

“Engendering” Environmental Policy:
An Analysis of Women’s Legislative Advocacy in the
U.S. Congress

by

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Für meine Omi

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INTRODUCTION

On the night of April 29, 1991, close to 150,000 people in Bangladesh were killed, falling prey to the 155 mile per hour winds that swept through the country. Women and girls comprised close to 90% of these deaths. In a report on the catastrophe, a relief worker related the tales of some survivors. One woman reported having heard the warnings in advance, but said “she was afraid that she would be blamed and punished if anything happened to the family property in her absence” (Begum 1993, p. 38). Other accounts confirmed that such a fear of reprisals from the husband for leaving the home accounted for countless unnecessary deaths of women, leading the author of the report to conclude that, unlike the dominant assumption that it was women’s physical weakness that condemned them to death, it was in fact that “they were unable to *use* their decision-making powers and their physical strength; and they were more involved in saving their children’s lives” (Begum 1993, p. 38, emphasis mine).

Sadly, while particularly striking in this case, such a gender disparity in vulnerability to climate impacts is not unusual. In the event of a natural disaster, women are often more at risk than men. To begin with, women are disproportionately likely to live in poverty. Today, 70% of the world’s population living in conditions of poverty is female (UNDP 2009, p. 28). Poverty is a major risk factor for vulnerability to natural disasters because limited financial resources are associated with limited options to access adequate shelter and transportation for escape. Second, women are often less capable than men of providing for themselves in the wake of a disaster because they tend to lack the essential skills and resources

needed to make a living outside the home. Even during a disaster, restrictions on women's independent movement and behavior can prevent them from taking the action needed to save their own lives (UNDP 2009, p. 31). While different levels of systemic gender inequality result in varying degrees of gender-correlated vulnerability to natural disasters, the fact that women face a unique set of risk factors in confronting climate impacts spans wide geographical and cultural boundaries. For this reason, policy organizations worldwide have begun to consider the impacts of impending climate change issues through the lens of gender.

Policymakers on a global scale have also recently begun to direct more attention to women's role in the extraction and use of natural resources. In many countries in Africa and Latin America, for instance, women are responsible both for finding firewood, transporting it home, and using it as fuel. Women also tend to be the ones who fetch the water in communities without access to running water (World Conservation Union 2007). In a parallel manner, in more developed countries, women are responsible for most decisions about energy usage in the home, including heating, cooking, and the purchase and use of electric home appliances (Barnett et al. 1997, Hunter, Hatch and Johnson 2004). This is only a short list of the ways in which women's socially constructed roles make them an indispensable component to any consideration of environmental problems and solutions.

Both due to women's heightened vulnerability to climate impacts and their increasingly recognized role in the collection and usage of natural resources, the inclusion of women in negotiations and policymaking has recently been cited as an essential component in the development of a global response to climate change and

other major environmental threats. As part of such a response, U.S. Congresswoman Bella Abzug and feminist activist and journalist Mim Kelber founded the Women's Environment and Development Organization, WEDO, in 1990, which focuses on mobilizing women for participation in the development of global environmental policies. WEDO's first major action was the establishment of the "World's Women Congress for a Healthy Planet," which sent a delegation of over 1,000 women to the 1992 UN "Earth Summit." Similarly, the Committee on the Elimination of Discrimination against Women (CEDAW) released the following statement in 2009:

Women are not just helpless victims of climate change – they are powerful agents of change and their leadership is critical. All stakeholders should ensure that climate change and disaster risk reduction measures are gender responsive, sensitive to indigenous knowledge systems and respect human rights. Women's right to participate at all levels of decision-making must be guaranteed in climate change policies and programmes.

This statement and the development of other programs that aim to incorporate women's perspectives into the development of climate change policies highlight a recent trend toward female leadership in efforts seeking solutions to environmental problems.

While a consideration of the unique role of women in the development of climate change policy is a relatively new phenomenon, a focus on the nexus between environmental issues and gender mirrors a well-established theory called ecofeminism. While ecofeminist perspectives vary widely in their assessments of the relationship between women and the environment, many of which will be addressed in the literature review, most ecofeminists believe that not only should women be able to participate in discussions of environmental policy, but also that their gendered

experiences make them uniquely positioned to recognize and respond to environmental threats.

The basic premise that women are stronger advocates of environmental protection than men has also been demonstrated in a variety of empirical assessments of the population at large (Somma and Tolleson-Rinehart 1997, Zelezny, Chua, and Aldrich 2000). As will also be covered in greater depth in the literature review, women have been consistently found to be more active participants in household environmental behaviors and also to cite more concern for local environmental issues than men. Results are inconclusive on whether gender differences affect attitudes towards global environmental problems, but there is evidence suggesting that it might (Hunter, Hatch, and Johnson 2004).

Even some members of the United States Congress have foreseen a greater focus on environmental protection associated with the institution's increasing gender diversity. In 1993, current California Senator Barbara Boxer predicted, "Women [in Congress] will swell the chorus for protection of the environment" (Boxer 1994, p. 171). One year later, former Congresswoman and feminist activist Bella Abzug described her understanding of women's role in the development of environmental policy. "I came into the environmental movement," she explained, "out of a sense of horror at what the unbridled greed and social irresponsibility of multinationals, governments, and war machines were doing to the health of our planet. It did not take long for me to find out that, typically, women were the major victims of these acts and also the ones most eager to clean up the man-made mess" (Abzug, cited in Braidotti, Charkiewicz, Hausler, and Wieringa 1994, p. *ix*).

One might wonder: could gender be a legitimate fault line by which to categorize legislative behavior? The dominant congressional literature suggests that party platforms and constituent support are the primary, if not only, determinants of a legislator's policy agenda (Ansolabehere, Snyder, and Stewart 2001, Petersen 2010). Nonetheless, existing literature has conclusively demonstrated that women do, in general, promote a unique agenda and are greater advocates than men of certain types of policies including reproductive rights, welfare policy, childcare policy, and equal pay legislation (Cook and Barrett 1991, Bratton and Haynie 1999, Casey and Carroll 1998, Carroll 2001, Epstein, Niemi, and Powell 2005). If their perspective as women uniquely positions them to take a particular stance on the aforementioned issues, then the logic that women have a unique perspective on environmental issues might also be displayed among legislators. This research seeks to determine whether such a gender distinction on environmental policy advocacy does exist among legislators in the United States Congress.

In addition to contributing to a better understanding of the relationship between women and environmental issues, this thesis also contributes to a substantial gap in the literature on gender and politics. A question of fundamental importance to this field of research is whether or not women legislate differently than do men. Existing literature has focused on how female policymakers tend to speak, negotiate and allocate their time within the legislature differently from men. As mentioned in the paragraph above, there is also a significant body of scholarly work that has focused on whether the gender of a legislator has a significant impact on the policies that he or she promotes in terms of gendered policy areas, such as childcare and

reproductive rights. There is surprisingly little existing research, however, that has considered the differences of male and female legislators' approaches to issues that are not explicitly gendered. In fact, many scholars of gender and politics have recently pointed to this lacuna as an area ripe for further study (Carroll 2001). In 2003, for instance, Sue Thomas emphasized "We need to test whether women will bring anything new to the table on issues of mass transportation, agriculture, defense policy, economic development, tort law, international trade, nuclear proliferation, human rights, and more" (Thomas, as cited in Carroll 2001, p. 97).

The question of whether women legislate differently from men on issues that are not explicitly gender related is essential in evaluating the normative claim that there should be more women in government. If women legislate in an identical way to men, the purpose of increasing gender diversity in governance is limited to enhancing the *perceived* legitimacy of the governing body. On the other hand, if not only do female policymakers disproportionately advocate for women's interests in legislation, but they also represent a unique agenda in non-gendered areas, the argument for increased gender diversity in government is even more robust. If women, who constitute fifty-one percent of the United States population, provide a unique perspective on certain political issues, then the representation of that perspective is an essential element of a truly representative democracy (US Census 2010). Moreover, evidence showing that women legislate differently than men would solidify the claim that this unique perspective is better represented through the presence of female representatives than by male legislators who claim to represent the attitudes of the

population at large. Further discussion on descriptive and substantive representation is provided in the literature review.

To evaluate whether or not women represent a unique perspective on environmental issues, I study the role that women play in the development of environmental legislation in the United States. As the world's second greatest emitter of greenhouse gases (after China) and by far the world's largest economy, the United States has a unique responsibility in the fight against climate change and environmental degradation (U.S. Department of Energy 2010). So what *is* the "Shining City upon a Hill?" doing at this crucial moment? Currently, the United States is one of the only post-industrial countries of the global North *not* to have reduced its greenhouse gas emissions from 1990 levels (European Environment Agency 2010). In fact, as of 2009, the United States greenhouse gas emissions had *increased* by 7.3% from 1990 levels (US EPA 2009). While the United States has historically been seen as a global leader, the fact that our country is so conspicuously lagging in the development of environmental legislation constitutes a perplexing paradox. While I do not by any means purport to explain the development of environmental legislation solely on the basis of female representation, I do hope that this study will generate knowledge to contribute to a more systematic understanding of the current position of American environmental policy.

The United States is also a site ripe for investigation because of its political structure. More than in Europe or in other parliamentary systems, legislators in Congress have a certain degree of freedom to vote as they see fit. While in most parliamentary systems legislators are required to vote in a bloc with their party,

Congressmen and Congresswomen in the United States are able to select unique priorities outside the strict confines of their party's platform. This facilitates an analysis of the factors that predict support for various types of policies, which would be much less feasible in a system where a legislator's behavior is determined almost exclusively by his or her party membership.

I have chosen to focus on the federal legislature, as opposed to state office, because this is where change is most needed. While states have been the front-runners in developing environmental regulations in the U.S. since the 1980s, there is only so much that individual states can accomplish without federal oversight and coordination (Rabe 2004). Further, state progress on environmental policy is unlikely to alter the international perception of U.S. policy and will not be able to pressure other governments globally to take similar steps, a consideration particularly relevant in terms of climate change policy. In addition, most existing literature on the role of gender and politics focuses on "formal legislative leadership at the state level... there is little systematic attention to women in the federal legislatures" (Thomas, cited in Carroll 2003, p. 95). This research also seeks to fill that gap by making a foray into the world of gender politics in Congress.

While ideally I would have liked to consider various different Congresses over time in order to provide more generalizable results, within existing time constraints I have had to limit my research to the 111th Congress, the last Congress that is now complete.

The first part of my research is a quantitative analysis of the sponsorship and voting behavior of women in the House and the Senate using an original dataset from

the 111th Congress. While controlling for potential confounding variables, I run a series of panel logistic regressions in order to determine whether gender can predict the likelihood of certain legislative behaviors. Next, I analyze the speeches given by legislators at the beginning of each day in session to further inform our understanding of women's role in environmental policy-making. Finally, I include an analysis of the first-person accounts of legislative staff in Congress regarding this research question. Hopefully, this series of analyses in various areas of policymaking will provide a more complete and focused picture of how a legislator's gender interacts with his or her position on environmental legislation.

In the first chapter of this paper, I provide a review of the existing literature in relevant fields; specifically, feminist theory as it relates to environmentalism, empirical studies of demographic predictors of environmental behaviors and attitudes, and the broad field of gender research within politics. This chapter ends with an outline of the fundamental hypotheses of my study. The second chapter constitutes the first component of my analysis. I present the data, control variables, methodology, and results of my quantitative analysis of bill sponsorship, cosponsorship, and roll call voting behavior. My third chapter provides an analysis of the frequency with which Congressmen and Congresswomen respectively promote different types of environmental policies in their speeches, compared to the frequency of their speech in general. These speeches also come from the 111th Congress and contribute another perspective from which to evaluate the research question. The fourth chapter includes more descriptive information from interviews with relevant individuals. Finally, the last chapter outlines my findings and the implications of

these findings, addresses methodological limitations, and suggests areas for future research.

In this thesis, I find that female legislators are not universally more supportive of environmental protection policies than are male legislators in the U.S. Congress. The ecofeminist claim that women would not allow the same brutal destruction of the environment that men have historically incurred does not find strong support in the behavior of today's female policymakers. Some modest gender differences in advocacy for environmental policy do emerge, but are limited to specific contexts and issues. I found female legislators to be greater advocates of environmental protection than men in the 111th Congress, but also to be less likely to advocate for environmental protection policy in the House of Representatives. The one exception to this finding is that female Representatives were more likely than male Representatives to give speeches on the House floor promoting certain types of environmental policies, specifically, land and river conservation. Qualitative interviews echo the results of my quantitative analyses, highlighting that while distinct gender differences emerge in the constituencies that lobby in favor of certain environmental policies, these differences are negligible overall among legislators.

Although the findings of this study provide little support for ecofeminist theory in practice, they contribute only one small piece to a far larger puzzle that remains under-examined. I hope that this thesis encourages others to pursue research on gender dynamics in politics, the development of environmental legislation, and the nexus where these areas converge. I hope that such research considers different time spans, diverse contexts, and a broad set of legislation in order to develop a more

comprehensive understanding of the political prospects for women and the environment. The accelerating rate of events like the cyclone of 1991, and the legacy of the women of Bangladesh, demands it.

CHAPTER ONE: LITERATURE REVIEW AND HYPOTHESES

Gender & the Environment

Ecofeminist Theory

Ecofeminism emerged out of the confluence of the environmental movement and the women's rights movement in the 1970s. French feminist Françoise d'Eaubonne coined the term in her book *Feminism or Death* in 1974, and the concept has since been widely extended and re-interpreted over the years. The diverse forms of ecofeminism that have emerged vary in terms of their conceptualization of the link between women and the environment and the remedies that they advance to correct perceived injustices toward the environment and women. A broad overview of these different forms of ecofeminism is provided here. I have categorized the forms of this theory into those that focus, respectively, on biological factors, gendered socialization, empathy begot by shared oppression, and spirituality.

Some ecofeminists suggest that women are inherently more protective of the natural world as a result of their biological predisposition to preserving and protecting the lives of their children. Those who adhere to this logic argue that the genetic makeup that encourages protection of human life would also translate to a heightened concern with protecting non-human life. In contrast, the male biological makeup encourages the appropriation and exploitation of available resources for the sake of survival, a disposition prone to prioritizing profits over environmental preservation (Merchant 1992, p. 190).

While most ecofeminists emphasize the role of motherhood in the

development of female perspectives, some renounce the argument that the link between women and the environment stems from biology. Many ecofeminists argue that regardless of genetic makeup, women have been socialized from a young age to be nurturing and caring as opposed to dominating and exploitative (Hollander and Howard 1996, Miller 1993, and MacGregor 2006). In addition, as they are generally the primary caretakers of the sick, the very young, and the elderly, they are also the ones most likely to notice the effects of environmental impacts (Blocker and Eckberg 1989, Lambrou and Priana 2005). Through these aspects of daily life that distinguish women from men, women can be expected to be more attuned to the threats posed by environmental destruction such as diseases caused by polluted air or toxic chemicals in tap water.

Both forms of ecofeminist theory described above have been oft critiqued by other ecofeminist and feminist theorists for espousing the same type of essentialist assumptions as the belief systems they claim to be dismantling. By acknowledging and even promoting the determinism of gender differences, critics argue, such narratives of “female nature” serve to perpetuate the rationale that has historically underwritten the discrimination of women. This controversy mirrors a primary dispute central to feminist theory since its inception in the early 1800s: the dichotomy between difference and equality. Should feminists promote an understanding of the ways in which women provide unique goods to society, and advocate for policies that reflect the correspondingly unique needs of women? Or does such a method not only reverse the existing dualism, but also continue to reinforce a “logic of domination” (Warren 1990)? Does it better serve the interests of women to advocate for complete

equality between the sexes? Or does such a strategy ignore the inherent differences in the struggles that confront men and women and should be addressed as such?

An ecofeminist logic that avoids the essentialist critique is one that emphasizes the shared “logic of domination,” as cited above, to explain the relationship between women and the natural world. As Karen Warren has persuasively argued, women are not uniquely positioned to confront environmental challenges because of a biological or socialized predisposition to care for non-human life. Instead, women are more likely to take into consideration the priorities of the natural world because they, like the natural environment, have experienced oppression under the “oppressive conceptual framework” of masculine, power-based, hierarchical systems (Warren 1990, p. 129).

This particular articulation of ecofeminist theory is not so distinct as to be universally classified into its own clearly delineated camp as I have done here. I classify it as such simply because I find it conceptually easier to distinguish between the basic foci of different theoretical models, but not because I believe that these are the only possible distinctions to be made. Like the forms mentioned above, those who emphasize the “twin dominations of women and nature” do not necessarily deny the unique traits and perspectives held by women and the importance of those perspectives in the consideration of environmental issues (Victoria Davion, as cited in Warren 1994, p. 8). In fact, in her critique of the Kantian approach to environmental ethics, in which reason is privileged over emotion, Val Plumwood highlights the “emotions and the private sphere” that have been historically associated with women as also being victims of this approach (Plumwood 1991, p. 5). While emphasizing

the “feminine” nature of various traits, she simultaneously addresses how women and the environment are connected in shared neglect by an androcentric, hierarchical system.

Finally, some ecofeminists find a basis for their theory in a spiritual narrative articulating the link between women and the environment. Feminist mythology can function as a counterpoint to modern rationalist, technological, and dispassionate ethical structures that have been associated with male domination. In contrast to the Muslim and Judeo-Christian focus on male spiritual figures and an emphasis on the importance of humankind, ecofeminist spirituality emphasizes “an ethic of caring, and web-like human-nature relationships” (Merchant 1992, p. 191). Worship of female goddesses is often associated with rites honoring natural processes, from the life cycle of trees and flowers to female menstrual cycles (Merchant 1992, Warren 1994).

Just as ecofeminist theories differ in their conceptualization of the female-nature relationship, they also put forward a wide variety of solutions to remedy the current state of male domination and ecological degradation. As liberal ecofeminists believe women to be self-interested, rational, and utilitarian just like men, they do not condemn the liberal capitalist system as the source of today’s problems. Instead, they argue that there are ways that women and men can work together within the existing system to prevent further destruction of the environment in a sustainable way, while emphasizing that the participation of diverse members of society in decision-making is key to ensuring a just consideration of all relevant issues.

On the other end of the spectrum, socialist ecofeminists tend to view the entire

structure of Western society as at fault for today's state of ecological catastrophe (Collins 1974, King 1989, Plumwood 1993, and Warren 1994). They associate patriarchal rule not only with the "widespread inferiorizing and colonizing of women, but also of people of colour, animals, and nature" (Brennan and Lo 2010). This mode of thinking sees male domination as simply the original source of an expansive culture of hierarchical dualisms that prevails in the West.¹ I touch on this form of ecofeminist discourse solely because it constitutes an important camp within ecofeminism, although it does not relate directly to my research question.

My research question is predicated on the assumption that our modern governmental system does indeed provide a space for women to make an impact. I assume that women are rational and self-interested actors just like men, and thus implicitly understand the liberal capitalist structures of the United States government to be functionally capable of providing democratic governance for all people. I simply suggest that whether it is based on biology, socialization, shared experiences, or even spirituality, women *may* have a distinctive slant on issues regarding the environment.

Moreover, ecofeminist discourse is not the only scholarly realm to have addressed the idea that women might have a unique perspective to contribute to the consideration of environmental issues. In fact, many social scientists in recent years

¹ Dualist critical theory sees similarities between pairs of dominator/dominated in many important relationships. Some important dualisms highlighted by critical dualists other than man over woman and natural environment are mind as the dominator of the body and science as the dominator of the natural world. According to this understanding, all relationships of dominator/dominated are interconnected and mutually reinforcing. Accordingly, were society to be stripped down from these hierarchical relationships, which would have to start with the relationship between man and woman, according to ecofeminists, to a core of egalitarianism, the natural world would also no longer be seen as an entity to conquer and dominate.

have used empirical models to consider the different roles held by women and men in such debates. The next section will outline a series of quantitative and qualitative studies that have been conducted with the aim of better understanding how gender affects people's behaviors and attitudes toward environmental issues.

Empirical Analyses of Gender and Environmentalism

Sociologists, anthropologists, and political scientists seeking demographic predictors of environmentalism have often focused on the role of gender in their research. The studies conducted in this field thus far can be broadly categorized as those that consider gender differences in environmental attitudes and those that focus on gender differences in environmental behavior. While we cannot suppose a direct causal link between the attitudes and behaviors of women in the population at large and the role of female legislators, background on gender differences in environmentalism provides a useful foundation for this study on female legislators and environmental policy.

