publishers and editors, excluding commentaries written by syndicated columnists or citizen's letters to the editor" (Q1). Twelve questions were introduced by another

reminder sentence: "During the last year, our newspaper has published editorials point out that...." Also, immediately following the 13-item questions, the respondent was asked about his or her personal position on global warming: "How strongly do you, PERSONALLY, agree or disagree with editorial positions taken by your newspaper on global warming?" (Q2a).

The Table 5 shows that 13 items were factor analyzed using principal components, oblique rotation. Once again, a factor loading of .60 was used as a rule of thumb for determining whether a measure should be included with a particular factor. The factor analysis produced one distinct factor composed of 9 of the 13 original measures. Four measures (4, 10, 11, 12) loaded heavily on the second factor and because of the mixed loadings, these items were excluded from the first factor.

An overall 9-item editorial vigor index was created after the values for the individual measures were combined. The index showed a high degree of internal validity (Alpha=.90). Exact wording, means, and standard deviations are presented in Table 6.

Control Variable: Newspaper Ideology

The Pew Research Center for the People & the Press survey (January 24, 2007) shows deep differences between Republicans and Democrats over virtually every issue related to global warming. For example, roughly twice as many Democrats as Republicans say that dealing with global warming should be a top priority for the president and Congress this year (48% vs. 23%). About half of moderate and liberal Republicans (51%) said the global warming is a problem that requires immediate government action, compared with just 22% of conservative Republicans. The

differences among Democrats are somewhat smaller; 81% of liberal Democrats, and 61% of moderate and conservative Democrats, say global warming is a problem that requires immediate government action.

Because of such ideological divisiveness toward government action toward global warming, additional research was conducted to find out whether the corporate indices would still remain predictors of editorial vigor when controlling for newspaper's ideology. The editorial editors were asked to rate following statement designed to measure the newspaper's editorial position on global warming issue: "In general, how liberal or conservative is the political and social content of the editorials that are developed and written by your newspaper's publisher or staff?" (Q9).

Once gain, it was emphasized to respondent that these ideological positions were not his or her personal one, but the newspaper's position. In order to clarify, the following question was asked: "When it comes to your own political views, how liberal or conservative are you?" (Q10).

TABLE 3
Corporate Structure Descriptive Statistics (2006)

Corporate Structure Variables		Mean	Std. Dev	Minimum	Maximum	<u>N</u>
1. Overall Corporate Index (2+3+4+5+6) [♣]		.00	.54257	-1.34	1.88	188
2. Structural Complexity Index [♣]		.02	.88413	96	5.18	191
a.	No. of promotions needed for reporter to become top editor	3.22	1.27	1	6	188
b.	No. of beats employing full time reporters	6.32	4.62	1	18	191
c.	No. of full time reporters/editors	48.53	98.89	2	950	186
d.	No. of full time employees	196.10	377.81	2	2800	175
3. Ownership Structure Index*		.00	.79	-1.06	1.15	191
a.	Proportion that are legally incorporated business	.95	.21	0	1	188
b.	Proportion that are publicly owned	.29	.45	0	1	189
c.	Proportion in which one family/individual does not own 50% interest in newspaper	.40	.49	0	1	185
d.	Proportion that are owned by chain or group	.69	.46	0	1	189
4. Rules and Procedures Index*		.00	.83	-1.54	.71	189
a.	Proportion that have their own formal, written code of ethics	.54	.50	0	1	188
b.	Proportion having own employee handbook of rules and procedures	.80	.40	0	1	189
5. Proportion that are requiring a bachelor's degree for reporters		.82	.385	0	1	189

^{*}Items composing index were standardized before creating index.

TABLE 4
Zero-order Correlations Between Corporate Measures (2006)

Corporate Indices/Measures	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
1. Structural Complexity	1	.10	.30**	.21**
2. Ownership Structure	.10	1	.18*	.05
3. Rules & Procedures	.30**	.18*	1	.19**
4. Hire College Graduates	.21**	.05	.19**	1
Corporate Index (Sum of 1 through 4)	.66**	.50**	.66**	.64**

^{*}P<.05; **p<.01

TABLE 5 **Global Warming Editorial Vigor Measures Factor Analyzed**^a (2006)

		<u>I</u>	Factor Loading	<u>s</u>	\underline{CE}^{b}
Editorial	Vigor Index	<u>F1</u>	<u>F2</u>	<u>F3</u>	
1.	The Bush administration's decision not to sign the Kyoto Protocol was the right thing to do	.72	.57	.39	.60
2.	The Bush Administration is distorting scientific evidence about Global Warming ^d	.71	.61	.53	.67
3.	Effects of Global Warming are being exaggerated by scientists and environmental groups	.77	.38	.31	.61
4.	The fossil-fuel industry funds only scientists who believe Global Warming is not occurring ^{c,d}	.33	.41	.69	.53
5.	Government action to counter the effects of global warming is necessary ^d	.84	.64	.44	.79
6.	The Bush administration is doing all it can do to stop Global Warming	.81	.33	.52	.78
7.	Fossil-fuel emissions are responsible for Global Warming ^d	.65	.70	.11	.64
8.	Taxes should be increased to find ways to reduce Global Warming ^d	.63	.77	.33	.68
9.	Global Warming represents a serious safety risk to my community ^d	.85	.56	.37	.76
10.	If Global Warming continues, the consequences will eventually destroy the world ^{c,d}	.33	.32	.85	.74
11.	To reduce Global Warming, government should limit the amount of energy that businesses can use c,d	.47	.95	.34	.91
12.	To reduce Global Warming, government should limit the amount of energy that individuals can use c,d	.40	.94	.33	.89
13.	Scientists are in disagreement about Global Warming	.80	.36	17	.81
Eigen Va	alues	6.97	1.29	1.14	9.4
Percent of	of Variance	53.64	9.91	8.76	72.31