Most scholars of gender differences in environmental attitudes use self-reported responses to survey questions about environmental issues as a metric. Some such scholars create their own surveys tailored to specific geographical regions. For instance, Blocker and Eckberg surveyed the population in Tulsa, Oklahoma for their study, and correspondingly posed questions about specific pollution threats to the Tulsa region, as well as questions about general environmental threats (Blocker and Eckberg 1989).

The majority of studies of environmental attitudes, however, employ the New

Environmental Paradigm (or NEP) as a metric (Arcury 1990; Arcury and Christianson 1990, 1993; Blaikie 1992; Maineri, Barnett, Valdero, Unipan, and Oskamp 1997; Widegren 1998). The NEP is the most widely used measure of attitudes toward the environment in the world (Dunlap 2008). It is a scale of twelve items that was created by Dunlap and Van Liere in 1978 to measure a new worldview that they found to be highly correlated with environmentalism. This supposed new worldview considers humans as only part of a delicate balance within the natural world and believes in limits to the growth of human societies, as opposed to society's "Dominant Social Paradigm," or DSP, which espouses an anthropocentric optimism in the endless growth and positive development of human societies (Dunlap and Van Liere 1978).

The NEP has been critiqued in its ability to measure environmentalism because of the ambiguous nature of the connection between broad ideologies and behavior (Dunlap, Van Liere, Mertig, and Jones 2000). The risk of this ambiguity is negligible, however, compared to the benefits of using a broad and comprehensive measure of environmentalism. Such an ideological measure of environmental attitudes, rather than a specific and political one, is particularly meaningful over time, precisely because it measures adherence to general attitudes related to environmentalism, as opposed to positions on transitory policies and issues.

Overall, results regarding gender differences in environmental attitudes have been mixed. One of the most conclusive findings of these studies is that women tend to have higher levels of concern about local environmental issues than do men (Levine 1982, Hamilton 1985, Blocker and Eckberg 1989). A primary explanation

for this trend is the heightened concern among mothers for the health of their children within the community, a phenomenon that is exemplified by Lois Gibbs, the quiet housewife who rose to political prominence by the fighting hazardous wastes in Love Canal, New York that had made her children sick (Levine 1982). Hamilton (1985) provides strong evidence supporting this interpretation with three case studies of towns in New Hampshire, Vermont, and Massachusetts, where the town residents most concerned about contamination problems consistently proved to be women with children under the age of 18. George and Southwell (1986) and Blocker and Eckberg (1989) have shown that regardless of whether a woman is a mother, she has been socialized to have a “motherhood mentality” that encourages resistance in the face of potentially health-threatening local developments. In Blocker and Eckberg’s study on how certain demographic factors affect responses to environmental policies in Tulsa, Oklahoma, for instance, the only significant gender difference that emerged was in attitudes toward local environmental problems such as Tulsa’s air pollution, about which all women, mothers or not, were professed greater levels of concern than their male counterparts (Blocker and Eckberg 1989).

With regard to attitudes on non-local environmental issues, Blaikie (1992) and Zelezny, Chua, and Aldrich (2000) have shown that women are still more likely than men to cite concern about environmental protection. Zelezny, Chua and Aldrich found compelling evidence for this correlation in their cross-age group, cross-national study showing that women “reported stronger environmental attitudes and behaviors” based on self-reported responses to a survey (Zelezny, Chua, and Aldrich 2000, p. 443). Sometimes, this distinction was found to be insignificant (Blocker and Eckberg

1989), but to my knowledge no studies have yet found men to systematically express *more* concern about the environment than women (Zelezny, Chua, and Aldrich 2000). Another examination of the differences between male and female attitudes toward environmental policy was the comprehensive study of gender differences in policy preferences from the 1960s to the 1980s conducted by Shapiro and Mahajan (1986). This study employed data from the nation's major opinion polling organizations to determine trends in men and women's opinions on a variety of policy areas. A highly significant finding of this study was that women were more likely to support government regulation in general, from speed limits to bans of cigarette advertisements. Environmental regulations were considered within the category of regulation, but women's distinctive support of government regulation for environmental protection was less marked than their support for regulation in other areas of society.

Research on gender differences in environmental attitudes is somewhat limited in its capacity to represent differences in women and men's impact on the environment, however, because it relies on self-reported facts. Thus, evidence that women claim to have more pro-environmental habits than men could theoretically reflect a heightened level of concern among women with *seeming* pro-environmental, rather than a true difference in environmental concern. Interestingly, Arcury (1987) found that when eliminating controls for knowledge or societal position, men were both more knowledgeable and more concerned about environmental issues than were women. This suggests that perhaps the supposed correlation between females and environmental concern results from the fact that there is a heightened level of concern

among those women that do become educated about the environment, but that this correlation would not generally exist in the population at large.

Because of the ambiguities discussed above, it is important to supplement research on self-reported environmental attitudes with data on the environmental behaviors of men and women, respectively. In a fundamental text on this subject, Mohai (1992) found a highly significant correlation between women and environmental activism.

Since the early 1990s, many other scholars have found further evidence to substantiate those results, both on a national and international scale and regarding a wide breadth of environmental behaviors (Steel 1996; Seager 1996; Maineri, Barnett, Valdero, Unipan, and Oskamp 1997; Widegren 1998; Hunter, Hatch and Johnson 2004). Maineri et al., for instance, found highly significant results indicating that women in the United States are more likely to consider environmental impacts when making purchasing decisions about a series of products including household cleaners, light bulbs, laundry detergents, garbage cans, and paper products (Maineri et al 1997). This study also found that women tend to recycle household products more than men. While this particular study showed that women and men were nonetheless equally likely to participate in political activities with environmental goals, Seager has highlighted statistics showing that 60-80% of the membership of mainstream environmental organizations in the United States is female, with an even greater percentage in grassroots environmental organizations (Seager 1996). In a cross-national study of environmental behaviors, Hunter et al. found that in most countries, women are more likely to partake in private (household) environmental behaviors,

and both women and men are equally more likely to partake in private environmental behaviors than public ones (Hunter et al. 2004).

As the sample described above reflects, a minority of studies on the relationship between gender and environmental behaviors found no correlation, and close to none found heightened involvement among men (Zelezny, Chua and Aldrich 2000, p. 445).

As Hunter et al. (2004) suggest in the conclusion to their research, "We project that future models of environmentalism will include gender as a relevant predictor of environmentalism and that collectively females will be influential in future environmental activism, policy development, and political leadership..." (Hunter, Hatch, and Johnson 2004, p. 455). It is exactly this prediction that the present research seeks to investigate.

One empirical assessment of the relationship between the representation of women in government and environmentalism is a cross-national study of the correlation between representation of women in the upper house of Parliament and ratification of international environmental treaties conducted by Norgaard and York (2005). This study used data from 130 different nations to operationalize this relationship. Norgaard and York use independent nations as the units of observation, percentage of women in the upper house of parliament is an independent variable, and the number of ratifications out of 16 important international environmental treaties as a dependent variable. After controlling for factors to measure state modernization and development, such as GDP per capita and percentage of GDP from foreign direct investment, the authors found a statistically significant correlation suggesting, "that

the representation of women in national Parliament may contribute to the development of state environmentalism” (Norgaard and York 200, p. 513).

A significant control variable that was omitted from this analysis, however, was the political orientation of the nation itself. Modernization and economic development are not the only factors that predict might predict both gender equality and ratification of environmental treaties. Moreover, it is quite possible that gender equality in government is just a side effect of the same processes that lead to the ratification of international environmental treaties, rather than the ratification of the treaties being a causal result of the representation of women. The authors themselves acknowledge this weakness in their study, pointing out that their “results... do not necessarily establish that gender equality has a direct causal influence on state environmentalism, although they are consistent with such an argument” (Norgaard and York 2005, p. 515).

Norgaard and York’s study focuses on the aggregate effect of gender diversity on environmentalism, while the present research considers the particular priorities and behavior of individual legislators. While my method of research offers the advantage of perhaps relating more directly to a causal link between gender and environmentalism in government, it also is premised on a contentious understanding of the political agency of individuals in office, which will be discussed in greater depth in the next section.

Gender & Politics

Descriptive Versus Substantive Representation

The normative claim that there should be greater gender diversity in U.S. government is predicated on an understanding that female legislators are the best representatives of the interests of women in the population. This conception of representation is a highly contested one, based on differing evaluations of the importance of descriptive representation in assuring substantive representation. The section below expands on this distinction.

In a formative text on the nature of political representation, Hanna Pitkin outlined a set of ways in which representation can be qualified (Pitkin 1967). Within this typology, Pitkin established a dichotomy between descriptive and substantive representation, which has provided the foundation for much future analysis about the nature of democratic representation. Descriptive representation describes the component of representation that is measured by how well representatives themselves reflect the demographic traits and common experiences of the constituencies that they represent. In contrast, substantive representation has nothing to do with the personal attributes of the individual representatives; rather, it is concerned with the degree to which the substantive interests of the constituency being represented in government.

Whether a certain degree of descriptive representation is necessary to ensure substantive representation is a matter of contention. This question is tied up with competing visions of representatives as “trustees” or as “delegates.” The goal of trustees is to make independent decisions about the best policies for their

constituencies, while delegates are to be primarily concerned with reflecting the expressed preferences of their constituents. A delegate approach to representation would probably entail a greater necessity for descriptive representation, while an understanding of representatives as trustees would tend to view descriptive representation as irrelevant.

Proponents of descriptive representation as a method of ensuring the representation of marginalized groups highlight various circumstances in which members of a marginalized group might be the only ones able to adequately represent the interests of that group. In an article emphasizing the importance of descriptive representation, Jane Mansbridge outlines two contexts in which descriptive representation is an essential tool for securing substantive representation for marginalized groups, as well as mentioning two ways in which descriptive representation enhances the legitimacy of the governing body (Mansbridge 1999).

Mansbridge suggests that descriptive representation is essential in circumstances of mistrust among different groups in a legislative body as well as when a societal group has interests that are “uncrystallized.” As for enhancing communication in circumstances of mistrust, constituents are more likely to trust and contact their representatives if they share certain demographic characteristics, especially if they are part of a historically subordinate group (Mansbridge 1999, p. 641). In addition, descriptive representation is undeniably useful when a societal group has interests that are “uncrystallized” (that is to say, not commonly understood by the government and the population at large). In such a condition, the presence of a representative of that group is valuable because he or she can offer information about

a solution that could be a useful response to the issue, instead of a well-intentioned but entirely faulty solution resulting solely from guesswork (Mansbridge 1999, p. 643).

Descriptive representation can also be a useful mechanism for changing perceptions about the composition of the governing body. When people in a marginalized group see others of their demographic in leadership positions, it provides them with a heightened sense of being represented, and increases their confidence in their ability to have input themselves. Finally, descriptive representation of marginalized demographic groups is useful for the purpose of enhancing the legitimacy of the governing body. Whether or not increased diversity in government does increase the substantive representation of a diverse polity (as Mansbridge has argued earlier), a governing body that reflects the makeup of its population is perceived as more legitimate than one that is ruled by a homogenous group.

In contrast, some scholars contest the notion that the presence in government of individuals fitting a certain demographic is the best way to assure that the interests of that demographic group are represented in policymaking. One argument against a direct link between descriptive and substantive representation emphasizes the faulty assumption that an individual can represent the interests of an entire group. One individual woman is unlikely to be cognizant of all of the issues facing other women; in fact, an individual woman will only make decisions on the basis of her own opinions and experiences, which could very likely stray from the opinions and experiences of the many other women in the population. The fact that one woman is

not able to represent all women is a result of the inherent differences in opinion and experience among all individuals, but also of the fact that each woman is a member of many other demographic groups in addition to her gender, each of which plays a unique and important role in developing her outlook on issues. As highlighted by Weldon, “If she is a white, straight, middle class mother, she cannot speak for African American women, or poor women, or lesbian women *on the basis of her own experience* any more than men can speak for women merely on the basis of theirs... Marginalized group perspectives are not transparent to *individual* members of the group” (Weldon 2002, p. 1156). According to this perspective, the descriptive representation of female legislators in government does less for representing women’s interests than do collective groups such as government agencies or women’s advocacy groups that provide a forum for communicating and consolidating group perspectives (Weldon 2002, p. 1170).

Regardless of whether or not descriptive representation is the best way to represent the interests of a historically marginalized group, it is nonetheless important to understand differences in how women and men legislate. If it can be demonstrated that, on average, male and female legislators legislate in significantly and substantively different ways, regardless of whether or not these unique behaviors contribute to advancing the agenda of the “women’s movement,” this evidence can serve to further substantiate the need for gender diversity in American legislatures in order to best democratically represent the many diverse perspectives of a diverse population.

Why might women legislate differently from men?

Some scholars, such as Christopher Wlezin (2004) have argued that legislators act with the sole objective of reelection, so their legislative behavior is determined by the interests of their constituency within the confines of an established party platform. The inherent implication of this view is that it is futile to consider how different types of people (representatives of a certain minority group or gender, for instance) might differ in their legislative behavior, as it is assumed that any individual in a certain position at a certain time would behave in an identical way to any other individual in that position.

Various studies have provided evidence in support of Wlezin's theory. In a study on the responsiveness of black and white legislators to the interests of a black constituency, Carol Swain (1993) demonstrated that it is solely constituency interests, rather than a legislator's own demographic characteristics, that determine how he or she behaves. Similarly, Susan Welch (1985) showed that while female Senators and Representatives do tend to vote in a more liberal direction than do males, this difference is primarily due to the different constituency bases of men and women representatives, rather than a direct effect of the representatives' gender. Women are slightly more likely to be elected by constituencies that are Northern, urban, and have higher percentages of blacks and immigrants. These are the communities that are also more likely to vote in a liberal direction (Welch 1985).

On the other hand, some research shows that there are alternative influences on legislative behavior beyond solely placating constituent demands that can prove to

be substantial. Indeed, Gerrity et al. (2007) conducted a study that was inherently designed to avoid the risk of confounded results based on district differences. They sought out to determine whether women were more or less likely to advocate for women's issue bills, by comparing female legislators not to other male legislators in the same legislative body, but by comparing them to the male legislator of the same party who had last held that same district seat. They found that women were still more likely to introduce and vote for women's issue bills than were men, even when controlling for party identification and district factors in such a rigorous manner (Gerrity, Osborn, and Mendez 2007).

In a study of the effects of demographic characteristics on agenda setting in Congress, Bratton and Haynie (1999) also found that blacks and women were disproportionately likely to introduce legislation focusing on black interests and women's interests, respectively, even when controlling for constituency characteristics. Many other studies have come to similar conclusions about individuals' propensity to pursue a somewhat unique legislative agenda, above and beyond a simple consideration of constituency interests (Boxer 1994, Dodson et al. 1995, Bingham 1997, Casey and Carroll 1998, and Dodson 2002).

While the nature of a legislator's position entails working in a way that improves his or her chances of reelection, there are certain areas of flexibility within the legislative system, such that legislative behavior is not entirely pre-determined by the nature of the electorate. The following section provides a summary of various models that could account for how gender or other demographic characteristics might play a significant role in determining in legislative behavior.

One factor that demonstrates how an individual legislator can inject their own individual attitudes and opinions into the legislative process is the fact that there are various constituencies that a legislator can choose to appeal to when trying to secure votes. For instance, a candidate for legislative office could choose to appeal to the progressive, university community by advocating for legalizing gay marriage and government subsidies for local agriculture, or could instead choose to appeal to a conservative business community within the same legislative district by advocating for decreased taxes and deregulation. The candidate could theoretically expect similar voting returns with either one of these strategic choices. Once the legislator is elected, he or she will have to work to maintain the support of that core constituency, but that core constituency is already tailored to the legislator's predetermined set of policy priorities.

When attempting to parse the effects of constituency and descriptive representation, it is also useful to look at different forms of legislative behavior. Some forms of legislative behavior, such as roll call votes, are particularly accessible to public scrutiny, and thus tend to be highly correlated with constituency opinions (Meier and England 1984, Mladenka 1989, and Swain 1993). Other aspects of the legislative process, such as agenda setting through bill sponsorship or legislative speeches and debate, are equally if not more important to policy-making, but less prominent in the public eye. It may be through these forms of legislative leadership that a unique impact of minority representatives could be perceived.

There exists a considerable body of research that has shown that the individual beliefs of a legislator can, and often do, have a direct influence on their legislative

behavior (Cook and Barrett 1991, Poole 1988, Wilson and Caldwell 1988, and Miller and Stokes 1963). Cook and Barrett (1991), for instance, conducted an analysis on the influence of individual on legislative voting by comparing the voting behavior of members of the House of Representatives with the attitudes that they expressed regarding specific social welfare programs in one-on-one interviews. Cook and Barrett found that among chairs and ranking members of committees dealing directly with social welfare legislation, political party and constituency ideology were indeed the primary predictors of voting behavior on social welfare legislation. On the other hand, they found a high correlation between the voting behavior on social welfare bills and the self-expressed attitudes of those Representatives not in leadership positions in this issue area, after controlling for important confounding variables (Cook and Barrett 1991). This study and others with similar findings provide the basis for an analysis of how the presence of a woman in a certain congressional seat might have a unique impact on policy development. The next section outlines existing research on the unique role that women play as legislators.

Do Women legislate differently from men?

Despite significant evidence that gender may play an important role in determining the behavior of legislators, there is currently scant research on the effect of gender on policy-making on non-gendered issues.

Considerable existing literature is devoted to the question of whether female legislators are better advocates of policies that further women's rights than are male legislators (Boles 1991; Reingold 1992; Thomas 1994; Bratton 1999; Epstein, Niemi,

and Powell 2005; Vega and Firestone 1995; Carroll 1990, 2001; and Swers 1998, 2002). In general, these studies point to the conclusion that women are indeed better advocates of women's issue legislation than are men. This entails various aspects of the policy process. For instance, women have been shown to focus their legislative agenda on issues related to women and children significantly more than men (Boles 1991, Reingold 1992, Thomas 1994, Carroll 1990, and Swers 1998). In addition, women have achieved passage of legislation related to women and children at a greater rate than men (Thomas 1994; Kathlene, Clarke, and Fox 1991; Dodson 1991; and Dodson and Carroll 1991). However, the relationship between female legislators and advocacy of women's issue legislation has been shown to decrease over time, as women begin to feel less marginalized in society and female representation in government increases.

The literature on women's legislative behavior on issues unrelated to women's rights is limited. One exception is Lyn Kathlene's research on the different ways that male and female legislators think about and respond to policies related to crime. She has consistently found that even when controlling for party affiliation and constituency characteristics, women are more likely to consider crime policy in terms of altering the systemic conditions that lead people to commit crimes, while men are more likely to consider punishment of the perpetrators (Kathlene 2005).

A study conducted by the Center for the American Woman and Politics at Rutgers University including a survey of state legislators suggested that "the presence of women in the political arena led to an increase in legislation affecting children, the elderly, health care, and *the environment* – issues historically ignored by men"

(Hillary Clinton 1993, cited in Boxer 1993, p. 19, emphasis mine).

While these studies suggest that women likely *do* legislate differently than men even on issues unrelated to women's rights, the extremely limited quantity and scope of research in this field constitutes a major dearth in the literature on gender and politics. As emphasized by scholar of women in politics Susan Carroll, "More research is needed that explores the possible impact of women public officials on seemingly non-gendered policies and legislation in areas such as fiscal policy or transportation..." (Carroll 2001, p. xxiv). This thesis contributes to filling that dearth by considering the legislative impact on environmental policy of increasing numbers of female legislators in the U.S. Congress. While Norgaard and York's study of gender equality and state environmentalism begins to address this nexus, it differs from the present research in its cross-national scope and its focus on the aggregate impact of the representation of women, rather than the impact of individual legislators in the United States as the present research does (Norgaard and York 2005). I will now outline the structure of the following study and introduce my hypotheses.

Hypotheses and Basic Research Design

Hypotheses

On a fundamental level, this thesis is trying to answer the question of whether women are greater advocates of environmental legislation than are men in the United States Congress. If the ecofeminist theory is correct *and* if female legislators do indeed substantively represent such a female slant toward environmental protection,

then we would expect to find evidence of congresswomen as greater advocates of environmental legislation than congressmen. Thus:

Hypothesis 1: Women are greater advocates of environmental legislation than are men in the United States Congress.

On the other hand, if the ecofeminist theory is incorrect, and in fact men are more concerned with environmental protection, at least on a national scale, then we would expect to see Congressmen as greater advocates of environmental legislation than Congresswomen. Similarly, regardless of attitudinal gender differences of members of Congress toward the environment, various political explanations could account for male dominance in advocacy of environmental legislation. Thus, I also put forward the following counter-hypothesis:

Hypothesis 2: Men are greater advocates of environmental legislation than are women in the United States Congress.

Finally, it is possible that there is neither a significant attitudinal nor political difference in the legislative behavior of men and women with regards to the environment. My null hypothesis is:

Hypothesis 3: There is no significant difference in advocacy of environmental legislation in the United States Congress.

Research Design

To model advocacy of environmental legislation, this thesis considers legislative action on bills, speeches, and personal accounts.

The second chapter uses two original data sets, one of the House of Representatives and one of the Senate, to model how gender affects roll call votes on environmental legislation and patterns of bill sponsorship and cosponsorship.

The third chapter uses data on one-minute speeches in the House of Representatives to consider whether there is any correlation between speeches addressing environmental policy and the gender of the representative giving the speech. The analysis of speeches also considers demographic factors predicting a set of disaggregated environmental issues, including conservation, pollution, and clean energy.

Finally, the fourth chapter employs qualitative information from interviews with relevant policymakers in Congress to develop a more complete understanding of the dynamics of environmental politics and gender politics in the 111th Congress, as well as the results from my quantitative analyses.

Hopefully, these three avenues of research will help us to understand the relationship between the environment and gender, as well as better understand the dynamics of environmental policymaking in Congress.

CHAPTER TWO: BILL SPONSORSHIP, COSPONSORSHIP AND ROLL CALL VOTING

The first part of my analysis is a study of the relationship between gender and legislators' sponsorship and voting behavior on environmental legislation. For this study, I generated an original data set for each chamber of Congress, comprising data on voting and sponsorship behavior on important pieces of environmental legislation over the course of the 111th Congress. Using these datasets, I conduct a series of quantitative analyses to determine how gender affects the likelihood that a certain legislator will sponsor, co-sponsor, or vote for environmental legislation. This chapter includes the details of the data employed, methodology, results, and a discussion of the findings.

Data

This section includes, first, an in-depth overview of the dependent variables under consideration in this analysis: bill sponsorship, bill cosponsorship, and roll call votes. It then provides descriptions of all of the control variables employed, and justifies their inclusion. Finally, it outlines the process by which I compiled the data for both chambers, and then describes the legislation included in each dataset, respectively.

The first component of each dataset is a list of all of the legislators in the 111th Congress. A comprehensive list of all Representatives and Senators, as well as their

party affiliations, age, and other basic data, is found in the *Official Congressional Directory of the 111th Congress* (2009).

When a certain legislator was replaced at some point during his or her term, I include only the data for the legislator that was initially elected and exclude that of the new member, so as to maintain a constant number of 435 Representatives and 100 Senators. While this strategy could potentially introduce a bias into my dataset if those legislators who resigned before the end of their term were shown to be less active when they were in office than others, I recorded data as missing for behavior on legislation that was introduced after they were no longer in office, instead of coding them as voting negatively or not sponsoring/cosponsoring.

Dependent Variables

Bill Sponsorship

Bill sponsorship is a mechanism by which legislators get certain issues and policies onto the congressional agenda. Since sponsoring a bill requires a significant time commitment and expertise, the decision to sponsor a certain bill demonstrates that a legislator considers that issue to be a priority (Bratton and Haynie 1999). Further, legislators have more freedom to express interests through bill sponsorship than through roll call voting. Unlike roll-call voting, in which legislators are required to make some choice (be it for, against, or abstention) based on a pre-established set of options, the decision to sponsor a certain bill is entirely optional (Bratton and Haynie 1999). This means that a legislator will only choose to sponsor a bill if it is something that they particularly support.

Existing literature has considered the politics surrounding bill sponsorship as a tactic. First of all, scholars have shown that members of the majority party are more likely than those of the minority party to sponsor bills. Many have proposed that as Democrats are intrinsically more supportive of government intervention in public affairs, Democratic members of Congress would develop more legislation overall than Republican members of Congress, regardless of party control. Nonetheless, studies have consistently shown that majority party membership is a far greater predictor of bill sponsorship than is Democratic Party membership. For instance, Garand and Burke (2006) showed that when the House shifted from Democratic control to Republican control after the 1994 elections for the first time in over fifty years, the number of bills sponsored by Republicans immediately began to exceed the number of bills sponsored by Democrats.

This dynamic is understandable if we consider bill sponsorship as a worthwhile endeavor only if the chances for legislative success are significant. As bill sponsorship requires a great time commitment throughout the legislative process, its costs outweigh its gains unless the legislator has a good chance of gaining recognition for sponsoring an important bill. A legislator is much more likely to pass a bill if it appeals to the general platform of the majority party, thus explaining the correlation between party control and bill sponsorship.

Second, while Congressional scholars have historically found men to introduce more bills than women overall, recent years have seen such gendered differences in policymaking participation diminish, if not altogether disappear (Diamond 1977, Kirkpatrick 1974). For instance, in 1991, Thomas and Welch found

that while male legislators introduced more bills than women in state legislatures, the difference was statistically insignificant after employing relevant controls (Thomas and Welch 1991). Scholars have also found that in certain specific policy areas, women sponsor more bills than men. For instance, in their study of the agenda-setting behavior of women and blacks in a series of state legislatures, Bratton and Haynie (1999) found that women were significantly more likely than men to “introduce legislation pertaining to education, health care, children’s issues, and welfare policy” (Bratton and Haynie 1999, p. 670).

In the present research, I control for the total number of bills sponsored by each individual legislator as well as the total number of bills sponsored during the 111th Congress in each chamber in order to isolate differences in legislative advocacy within the unitary domain of environmental policy.

Bill Cosponsorship

Bill cosponsorship is a similar mechanism that legislators use to shape the congressional agenda. Like bill sponsorship, as one is never required to cosponsor legislation, the decision to cosponsor a bill is indicative of a legislator’s unique policy preferences. It has been shown that not only do legislators cosponsor legislation to demonstrate their active representation of constituent interests, but it is also a mechanism that they use to signal preferences to other representatives (Kessler and Krehbiel 1996). Unlike bill sponsorship, however, cosponsorship does not require a significant time commitment, or even too much responsibility. Thus, by considering bill sponsorship and bill cosponsorship independently, I am able to discern

distinctions in the policy preferences and advocacy of male and female legislators, without overlooking significant trends among those without the time or authority to sponsor bills.

Existing literature has shown that bill cosponsorship, unlike bill sponsorship, is heavily influenced by ideological and partisan affiliations. Majority party status does not predict cosponsorship as it does sponsorship behavior; instead, measures of bill cosponsorship are frequently correlated with Democratic Party membership (Garand and Burke 2006). Further, Garand and Burke (2006) showed that the bills cosponsored by a given legislator decrease significantly in correlation with his or her degree of ideological conservatism, as measured by the DW-Nominate Scale.² I will control for the effects of these factors with the use of measures of partisan affiliation and district ideology.

Scholars have also found that the longer a representative has been in Congress, the less likely he or she is to cosponsor bills (Garand and Burke 2006). For this reason, I include a control variable for seniority, as measured by the years a legislator has been in office.

Of particular importance to this study are the results of James Regens (1989) in his study on the factors that predicted cosponsorship of legislation to limit emissions related to acid rain. He found that the most important determinants of a legislator's position on this issue were related to partisan factors and constituency

² DW-Nominate, which stands for “dynamic, weighted NOMINATE”, is a scaling procedure that was developed by political scientists Poole and Rosenthal in the 1980s as a method of mapping the political preferences of given legislatures within a comprehensive ideological framework. Its measures of conservatism and liberalism are particularly well reputed because they were developed with the goal of changing as the meaning of these ideologies in the public sphere changes over time. Thus, the correlation between ideological conservatism and decreased bill cosponsorship activity is related to general patterns of political conservatism, rather than a particular, time-sensitive form of conservatism.

interests. As the Reagan administration was vehemently opposed to the controls under consideration, Republican members of Congress were hesitant to stray from this Republican Party platform. In addition, representatives who had supported earlier pieces of environmental legislation opposed H.R. 4567 if their constituencies were those that would be most negatively affected by the legislative controls (Regens 1989). These findings provide evidence that legislators make cosponsorship decisions based on constituency priorities and interests, as well as ideological and partisan factors. Since the question of interest in this study is the independent role of gender, geographic controls will also be employed to prevent bias based on such a correlation based on the geographic impacts of specific legislation.

Roll Call Voting

Finally, I analyze the roll call votes of Congressmen and Congresswomen on the set of environmental legislation under consideration. Most literature on roll call voting has shown the “overwhelming influence” of ideology, partisanship, and constituency factors as determinants of representatives’ voting decisions (Swers 2002, p. 114). As Poole and Rosenthal showed, 80% of roll call votes can be explained by a liberal-conservative explanation (Poole and Rosenthal 1991, 1997). Thus, I predict that gender differences in roll call voting will be less apparent than differences in legislative behaviors that require more individual initiative. However, as voting is an essential aspect of a legislator’s policymaking behavior, and because it is an avenue by which almost every legislator registers their position, it was essential to include in my research on legislative behavior.

Control Variables

While gender is the independent variable of primary interest for this analysis, I have also included various control variables including other characteristics of the individual legislators, such as seniority, as well as district characteristics, such as per capita income and education levels. The rationale for the inclusion of each one of these control variables is summarized below.

To prevent confounding the influence of gender and other demographic factors, I include a few essential characteristics of each legislator in my analysis as controls. First, I include a dummy variable to control for a legislator's party affiliation, as that is likely to be the greatest potential confounding variable. As displayed in Figure 2.1, women in the 111th House of Representative are disproportionately Democratic. Seventy-six percent of the women in the 111th Senate are Democrats. Democratic legislators are more likely to support and advocate for progressive environmental legislation. Consequently, controlling for party affiliation is essential to developing meaningful results on the correlation between legislators' gender and advocacy of environmental legislation.

I also include various measures of a legislator's seniority as control variables. Those legislators with the most experience in Congress are likely to be in the most senior positions, and, consequently, more active in taking leadership positions on legislation (Hibbing 1991). As mentioned above, as women are only recently beginning to fill the ranks of Congress at an increasing rate, many of the more senior members of Congress are men. In fact, while women constitute approximately 20% of all representatives that have been in office for sixteen years or under, they

comprise only 14% of those representatives that have been in office for over sixteen years. Using years in office as a proxy for seniority, I hope to eliminate any bias that might stem from this correlation.

Similarly, I include a control variable for chairmanship of one of the standing committees. Just like those who have been in office for a longer tenure, those legislators who chair standing committees have a degree of clout within the institution that would indicate a higher likelihood of sponsoring, and perhaps also cosponsoring, legislation. As the gender distribution in committees is not the focus of this study, I include a dummy variable for chairmanship of a standing committee in my analyses of sponsorship and cosponsorship to prevent the development of a perceived correlation that is actually based on different positions within the institution, rather than environmental attitudes or preferences.

Finally, to further control for legislative behavior, I include in my models of bill sponsorship and cosponsorship control variables that measure the total number of bills that each legislator sponsored and cosponsored during the 111th Congress. The use of these controls ensures that any statistically significant correlation between gender and sponsorship and/or cosponsorship of environmental legislation does not simply result from a basic propensity of certain members to sponsor and cosponsor bills, but rather, represents a trend unique to environmental legislation. The data on total bill sponsorship and cosponsorship come from the THOMAS database, a site for free legislative information through the Library of Congress. Through this site, one can search any federal bill or amendment since 1973 and find its detailed legislative

history, sponsors and cosponsors, the results of the roll call vote if applicable, and even a copy of that bill's text (THOMAS.gov 2012).

Along with the traits of individual legislators, I also include constituency traits as control variables. As with the considerable overlap between Democratic Party identification and election of female representatives, there is sure to be a correlation between the districts and states that are more likely to elect women and those that have certain views about the environment. While it is impossible to entirely control for the unique mix of characteristics that determine constituency support for individuals and for specific policies, I attempt to cover basic predictors of district attitudes. All the district characteristics chosen for this study have significant precedent as control variables in the existing body of literature on gender in politics and support for environmental policy. For the House of Representatives, I include variables to control for the characteristics of the district from which each Representative was elected, while for the Senate, I include basic statistics about the state from which the Senator was elected.

One demographic factor that has been shown to be highly correlated with the election of female representatives is the education level of a certain constituency (Mladenka 1989, Hogan 2001). Since education levels have also been shown to affect a district's level of support for environmental policies, this factor could introduce a bias into my results, so I control for the education level in each district and state (Dunlap and McCright 2008). As a proxy for education level, I include the percentage of people in each district or state who have a college degree, a metric used

in a similar study by Poggione (2004). This data comes from the American Community Survey of 2010.

The racial and ethnic diversity of a particular geographic area have also been shown to predict both the election of female representatives and support for liberal policies, including environmental protection (Welch 1985). For this reason, I include a control variable that measures the percentage of each district and state that self-identify as black and the percentage of each district and state that self-identify as Hispanic. This data comes from the 2010 U.S. Census.

Finally, ideology is a distinct predictor of support for female representatives and environmental policies in tandem (Hibbing 1991). Those districts that vote in a more liberal direction tend to be more likely to elect female legislators, as well as to support government intervention to ensure environmental protection. Using a similar method to that used by Swers (1998, 2002), I include a control variable for ideology using votes in the last presidential election as a rough proxy. In my study, this variable records the percentage of each district that voted for Obama in 2008.

Greater detail about the variables included in this study can be found in the Appendix.

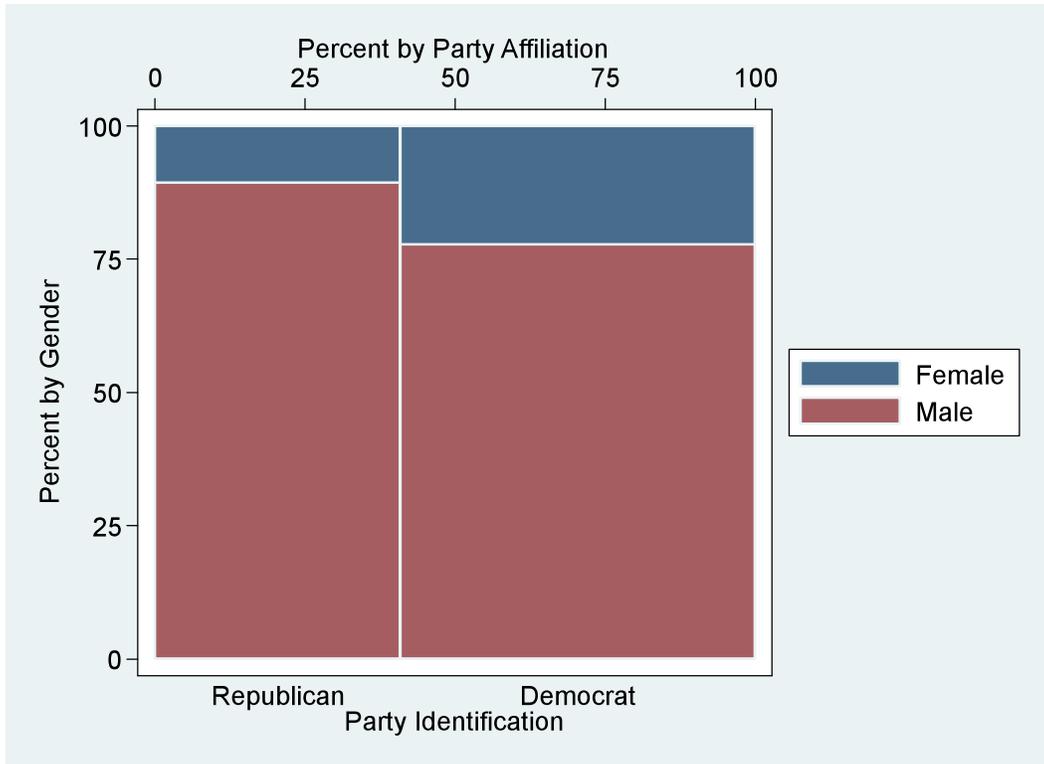


Figure 2.1: Distribution of the 111th Congress by Gender and Party Identification

Legislation

To model legislators’ behavior on environmental legislation, I consider the details of the development and passage of a sample of environmental legislation dealing with a wide spectrum of environmental issues. The bills included in this sample were chosen based on their recognition as particularly important pieces of legislation in the accounts of various highly reputed environmental and congressional sources: the League of Conservation Voters, the Sierra Club, and *Congressional Quarterly*.

The League of Conservation Voters publishes a “Scorecard” each year that provides ratings for legislators based on their votes on key environmental legislation.

This Scorecard includes calculations based on legislators' votes on both bills that are related to environmental protection and those that have particularly harmful environmental consequences. The bills with negative consequences are not of interest in my study of the patterns of gender in the development of *environmental* legislation. The LCV scorecard also does not include information about sponsorship and cosponsorship. Therefore, instead of simply using the LCV ratings directly, I use the list of important environmental legislation employed in their ratings as a starting point for my data collection. This list is a highly reliable source of information about environmental legislation as it "represents the consensus of experts from about 20 respected environmental and conservation organizations [including the National Audubon Society, the Natural Resources Defense Council, the Sierra Club, the Environmental Defense Fund, and the Union of Concerned Scientists] who selected the key votes on which members of Congress should be graded" (*League of Conservation Voters* 2010).

The Sierra Club also published a document independently highlighting endorsements of certain legislation, of which relevant bills are included in this study.

In addition to the bills mentioned by prominent environmental advocacy organizations, I include in my dataset additional bills highlighted in *Congressional Quarterly*. At the end of each year, *CQ Weekly*, the weekly magazine of *Congressional Quarterly*, publishes a report on the most important bills of that year. These bills are divided into topic categories, of which I consider the list highlighting the most important bills regarding "Energy" and the "Environment" in 2009 and 2010 (*CQ Weekly* 2010, 2011). *Congressional Quarterly* also publishes different articles

about particularly contentious issues each week. To gather more information about environmental legislation, I ran a search of these articles for those addressing with legislation about energy and/or environment during the span of the 111th Congress and include the bills that are mentioned that fit the criteria of this study.

While there is some overlap, I use a distinct sample of legislation for the analysis of voting behavior from that for the analysis of sponsorship and cosponsorship behavior. I made this choice because the environmental bills on which votes are most meaningful are different from the legislation on which sponsorship and cosponsorship behavior are the most instructive.

To evaluate voting choices, I use a sample of some of the most important pieces of environmental legislation from the entire Congress. Presumably, a legislator's voting record on a spectrum of high-profile legislation spanning many issues would provide a representative image of his or her general attitude towards environmental goals. However, some important environmental bills met with broad consensus in Congress, and thus are not a useful resource for measuring distinctive attitudes. Similarly, some major legislation with important environmental provisions were so politicized that votes fell solely on party lines. Thus, only votes in which a minimum of five legislators voted against their general party platform were included.

The most important environmental bills tend to exhibit many of the trappings of high-profile legislation. Such bills are likely sponsored by corresponding high profile legislators, such as the chairs of relevant committees. While recognition of a sponsor's position as a committee chair does not preclude a consideration of the individual initiative required in the act of bill sponsorship, it does limit the

conclusions that we can draw about that individual based on his or her decision. While committee placements are based on the preferences of legislators to a certain extent, there are also various arbitrary factors that contribute to the distribution of committee members. Levels of seniority, majority party membership, and the desirability of certain committees over others all contribute to the division of legislators among committees (Poole and Rosenthal 1997, p. 184).

Since it is impossible to entirely control for these factors, an analysis of sponsorship and cosponsorship behavior on high-profile bills would likely be highly biased by the influence of party and seniority. To limit the risk of such a bias, one condition that I impose on the legislation to be used in an analysis of cosponsorship and sponsorship is that the bill cannot be sponsored by the Chair or a Ranking Member of the committee that produced it. As such, each bill that is analyzed for its sponsor(s) and cosponsor(s) was sponsored based on a legislator's individual initiative, and instead of by institutional obligation.