^aPrincipal Components, oblique rotation (N=151) ^bCommunality estimates (i.e. total variance explained)

^cMeasure excluded from index because of low or mixed loadings

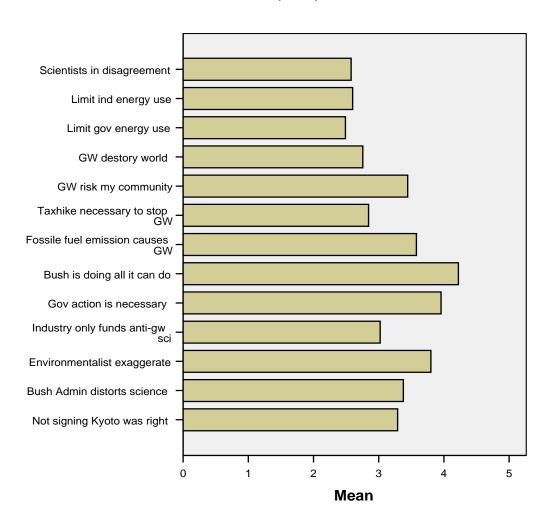
^dThese items were inverted before summing to create the index

Global Warming Editorial Vigor Measures Descriptive Statistics (2006)

		Mean	Std. Dev	Minimum	<u>Maximum</u>	<u>N</u>
Editorial	Vigor Index	3.63	.88	1.00	5.00	89
1.	The Bush administration's decision not to sign the Kyoto Protocol was the right thing to do	3.49	1.38	1.00	5.00	74
2.	The Bush Administration is distorting scientific evidence about Global Warming ^a	3.62	1.10	1.00	5.00	77
3.	Effects of Global Warming are being exaggerated by scientists and environmental groups	4.01	1.16	1.00	5.00	84
4.	The fossil-fuel industry funds only scientists who believe Global Warming is not occurring ^a	3.09	.85	1.00	5.00	55
5.	Government action to counter the effects of global warming is necessary ^a	4.10	1.12	1.00	5.00	87
6.	The Bush administration is doing all it can do to stop Global Warming	4.30	.75	2.00	5.00	81
7.	Fossil-fuel emissions are responsible for Global Warming ^a	3.75	.99	1.00	5.00	85
8.	Taxes should be increased to find ways to reduce Global Warming ^a	2.78	1.11	1.00	5.00	65
9.	Global Warming represents a serious safety risk to my community ^a	3.63	.97	1.00	5.00	80
10.	If Global Warming continues, the consequences will eventually destroy the world ^a	2.82	1.14	1.00	5.00	73
11.	To reduce Global Warming, government should limit the amount of energy that businesses can use ^a	2.49	.98	1.00	5.00	72
12.	To reduce Global Warming, government should limit the amount of energy that individuals can use ^a	2.65	1.04	1.00	5.00	72
13.	Scientists are in disagreement about Global Warming	2.71	1.30	1.00	5.00	87
Number	of Global Warming editorials published	2.13	3.65	.00	20.00	205
Valid N	(listwise)					45

^aThese items were inverted before summing to create the index

Editorial Vigor on Global Warming Issues (2006) (n=89)



CHAPTER FOUR

RESULTS AND DISCUSSION

H1: Corporate Structure and Number of Editorials

Data from the national probability survey support the first hypothesis that the more a newspaper exhibits the characteristics of the corporate form of organization, the greater number of global warming editorials it will publish. Table 7 shows that the corporate newspaper index is positively correlated with number of editorials. Zero-order correlation between the corporate index and the number of editorial is statistically significant (r=.37, p<.01).

All four corporate dimensions are positively related to the number of editorials, but structural complexity shows the strongest correlation and is statistically significant (r=.59, p<.01). Rules and procedure also is significantly related (r=.17, p<.05). However, the correlation between the number of editorials and ownership structure (r=.06, p>.05) and staff expertise (r=.09, p>.05) are negligible.

This finding shows that larger, more complex newspapers write more editorials on global warming, but neither ownership structure of newspaper nor staff expertise show any correlations with this measure.

H2: Corporate Structure and Editorial Vigor

Data also supports the second hypothesis—that the more a newspaper exhibits the characteristics of the corporate form of organization, the more critical its editorials will be of the Bush administration's global warming policies. Table 7 shows that the

TABLE 7
Correlation between Corporate Structure and Editorial Vigor Measures
Descriptive Statistics (2006)

	Corporate Index	Structural Complexity	Ownership Structure	Rules & Procedures	Staff Expertise
Frequency of Editorials	.37**	.59**	.06	.17*	.09
Editorial Vigor Index	.22*	.25*	.25	.13	.05
Frequency * Vigor	.31**	.48**	.15	.05	.02
Not signing Kyoto was right	.07	.13	.08	.004	02
Bush Admin distorts science	.25*	.27*	.03	.23*	.08
Environmentalist exaggerate	.23*	.19	.25*	.10	.03
Industry only funds anti-gw sci	.04	.02	08	.02	.11
Gov action is necessary	.17	.18	.02	.16	.07
Bush is doing all it can do	.10	.18	.03	.04	02
Fossil fuel emission causes GW	.23*	.17	.13	.07	.21
Taxhike necessary to stop GW	.08	.10	05	.16	01
GW risk my community	.20	.27*	.02	.14	.05
GW destroy world	02	09	.15	.09	14
Limit gov energy use	.002	.07	.07	.02	12
Limit ind energy use	02	.04	03	.04	08
Scientists in disagreement	.10	.24*	.03	05	01

^{**} Correlation is significant at the 0.01 level (2-tailed).

corporate index is positively related to the editorial vigor and the relationship is statistically significant (r=.22, p<.05). However, separate analysis shows that only one of four dimensions — structural complexity — was significantly related to the editorial vigor (r=.25, p<.05). This finding suggests that larger, more complex organizations write editorials more critical of Bush administration's global warming policies. However, neither newspaper ownership structure, rules and procedures, nor staff expertise appears to be related to editorial vigor. This finding is consistent with previous research

^{*} Correlation is significant at the 0.05 level (2-tailed).

conducted by Demers, who has concluded that the complexity of the organization is the single most important criteria affecting content (1994b).