Included in the Appendix is a short description of the ten bills introduced in the House of Representatives that are considered for legislators' votes, followed by a list of the additional bills considered for sponsorship behavior, and then a list of corresponding legislation for the Senate. All of this information was accessed through THOMAS' Bill Summary and Status Advanced Search (THOMAS.gov 2012).

Methodology

I use a different statistical model to analyze each of the three behaviors under consideration. Each of these models is outlined below, with a justification for its use and a simple description.

Sponsorship

Since I consider only up to 12 bills in each chamber in my analysis of sponsorship, and because each bill is sponsored by only one (or occasionally two) legislators, the sample size is not big enough to run a meaningful statistical analysis. Thus, sponsorship behavior is considered with a descriptive analysis with consideration of all the important factors discussed above.

Cosponsorship

Because more than one legislator usually cosponsors any one piece of legislation, there were far more data points for my analysis of bill cosponsorship than for sponsorship, and I was thus able to run a statistical analysis of bill cosponsorship in the House. The distribution of bill cosponsorship in my data in the Senate was still too small to allow meaningful statistical analyses, so the logistic regression run on bill cosponsorship is only on bills in the House of Representatives. While some bills have no cosponsors (Consolidated Land, Energy, and Aquatic Resources Act), bills included in this dataset have up to 25 cosponsors (the 21st Century Green High-Performing Public School Facilities Act).

The variable that is employed to measure cosponsorship of environmental bills in the House of Representatives is a binary variable that represents whether or not a given Representative was a cosponsor of any of the bills highlighted in my study as essential environmental legislation. I chose to use a simple binary variable, instead of a count variable, because there were very few Representatives who had sponsored more than one of the bills, and it was thus more appropriate to consolidate those who were a cosponsor of any of the bills into one category, denoting cosponsorship of environmental legislation.

I employ logistic regression analysis to analyze the binary variable of cosponsorship. Logistic regression is a model that measures the predictive effect of continuous or categorical independent variables on a dichotomous outcome. This model has the form:

$$\text{logit}(Y) = \text{natural log (odds ratio)} = \ln(\theta/1-\theta) = \alpha + \beta X$$

In this case, Y is the event of cosponsorship, either a 1 for occurrence or a 0 for non-occurrence. The odds ratio, $\theta/1-\theta$, is the probability that cosponsorship will occur divided by the probability that cosponsorship will not occur.

As the form of this equation shows, the independent variable X is linearly correlated with the *logit* of Y, thus the coefficients that result from a logistic regression are not readily interpretable as linearly correlated with the probability of the outcome of interest. Nonetheless, the value of the coefficient β explains the impact of the dependent variable on the likelihood of the occurrence of the outcome

of interest. If the coefficient is negative, then the variable under consideration decreases the likelihood of the outcome of interest. If the coefficient is positive, then the variable under consideration increases the likelihood of the outcome of interest. As I employ different variations of the logistic model in all of the analyses in this study, the theory and interpretation of later models will be very similar.

In this analysis of cosponsorship behavior in the House of Representatives, I employ all of the control variables described above. This set of variables includes the Representative's party identification, years in office and a dummy variable for committee chairmanship, as well as measures of his or her constituency's education, ideology, and ethnic composition.

Roll Call Voting

To model voting behavior in the House and the Senate, I run a series of panel logistic regressions. In its panel form, the logistic regression considers the impact of a certain variable on the aggregate likelihood of a certain dichotomous outcome over a series of events. In this case, each bill under consideration is treated as an individual event. This model transformation was necessary because of the high number of legislators that voted "Yea" on a significant number of bills, in contrast to the modes of 1 and 0 in the cosponsorship analysis. The dependent variable is the probability of a "Yea" vote as compared to the probability of a "Nay" vote. Figures 2.2 and 2.3 provide visual representation of the frequency with which Representatives and Senators voted in favor of the environmental legislation employed in this study.

If a legislator abstained from voting or was absent on the day of the vote on a given bill, the data was marked as missing, instead of as a “Nay” vote by default to prevent bias.

A similar set of control variables as that included in the analysis of cosponsorship in the House is employed in the analysis of voting behavior. In the analysis of roll call voting in the House of Representatives, I include controls that measure a legislator’s characteristics, including party identification and years in office, and constituency characteristics, including district education levels, district ideology as measured by votes in the 2008 presidential election, and district ethnic composition as measured by the percentage self-identified as either black or Hispanic. Two control variables included in the cosponsorship analysis are omitted in the voting analysis because they are irrelevant to the study of gender distinctions in voting behavior. These variables are the measure of total bills cosponsored and the dummy for chairmanship of a standing committee.

The analysis of roll call voting in the Senate employs a similar set of control variables, with relevant state-level correlates for the district-specific factors. The only control variable that is omitted in the transformation of the model to the Senate is the ideology variable. I argue that it is not necessary to include a percentage of votes for Obama in 2008 because the party affiliation of the Senators already roughly approximates the overall political ideology of the state under consideration.

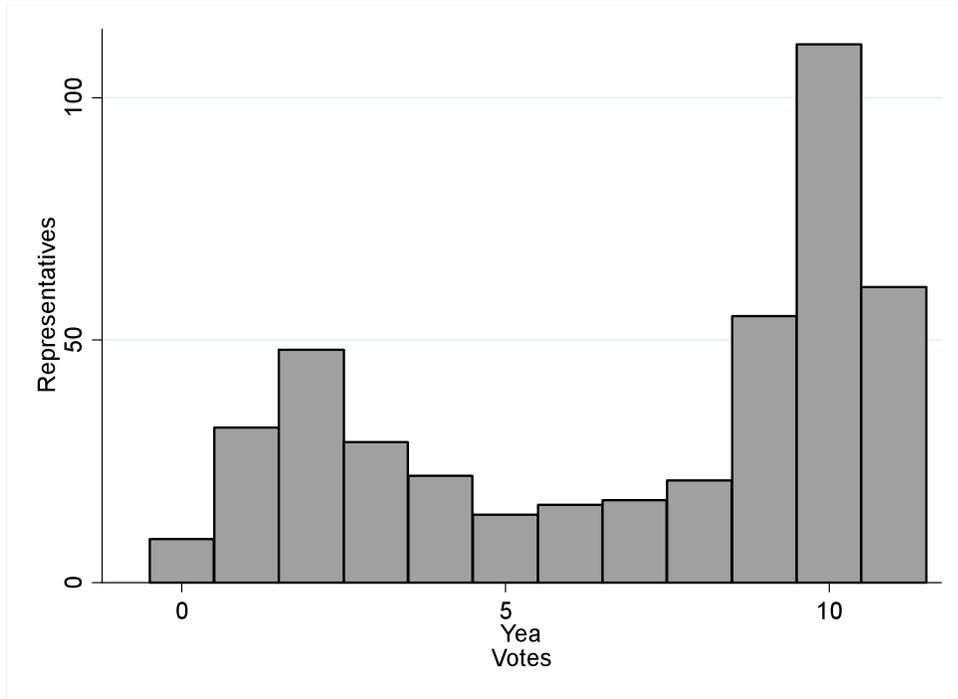


Figure 2.2: Distribution of Frequencies of “Yea” Votes on Environmental Bills, House of Representatives

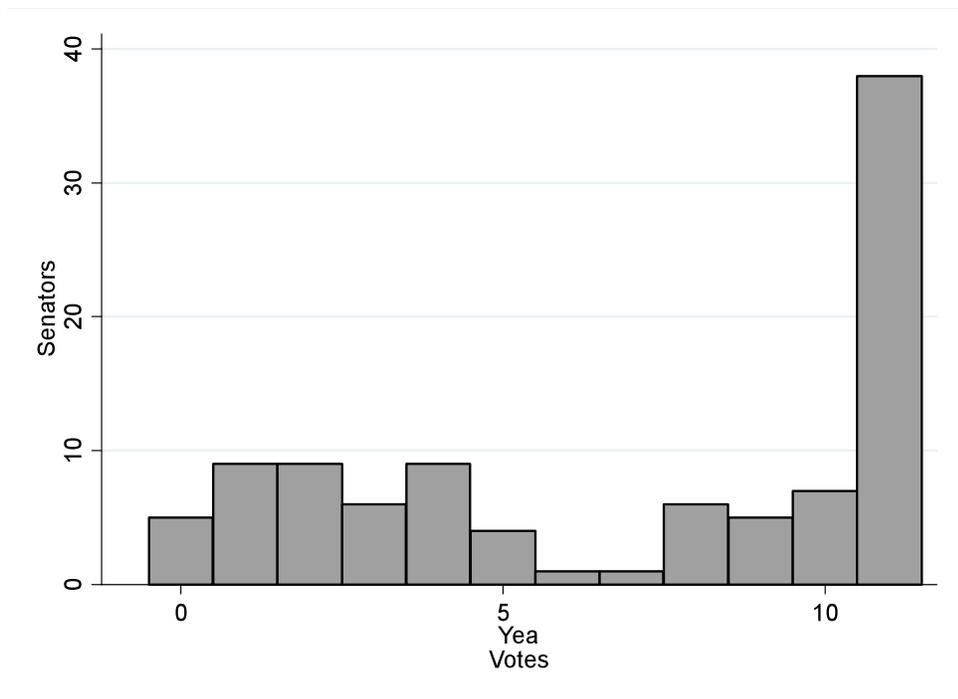


Figure 2.3: Distribution of Frequencies of “Yea” Votes on Environmental Bills, Senate

Results

Sponsorship of Environmental Legislation

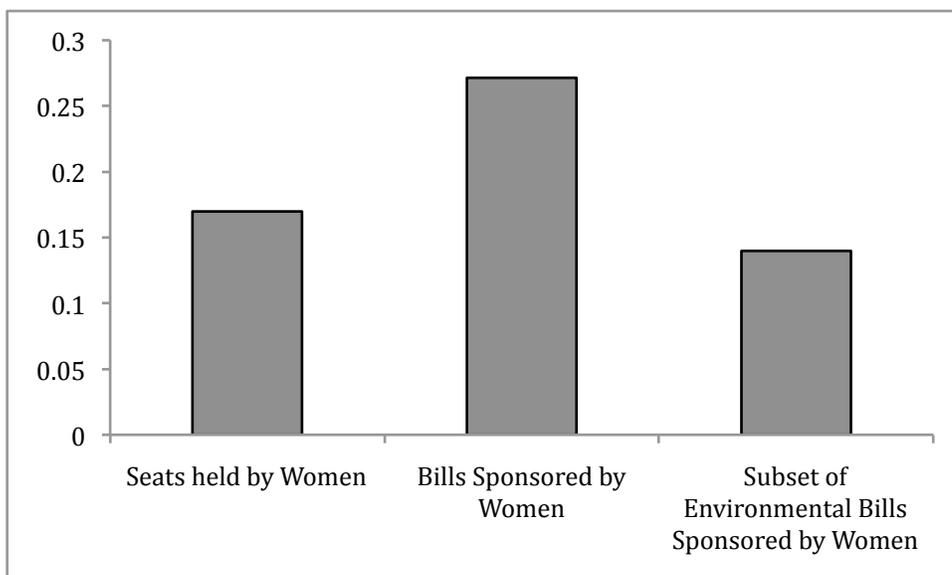


Figure 2.4: Percentage of Environmental Bills Sponsored by Women, Relative to Percentage of Total Bills Sponsored by Women and Percentage of Seats held by Women in the House of Representatives

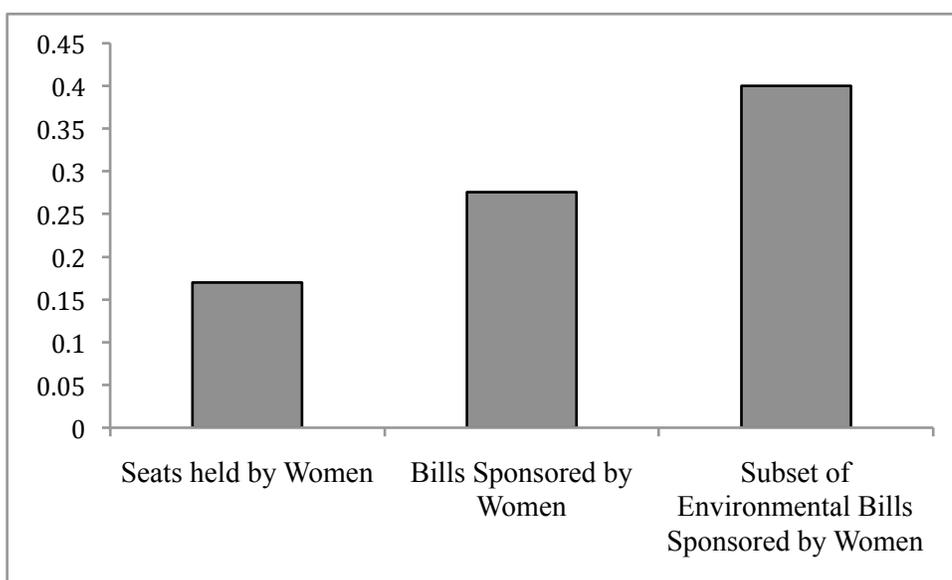


Figure 2.5: Percentage of Environmental Bills Sponsored by Women, Relative to Percentage of Total Bills Sponsored by Women and Percentage of Seats held by Women in the Senate

Figure 2.4 depicts the percentage of environmental bills sponsored by women, relative to the percentage of total bills introduced in the House of Representatives and the percentage of seats held by women in the House of Representatives in the 111th Congress.

In the House of Representatives, women sponsored only 14% of this sample of representative environmental legislation, which is marginally smaller than the 17% of the seats they held in the institution during that period. The importance of this finding is further strengthened by the fact that female Representatives sponsored 27% of all of the bills introduced in the House of Representatives in this Congress. While by no means absolute, these data suggest that women are not such distinct advocates of environmental protection as we may have predicted given existing literature.

A somewhat less surprising, but equally marked, result is that all of the environmental bills in the House included in this sample were sponsored by Democrats.

The results on bill sponsorship in the Senate and the House are decidedly contradictory. Women in the Senate sponsored 40% of this sample of environmental legislation, which is considerable, particularly in light of the fact that women in the Senate sponsored only 27% of the total bills in the 111th Congress. Unlike sponsorship in the House, sponsorship behavior in the Senate provides strong evidence in favor of a gender bias in advocacy of environmental protection within the policymaking arena. As in the House, not one of the bills included in the sample of environmental bills in the Senate was sponsored by a Republican.

Cosponsorship of Environmental Legislation

	Model 1	Model 2	Model 3
PartyID (1=Democrat)	1.3877*** (0.4492)	1.9457*** (0.4761)	1.7145*** (0.4847)
Gender (1=Female)	-0.6989* (0.4168)	-0.6492* (0.4171)	-0.6664* (0.4221)
Total Cosponsorship	0.0001 (0.0011)	-0.0003 (0.0011)	-0.0002 (0.0011)
Years in Office	-0.0183 (0.0184)	-0.0127 (0.0166)	-0.0152 (0.0011)
Committee	-0.5539 (0.7903)	-0.3591 (0,7906)	-0.4548 (0.7940)
District Education		0.0444*** (0.0144)	0.0284* (0.0166)
District Ideology	0.0447*** (0.0160)	-0.0021 (0.0131)	0.0226 (0.0184)
% Black or Hispanic	-0.0316*** (0.0089)		-0.0201** (0.0101)
LR chi2	44.29	40.14	44.21
Prob > chi2	0.0000	0.0000	0.0000
*p<0.1 **p<0.05 ***p<0.01			

Table 2.6: Logistic Regression of Cosponsorship of Environmental Legislation in the House of Representatives

Table 2.6 shows the results of the logistic regression of bill cosponsorship in the 111th House of Representatives. In all of the models that I ran, gender has a modest significant impact. Because each woman was coded as a one, each man was coded as a zero, and the gender coefficient in these results is negative, these results provide evidence that women in the House of Representatives are somewhat less likely to cosponsor a piece of environmental legislation. We can be confident that

this finding is not simply correlated to a general tendency (or lack thereof) to cosponsor many bills, because the difference in the overall number of bills cosponsored by women and men in the 111th House of Representatives was not significant. While the average male Representative cosponsored 354 bills, compared to the average female Representative's 336 bills, this difference does not emerge in statistical analyses, thus further highlighting the importance of the results on cosponsorship of environmental legislation.

These findings mirror the results of the previous section, in finding women to be less likely than men to advocate for environmental legislation in the House of Representatives, providing further evidence against the claim that increasing gender diversity will lead to improved environmental protection policy.

While these results are certainly strong evidence to discredit grand ecofeminist claims about the unique relationship between women and the environment, we must keep in mind that bill sponsorship and cosponsorship are just two of a wide repertoire of strategies that Representatives employ in their policymaking. We should not overstate the influence of these results, as there are far more areas in which a gender distinction on environmental advocacy could be reversed or effaced.

In terms of control variables, party identification was unequivocally positively correlated with cosponsorship of environmental legislation. As expected, Democrats were shown to be significantly more likely than Republicans to cosponsor environmental legislation, just as they were more likely to sponsor such bills. To a great extent, this finding must be a result of general Democratic support for most

environmental protection policies today. Some component of the strength this correlation, however, might be associated with the general tendency of Democrats to cosponsor legislation (Garand and Burke 2006).

Interestingly, seniority, as measured both by years in office and by a measure of chairmanship of a standing committee, did not prove to be statistically significant in predicting cosponsorship of environmental bills. This finding stands in opposition to literature suggesting that seniority leads to position-taking through the cosponsorship of bills (Garand and Burke 2006).

The results on district ideology and district education merit greater attention. As one can see in Model 1 and Model 2, when district ideology is omitted, district education proves highly significant and positively correlated with environmental cosponsorship. Similarly, district ideology becomes positively correlated and highly significant when the variable for district education is omitted. Based on this phenomenon and the established correlation between Democratic Party affiliation and levels of higher education, it is clear that the variables measuring district ideology and education are, to a certain degree, capturing similar characteristics of a district (Drew and Weaver 2006). I include both measures here despite this convergence because the inclusion of the both variables significantly increases the explanatory power of the model. This was shown through the p value of 0.0000 of an lr significance test to distinguish between a model including just district education and one including district education, district ideology, and the percentage of blacks in Hispanics in the district.

It is important to remember that the measurements for each of these factors is only a proxy. As a measure of political ideology, the percentage that voted for Obama in 2008 is a particularly rough measure. This measure of ideology does not measure the intensity of a certain set of political convictions, but rather measures the breadth of support for a certain political party within a district. Thus, a higher score on my political ideology scale does not inherently indicate a greater level of support for government intervention, for instance, but rather indicates that there are more people who share a certain baseline level of support for government intervention within that district. This measure was chosen because of its precedent in studies looking at gender in politics in order to capture the degree of homogeneity in support for a certain party within a district (Swers 1998, 2001, Pearson and Dancey 2010). Future studies of gender and support for environmental policies might consider using a measure of political ideology that is less correlated with other demographic factors

Roll-Call Voting on Environmental Legislation

As you can see in Table 2.7, a panel logistic analysis of voting behavior in the 111th Congress in the House of Representatives once again belies the ecofeminist claim that women are greater advocates on behalf of the environment than are men. As with the results of the cosponsorship analysis, a negative coefficient indicates that the independent variable of interest decreases the likelihood of the positive event. Specifically, a negative coefficient will indicate that the variable under consideration decreases the likelihood of a “Yea” vote on environmental bills. In all of the models, gender is not a statistically significant predictor of voting on environmental

legislation in the House. In fact, while it is not statistically significant, the coefficient for gender in predicting voting behavior is negative in every model, which adumbrates a trend in which women are *less* likely to vote in support of environmental legislation after the inclusion of the control variables.

	Model 1	Model 2	Model 3
Party ID (Democrat=1)	3.3496*** (0.1101)	2.6206*** (0.1200)	2.5880*** (0.1193)
Gender (Female=1)	0.0311 (0.1439)	-0.1083 (0.1343)	-0.0984 (0.1332)
District Education	0.0155*** (0.0055)	0.0022 (0.0053)	-0.0016 (0.0055)
District Ideology		0.4150*** (0.0049)	0.0471*** (0.0055)
District % Black/Hispanic			-0.0063** (0.0028)
LR chi2	43.06	11.37	10.33
Prob > chi2	0.0000	0.0000	0.001
*p<0.1 **p<0.05 ***p<0.01			

Table 2.7: Summary of Results of Panel Logistic Regression of Roll Call Voting on Environmental Legislation, House of Representatives

As could have been expected, the most consistent predictors of voting behavior on environmental legislation in the House are party membership and district ideology. Democratic Representatives are significantly more likely to vote in favor of important environmental bills and the greater the percentage of a district that voted for Obama in 2008, the greater the likelihood that the Representative of that district will vote for environmental bills.