To refine the measurement procedure, the frequency and editorial vigor measures were multiplied together to create a new variable that takes both frequency and vigor into account at the same time (n=89). That is, a newspaper might have published a larger number of editorials but a sheer number alone does not explain the extent of editorial vigor. Conversely, a newspaper might have written editorials that are highly critical of the Bush administration's policies toward global warming, but it might have only published a couple of editorials. The combined variable accounts for both quantity and quality of editorials under examination.

The Table 7 shows that zero-order correlation between the corporate index and the combined variable is statistically significant (r=.31, p<.01). Consistent with previous findings from two separate variables, structural complexity is most strongly correlated with the combined new variable (r=.48, p<.01).

Regression Analysis

In addition to correlation analysis, regression analysis was conducted to further examine the effects of corporate structure on editorial vigor. Specifically, a bivariate analysis in Table 8 shows that the structural complexity index (beat, hierarchy, reporter, staff) is the best predictor (r=.48, p<.01) of all four dimensions of corporate structure index. Bivariate regression analysis shows that a one standard deviation change in the structural complexity produces a .48 standard deviation change in the editorial vigor (slope=8.562, standard error=.1.8, R=.23, p<.0001). Structural complexity alone

TABLE 8
Editorial Vigor Index Regressed on Structural Complexity

	Slope	SE of Slope	<u>Beta</u>	\underline{R}^2
Structural Complexity	8.562	1.773	.48**	.23

TABLE 9
Editorial Vigor Index Regressed on Four Dimensions of Corporate Index (Structural Complexity, Ownership, Rules & Procedures, and Staff Expertise)

	Slope	SE of Slope	<u>Beta</u>	$\underline{\mathbf{R}^2}$
Structural Complexity	8.85	1.81	.50**	
Ownership	1.85	2.42	.08	
Rules & Procedures	-2.70	2.80	10	
Staff Expertise	75	2.11	04	.241

accounts for 23 percent of the variance. The amount of explained variance showed only about one percent increase (R-squared 24%). In fact, when the editorial vigor index is regressed onto the four corporate index dimensions, only structural complexity is significantly related to the editorial vigor index (Table 9). These findings indicate that corporate structure is the strongest predictor for editorial vigor. In other words, newspapers that have large and complex form of organization are much more likely to write editorials that are more critical toward the Bush administration's global warming policies.

Additional research was conducted to determine any spuriousness relationship between corporate structure and editorial vigor index. That is, whether the corporate indices would still remain predictors of editorial vigor when controlling for newspaper's ideology (r=.504, p<.001) as well as for whether the newspaper is publicly owned or privately owned (r=.35, p<.001). Table 10 shows that correlation between the editorial vigor and those two measures are, as expected, statistically significant and raise question whether they may have moderating effect on structural complexity.

The results, which are shown in Model 1 in Table 11, show that the structural complexity remains significantly related (b=.41, p<.001) to the editorial vigor index when controlling for public ownership (b=.23, p<.05), and the model accounts for 27 percent of the variance (Figure 3). The findings show that a one standard deviation change in the structural complexity produces a .39 standard deviation change in the editorial vigor with public ownership being held constant.

Model 2 shows that the structural complexity remains significantly related (b=.42, p<.001) to the editorial vigor index when controlling for newspaper ideology (Figure 4).

In fact, in Model 2 newspaper ideology showed slightly stronger relationship (b=.44, p<.001) than structural complexity. Finding suggests that a one standard deviation change in the structural complexity produces a .42 standard deviation change in the editorial vigor if newspaper ideology remains constant.

Model 3 (Figure 5) shows that the structural complexity still remains significantly related to the editorial vigor index when controlling for public ownership and newspaper ideology. Finding suggests that a one standard deviation change in the structural complexity produces a .39 standard deviation change in the editorial vigor if public ownership and newspaper ideology remain constant. The amount of variance explained nearly doubled, from 27 percent to 42 and 43 percent, respectively, when newspaper ideology is introduced as a control variable in Model 2 and Model 3.

Interestingly, however, Model 3 revealed that the relationship between public ownership and editorial vigor (Model 1) is spurious when controlling for newspaper ideology. Specifically, the relationship between editorial vigor index and public ownership dwindles to nearly zero and statistical significance disappears when controlling for newspaper ideology. This means that when we statistically adjust for newspaper ideology, by including it in the regression analysis, public ownership does not appears to be a meaningful variable. The effects of public ownership are entirely mediated by newspaper ideology. The relation between public ownership and editorial vigor seen in previous model can be partly attributed to the omitted variable, newspaper ideology.

This finding reveals something new: Some observers had thought that a type of newspaper ownership — public or private—would directly influence editorial vigor.