My measure of seniority also proved significant in most of the models of voting behavior in the House. The longer a representative has held his or her seat, the more likely he or she is to favor environmental legislation.

Finally, the percentage of blacks and Hispanics living in a district is negatively correlated with support for environmental policies. The coefficients for this result are small, but highly significant. This finding is somewhat puzzling given existing literature that predicts the opposite correlation (Welch 1985). One possible explanation for this finding is that districts with higher minority percentages might exhibit greater income disparity and/or economic insecurity. While such districts would by all other standards be predicted to be highly supportive of environmental protection, being generally left-leaning and Democratic, the concern for social welfare policies and economic development might be paramount. The legislators elected from such districts might have been elected on the basis of their liberal stance on fiscal policy, rather than their liberal positions on somewhat more abstract progressive causes such as the environment.

As in the analysis of bill sponsorship, the results of the relationship between gender and voting on environmental legislation in the Senate are the reverse of those in the House of Representatives. I will provide an analysis of this stark distinction between the Congressional Houses in the Discussion section of this chapter.

Panel logistic analyses of roll call voting on environmental legislation in the Senate provide limited evidence that women tend more than men to advocate for environmental legislation in their agenda-setting activities (See Table 2.8). For all of the models looking at roll call voting in the Senate, gender is statistically significant

to the $p=0.1$ level, which is not nearly as strong as the significance of the impact of party identification or state education levels, but is not negligible nevertheless. The positive value of the gender coefficients in the panel logistic analyses of the Senate indicate that women in the Senate are slightly more likely to vote for important environmental legislation than are men, after employing relevant controls. The transformation of the coefficient to an odds ratio ($e^{0.73}$) shows that the likelihood of a female Senator voting yes on a certain important environmental bill was two times the probability of a male Senator voting yes.

	Model 1	Model 2	Model 3
Party ID (Democrat=1)	4.3940*** (0.3836)	4.3988*** (0.3836)	4.3742*** (0.3841)
Gender (Female=1)	0.7025* (0.4525)	0.7588* (0.4532)	0.7307* (0.4545)
State Education	0.1659*** (0.0441)	0.1698*** (0.0464)	0.1758*** (0.0480)
State % Black		-0.0045 (0.0167)	0.0069 (0.0172)
Years in Office			0.0087 (0.0166)
LR chi2	26.19	26.17	26.25
Prob > chi2	0.000	0.000	0.000
*p<0.1 **p<0.05 ***p<0.01			

Table 2.8: Summary of Results of Panel Logistic Regression on Roll Call Voting on Environmental Legislation, Senate

Once again, party identification was consistently highly significant in these analyses, with Democrats much more likely to vote favorably on environmental legislation than Republicans.

Another factor that was of high predictive value in this analysis was the level of education in the state. The states with higher percentages of residents with a college degree were more likely to have Senators who voted in favor of environmental legislation; this finding was significant to the $p=0.01$ level. This finding contributes evidence to an existing theory that suggests that when people are more informed about the issues at stake through education, they will be more supportive of environmental protection policies (Huang et al. 2007).

Neither of the other control variables in the Senate voting analysis, including years in office and minority population in the state, proved statistically significant in determining votes on environmental legislation.

Discussion

The general pattern that has emerged from the analyses above is that the relationship between gender and support for environmental policies in Congress varies considerably between the two Houses. While analyses on behavior in the House of Representative display patterns that suggest, if anything, greater male advocacy for environmental issues, my results show that women in the Senate are conversely *more* likely to sponsor and vote in favor of bills addressing a variety of environmental issues.

One way of looking at this discrepancy is in terms of the debate previously articulated on the competing notions of representation and their applicability to the two houses of Congress. The House of Representatives was originally conceptualized as a political space for legislators to act as delegates, representing the unique needs and policy preferences of their clearly-specified constituencies. This dynamic is encoded in the Constitution through the two-year term limits, smaller constituencies, and more geographically-specific districts unique to Representatives. The Senate, on the other hand, was intended to be a space for legislators to act more as trustees. As they are somewhat more insulated from public opinion through longer terms (six instead of two years) and broader constituencies, Senators are theoretically entrusted with more freedom than Representatives to exercise individual prerogative and correspondingly bear a greater responsibility to act according to their personal understanding of what is best for the country.

If the discrepancy between the two Congressional houses displayed in my analysis of advocacy of environmental legislation could be explained by such competing notions of the roles of Senators and Representatives, then my findings could indeed be in support of the ecofeminist argument. If female Senators disproportionately advocate for environmental legislation because they are less constrained by term limits and particular constituency interests, then the Senate findings might be particularly telling as to how women inherently legislate. Moreover, the lack of a significant influence of gender on environmental policymaking in the House could be discarded as a representation of female decision-

making based on an understanding of the constrained nature of policymaking in the House of Representatives.

A weakness of using this framework to interpret these results is based on the great body of existing literature on the influence of women in policymaking and agenda-setting. These studies have often been conducted in the House of Representatives in various state legislatures, which are generally set up to mirror the federal House of Representatives. Many of these studies have shown that the presence of women does have a significant impact on the policies that are pursued and passed in the legislature (Cook and Barrett 1991, Bratton and Haynie 1999, Casey and Carroll 1998, Carroll 2001, Epstein, Niemi, and Powell 2005). This evidence points to the fact that the delegate approach to understanding the policymaking of Representatives is not sufficient to explain all of their unique policy decisions.

The discrepancy between the Congressional houses that emerged in my results could also be understood as reflecting the unique dynamic in each House. While similar percentages of women held seats in both institutions, other factors could affect the ways in which gender-related impacts are displayed. As suggested by Susan Carroll, “where institutional pressures, norms, or leadership discourage women from behaving differently from their male colleagues, women may be less likely to have a gender-related impact” (Carroll 2001, p. xvi).

I propose that a factor of particular importance in determining the behavior of women in the 111th Congress was the unique subset of female leaders in each House. Women in the Senate today look up to a strong cohort of incumbent female Senators

who were elected in 1992, the so-called “Year of the Woman,” including California Senators Boxer and Feinstein, Washington Senator Patty Murray, and Maryland Senator Barbara Mikulski. All of these Senators who have acted as role models for more junior female Senators have consistently promoted their commitment to environmental protection.

In 1993, for instance, Barbara Boxer envisioned a renewed commitment to environmental protection associated with female policymakers. She offered the following prediction as to the impact of increasing numbers of women in Congress:

Women will be voices for children and for choice, and I believe that they will also be a voice for a clean and healthful environment. There will be those who will try to pose a false choice—that to have a clean and healthy environment we have to destroy our environment. That theory is way off the mark. As a matter of fact, there can be no economic growth without a sound environmental policy. I am pleased that Vice President Al Gore carries that message every day. His voice is missed in the Senate, but I believe that the women there will swell the chorus for protection of the environment. (Boxer 1993, p. 171)

It is possible that through the idealistic leadership of Boxer and the other women in her cohort, female Senators were able to be more cohesive on the issue of the environment in the 111th Congress.

The lack of female sponsorship or cosponsorship of environmental legislation in the House of Representatives could also simply reflect a general pattern of female hesitance in this domain of policymaking. Perhaps regardless of their legislative priorities, women are still less likely to sponsor and cosponsor any forms of legislation whatsoever, and so the finding discussed here has no bearing on the specific relationship between Congresswomen and environmental issues. As Rocca and Sanchez (2007) found in an analysis of the legislative behavior of state legislators

of minority ethnic groups, black and Latino representatives are less likely to sponsor legislation in general, all else held constant. There could be a similar phenomenon among female legislators, with a lingering disadvantage in legislative agenda-setting that cannot be eliminated simply by employing controls for official position or seniority within the institution.

Existing literature, however, provides a mixed account of the general bill sponsorship and cosponsorship behavior of female policymakers. On the one hand, Garand and Burke (2006) claim that women are often less likely to sponsor and cosponsor legislation in Congress. Conversely, in the same study that found that Congressmen and Congresswomen of minority ethnic groups were less likely to sponsor legislation when they were in the minority party, Rocca and Sanchez found that, “Women sponsor as many bills as men regardless of which party controls Congress. Specifically, the interaction effect between Female [Member of Congress] and Democratic Congress is statistically insignificant... However, Female [Member of Congress] is positive in Model 2, which indicates that women sponsor more bills than do men during Republican Congresses” (Rocca and Sanchez 2007, p. 142). This evidence would seem to suggest that the results found here do not indicate a general pattern concerning all legislative behavior, but that they are perhaps specific to legislative behavior regarding the environment.

Further, various studies have found that women are indeed more likely than men to sponsor or cosponsor legislation about issues that are priorities to them (Bratton 2002, Carroll 2001, Epstein, Niemi, and Powell 2005, Swers 2002). In most cases in current literature, these issues are explicitly gendered issues, such as child

care and birth control rights. This could suggest that women are fully capable of sponsoring and cosponsoring legislation that they choose to prioritize, and that environmental protection is simply not an issue held above others for women. In fact, if we were to espouse this viewpoint, it would seem that environmental protection was an issue area that was much more of a priority for men than for women.

On the other hand, is it possible that the reason for female sponsorship of “women’s issue legislation” is not fully the choice of the legislators themselves, but rather it is due to the desire of the party wanting a female legislator as a voice when advocating issues on which they would seem particularly authoritative. While such a dynamic could be seen as a step in the right direction, in that women are being respected and encouraged to take leadership on legislation, it could also be derided as evidence that women still act as tokens within legislative institutions.

Another possible explanation for these results is that female legislators’ slant towards women’s issue legislation but not towards environmental issues is the result of political calculations. While promoting women’s issue legislation may be seen as female legislators’ explicit responsibility as de facto representatives of women in the population at large, women in office may try to emphasize other issue areas that might uniquely highlight their competence in areas traditionally not considered feminine. For instance, perhaps it would be more impressive for a woman to be an expert on weapons procurement than to be an advocate for endangered species. Such a decision might even help a female legislator to be more successful and trusted when advocating for a particular piece of legislation that might be more traditionally correlated with her gender.

Some of the methodological limitations of this study could play a role in explaining the series of surprising findings discussed above. First, the consideration of just one session of Congress is fairly limited. In this particular Congress, the Democrats were in Control of both Houses, a dynamic which had already shifted by the 2010 elections. Scholars have shown that gendered dynamics vary with party control of Congress, and thus the results of this study may be limited in their applicability to similar Democrat-controlled Congresses (Rocca and Sanchez 2007, Pearson and Dancey 2010). Further, as every set of people and, correspondingly, every set of legislators, is unique, there are inherent limits in the generalizability of the results from one specific group of 545 people and their internal dynamics. For this reason, it would be interesting to duplicate this research on different sessions of Congress, to see if the results found here are consistent over time.

Another inherent methodological limitation in this statistical analysis is the impossibility of completely removing constituency bias. Even with the broad range of variables that I included to control for constituency, it is not possible to comprehensively capture the dynamics in each district that could possibly lead to support for environmental legislation and the election of female representatives. As astutely contended by MacDonald and O'Brien (2011), when describing the limitations of a study that used similar constituency characteristics to control for factors that might bias the relationship between female representatives and support for social welfare policies, "Does the level of support that President Clinton received (Swers 2002) indicate how predisposed constituents across House districts are to addressing social welfare policy challenges and/or endorsing feminist policies? ...

President Clinton won states, and congressional districts within states, across the South, and received similar support in states, and congressional districts, in the Northwest and Northeast. But individuals who voted for Clinton in the South did not, on average, react similarly to Clinton voters in the Northeast when the new president endorsed a ‘Don’t ask, don’t tell’ policy regarding the ability of homosexuals to serve in the military.” (MacDonald and O’Brien 2011, p. 473). As MacDonald and O’Brien point out, just because certain geographic constituencies all voted in large numbers of a certain presidential candidate does not by any means imply that those districts share all other political preferences, and thus percentages of presidential votes cannot be understood to comprehensively control for constituency factors.

In light of this trenchant critique, future studies considering the role of women in the development of environmental policy should consider using research designs that circumvent biases based on constituency, such as comparing legislators only to other legislators who have served in the same district. This longitudinal strategy, of course, introduces a new bias: that of time period, as the inclusion of other variables cannot comprehensively capture this factor either.

Finally, yet another limitation is the very general definition of “environmental legislation” employed in this study. Legislation included under this umbrella varied from land conservation to carbon emissions regulations to the regulation of toxic waste. The issue of environmental policy is clearly a very broad one, and it is possible that there may be more apparent gender dynamics within more specialized issue areas. In the next chapter of this thesis, an analysis of speeches on the House

floor, I aim to address this weakness by incorporating a consideration of different categories of environmental issues into my investigation.

CHAPTER THREE: SPEECHES

This chapter informs my study on the role of Congresswomen in the development of environmental policy with an analysis of speeches given by Representatives during the 111th Congress.

At the beginning of each day in session in the House of Representatives, following the opening prayer and the Pledge of Allegiance, any Representative can give a speech on a topic of his or her choice for one minute. There are no restrictions on who is allowed to speak, but the Speaker of the House generally determines the amount of speeches permitted in a given day. Since unconstrained speech on the House floor is generally limited, as most discussion is governed by a complex set of rules, this convention provides a unique opportunity for legislators to publicly express their opinions on different issues to others within the legislative institution and to the public in a direct and concise manner.

Through these one-minute speeches, members of Congress can increase their visibility within the institution. Congressional scholars have found that such speeches are a key mechanism by which legislators signal their policy preferences and priorities to other legislators. Even if not all legislators are physically present during the one-minute speeches, most keep track of them by way of C-SPAN from their congressional offices and use this information to get a sense of party platforms, potential coalitions, and the legislative issues to soon be up for discussion (Pearson and Dancey 2010, p. 3). Not only do legislators attempt to signal their policy priorities to others who might collaborate or negotiate with them, but individual

members of Congress also use these speeches to demonstrate their expertise in specific issue areas, in the hopes of being recognized as potential leaders.

One-minute speeches also function as a way for legislators to demonstrate their commitment to issues of concern to their constituents. Sometimes these speeches are cited in the mainstream media, including national television news and newspapers, inciting constituent confidence in their respective legislators as they witness their local Representative advocating for issues of particular concern to them within the national policymaking arena. Increasingly, members of Congress post their own one-minute speeches on YouTube so that they are easily accessible to constituents (Pearson and Dancey 2010, p. 2). This further demonstrates the important constituent-signaling aspect of one-minute speeches.

The body of literature on the dynamics of these one-minute speeches in Congress is relatively limited, but has grown somewhat in recent years. Some scholars have found that one-minute speeches are disproportionately utilized by legislators with less authority within the institution. Presumably because they have fewer opportunities to demonstrate their expertise and express their policy preferences otherwise, minority party members, non-committee chairs, and junior members have been shown to be significantly more likely than those with more official authority to give one-minute speeches at the beginning of a day in session (Maltzman and Sigelman 1996, Morris 2001, Rocca 2007).

A few scholars have also looked at the patterns of one-minute speeches given by male and female members of Congress, respectively. On the one hand, women have been found to use floor speeches as a way to demonstrate expertise in areas that

are otherwise considered masculine, such as foreign affairs and defense policy (Huddy and Terkildsen 1993; Sanbonmatsu 2009; Lawless 2004). On the other hand, women use their time on the floor to advocate for women's issues, such as women's health, childcare, and anti-discrimination legislation (Walsh 2002, Shogan 2002). While such studies on gender differences in policy advocacy have at times focused on one-minute speeches, there is limited research on the differences between men and women and their participation in this convention.

In the first comprehensive study of gender differences in participation in one-minute speeches on the House Floor, Pearson and Dancey (2010) found evidence in support of their hypotheses that Congresswomen, like junior members of Congress, are more likely to give one-minute speeches than Congressmen. Their study looked at all the one-minute speeches and floor debate speeches given by representatives in the 103rd and 109th Congresses, respectively. These two Congresses were chosen because they were characterized by different party control. In both Congresses, Pearson and Dancey found that, overall, women gave significantly more one-minute speeches than did men, subject to some partisan differences. In the 103rd Congress, which was Democrat-controlled, Democratic women spoke significantly more than Democratic men, but Republican women spoke somewhat less than Republican men. In the 109th Congress, which was Republican-controlled, both Democratic women and Republican women gave more one-minute speeches than Democratic and Republican men, respectively (Pearson and Dancey 2010, p. 5). While this study of gender dynamics provides useful insight as to participation levels, as mentioned by Pearson and Dancey themselves, "More systematic research on speech content is

needed to provide greater insight into the ways Congresswomen from both parties seek to bring women's perspectives to the House floor" (Pearson and Dancey 2010, p. 12). My analysis will contribute to existing literature on the content of speeches by male and female members of Congress through a study of gender differences in advocacy for environmental legislation.

Data

I began with a text file including every one-minute speech given by a representative in 2009 and 2010.³ I coded each legislator for the number of speeches that he or she gave that included advocacy for environmental legislation, which were further subdivided into three categories of environmental legislation.

My criteria for determining what constitutes "advocacy of environmental legislation" are described below. First, a speech does not need to be exclusively devoted to the subject of environmental issues or environmental legislation to be included as a relevant speech. As long as a speech highlights an issue that is generally considered to be within the category of environmental problems and supports some form of action in response, it is coded as "advocacy of environmental legislation." For instance, early in the 111th Congress, many legislators were discussing the passage of H.R. 1, the federal stimulus package titled "The American Recovery and Reinvestment Act," which included significant investments in clean

³ Many thanks go to Kathryn Pearson and Logan Dancey for their generosity in sharing this data with me. They collected this comprehensive data on one-minute speeches in the 111th Congress for a paper they presented this fall. Dancey, Logan and Kathryn Pearson. "The War of Words: Partisan Rhetoric in the House of Representatives." Paper presented at the annual meeting of the Midwest Political Science Association Conference. Chicago, IL: 2012.

energy technology development. On September 2, 2009, Rep. Albio Sires (D-NJ) spoke on behalf of this piece of legislation. Within his description of the importance of the stimulus package, he said, “We will create nearly half a million jobs by investing in clean energy” (Sires 2009). By highlighting the benefits of federal investment in clean energy, Sires’ speech was coded as “advocacy of environmental legislation.”

The next component of coding that I undertook was separating the speeches into subject areas within the overarching category of environmental legislation. While the framework of this study thus far has considered environmental issues as a consolidated bloc, the greater number of units under consideration in the speech analysis allows for more meaningful analyses to be conducted with a focus on specific environmental issues. Those who promote land and water conservation policies tend to be a somewhat different constituency from those who support climate change mitigation policies, as well as from those who combat pollution, which will be discussed at greater length in the next chapter. Thus, this section attempts to disaggregate these issues for a more meaningful analysis of legislative behavior.

Instead of reading all 5,647 one-minute speeches individually, I used a search of key words to identify relevant speeches. I developed this set of key words through a close reading of all of the speeches given during the first three months of the first session of the 111th Congress, during which I highlighted the key words used in conjunction with a discussion of environmental legislation. I then scanned the comprehensive document of speeches for each word and based on a careful examination of the context of that word’s use, I coded each speech accordingly. The

section that follows outlines the particular issue areas used in this analysis and the criteria I used for coding speeches regarding that issue area.

Clean Energy Speeches

The first, and by far the most common, environmental issue presented by representatives in their one-minute speeches is that of clean and renewable energy. The key words that I used as a starting point for highlighting the speeches on this topic were “energy,” “efficien-“, “fossil,” “dependence,” “green”, “sustainable,” “clean,” “alternative,” “oil,” and “renewable.” The issue of clean energy is couched in a variety of ways by legislators. Sometimes, a representative will discuss the important tasks at hand for the upcoming Congress, and include supporting development in the renewable energy infrastructure as an area for potential economic growth in the United States. For example, on October 7, 2009, Rep. Jay Inslee (D-WA) gave the following speech in support of renewable energy.

Mr. Speaker, while we consider what we can really do to reduce unemployment, I think we ought to consider something Secretary Steven Chu, the Secretary of Energy, said yesterday. He told us that China will surpass or possibly has surpassed the United States, not in the ability to do low-wage manufacturing but to do high-technology manufacturing, unless we adopt an energy policy, which will jump-start a clean energy economy for the United States and start bringing those high-tech manufacturing jobs home to the United States. First Solar, a United States company using United States technology, will be building the largest solar plant but building it in China with manufacturing there. Applied Materials, a high-tech manufacturing company, an American company, is developing plants in China. What Mr. Chu told us, Secretary Chu, is that we need to adopt the clean energy bill now pending in the Senate. This is the ticket out of this recession. This is how we're going to decrease unemployment. We urge the Senate to get moving on this bill.

Other times, representatives use the mention of a recent extreme weather event as a way to broach this issue of climate change, and the importance of

developing a sustainable climate change policy. On May 4, 2010, Rep. John Hall (D-NY) argued:

From the massive rains and flooding this week in Tennessee, to the historic tornado in Mississippi, to this spring's flooding in New England and Connecticut and Rhode Island, to the February mudslides in Madeira, to the freak March Hurricane Cynthia that killed 40 people on the coast of France, it is clear that storms are getting more intense and weather patterns are changing, consistent with computer models of climate change. In Orange County, New York, my farmers have had to cope with so-called 50-year floods that now seem to occur every year. Rivers may truly be the canary in the coal mine of global climate change. What more evidence do we need? It's time to stop denying that this change is happening and work together to stop the pollution that causes it. In the House we have acted, and now it's time for the Senate to take up and pass an energy and climate bill, which also by the way is a big jobs bill.

As seen from the examples provided above, many of the speeches dealing with federal investments in clean energy and climate policy are clear and easy to categorize as pro-environmental in my data.

Some speeches that indirectly or even directly addressed the issue of clean energy, however, included nuances that made their categorization particularly challenging. For instance, legislators occasionally highlighted nuclear energy in conjunction with a discussion of clean energy. Nuclear energy can be seen from both sides of the environmental debate; on the one hand, it is a form of domestic energy production that does not emit greenhouse gases, but on the other, it is associated with extreme risks of toxic pollution. In circumstances such as this one, I chose to err on the side of the dominant consensus among prominent environmental advocacy groups such as the Sierra Club, the Nature Conservancy, and the Natural Resources Defense Council. In the case of nuclear energy, these organizations tend to condemn its development as a response to environmental degradation and rising oil costs. In a

1986 statement that remains un-amended today, the Sierra Club announced, “The dangers posed by the probable releases of tritium used by fusion plants, the problems with decommissioning these plants, and their high costs lead the Sierra Club to believe that the development of fusion reactors to generate electricity should not be purchased at this time” (Sierra Club Board of Directors, 1986).

Similarly, a bill called the Conservation and Clean Energy Independence Act of 2009 was frequently touted as a “step in the right direction” by legislators in their one-minute speeches. While its title and the descriptions it was frequently given by legislators promoting its passage all seemed to indicate that it should be considered “advocacy for clean energy legislation,” a closer investigation of the bill provided evidence otherwise. Not only was this bill opposed by the Sierra Club, but its primary supporters were those in the oil and gas industry and those opposing government regulation in general, including the American Petroleum Institute and the Heritage Foundation.

In conclusion, the speeches that have been coded as advocacy of clean energy legislation are not only lectures devoted *solely* to assertions of the environmental necessity of renewable energy, but at the same time, do not include every speech that simply includes the phrase “clean energy.” The speeches in this category include discussion of topics including innovative technologies for energy efficiency, government subsidies for the development of renewable energy technology, repudiation of government subsidies of and support for continued investment in fossil fuels, and the promotion of less wasteful strategies for public transport, among others. The total number of speeches coded as advocacy of clean energy legislation is 268.

Land and Water Conservation Speeches

The next subject area included in the speech analysis is advocacy of land and water conservation. This category is similarly broad and includes issues such as preservation of endangered species, protection of national forests and parks, and conservation of marine and freshwater ecosystems. Nevertheless, only 32 speeches in the 111th Congress addressed these issues. The goals of these different types of policies vary as much as their content. For instance, as described by the Sierra Club, “The key to wildlife and native plant conservation is the continued existence of diverse natural ecosystems and the preservation of native biodiversity” (Sierra Club 1994). In contrast, wilderness protection is often pursued with the objective of “preserving and protecting wilderness values for future generations” (Sierra Club 2000). Nonetheless, this issue area encompasses the scope of preservation of existing wildlife and ecosystems for the inherent purpose of maintaining natural species and wild species, as opposed to for their local or global impacts on human health and well being.

To find speeches dealing with land and water conservation, I conducted a search of each of the following words: “wild-,” “conserv-,” “preserv-,” “river,” “ocean,” “park,” “ecological” and “endangered.” At times, the speeches coded in this issue area addressed specific sites important to specific constituencies, about which representatives were not making any particular policy claims. For instance, on April 2nd, 2009, Rep. Glenn Thompson (D-PA) gave a one-minute speech recognizing the

efforts of a state employee working towards the preservation of wild public spaces.

The following is a citation from this speech.

Secretary Mike DiBerardinis has served the Rendell administration and the Commonwealth of Pennsylvania with distinction for the past 6 years as the head of the Department of Conservation and Natural Resources, or DCNR. While I have only had limited interaction with the Secretary personally, his work for the Pennsylvania Wilds Initiative--a nature tourism program that encompasses my district--speaks volumes about his character and his dedication to rural Pennsylvania. Under the Secretary's leadership, DCNR has taken the PA Wilds from a concept to a budding program, highlighting the beautiful landscape and the many attractions of central and northwestern Pennsylvania. From hiking, to biking, to backpacking, and skiing, Pennsylvania Wilds has it all. In fact, this past summer, the Secretary was in my hometown breaking ground on the State's first Nature Inn, in Bald Eagle State Park--adding yet another component to an already robust State park system.

This speech was coded as advocacy for land and water conservation legislation because it recognizes the importance of natural public spaces, even though it does not include advocacy for a specific bill.

In contrast, some of the speeches included in this section address national legislation that is mentioned by a representative to highlight the constituency-specific benefits of its contribution. An example of this type of speech is provided by Rep. Ron Klein (D-FL) describing the Coral Reef Conservation Act Reauthorization and Enhancement.

Last week, the House passed critical legislation to protect one of Florida's most treasured national wonders. The Coral Reef Conservation Act Reauthorization and Enhancement, which I strongly supported, will be a key tool in protecting this endangered ecosystem. The bill will support grants for coral reef conservation and scientific research at our outstanding institutions like the National Coral Reef Institute in Fort Lauderdale, Florida. Coral reefs are integral to our safety and economy in south Florida. They act as a first line of defense against hurricanes and storm surges and they drive our tourist economy by bringing divers, snorkelers, and fishermen from all over the world to our community. In Broward County alone, coral reefs contribute over \$2 billion annually to our local economy. Madam Speaker, this is not a Democrat or a Republican issue. Protecting our national treasures is something we can all

agree on. I'm proud that my colleagues came together to pass this important piece of legislation.

Finally, some of the speeches included under the umbrella of advocacy for conservation policy addressed only the national implications of national legislation, such as the following section from a speech given by Rep. Doc Hastings (R-WA) of Washington on May 26, 2010.

Madam Speaker, millions of acres across our Nation are owned by the Federal Government, including national parks, forests, monuments, wilderness areas, and other lands. These lands belong to the American people and should be accessible to the public to enjoy.

Anti-Pollution and Toxics Control Speeches

The final category of environmental legislation considered in my analysis of one-minute speeches in the House of Representatives is advocacy of anti-pollution and toxics control legislation. As discussed in the next chapter, many of those interviewed on Capitol Hill highlighted these issues as women's issues. I have identified pollution and toxics control as a specific issue area under consideration in this analysis in an effort to discern if such a gender discrepancy that may occur among constituents is also displayed in legislative speeches. Only 20 one-minute speeches in the entire 111th Congress addressed these issues.

The key words used to scan for toxics and pollution speeches were the following: "pollution," "toxic," "air," "water," and "clean." Again, speeches included are comprised of both discussions of constituency-specific issues as well as promotion of national legislation. An oft-cited issue related to pollution was the BP oil spill, which happened in the midst of the 111th Congress. The following speech by

Rep. Luis Gutierrez (D-IL) on March 19, 2010 is representative of the policies advocated in the aftermath of the most destructive oil spill in history.

Yesterday I urged my colleagues to stop drilling leases from going to BP. We need action now. If Congress can stop BP from receiving government leases, then BP can and should stand for Banned Permanently. But why stop here? We must go further. Today I urge my colleagues to join me to cancel all Federal contracts with BP. How much money are we talking about? In 2009 alone, the Department of Defense paid at least \$1.5 billion to BP--\$1.5 billion with a B. In other words, big profits for them. We need to audit and to stop our taxpayer dollars from going to BP, a company pumping millions of barrels of black poison into our water and towards our shores. Let's ban permanently BP's black poison and eliminate BP's big profits along with their British pollution.

Pollution was not always addressed as an independent issue, but was frequently cited as an argument for a certain form of regulation. For instance, on October 28, 2009, Rep. Kathy Dahlkemper (D-PA) highlighted the benefits of her transportation bill, including cleaner air.

The Locomotive Fleet Investment and Tax Credit Act of 2009 creates a 30 percent tax credit to encourage the purchase, sale, and manufacture of long-haul freight, passenger, and switch locomotives. The locomotive industry in the United States provides more than 125,000 direct jobs and supports thousands more. This tax credit will create jobs by helping boost the sale of freight long haul, passenger, and switch locomotives by making fleet investment more affordable for our Nation's rail companies. In addition to saving and creating jobs, my bill will help put more efficient, cleaner-burning locomotives in service, which can lower air pollution in the long term.

Along with the counts of speeches dealing with each of the aforementioned issue areas, I also include a variable that represents the total number of speeches advocating for environmental legislation given by each Representative.

Methodology

To evaluate gender differences in the advocacy of environmental legislation in one-minute speeches in the House of Representatives, I conduct a series of ordered logistic regressions. The unit of analysis is the Representative, and the dependent variables are the number of each type of speech given by each Representative during the 111th Congress. To summarize, the three types of speeches included are “clean energy”, “land and water conservation” and “anti-pollution and toxics control” speeches. I also conduct an ordered logistic regression with a variable representing the number of aggregate pro-environmental speeches given by a Representative.

I aim to capture the degree to which a given Representative promotes a certain type of legislation through speeches with the use of these dependent variables. Each dependent variable represents the intensity of a Representative’s advocacy in that issue area. Because the object of interest is advocacy of certain types of legislation, and not overall preferences on these issues, Representatives who spoke in opposition to one of the forms of environmental legislation are coded as a zero, just as those who did not give any speeches addressing that issue. Thus, a zero is significant because it indicates “no advocacy,” a one represents “some advocacy,” and so on.

In order to produce meaningful results with an ordered logistic regression, the data must satisfy the proportional odds assumption. This assumption states that all of the coefficients that describe the relationship between any one category of the dependent variable and all other categories above/below it are the same as the coefficients that describe the relationship between the next level of that variable and all categories above/below it. I ran an “omodel” test in STATA on each dependent

variable to ensure that all data met this assumption. The results were not significant in all but one case, indicating that there is indeed no difference in the coefficients between different models. Only one transformation was needed in order to make all of the data meet this assumption; I limited the range of the “Land and Water Conservation” to 0-2 instead of 0-3, because the limited number of observations in the 3 category was skewing the data.

The control variables used in this analysis of one-minute speeches are very similar to those employed in the statistical analysis of voting and sponsorship behavior in both houses of Congress. First, I utilize a series of variables intended to capture the essential characteristics of each individual Representative that could influence the results. Along with gender, the variables included to capture individual characteristics of legislators are party identification and years in office.

I then include variables that measure relevant characteristics of the district that each legislator represents, including the percentage of the district with a Bachelor’s degree to approximate the level of education in the district, the percentage of the district that voted for Obama for president in 2008 as a measure of political ideology, and a measure of ethnic diversity which comprises the sum of those that self-identified as black and Hispanic in the 2010 Census. All of these variables have been shown to be relevant in predicting both support for female legislators and environmental policy, and are thus employed as controls to specify the relationship modeled as precisely as possible.

The one control variable that is new to the speech analysis is the total number of speeches given by each individual legislator. Through the use of this control, the

model will be specified to account for overall propensity to give speeches in Congress so that patterns in overall speech-giving are not reflected in the results, but rather patterns in speech-giving on environmental issues in particular.

Results

Table 3.1 includes a summary of the results for each model. While there are certain trends across the models, the results unique to each model provide useful information that nuances our understanding of women's political advocacy of environmental legislation.

First of all, the only significant predictor variable for speeches on behalf of land and water conservation (other than the control for total speeches) is gender. Because the coefficients in an ordered logistic regression are not linear, they are not directly interpretable. However, with the use of the odds ratio command in STATA, I was able to produce odds ratios for these predictors. The odds ratio for gender in the Model 2 is 2.8574. This means that if the Representative is a woman, the odds that she will give 2 or 3 speeches in support of conservation policies instead of 0 or 1 are 2.86 times greater than they are for a man. Similarly, since the coefficients of an ordered logistic regression are the same for measuring the difference between any level of the dependent variable and those above/below it, female Representatives are also 2.86 times more likely than male Representatives to give 1, 2, or 3 speeches in support of conservation policies instead of none at all.

In Models 1 and 3, which look at speeches on clean energy and the need to purify air and water from pollution, gender does not emerge as significant. The

coefficient for gender is positive, nonetheless, indicating that there is some positive correlation between female legislators and giving speeches on these environmental issues.

The results of these models demonstrate the highly partisan nature of discussion on anti-pollution and toxic control legislation as well as clean energy policy. While party identification and political ideology were not significant predictors of speeches on conservation policies, these two factors were the most important in determining who gave speeches on clean energy and anti-pollution legislation (other than the control for total speeches). The odds ratio of the party predictor indicates that the move from Republican to a Democrat increases the odds of giving 2 or 3 speeches on anti-pollution and toxics control policies by 13.78 times. Less dramatically, the odds of giving more speeches on clean energy increases by 1.64 times if a Representative is a Democrat.

In both Models 1 and 3, seniority also proves to be a relevant predictor of speeches. The likelihood of a Representative giving environmental speeches decreases with the years that he or she has held office. This could be related to the fact that environmental issues such as clean energy and pollution control are increasing in salience over time with an increasing awareness of the threats of climate change. Thus, younger legislators might give higher priority to these issues than ones who were elected in a different era.

All of the variables that proved significant in each specific model emerge significant in the analysis of environmental speeches overall. Female representatives, Democratic Party affiliation, liberal ideology, and fewer years in office are all

significantly positively correlated with the number of speeches given in support of environmental legislation.

	Model 1: Clean Energy Speeches	Model 2: Land/ Water Conservation Speeches	Model 3: Anti- Pollution/Toxics Speeches	Model 4: All Pro- Envt. Speeches
Gender (1=Female, 0=Male)	0.3132 (0.2716)	1.0499** (0.4678)	0.3396 (0.5639)	0.4906** (0.2601)
Party (1=Democrat, 0=Republican)	0.4945* (0.3013)	0.1123 (0.6181)	2.6227* (1.5497)	0.4638* (0.2923)
District Ideology	0.0219* (0.0126)	0.0168 (0.0265)	0.0726** (0.0342)	0.0239** (0.0123)
District Education	-0.0047 (0.0128)	0.0223 (0.0244)	-0.0012 (0.0303)	0.0009 (0.0121)
District Minorities	-0.0098 (0.0069)	-0.0145 (0.0149)	-0.0236 (0.0182)	-0.0096 (0.0067)
Years in Office	-0.0348*** (0.0134)	-0.0419 (0.0312)	-0.0595* (0.0378)	-0.0331** (0.0129)
# Total Speeches	0.0103** (0.0048)	0.0243*** (0.0069)	0.0226*** (0.0099)	0.0159*** (0.0051)
LR chi2	30.01	26.30	33.91	43.34
Prob > chi2	0.0001	0.0004	0.0000	0.0000
*p<0.1				
**p<0.05				
***p<0.01				

Table 3.1: Summary of Results of Ordered Logistic Regressions of One-Minute Speeches Addressing Environmental Issues, House of Representatives

Discussion

All of the one-minute speeches given in the 111th Congress on the House Floor were analyzed in this study to discern trends in advocacy of certain forms of environmental policy. A subset of 320 speeches addressing pro-environmental

legislation was considered. During this Congress, clean energy policy was the most frequently cited environmental issue in the House of Representatives.

The results of this study show that female Representatives were slightly more likely than male Representatives to give pro-environmental speeches in their allocated minute on the House floor, even after controlling for overall propensity to speak. This finding is consistent with existing literature suggesting that women might take on the role of environmental policy advocacy in Congress. Because there is less public scrutiny of speeches on the House floor than there is of bill sponsorship and roll call voting, women may be less concerned with mirroring the priorities of their constituents when giving speeches than they are in other areas of traditional policymaking.

Despite the significant finding that women are more likely to give speeches on environmental issues overall, when the issues were disaggregated, the only specific policy area in which women were unique advocates was that of land and river conservation. This finding mirrors evidence gleaned from my interviews, as discussed in the next chapter, that women are the primary advocates for specific land and river conservation projects. In fact, this specific issue area is particularly important in terms of signaling representation of constituents. Often, issues of conservation are related to specific sites, such as a national park or a body of water. Talking about these issues on the House floor would be a unique way for a legislator to demonstrate to his or her constituency that he or she takes the conservation of these areas seriously, even if he or she cannot necessarily develop legislation to that end.

Conversely, clean energy policy is not a topic covered disproportionately by women in their one-minute speeches on the House floor. While the coefficient is positive, indicating a positive correlation between female gender and quantity of speeches on clean energy, it was not statistically significant. The contrast between the significant correlation between women and speeches addressing conservation and the insignificant correlation between women and clean energy speeches actually conforms to certain expectations about women and the environment.

Ecofeminist writings have portrayed women as unique advocates for the environment because of their protective instincts that value the protection of life (Merchant 1992, Gruen 2003). This directly translates to the conservation of natural spaces, where vast ecosystems of living beings survive. On the other hand, clean energy is part of a new, more technical side to environmentalism. As the threat of climate change becomes increasingly serious, more and more environmentalists focus on the bigger picture of reducing emissions to prevent ultimate planetary catastrophe. This endeavor involves the manipulation of technology and resources needed to serve energy needs, rather than an emotional devotion to the protection of non-human forms of life. Thus, the theoretical literature predicting a female-environment connection would not necessarily apply to advocacy of renewable energy policies.

Moreover, the most significant factors predicting speeches on clean energy and anti-pollution/toxics control legislation were the party of the legislator and the ideology of the district. These variables might have eclipsed gender for predictive value here as both clean energy policy and government regulation of pollution are highly contentious and divided along party lines in today's political climate (Klyza

and Sousa 2008, p. 24). Many Republican Representatives still openly deny climate change, represent many of the country's oil and natural gas interests, support continued drilling, and are thus unlikely to promote clean energy legislation (CITE). The issue of pollution and toxics control is highly related with issues of the Environmental Protection Agency's regulatory power, which are also hotly contested in the political realm today. Ever since Newt Gingrich held the position of House Speaker, Republicans have portrayed EPA regulations as "absurdly expensive," unnecessary, and have even made such outlandish claims as to compare the institution to the Gestapo (Klyza and Sousa 2008, p. 24).

Conservation policies, on the other hand, are comparatively less contentious today. In the 1990s, Clinton enacted certain transformations of the Endangered Species Act that enabled greater participation of private landowners in discussions of "Habitat Conservation Planning" (or HCPs) (Klyza and Sousa 2008, p. 210). Ever since this creative solution, Republicans and Democrats have come to a fragile, but promising, standoff on conservation policies. This might explain why in this one instance party identification was a less important than gender.

While the findings of this study contradict the overall conclusions of the analyses of bill sponsorship, cosponsorship, and roll call voting in the House, they still do not point to an unambiguous policy discrepancy between men and women in the House of Representatives. They do suggest, however, that within this particular form of legislative advocacy, one-minute speeches on the House floor, women are more likely than men to promote conservation policies.