However, such a relationship apparently does not exist. The findings suggest that newspaper ideology mediates effects of public ownership on editorial vigor. *That is, politically liberal newspapers are much more likely to write editorials that are more critical toward the Bush administration's global warming policies.*

The results suggest that: 1) structural complexity has direct effects on editorial vigor, 2) newspaper ideology mediates effects of public ownership on editorial vigor, and 3) newspaper ideology is directly related to editorial vigor.

TABLE 10 Zero-order Correlation between Editorial Vigor Index and Corporate Structure Index Descriptive Statistics (2006)

	Editorial Vigor	Editorial Corporat Vigor e Index	Structura I Complexi ty Index	Beats	Hierarch y	Hierarch Full time F	Full time employe es	Full time Ownershi p Publicity employe Structure owned Index	Publicly owned	Family	Chain	Rules & Code of e Bachelor Newspap Editor e Procedur Ethics Handboo s degree ideology ideology	Code of Ethics	Employe e E Handboo	Bachelor' No degree	Jewspap er deology	Editor F	Populatio n
Editorial Vigor	1																	
Corporate Index	.312**	-																
Structural Complexity Index	.477**	.711**	1															
Beats	.470**	621**	**878**	1														
Hierarchy	**66E'	591**	.740**	1991	1													
Full time reporters	.326	621**	606	**869'	.530**	-												
Full time employees	.416**	591**	.925**	.752**	520**	.854**	1											
Ownership Structure Index	.153	.571**	.190	.127	.136	.213*	.143	1										
Publicly owned	.325	290	.314**	.270*	700	298**	293***	.774**	1									
Family owned	690'	.378**	690'	.052	680'	990:	900:	.781**	.432**	1								
Chain owned	0.00'-	.380**	.064	029	610:	.126	.035	**69L'	.357**	.425**	1							
Rules & Procedures	.048	621**	.280**	.303**	.373**	.157	.125	.212*	.225*	.200	890:	1						
Code of Ethics	760:	.573**	.300	.355**	.352**	.172	.119	.153	.163	7.11.	.022	.818**	-					
Employee Handbook	032	.387**	.126	.101	.221*	890	.071	.181	.192	.134	1.001	.744**	.225*	-				
Bachelor's degree	.024	298	.149	.112	.152	.115	.093	.119	.134	.010	.126	.209	.262*	.050	-			
Newspaper ideology	.504**	016	.157	.190	.032	.141	.131	016	.174	000:	199	960:-	068	680:-	093	1		
Editor ideology	.362**	091	800	.040	071	.042	005	.039	.119	.036	053	078	103	015	163	.710**	1	
Population	.250**	.582**	.783**	.570**	.483**	876**	728**	.222*	.253*	.128	.138	.173	.180	980	.157	016	.083	-

TABLE 11 Editorial Vigor Index Regressed on Structural Complexity Index, Public Ownership, and Ideology

Model Number	Zero-order Correlation	Partial Correlation	Slope	SE of Slope	<u>Beta</u>	<u>F</u>	$\underline{\mathbf{R}^2}$
1. Structural Complexity	.48	.41	7.298	1.773	.41**		
Public Ownership	.35	.24	4.127	1.778	.23*	16.2	.27
2. Structural Complexity	.49	.48	7.106	1.559	.42**		
Newspaper Ideology	.50	.50	7.338	1.903	.44**	26.0	.42
3. Structural Complexity	.49	.43	6.645	1.654	.39**		
Public Ownership	.30	.10	1.360	1.599	.08		
Newspaper Ideology	.50	.49	7.168	1.543	.43**	17.5	.43

FIGURE 3
Editorial Vigor Index Regressed on Structural Complexity Index and Public Ownership

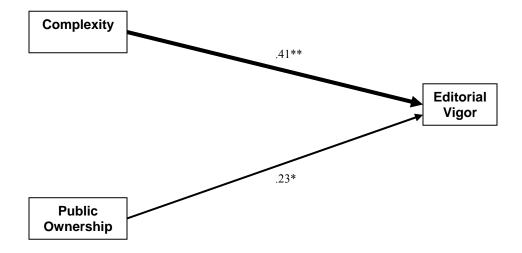


FIGURE 4
Editorial Vigor Index Regressed on Structural Complexity Index and Newspaper Ideology

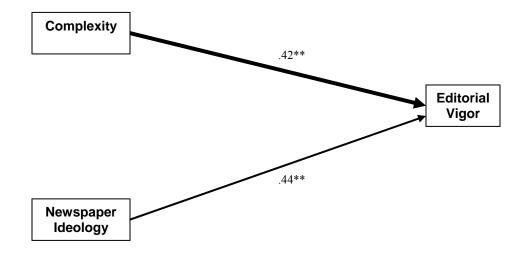
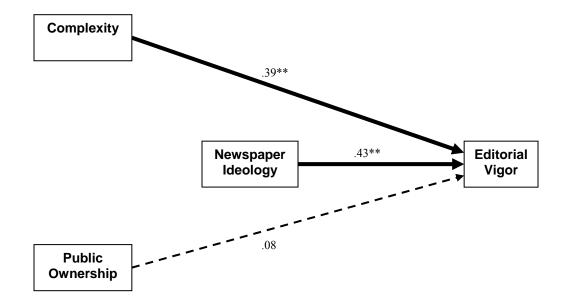


FIGURE 5
Editorial Vigor Index Regressed on Structural Complexity Index, Public Ownership, and Newspaper Ideology



CHAPTER FIVE

SUMMARY AND CONCLUSIONS

The primary question address in this dissertation was this: Are newspapers that exhibit the characteristics of the corporate form of organization more critical of the Bush Administration when it comes to the issue of global warming? Using the national probability survey of editorial editors of newspapers, this dissertation provided evidence to support the proposition that some aspects of corporate structure contribute to a more vigorous press. Contrary to the corporate media critics and environmentalists' claim of pro-industry bias, this study found that highly complex newspapers become more critical of dominant economic and political elites, i.e. the Bush administration and fossil fuel industries, as they acquire the characteristics of the corporate form of organization.