CHAPTER 4: INTERVIEWS

The final component of my research on the role of Congresswomen in the development and passage of environmental policy includes primary source information culled from the personal reflections of policymakers themselves and those who work with them. In late February, 2012, I spent a week meeting with members of the congressional staff of Representatives and Senators. I was fortunate enough to meet with those representing a group of legislators of a wide span of political persuasions, demographic characteristics, and institutional positions. I met with the staff of legislators in the House and the Senate, women and men, Republicans and Democrats, and those of diverse racial and ethnic identification. The reflections of the respondents to my interview questions did not always directly mirror the results of the research previously discussed herein, but they offered greater insight into the various subjects at issue in the field of women and politics and environmental policy. This section is divided into different sections that address a series of issues that came up the most in my discussions with legislative staffers and that shed light on the question of women and environmental policy.

Individual Inclinations v. Collective Constraints

The basic question of whether women are greater advocates of environmental protection than men within Congress is predicated on a certain understanding of individual agency within the legislature. In order for women to play a unique role as policymakers, the unique perspective of the individual holding a certain legislative seat (as opposed to solely institutional factors such as constituency preferences and

partisan commitments) must in some way influence their legislative advocacy. As discussed in the literature review in Chapter One, some posit that this understanding of congressional dynamics is a fallacy, arguing that each legislator is so constrained by constituency and partisan factors that they have little to no agency in personally determining the policies that they pursue while in office (Welch 1985, Swain 1993, Wlezin 2004).

Those I spoke with who are involved with the development of policy in the 111th Congress continued to reiterate an understanding that legislators are not too constrained by their party platform, but that they must ultimately make decisions on the basis of their constituency's preferences.

Despite the overwhelming goal of satisfying constituency interests, many legislators nonetheless feel that they are able to pursue the policies that they personally believe to be important. The legislative aide on environmental affairs for Connecticut Representative Jim Himes responded, "I don't know if he ever feels constrained, actually" (Cardon). This makes sense given the goals of a representative democracy; the unique constituency that is a legislator's core constituency base is determined by the way that he or she presented him or herself while running for office. Thus, while they must continue to appeal to the interests of that constituency in making policy decisions, that specific constituency is already self-selected.

For instance, Jim Himes' aide also highlighted the importance of the employment history of the Representative she worked for in determining his current pursuits in office. Himes had worked in the financial services industry prior to running for office, and was elected by a constituency including many who work in the

same field. Thus, he quickly rose in prominence as an expert within that policy domain once in Congress, being appointed to a relevant committee and taking leadership on relevant legislation. This example highlights the way in which a legislator may both work within his or her own interests and expertise and simultaneously satisfy the interests of his or her constituency. In terms of environmental issues in particular, I was told that “Jim [Himes] is an environmentalist, and most of his constituents are environmentalists. So a lot of environmental issues are no-brainers” (Cardon).

I received a similar response when I asked about Chris Murphy’s decision to take part in writing the Waxman-Markey climate bill. This major bill would have implemented the nation’s first federal cap and trade system, and was thus subject to much public debate. Murphy’s assistant on environmental affairs noted that the Representative received many calls in response to the climate bill, and most of them were in strong opposition to his support of the bill. Nonetheless, Murphy continued to advocate for this legislation, because he figured that “if he had voted against it because he thought there were people who didn’t support it, it wouldn’t have much of a political benefit,” because the people who opposed it were never vote for him anyway (Young). Once again, the calculus of constituent interests enabled the legislator to follow his own values and preferences.

Respondents also often emphasized that a legislator’s individual initiative is more evident in the smaller bills they sponsor, the provisions they add to larger bills, and in the ways that they divide up their time than in sponsorship behavior and votes on major bills. For instance, one legislative aide told me:

Most of the major bills passed by Congress are driven by committees and leadership. This often gives the perception that individual members don't ever see their priorities become law. In reality, major bills often include smaller pieces of legislation that are the priorities of individual members. Take, for example, the American Clean Energy and Security Act—the major parts of that bill were the cap on carbon, the renewable electricity standard, etc., but the bill also included sections on building retrofits and energy efficient building labeling. The same thing happens with appropriations bills. The numbers are generally set by the committee and subcommittee chair, but the report and bill language directing how programs are administered can come from individual members. That said—the priorities of individual members don't usually get included unless the leadership or the committee chair/committee support the inclusion (Anonymous Congressional Aide #2).

Such statements are consistent with existing congressional literature, which has shown that the effects of constituency and party are more salient “on legislation that generates significant media coverage, such as final votes,” instead of smaller bills and provisions (Hutchings, McClerking, and Charles 2004, p. 451).

While constituent pressure seems to be the preeminent influence on legislative behavior, there are certainly specific areas in which individual legislators exert an influence that is unique to their personal perspectives and experiences. This insight points to the fact that we should not take sponsorship and voting behavior, particularly on major legislation, to be conclusive evidence of legislators' behavior, as there are other avenues through which legislators exert their influence. In the next section, we will examine policymakers' evaluations of the state of environmental policymaking in Congress today.

The “Golden Era,” Gridlock, and Green Governance Today

You, the reader of this thesis, might not know that environmental protection was originally a championed cause of the Republican Party. It was Nixon who initiated the first Earth Day, Nixon who passed the Clean Air Act, and George Bush Sr. who instituted the “no Net Loss Policy” that has been a stronghold of the Environmental Protection Agency’s regulatory power over wetlands ever since.

While it was Republican Presidents who ushered in many wide-reaching environmental regulations, the general trend of environmental policy that emerged in the 1960s was enacted with a strong base of bipartisan support. As noted by scholars Christopher McGrory Klyza and David Sousa,

Between 1964 and 1980, the ‘Golden Era’ of environmental lawmaking, the U.S. Congress enacted 22 major laws dealing with the control of pollution and the management of private lands, public lands and wildlife... [all of which] passed with strong bipartisan support... The Endangered Species Act of 1973 typifies the politics of this movement in environmental policymaking. Growing out of concerns about the fate of the bald eagle and the bison, the Endangered Species Act was passed with a vote of 345-5 in the House of Representatives and by a unanimous voice vote in the Senate. The act, which did not allow for economic considerations in decisions to place species on the endangered list, was signed into law by Republican President Richard Nixon. (Klyza and Sousa 2008, p. 1)

As a clear contrast to this occurrence, the Senate never even came to a vote on either of the major endangered species bills that were passed in the House of Representatives in 2009. Moreover, the persistent significant positive correlation between Democratic Party affiliation and the various forms of environmental advocacy previously addressed in both the House and Senate has already provided strong evidence that no such broad bipartisan support for environmental protection

still exists. The personal accounts from my interviews served only to corroborate this notion that the ‘Golden Age’ of Republican support for environmental protection and bipartisan support of regulations is over. Today, the field of environmental policy is yet another stage where the battle between Democrats and Republicans is being waged.

As my interviews took place this year, interviewees were more apt to speak about the dynamics they have been observing recently than about dynamics in the 111th Congress. While presumably many characteristics of the political system remain static, today’s Congress has significantly shifted with the transfer of power in the House to the Republican Party and the corresponding increased percentage of Republicans in the Senate. While environmental bills did not meet great far-reaching success during the 111th Congress, with Republican control of the House the 112th Congress has seen a far greater struggle on the environmental front. This is important to keep in mind while reviewing the insights and opinions of policymakers regarding environmental policy in this chapter, particularly when using them to inform our understanding of the 111th Congress.

Nonetheless, Democrats in Congress today seem very frustrated at the stagnant pace of environmental policy. As one aide Environmental Affairs despondently noted, when I asked him his thoughts on the development of environmental policy today, “Right now, we’re not even trying to move forward... We’re just trying to prevent the Republicans from stripping all of our environmental protections” (Anonymous Congressional Aide #2).

A similar frustration was expressed by Chris Murphy's aide in regards to the Representative's vote on the Waxman-Markey Climate bill of the 111th Congress. He mentioned the way that the conservative discourse has so infused politics and the public that 99% of the constituents who called the Office to register an opinion on the Waxman-Markey bill were conservatives who feared rising costs, because they simply did not understand the bill, and thus did not even understand that cap and trade is a traditionally conservative market-based system that is intended to *encourage* economic growth, rather than allow stagnation.

How did environmental protection come to be such a contentious issue, subject to such sharp partisan divisions? Jesse Young, a legislative assistant for Connecticut Representative Chris Murphy, suggested that environmentalism has been "a victim of its own success." He proffered the argument that because environmental regulations have been so effective, "People don't know what the Clean Water Act and the Clean Air Act do for people's lives... The environmental movement and environmental law have become so engrained that no one even knows what they do" (Young).

In years that have followed the "Golden Era", Americans have increasingly begun to see environmental protection as antithetical to economic growth (Klyza and Sousa 2008, p. 27). In a political environment strained by financial concerns, and in which environmental protection is seen as not only inconsequential in the pursuit of economic goals but contradictory to it, the fact that any environmental regulations are developed and passed in the first place constitutes a paradox. Many of my interviewees responded to this quandary by first acknowledging its validity. Many

claimed that, indeed, legislation geared toward environmental protection is only successful if constituents can come to believe that it will benefit them financially. Unlike in the 1960s, when Nixon's Endangered Species Act did not allow for consideration of economic concerns, even today's environmentalists can only afford to promote legislation that arguably has economic benefits.

A fundamental premise of many ecofeminist claims is the inherent difference in the "motherhood" and "marketplace" mentalities of men and women, respectively. This theory suggests that women, as intrinsically more concerned with protection and preservation by nature of their socialization as future mothers, would be particularly inclined to prioritize protection of the environment regardless of its financial costs. In contrast, men would be expected to value the procurement of resources necessary for growth over the development of regulations for protection, as a result of their socialization to be fathers responsible for providing the resources necessary to allow their family to survive. This distinction could theoretically explain the proposed difference in advocacy of environmental regulations.

While some women may espouse a certain "motherhood" mentality that might value environmental protection over financial growth, however, this does not seem to be a perspective held by women in Congress today. Both men and women in Congress pursue environmental legislation, but only when, and if, those policies will confer some economic benefits on the constituencies that they represent. Various comments made by Emily Cardon, the legislative aide on environmental affairs to Connecticut Representative Jim Himes, exemplify this phenomenon. Throughout the interview, Cardon reiterated that the Representative is a strong advocate for

environmental legislation, as demonstrated by his commitment to energy efficiency policy and his membership in the Sustainable Energy Environment Coalition. When asked the major determinant of his support for these policies, however, she provided an economic logic in response. “We have a lot of great, small, renewable energy firms in the district,” she said, and mandatory renewable energy portfolios and emissions limits will “help these smaller companies” survive, as well as “enhance our national security” (Cardon).

To note the importance of economic calculus in determining whether or not to support certain environmental policies is not to say that environmental legislation only emerges out of economic necessity. To the contrary, the majority of those that I interviewed explained that in their experience, a legislator would choose to consider certain forms of environmental legislation in the first place based on an understanding of an “ideological imperative,” but would then only further pursue that legislation if it could be provided with a “practical casing” that would prove its economic benefits to constituents (Young).

This particular policy trajectory seems to be particularly prevalent with legislation that is not easily understood by the public. One respondent elaborated on the complicated nature of many environmental provisions. “It is hard to explain carbon-capping,” he repeated, citing a lack of understanding among the public of the market-based mechanisms at the core of this and other similar policies. In this case, this respondent said, “We voted for it because it was the right thing to do,” and because those constituents that would disapprove of that vote would probably not have voted for the representative to begin with (Young). This example underscores

the delicate mix of personal initiative and political (and economic) calculations that converge in decisions about environmental legislation.

“Mom Spin”

In general, the personal reflections of those involved in the federal legislative policy process confirmed the result of most of my quantitative analyses that women are not more likely than men to advocate for environmental legislation through bill sponsorship and voting behavior in the House of Representatives. Nonetheless, some respondents cited recognition of certain more qualitative gender differences in legislative advocacy on behalf of environmental causes.

In general, those I spoke with in the offices of female legislators addressed the unique dynamics that result from the continuing underrepresentation of women in Congress. Most respondents cited that female legislators still tend to stick together in Congress (Anonymous Congressional Aide #1). Both those in the offices of Representatives and Senators cited that this cohesiveness among women is particularly strong on the Senate side. This observation sheds light on the discrepancy between women’s environmental legislative advocacy in the two Congressional Houses observed in this study.

In her formative text on the policy impact of varying percentages of women in state legislatures, Sue Thomas found that in addition to the percentage of women, another essential factor determining women’s ability to “diffuse their priorities throughout the legislative process” is the presence of a women’s legislative caucus (Thomas 1991, p. 958). While a women’s caucus exists both in the House of

Representatives and the Senate, the uniquely cohesive nature of the group of women in the Senate might further strengthen the mechanisms captured by a women's caucus that enable the promotion of issues of particular concern to women. "When a caucus bands together," Thomas begins, in explaining the relevance of a formal political caucus in providing women with the ability to achieve legislative success, "the result is political clout—a weapon with the potential to overcome skewed groups" (Thomas p. 973). Political clout would thus also result from a cohesive group formed independently of the formal legislative caucus.

Many reported that female legislators tend to be particularly cohesive in consideration of issues of particular importance to women, such as those that will have a direct effect on women and children's health. The legislative aide for another female Representative described such an instance: "When the House was debating the Affordable Care Act, women from the Democratic caucus consistently went down to the House floor to speak about protecting reproductive rights" (Anonymous Congressional Aide #2).

Female legislators also often collaborate to bring a unique perspective to non-gendered issues, including those regarding the environment. Various interviewees cited a focus among women on environmental issues affecting public health. A legislative aide for a female Representative mentioned that women tend to be more cohesive on environmental issues affecting public health, such as pollution and toxics (Anonymous Congressional Aide #1).

Similarly, when asked whether he thinks that female legislators are more likely to advocate for certain types of environmental policies, one legislative aide on

environmental affairs immediately responded, “If you look at the votes that were scored by the League [of Conservation Voters]... a lot of votes have to do with health issues. Some female representatives on the Republican side actually sided with the Democrats on a couple of Republican bills to undo EPA environmental regulations. I think they broke ranks with their party for health reasons” (Anonymous Congressional Aide #2). These policymakers understood environmental issues relevant to public health to be of particular concern to women because they are likely to affect young children the most.

Not only are women more apt to promote children’s issue legislation because of their experience as mothers, but also because they have more credibility than men in addressing these issues. At times, I was told, it can be a tactical choice to leave public health issues up to the women in the party. As a legislative assistant on environmental affairs explained, not only were female Representatives the main advocates for the women’s health provisions in the health care debate, they were also the main advocates *against* it on the Republican side. Simply put, “Women generally take the lead [on these issues] because they are a more effective messenger of the message for the ... Party” (Anonymous Congressional Aide #2).

Female Representatives were certainly apt to highlight their role as mothers in their one-minute speeches, both as a method of portraying themselves as good citizens and as a line of argumentation for the passage of environmental legislation. In an example of the former, Representative Dahlkemper mentioned her efforts to protect nature in her constituency as well as raising her children to be mindful of the environment. “In fact, I founded and operated the Lake Erie Arboretum and Frontier

Park in Erie, Pennsylvania, and I have tried to impart upon my children the important role they can play in meeting the environmental challenges of the 21st Century.”

Male legislators were significantly less likely to highlight their methods of raising their children in a formal speech on the House Floor.

Moreover, women are seen to have greater credibility in promoting legislation on issues that will most affect younger generations. In just one example of many, on May 20, 2009, female representative Lois Capps highlighted the necessity of climate bill by urging others to consider the future of their children and grandchildren.

“American can and must do better,” she argued. “I hope others will join me in seizing this opportunity to pass the American Clean Energy and Security Act to transition our country to a clean economy, and protect our planet for our children and grandchildren.” Representative Halvorson, in March 2009, asserted that, “We have to act now to ensure that our children and their children will enjoy the same Earth on which we live today.” While male members of Congress certainly can, and do, highlight the importance of preserving our current way of life for future generations, this is a tactic still employed more frequently and more explicitly by female members of Congress in their normative claims.

This consideration of an emphasis on motherhood as a tactic employed by female legislators suggests that evidence of a female slant towards certain types of environmental policies may not be associated with a unique perspective among women, but rather with the manipulation of a certain bias toward women to strategically improve their message.

Many respondents also highlighted the fact that individual perspectives and legislative strategies might not be most apparent in indicators such as votes and sponsorship behavior, but rather in less quantifiable ways such as methods of interacting with constituents and running an office. For instance, as noted by a legislative aide on environmental affairs, “When you talk about just legislation, you’re talking about things that are at a different level than just what an individual does. Maybe an individual member has priorities in the district in terms of cleaning up environmental pollution, or preserving a certain area, but that’s never going to make it into a bill” (Anonymous Congressional Aide #2). This comment suggests that while gender may be an important factor in determining the priorities of a legislator, those priorities may not always be apparent in the manifest measure of voting and sponsorship behavior on legislation. The legislative aide on environmental affairs for Connecticut Representative Chris Murphy echoed this sentiment, affirming “An individual can care a lot about the environment and do a lot of things that don’t show up in these metrics” (Young).

“Hysterical Housewives”⁴ in the House

Despite the few instances mentioned above, those I interviewed were hesitant to posit fundamental differences in the legislative behavior of men and women. This could certainly be related to the political nature of the positions they hold on Capitol

⁴ This expression is borrowed from the title of Seager’s article on women in grassroots organizing. Seager, J. “‘Hysterical Housewives’ and Other Mad Women: Grassroots Environmental Organizing in the United States,” in Rochelau, D. et al eds. *Second World Conference on Breast Cancer (1996) Transcripts of Conference Proceedings*. Ottawa, Canada: 1999.

Hill and the sensitive nature of my subject, but almost every individual with whom I spoke was quick to cite gender differences in the groups that advocate for particular forms of environmental policy.

Although this study has frequently considered environmental issues in an aggregate form, “environmental advocacy” comprises a considerably wide spectrum of issues. While no respondents told me that a certain demographic was altogether more pro-environmental than another, many cited demographic divides among the primary advocates for a certain type of environmental policy. In some cases, the demographic divides mentioned mirrored the results found in the speeches section of this study.

For instance, many respondents cited that the primary advocates for land trust and river preservation are women – specifically, elderly women. Chris Murphy’s aide mentioned that the primary advocates for land and river preservation are segments of the “traditional Northeast environmental movement,” which now constitutes “many older women” (Young). An environmental aide noted, “Most of the people I meet with regarding the Long Island Sound are female” (Anonymous Congressional Aide #2). In fact, he went on to generalize this observation, saying “If you look at the lobbies who are looking at [conservation] issues, I think that they tend to be women” (Anonymous Congressional Aide #2). These comments provide evidence in support of the finding from the speeches section that conservation policies tend to be within the domain of female legislators.

Similarly, those leading the battle on eliminating toxic chemicals from consumer products and decreasing air pollution tend to be organizations of mothers

and nurses. As Jesse Young noted, “many of the publicized issues of toxic chemicals are related to children – fetus development, baby bottles, and children’s toys” (Young). Accordingly, the “advocacy groups pushing forward [Toxic Substance Control Legislation] are nursing units” (Young). To which he added, in reference to his earlier hesitance to acknowledge a gender gap in environmental concern, “You do see these environmental issues take on a gender dynamic” (Young).

All of the respondents in legislative offices on Capitol Hill expressed an understanding that energy policy is not associated with one gender more than the other. During my time in Washington D.C., however, I also interviewed a woman who has a great amount of experience working on environmental issues within Congress, but is no longer in an elected position. Ladeene Freimuth personally drafted the country’s first cap-and-trade bill and developed our first renewable energy portfolio (both of which never made it into federal law) in the 1990s. She has been consulting on climate change issues on Capitol Hill for close to 20 years now, and she expressed the observation that, while things have been somewhat changing in recent years, energy policy is almost exclusively a male domain. She mentioned that in her work over the past few decades, she has frequently been the only woman sitting at a conference table of executives, consultants, and even the politicians involved in energy issues (Freimuth). This leads me to believe that perhaps the lack of a gender dynamic cited regarding energy issues may have been more associated with politicians’ not wanting to cite a certain political issue area as male dominated than a true absence of gender difference.

Interestingly, this division of policy priorities does mirror the “motherhood” v. “marketplace” distinction made by ecofeminists. As the leaders of organizations advocating against harmful chemicals in the environment, perhaps at the cost of financial benefits, women demonstrate their commitment to the health and protection of the healthy life and well-being of those in their community. In contrast, the male dominance in the energy policy domain exemplifies male representation in the field of exploitation and domination of resources.