Environmental activists and critical scholars' view toward corporate media is based largely on the "zero-sum" belief that such corporate media seek to maximize profits over all other goals. However, recent research and theory raise serious questions about the "critical corporate model." Critics have relied too heavily on anecdotes and case studies to support their model. Survey research generally fails to support arguments that corporate media place less emphasis on product quality or less emphasis on editorial vigor. This national survey tells us that opposite appears to be true: Corporate newspapers are much more critical of Bush administration's policy toward global warming.

An even more serious problem with the critical model, though, is its dismissal of professional autonomy. Research on the managerial revolution hypothesis indicates that

owners play a lesser role in day-to-day operations as organizations grow, that the proportion of manager-controlled firms has increased, and that most large companies are manager-controlled rather than owner-controlled. Empirical research on newspapers also indicates that the role owners and publishers play in controlling the content decreases as the organization becomes more "corporatized." This dissertation supports managerial revolution hypothesis. Findings suggest that structural complexity index (includes beat, hierarchy, reporter, staff size) is the best predictor (r=.48, p<.01) of all four dimensions of corporate structure index. (Public ownership, Rules and Procedures, and Staff Expertise).

Finding also tells us something new: Some observers had thought that the type of newspaper ownership—public or private—would influence the extent of editorial vigor. For example, critics argue that publicly owned newspapers are less likely to write content that are critical toward power structures (Bagdikian, 2000; Herman, 1985; Herman & Chomsky, 1988; Hirsch & Thompson, 1994; Kellner, 1990; McChesney, 1997; McManus, 1994; Murdock & Golding, 1973, 1977; Parenti, 1995; Schiller, 1989; Seldes, 1938; Squires, 1994; Underwood, 1995; Warren, 1989). However, such relationships apparently do not exist.

This finding suggests that newspaper ideology mediates effects of public ownership on editorial vigor. *That is, newspaper's ownership type does not influence editorial vigor when political orientation of the newspaper remains constant.* The political ideology of the newspaper and structural complexity are the key factors that affect editorial vigor. This finding implies that global warming is a politically divisive issue and a newspaper's political orientation is strongly reflected in the editorial position. However, the finding doesn't support assumption that large complex newspaper tend to

be more politically liberal. The finding (Table 10) shows there is no statistically significant correlation (r=.16, p>.05) between structural complexity and ideology of the newspaper.

Overall, this dissertation cast serious doubt on arguments that corporatization of media industries leads to a greater emphasis on profits at the expense of product quality or a diversity of ideas, i.e. editorials criticizing current administration and powerful industry. Instead, the managerial revolution hypothesis suggests that professional managers and editors are placing greater emphasis on information diversity, product quality, and other nonprofit goals.

Another implication is that corporate media would be expected to have a greater capacity to promote social change by writing editorials criticizing power structures. This does not necessarily mean that hegemonic models are wrong; they just overstate the social control consequences of the mass media and understate the media's capacity to promote social change.

The growth of corporate media, in fact, may help to explain many of the social changes during the last century or so that have benefited disadvantaged groups (e.g., increasing rights for consumers, women, environmentalists, and minorities). To the extent that media managers and technocrats control the news production process, one might also expect that these groups will have a disproportionate impact on public policy.

For mass communication researchers, this study suggests that future research should focus on testing the managerial revolution hypothesis longitudinally. In particular, probability surveys on annual-basis should be encouraged in order to further

examine the impact that media management structure has on organizational goals and behaviors.

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APPENDIX A INITIAL SURVEY PACKET

COVER LETTER

September 18, 2006

Dear Editorial Editor (or person who is responsible for your newspaper's editorial):

I am conducting a research on U.S. daily newspapers' editorial positions on global warming and would very much like to include your newspaper's opinions. By editorials, I mean those opinion pieces that represent the voices of publishers and editors, such as "Our View," rather than columns written by syndicated columnists or citizens' letter to the editor.

Your responses are completely CONFIDENTIAL. To ensure confidentiality, please do not put your name on the questionnaire or envelope. As a small token of appreciation for completing the questionnaire, I have enclosed a \$1 bill. (*If you or your newspaper has a policy against such "gifts," please donate the \$1 bills to charity*). In addition, I will send you a summary of the findings when the study is completed. I will use the findings to write my doctoral dissertation and articles for *Journalism and Mass Communication Quarterly*.

Your participation in this project is deeply appreciated. When you complete the questionnaire, please mail it with the postage-paid envelope I provided. Please mail it TODAY. If you want to fax or email the questionnaire to me, please contact me. I would be happy to arrange that for you. Should you have any questions or concerns, please feel free to contact me.

Thank you for your assistance in this "needed research."

Sincerely,

Taehyun Kim, Assistant Professor Department of Communication University of Louisiana at Monroe Monroe, LA 71209 (318) 342-1446

Fax: (318) 342-1422 Email: <u>kim@ulm.edu</u>

P.S. I am finishing my doctoral degree at Washington State University. My Ph.D. adviser is Professor David Demers. This study has been reviewed and approved by the WSU Institutional Review Board. If you have questions about your rights as a participant please contact the WSU IRB at 509-335-9661 or irb@wsu.edu.

FOLLOW UP POSTCARD

September 26, 2006

Last week, a questionnaire seeking your newspaper's editorial positions about global warming was mailed to you. (Your name was drawn randomly from a list of all daily newspapers in the U.S.)

If you have already completed and returned the questionnaire to me, please accept my sincere thanks. If not, please do so TODAY.

If you did not receive a questionnaire, or if it was misplaced, please email me at kim@ulm.edu or call me at (318) 342-1446 and I will get another one in the mail to you today.

Sincerely,

Taehyun Kim, Assistant Professor Dept. of Communication Univ. of Louisiana at Monroe

QUESTIONNAIRE PAGE ONE

Fall 2006

NATIONAL NEWSPAPER SURVEY

Dear Editorial Editor,

I am conducting a research on U.S. daily newspapers' editorial positions on GLOBAL WARMING and would very much like to include your newspaper's opinions

your newspaper's opinions.
Your responses are completely CONFIDENTIAL. As a small token for completing the questionnaire, I have enclosed a \$1 bill. If you or your newspaper have a policy against such "gifts," please donate the \$1 bills to charity. Even if you don't participate, I will send you a summary of the findings when the study is completed.

	u.
Thank you very much for your assistance.	

Sincerely,

Taehyun Kim, Assista	nt Professor	
Department of Commi	ınication	
University of Louisian	a at Monroe, Monroe, L	A 71209
Tel: (318) 342-1446	Fax: (318) 342-1422	Email: kim@ulm.edu

2							I Strongly Strongly
Q1. During the previous 12 mg	nths, d	lid yo	ur new	/spape	r pub-		Strongly Agree Neither Disagree Disagree N
lish any editorials about global							hTaxes should be increased to find 🔻 🔻 🔻 🔻 🔻
as the Kyoto Protocol or green mean those opinion pieces tha							ways to reduce global warming 1 2 3 4 5 N
ers and editors, excluding com columnists or citizens' letters to	mentar	ies w					iGlobal warming represents a serious safety risk to MY COMMUNITY
□ No(Skij	o to Q4)						jIf global warming continues, the
— □ Yes							consequences will eventually destroy the world 1 2 3 4 5 N
 a. About how many edit newspaper publish duri best guess is acceptabl 	ng the la	ast 12					kTo reduce global warming, govern- ment should limit the amount of energy that BUSINESSES can use
Number of editorials:							ITo reduce global warming, govern-
\$36053604 (5007) birdy Miller (17 Holy all, 1980 verification of process (400 pt)							ment should limit the amount of energy that INDIVIDUALS can consume
Q2. Below is a list of statemen ing back about the editorials yo							A STATE OF THE PROPERTY OF THE STATE OF THE
this topic during the previous 1 strongly those editorials have	2 mont	hs, p	lease	indicat	e how		mScientists are in disagreement about global warming
idea contained in each of these	e stater	nents	. If yo	our nev	vspap	er	Q3. How strongly do you, PERSONALLY, agree or disagree with
did not address these ideas, si APPLICABLE) in the options b							editorial positions taken by your newspaper on global warming?
During the last year, my newspaper has published editorials arguing				1350		10	☐ Strongly Agree ☐ Agree ☐ Neither ☐ Disagree ☐ Strongly Disagree
	Agree	Agree	Neither	Disagree	Disagree	NA	Q4. Is your newspaper owned by a chain or group, or is it inde-
that	•	•	•	•	•	•	pendently owned?
aThe Bush administration's deci- sion not to sign the Kyoto Protocol							☐ Independently owned ☐ Part of chain or group
was the right thing to do	1	2	3	4	5	NA	Q5. Circulation of your newspaper: (Note: If your organization
bThe Bush administration is							publishes more than one daily under two separate names, please
distorting scientific evidence about							provide figures for the newspaper listed on the mailing label.)
global warming	1	2	3	4	5	NA	Daily circulation:
c Effects of Global Warming are							Q6. Does your newspaper have its own
being exaggerated by scientists and environmental groups	1	2	3	4	5	NA	
							a. Formal, written code of ethics?□ Yes □ No b. Employee handbook of rules and procedures?□ Yes □ No
dThe fossil-fuel industry funds ONLY scientists who believe global							c. Style book other than AP or UPI?
warming is NOT occurring	1	2	3	4	5	NA	Case*
e Government action to counter							Q7. Do reporters normally need a bachelor's degree to be considered for employment at your newspaper?
the effects of global warming is necessary	-	-		10			
necessary	1	2	3	4	5	NA	☐ Yes ☐ No
fThe Bush administration is doing all it can do to stop global warming	1	2	3	4	5	NA	Q8. Do reporters need a master's degree to be promoted to an editorial position at your newspaper?
gFossil-fuel emissions are re-		5=0	_		_	3.10	☐ Yes ☐ No
sponsible for global warming	1	2	3	4	5	NA	

1

Continued on back ▼

QUESTIONNAIRE PAGE TWO

▼ Continued	from front	r					
Q9. In genera social conten your newspap	t of the edit	orials that are	vative is the e developed	political and and written by	********	daily newspaper	s does your organization own?
□ Extremely Liberal	☐ Somewhat Liberal	☐ Moderate	☐ Somewhat Conservative	☐ Extremely Conservative	Q22. How many own?	weekly newspap	ers does your organization
Q10. When it conservative		our own poli	tical views, I	now liberal or		newspapers in organi	and service or
☐ Extremely Liberal	☐ Somewhat Liberal	☐ Moderate	☐ Somewhat Conservative	☐ Extremely Conservative	tion own?	radio stations in organ	dio stations does your organiza-
per employ at	t least one f			your newspa- e check all that	Q24. What is yo	ur gender?	
apply) 🗖 Bus	siness	■ National	☐ Metro		La relik	ale 🗀 Iviale	;
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□ Env	vironment	□ Food	□ Book	reviews		FF F F T	
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(Please circle	your answ	er)			Owner	■ StockHolder	Tublisher of top manager
Numl	ber of levels:	1 2 3	3 4 5	6	☐ Top editor☐ City Editor	□ Reporter □ Editorial Editor	 □ Managing Editor □ Assistant Editorial Editor
Q13. How ma full-time empl estimate if ex	loyees are	employed at	your newspa	id how many aper? (Please	☐ Business Editor	☐ Graphics Editor	☐ Associate Editorial Editor
		reporters/edito I-time employee			\$0042508 B008	87 98	ve an ownership share in your
Q14. Is your r corporation?	newspaper	a sole propri	ietorship, a p	artnership or a	☐ Yes [□ No	
□ Sc	ole proprietors	:hip 🗖 Part	nership 🗆	Corporation	If ves. w	hat percentage of the	total share?
Q15. Is your in through the page your newspape	urchase of				<1% 1-109 11-50	%	
Q16. Does or		l or family ov	□ Public owne wn or control	rship possible more than a 50	Q29. Total yearl (before taxes)	y income from yo	ur position at the newspaper
percent intere	-	51 115			2001	than \$20,000	□ \$70,000 to \$89,000
☐ Ye	es	□ No				100 to \$29,000	□ \$90,000 to \$124,999
Q17. Populati	ion of the c	ommunity yo	ur newspap	er serves:	□ \$30,0	100 to \$49,999 100 to \$69,999	□ \$125,000 to \$199,999 □ \$200,000 or more
DE CHARGE		15/REE 1000	a as sa			Reminder: Y	our responses
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QUESTIONNAIRE TEXT

Dear Editorial Editorial	
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I am conducting a research on U.S. daily newspapers' editorial positions on GLOBAL WARMING and would very much like to include your newspaper's opinions.

Your responses are completely CONFIDENTIAL. As a small token for completing the questionnaire, I have enclosed a \$1 bill. If you or your newspaper have a policy against such "gifts," please donate the \$1 bills to charity. Even if you don't participate, I will send you a summary of the findings when the study is completed.

If you have any questions, I would be happy to talk with you. Thank you very much for your assistance.

Sincerely,

Taehyun Kim, Assistant Professor
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Q1. During the previous 12 months, did your newspaper publish any editorials about global warming or related issues, such as the Kyoto Protocol or greenhouse gases? By editorials, we mean those opinion pieces that represent the voices of publishers and editors, excluding commentaries written by syndicated columnists or citizens' letters to the editor.

	□ No	(Skip to Q4)
	☐ Yes	
period?	a. About how many (Your best guess is a	y editorials about global warming did your newspaper publish during the last 12-month acceptable here)
	Number of editoria	ls:

Q2. Below is a list of statements about a global warming. Thinking back about the editorials your newspaper has published on this topic during the previous 12 months, please indicate how strongly those editorials have AGREED or DISAGREED with the idea contained in each of these statements. If your newspaper did not address these ideas, simply select the last category (NOT APPLICABLE) in the options below. (Please circle your answer.)

APPLICABLE) In the options below. (Please circle your answer.)						
During the last year, my newspaper has published editorials arguing that						
aThe Bush administration's decision not to sign the Kyoto Protocol was the right thing to do						
bThe Bush administration is distorting scientific evidence about global warming						
cEffects of Global Warming are being exaggerated by scientists and environmental groups						
dThe fossil-fuel industry funds ONLY scientists who believe global warming is NOT occurring						
eGovernment action to counter the effects of global warming is necessary						
fThe Bush administration is doing all it can do to stop global warming						
gFossil-fuel emissions are responsible for global warming						
hTaxes should be increased to find ways to reduce global warming						
iGlobal warming represents a serious safety risk to MY COMMUNITY						
If global warming continues, the consequences will eventually destroy the world						
kTo reduce global warming, government should limit the amount of energy that BUSINESSES can use						
lTo reduce global warming, government should limit the amount of energy that INDIVIDUALS can consume						
mScientists are in disagreement about global warming						
Q3. How strongly do you, PERSONALLY, agree or disagree with editorial positions taken by your newspaper on global warming?						
☐ Strongly Agree ☐ Agree ☐ Neither ☐ Disagree ☐ Strongly Disagree						
Q4. Is your newspaper owned by a chain or group, or is it independently owned?						
☐ Independently owned ☐ Part of chain or group						
Q5. Circulation of your newspaper: (Note: If your organization publishes more than one daily under two separate names, please provide figures for the newspaper listed on the mailing label.)						
Daily circulation:						

Q6. Does your newsp	paper have its own	า
b. Employee ha	en code of ethics? ndbook of rules and p ner than AP or UPI? .	orocedures? □ Yes □ No
Q7. Do reporters nor newspaper?	mally need a bach	nelor's degree to be considered for employment at your
☐ Yes	□ No	
Q8. Do reporters nee newspaper?	d a master's degr	ee to be promoted to an editorial position at your
☐ Yes	□ No	
		tive is the political and social content of the editorials that spaper's publisher or staff?
☐ Extremely Liberal	☐ Somewhat ☐ Liberal	■ Moderate ■ Somewhat ■ Extremely Conservative Conservative
Q10. When it comes	to your own politic	cal views, how liberal or conservative are <u>you</u> ?
☐ Extremely Liberal	☐ Somewhat ☐ Liberal	☐ Moderate ☐ Somewhat ☐ Extremely Conservative Conservative
Q11. In which of the freporter? (Please che	•	area does your newspaper employ at least one full-time
☐ Business	☐ National	☐ Metro
☐ Sports	☐ State	☐ International
☐ Environment	☐ Food	☐ Book reviews
☐ Lifestyles	☐ Arts	☐ Home
☐ Travel	☐ Real Estate	☐ Science
☐ Fashion	☐ Health	☐ Education

Q12. For a general assignment reporter to become the TOP editor of the newspaper, how many promotions typically would he or she have to receive? For example, if a newspaper employs assistant city editors, a city editor and an editor-in-chief, the total number of promotions needed to become the top editor is three. (Please circle your answer)
Number of levels: 1 2 3 4 5 6
Q13. How many full-time reporters and editors and how many full-time employees are employed at your newspaper? (Please estimate if exact number is not known)
Number of full-time reporters/editors: Total number of full-time employees:
Q14. Is your newspaper a sole proprietorship, a partnership or a corporation?
☐ Sole proprietorship ☐ Partnership ☐ Corporation
Q15. Is your newspaper owned privately or can the public through the purchase of stock or other means own part or all your newspaper?
☐ Private ownership only ☐ Public ownership possible
Q16. Does one individual or family own or control more than a 50 percent interest in your newspaper?
☐ Yes ☐ No
Q17. Population of the community your newspaper serves:
Population:
Q18. When did you FIRST start working in journalism?
(Month)(Year)
Q19. When did you start working at THIS newspaper?
(Month)(Year)
Q20. When did you start your CURRENT position at this newspaper?
(Month)(Year)

Q21. How man	y daily newspape	ers does your organization own?
Daily ne	wspapers in organiza	ation:
Q22. How man	y weekly newspa	apers does your organization own?
Weekly i	newspapers in orgar	nization:
Q23. How man	v television and	radio stations does your organization own?
		anization:
Q24. What is ye	•	
☐ Fema	ale	☐ Male
Q25 What yea	r were you born?	?
Q201 What you	r word you borr.	·
Q26. What is ve	our highest grade	e of education completed?
_	nool graduate or	·
•	-	/Trade school degree
		major(s):
⊔ M.A. or I	Ph.D. degree, Yo	our major(s):
Q27. Which of	the following title	s apply to you? (Please check all that apply)
□ Owner □ Stock	kholder	☐ Publisher or top manager
■ Top editor	☐ Reporter	☐ Managing Editor
☐ City Editor	☐ Editorial Editor	☐ Assistant Editorial Editor
☐ Business Editor	r u Graphics Editor	☐ Associate Editorial Editor
	·	
Other.		
Q28. Do you ov	wn any stock or h	nave an ownership share in your newspaper?
☐ Yes [□ No	
If yes, w	hat percentage of the	e total share?
□ <1% □ 1-109	%	
11-50)%	
Over	JU 70	

Q29. Total yearly income from your position at the newspaper (before taxes)					
☐ Less than \$20,000	□ \$70,000 to \$89,000				
□ \$20,000 to \$29,000	□ \$90,000 to \$124,999				
□ \$30,000 to \$49,999	□ \$125,000 to \$199,999				
□ \$50,000 to \$69,999	□ \$200,000 or more				
Reminder: Your responses are completely confidential. Q30. What percentage of that income is derived solely through a fixed salary (as opposed to stock options or bonuses)?					
%					
Please place questionnaire in the postage-paid envelope and mail it TODAY!					

APPENDIX B FOLLOW-UP SURVEY PACKET

SECOND MAILING COVER LETTER

Dear Editorial Editor (or person who is responsible for your newspaper's editorial):

On Sept. 20th and Oct. 20th, a questionnaire seeking your newspaper's editorial positions about global warming was mailed to you. At that time, as a small token of appreciation for completing the questionnaire, I had enclosed a \$1 bill along with two-page questionnaire. Your name was drawn randomly from a list of all daily newspapers in the U.S, and your responses are completely CONFIDENTIAL.

I am conducting a research on U.S. daily newspapers' editorial positions on global warming and would very much like to include your newspaper's opinions. By editorials, I mean those opinion pieces that represent the voices of publishers and editors, such as "Our View," rather than columns written by syndicated columnists or citizens' letter to the editor.

Your response, *with or without* the global warming editorial, is extremely critical for the general strength of the research. (The fact that your paper didn't publish any editorial, in and of itself, is an important piece of information).

When completed, I will use the findings to write my doctoral dissertation and scholarly articles for *Journalism and Mass Communication Quarterly*.

If you have any other questions, please feel to contact me. Thank you for your assistance in this "needed research."

Sincerely,

Taehyun Kim, Assistant Professor Department of Communication University of Louisiana at Monroe Monroe, LA 71209 (318) 342-1446

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P.S. I am finishing my doctoral degree at Washington State University. My Ph.D. adviser is Professor David Demers, Ph.D. He can be reached at (509) 443-7117 or demersdavid@qwest.net. This study has been reviewed and approved by the Washington State University and University of Louisiana at Monroe Institutional Review Board. If you have questions about your rights as a participant please contact the WSU IRB at 509-335-9661 or irb@wsu.edu.

FOLLOW-UP PHONE CALL SCRIPT

Hello, my name is Tae Kim, assistant professor of communication at University of Louisiana at Monroe. I am doing a research on US daily newspaper's editorial coverage of Global Warming policy. I have sent you a two-page survey on global warming twice, September and October. I am calling to see if your newspaper has received those surveys.

If you haven't received my survey, please call me at (318) 342-1446 or email me at kim@ulm.edu

I would very much like to include your response and get more accurate data for my research. Understanding this topic is not only important to researchers but also other journalism students and professionals.

Thank you for your time and have a great day!