This distinction is overly facile, however. As clear as these distinctions in the policy advocacy of constituents may seem, they have emerged from observations of the population at large, without the use of any essential controls. Organizations advocating for land and river preservation or the control of toxic substances tend to be volunteer-oriented non-profits, thus encouraging the participation of those with time on their hands. In contrast, there is more money to be made in the energy market, and the advocates of certain energy policies are likely to be professionals in the energy market. Thus, it seems possible that to some degree, these gender differences in the causes championed by men and women respectively are more a result of their daily occupations rather than their gendered perspectives.

CHAPTER 5: CONCLUSIONS AND IMPLICATIONS

Many have argued that the introduction of women into politics would make the world a more peaceful place. They've claimed that once endowed with access to sway the political system, women would promptly establish laws to protect the safety of children, promote disarmament, and ensure the codification of basic moral principles in law. Many have also predicted that women would "bring about the social changes requisite for ecological revolution" (Salleh 1997, p. 6). Just as the introduction of women's suffrage did not immediately translate into significantly different voting patterns, it seems that these predictions about the supposed policy impacts of women are somewhat overstated. Just as the first women who went to the polls throughout the 1920s tended to vote in line with their husbands, so do many women in politics today vote, sponsor, and speak just like their male counter-parts when it comes to issues that are not explicitly gender-related.

Women have made a significant impact in improving the power of the federal government to prosecute discrimination in wages. Women have produced more legislation intended to protect the rights of children. And women have offered new insight into policies on education and childcare, workplace harassment and domestic violence. But so far, it seems that female policymakers have not made a dramatic impact in establishing a regulatory structure to clean our water, prevent the pollution of our air, and slow the onset of climate change.

In this chapter, I will begin with a summary of the findings of the various analyses that I have conducted and presented in this thesis. I will then attempt to coalesce these findings into a more systemic understanding of the role of gender in

the development of environmental policy in Congress, informed by observations from different angles of the policy process. Finally, I will address some of the methodological limitations of my study and suggest areas for future research.

In the House of Representatives, women were not found to be greater advocates of environmental legislation than men through the mechanisms of bill sponsorship, cosponsorship, or roll call voting. In fact, after employing relevant controls, women were significantly less likely than men both to sponsor and cosponsor important environmental legislation. There were no observable differences between male and female Representatives in roll call voting on environmental legislation.

In contrast, in the Senate, women were consistently found to be greater advocates of environmental legislation than men. Female Senators sponsored significantly more environmental bills and were also significantly more likely to vote in favor of environmental legislation than were male Senators.

Patterns of advocacy of environmental legislation by women in the House of Representatives were further elucidated by an analysis of the one-minute speeches that Representatives give at the beginning of a day in session. My findings suggest that women were slightly more likely than men to give speeches promoting environmental protection legislation in general during the 111th Congress. They were also more likely to give speeches addressing the need for land and river conservation policies. In contrast, gender was not a significant predictor of speeches on clean energy or pollution/toxic substance control policies.

The personal accounts of policymakers and their staffs evidenced that Representatives and Senators today feel discouraged about the prospects for progress on the environmental front in Congress. The issues at stake are so politicized and contentious that it is unlikely that major strides will be made any time soon. Furthermore, in consideration of environmental issues, economic concerns are paramount. Another insight that emerged from my interviews with policymakers is that while most environmental issues are not perceived to be gendered, women are often placed at the frontlines of policymaking on environmental issues that are significantly related to public health. Since many women in legislative office already tend to prioritize public health legislation, this trend is reflected in the realm of environmental policies on the specific issues in which environmental and health concerns overlap. It is unclear whether this female inclination is a result of the party's strategic positioning, or rather of the female policymakers' unique predispositions and preferences.

In conclusion, although female Representatives displayed a modest inclination to promote certain types of environmental policies through the tactic of giving one-minute speeches on the House floor, the overall findings in the House of Representatives indicate that claims of "women's unique agency in an era of ecological crisis" are exaggerated (Salleh 1997, p. 3). Nonetheless, there are various competing explanations to take into consideration when interpreting these results.

One way to understand the lack of female advocacy for environmental legislation in the House of Representatives is through consideration of the fact that women in government are not fully representative of the population of women at

large. As portrayed in the literature review, it has been conclusively shown that women are more concerned with environmental protection in various domains, including home behaviors and even grassroots advocacy. The results in my study do not necessarily disprove these existing results on the relationship between gender and environmentalism, but rather suggest that it is possible that women in the policy realm today are not fully representative of women in the population at large. The subset of the female population that chooses to pursue federal office, and succeeds, may not share the traits of the many women who do not overcome the hurdles to becoming a politician. It is possible to simultaneously acknowledge that women are greater advocates of environmental population in general, but that the subset of women holding public office may not share this tendency.

That women in government might not represent the non-gendered interests of most women threatens the validity of the vast body of literature that emphasizes the importance of descriptive representation. While there is almost consensus on the fact that the descriptive representation of women in governing bodies enhances the substantive representation of women's interests, we know less about the impact of descriptive representation on non-gendered issues. While Jane Mansbridge optimistically proposed that those descriptively representing a particular group would be the best candidates to represent the preferences of that group in instances of "uncrystallized interests," perhaps this is not the case (Mansbridge 1999). Female legislators know that their female constituents will support fair-pay legislation, and all members of a political party know that strategically, the best face to put on a bill about reproductive issues is a woman's. However, even if women in general do tend

to be more supportive of environmental protection policies than men, female legislators may not represent this slant if they both do not share the same tendencies and there is no strategic incentive for them to be the ones promoting them.

From here, the question is whether this pattern of limited substantive representation through descriptive representation of women will change as female legislators come to hold a greater percentage of seats in Congress. “Critical mass” theorists posit that only when the percentage of seats held by a previously marginalized group attains a certain threshold can “major changes in legislative institutions, behavior, policy priorities, and policy voting” occur (Studlar and McAllister 2002, p. 233). Different scholars have put forward a range of percentages that might function as this necessary threshold, from 10% to 37%. An interesting data point to consider in light of this discussion is that in York and Norgaard’s study on the relationship between gender and equality and state environmentalism, women held at least 22% of the parliamentary seats in all of the countries exhibiting high rankings on the measure of “state environmentalism” (York and Norgaard 2005). Of course, an immediate argument can be made that both state environmentalism and gender equality stem from a progressive political outlook, and that there is no necessary correlation between the two factors. Nonetheless, if we are to consider the fact that women in the population at large may indeed be greater advocates of environmental protection, then we must consider the point at which those substantive interests would come to be represented by women’s descriptive representatives in Congress.

Women held only 17% of the seats both in the House of Representatives *and* the Senate in the 111th Congress. Nonetheless, environmental policy was championed more by men than women in the House, and more by women than men in the Senate. In this paper I proposed two frameworks to explain this discrepancy.

First, as discussed in Chapter Two, the Senate was traditionally conceived to be the institution in which legislators would use their individual prerogative to make decisions about how to best govern, while Representatives in the House were to be more tightly bound to their constituents' interests. If it was indeed this dynamic at play that led to the wide divergence in results between the Senate and the House, it would suggest that with less constraints, women are more apt than men to pursue environmental protection policies in office.

Second, the difference in advocacy of environmental policy between women in the House of Representatives and the Senate can also be understood by a consideration of the unique cohort of female Senators in the 111th Congress.

In this conclusion I have suggested various frameworks that suggest different ways to interpret the findings without altogether discrediting the fact that women may have some unique tendency to support environmental protection. However, it is possible that there are simply no great differences between men and women regarding the environment. Perhaps women, just like men, are concerned with the environment, but also understand the practical concerns with different forms of environmental protection. Perhaps women, just like men, can “oppress the natural world” (Gruen 2003, p. 285). Perhaps what distinguishes women from men in general studies of environmental attitudes and behaviors is their experience at home with children, in

their neighborhood, experiencing the impacts of environmental degradation and pollution first hand. Perhaps what we need is more representation of stay-at-home parents, more representation of those with time on their hands to take their children with asthma to the doctor and to see the trash floating in the nearby river, rather than more women.

There are also some methodological limitations of this study to keep in mind when interpreting the findings. First, my sample of bills is relatively small. To maintain objectivity, I considered only those bills that met my specified criteria, which ended up being 12 or under for each House. While the fact that almost every single legislator registered a vote on each of these bills and multiple Representatives cosponsored them meant that there was enough data to run meaningful analyses, it does not mean that the sample of legislation included was comprehensive. In this particular legislative session, a lot of the important environmental bills were regarding clean energy and climate change mitigation. The results from the speech analysis and the accounts of first-hand interviews indicate that perhaps women's proposed inclination towards environmental protection is related more to issues of conservation and environmental issues related to public health, rather than energy policy. This focus on energy policy in the subset of environmental legislation considered in the House and the Senate could contribute to the results.

Another limitation is the fact that this study captures only one specific point in time. The results reported here are dependent on the unique dynamics of each legislature at a certain temporal moment, in which a certain cohort of Representatives held office. One obvious way in which this Congress is not representative of any

session of Congress is that both Houses were controlled by the Democrats, a condition that lasted only the two years considered here.

Similarly, it is hard to completely control for constituency factors. Gender equality and environmental protection are often supported by those that share a certain orientation of progressive values. While I attempt to control for such constituency characteristics using measures such as district demographics and ideology, it is impossible to completely eliminate every factor that might influence both the election of women and support for environmental policy. Future studies might take this weakness into account by considering changes in policy advocacy by the Representative of a certain district when a woman is replaced by a man, or vice versa.

I also propose that future research consider the logic behind female legislator's advocacy for reproductive rights, equal pay legislation, and child care policies. Do female legislators prioritize these issues because of their own personal values and priorities, or because they are considered to be the most authoritative on these issues from their status as women and so are encouraged to be the spokespeople for political purposes? Such a distinction would be important to discern in evaluating the relationship between descriptive and substantive representation.

Moreover, further research should be conducted to look into the role of female legislators in developing and implementing legislation on a variety of non-gendered subject areas. As women increase in the ranks of the federal government, will the overall priorities of the institution shift? Will male and female policy advocacy converge, or diverge, as female representation surpasses a certain critical mass?

While the results of analyses in the Senate and of speeches in the House of Representatives indicate that in certain contexts, and on certain issues, women are unique advocates for the environment, we cannot conclude from this study that women are uniquely positioned to confront environmental challenges in Congress. The findings suggest that to claim environmental exploitation to be purely male-induced is to oversimplify and understate female responsibility. The findings also suggest that the dominant understanding that female legislators are capable of making a distinct substantive impact on policy may be premature. Increasing female representation in government and the pursuit of more comprehensive environmental protection legislation in the U.S. are two essential challenges that must be met in the years to come, but one may not be presumed to lead directly to the other.

Technical Appendix

Party ID	Congressional Directory of the 111th Congress	Party Affiliation	0,1 (R=0, D=1)
Ideology	New York Times 2008 Election Results	% Voted for Obama in 2008 Election	Ratio
District - Education	2010 American Community Survey	% in District with a Bachelor's Degree	Ratio
State - Education	2010 American Community Survey	% in State with a Bachelor's Degree	Ratio
District - Black&Hispanic	2010 U.S. Census	% of Blacks in District + % of Hispanics in District	Ratio
State - Black&Hispanic	2010 U.S. Census	% of Blacks in State + % of Hispanics in State	Ratio
Seniority	Various sources	Years in Office	Interval
House - Committee	House.gov	Chairmanship of Standing Committee	0,1 (Chairman=1)
Senate - Committee	Senate.gov	Chairmanship of Standing Committee	0,1 (Chairman=1)
Total bills cosponsored	Thomas.gov	Total Number of Bills Cosponsored	Interval
Total speeches	Pearson&Dancey 2010	Total Number of One-Minute Speeches on the House Floor	Interval

Table A.1: Detailed Descriptions of Control Variables Employed

	Bill Sponsorship House	Bill Sponsorship Senate	Bill Cosponsorship House	Roll Call Votes House	Roll Call Votes Senate	Speeches House
Party ID	X	X	X	X	X	X
Ideology	--	--	X	X	--	X
District - Education	--	--	X	X	--	X
State - Education	--	--	--	--	X	--
District - %Black & Hispanic	--	--	X	X	--	X
State - %Black & Hispanic	--	--	--	--	X	--
Seniority	--	--	X	--	--	X
House - Committee	--	--	X	--	--	--
Senate - Committee	--	--	--	--	--	--
Total bills cosponsored	--	--	X	--	--	--
Total speeches	--	--	--	--	--	X

Table A.2: Inclusion of Relevant Control Variables in Series of Models (Top row specifies dependent variable of each model.)

List of Legislation Employed in Analyses, + Descriptions

House Legislation – Voting Analysis

H.R. 146: On January 6th, Representative Holt of New Jersey introduced the Omnibus Public Land Management Act of 2009. This bill was considered one of the most important pieces of conservation legislation in decades (2009 National Environmental Scorecard). It designated two million new acres of public lands to be protected, established three new national park units, three new conservation areas, four new national trails, and more. This bill passed in the House and Senate in mid-March, and was signed into law by the president on March 30.

H.R. 1262: Representative James L. Oberstar introduced the *Water Quality Investment Act of 2009* on March 3, 2009. Among other things, this law provides funding for wastewater infrastructure, reducing water pollution, and for a pilot program on alternative water source projects. In addition, it reauthorizes the Great Lakes Legacy Act, which addresses problems of sediment contamination in the Great Lakes. H.R. 1262 passed in the House within days, but was held up in the Environment and Public Works Committee in the Senate.

H.R. 411 – On January 9th, Representative Jay Inslee of Washington state introduced the Great Cats and Rare Canids Act of 2009. This bill was intended to provide financial resources for the conservation of habitats abroad necessary to prevent the extinction of endangered species, including lions, leopards, and jaguars. Due to their role at the top of the food chain in many cases, the protection of these species is essential for maintaining the balance of important ecosystems. These protection projects require funding from abroad because many of the countries that are inhabited by these endangered species lack the financial resources to implement such programs themselves (Defenders of Wildlife 2009). While this piece of legislation passed in the House of Representatives in April, the Senate has not taken action on it so it has not proceeded in the legislative process.

H.R. 2187: Schools constitute a large percentage of American public infrastructure, and are thus a prime site for the development of federally-funded green infrastructure. The *21st Century Green High-Performing Public School Facilities Act* works toward just that goal. It offers grants for the modernization, renovation, or repair of public school facilities if guaranteed that these facilities are built according to green building and energy rating systems. This bill was introduced by Kentucky representative Ben Chandler, and while it passed in the House on May 15th, it has yet to make it out of committee in the Senate.

H.R. 2454: House Resolution 2454 is a particularly important piece of environmental legislation. So important, in fact, that the League of Conservation Voters decided to count a legislator's vote on this bill *twice* in their calculation of legislators' environmental scores. This bill is called *The American Clean Energy and Security Act of 2009* (sometimes known as

Waxman-Markey), and it was introduced on May 15th by Henry Waxman of California, Chairman of the Energy and Commerce Committee (at the time), and Edward Markey of Massachusetts. This bill included the first comprehensive cap on greenhouse gas emissions that has ever passed through either house of Congress. H.R. 2454 requires that American's global warming pollution be decreased by 17% from 2005 levels by 2020, and by 83% by 2010. It also mandates that, by 2020, 20% of all American electricity must come from renewable energy sources. H.R. 2454 was passed in the House of Representatives on June 26th, 2009, but was never followed up on in the Senate.

H.R. 2996: On June 23rd, 2009, Representative Norman Dicks, of Washington, sponsored the annual Interior-Environment Appropriations Bill. While this bill is renewed every year by default, the budget for 2010 designates \$32.3 billion for environmental protection programs, which is 17% more than the budget for Fiscal Year 2009. Of this, \$1.5 billion is allocated to cleaning up toxic waste, \$3.9 billion is for improving wastewater and water treatment infrastructure, and \$420 million is dedicated to efforts to mitigate global climate change. H.R. 2996 passed in the House on June 26th, in the Senate on October 29, and was signed into law by the President on October 30.

H.R. 3183: This bill was also an appropriations bill, in this case, the Energy and Water Development Related Agencies Appropriations Act. It was introduced by Arizona Representative Ed Pastor in July, 2009. While a great part of the appropriations in this bill provide for the maintenance of the American nuclear stockpile (including the cleanup of nuclear waste, etc.), there are also multiple provisions in H.R. 3183 that support research in renewable energy (Davenport 2009). This bill was passed in the House of Representatives four days after being introduced, twelve days later in the Senate, and became law on October 28, 2009.

H.R. 3435: In early July of 2009, the U.S. federal government began the implementation of a program unofficially dubbed "Cash for Clunkers." This program provided between \$3,500 and \$4,500 to car owners who trade in vehicles that are considered fuel-inefficient, and replace them with more fuel-efficient ones. The goal of this initiative was both to stimulate the American auto industry, drive up the prices of cars, and increase the fuel efficiency of cars on the road. The program was so successful that the \$1 billion that had originally been allocated for it ran out within a month. H.R. 3435, technically called *Making Supplemental appropriations for fiscal year 2009 for the Consumer Assistance to Recycle and Save Program*, was intended to provide another \$2 billion to enable the continuation of the Cash for Clunkers Program. It was passed in the House by July 31st, the Senate by August 6th, and it was signed by the President on August 7th.

H.R. 2781: This piece of legislation was intended to amend the Wild and Scenic Rivers Act to designate segments of the Molalla River in Oregon as components of the National Wild and Scenic River System. The Molalla River is home to a complex ecosystem of fish and other wildlife, and also

provides drinking water to the nearby cities. Designating the Molalla River as part of the National Wild and Scenic Rivers System would provide a level of protection for this habitat not currently in place. The House passed this bill in November, 2009, but the Senate failed to act on it.

H.R. 3534: This bill was developed in the aftermath of the largest environmental disaster in American history, the BP oil spill in the Gulf Coast. H.R. 3534, also known as the *Consolidated Land, Energy, and Aquatic Resources (CLEAR) Act*, included provisions that established liability for implicated actors, a moratorium on deepwater drilling, and financial resources for the Land and Water Conservation Fund. The House of Representatives saw considerable contention over various aspects of this legislation, particularly the moratorium on deepwater drilling, which was eventually replaced under the condition of stricter regulations. Despite the scope the catastrophe preceding this legislation, it never made its way past the House vote on July 30, 2010.

House Legislation—Sponsorship Analysis

In addition to H.R. 411, H.R. 2187, H.R. 2781, and H.R. 3534, all of which are described above and were included in both the votes and sponsorship analysis, the following bills were included uniquely in the sponsorship analysis because they were perhaps less important bills, but were sponsored by members who did not hold the chairmanship of the relevant committees.

H.R. 2693: This bill was part of a slew of legislation that emerged in response to the BP oil spill in the Gulf. As the oil continued to leak into the ocean, harming ecosystems and endangering the human communities nearby, legislators were eager to take action to demonstrate a commitment to preventing future such catastrophes. The Oil Pollution Research and Development Program Reauthorization Act of 2010 was intended to incorporate a greater emphasis on prevention and response strategies within the federal research program on oil pollution. This bill was sponsored by California Democrat Lynn Woolsey, who sits on the House Science and Technology Committee.

H.R. 3029: On June 24, 2009, New York Representative Paul Tonko introduced H.R. 3029, which establishes annual funding of \$65 million for a program of research and development to improve the efficiency of gas turbines used for power generation (Thomas 2012). It is this type of federal investment in renewable energy technology that has spurred the establishment of a flourishing and self-sufficient market for renewable energy technology in countries such as Germany (Jacobsson and Lauber 2006).

H.R. 3246: This bill was a similar type of legislation funding research and development in clean energy technology. Representative Gary Peters from Michigan introduced this bill to authorize the establishment of a new program within the Energy Department for research on hybridized and entirely electric vehicles to limit oil consumption and reduce emissions. This \$3 billion dollar program was also developed to include a full-time director in charge of similar research for heavy commercial vehicles (Adofu 2009).

Senate Legislation—Voting Analysis

H.R. 146: A description of the Omnibus Public Land Management Act of 2009 is included above, as this bill was also introduced and passed by the House of Representatives before coming to the Senate. There were no relevant sponsors or cosponsors of this legislation in the Senate.

H.R. 2996: The Interior-Environment Appropriations Bill is also detailed in the section above. After being approved by the House of Representatives, it came to a vote in the Senate. There were no relevant sponsors or cosponsors of this legislation in the Senate.

H.R. 3183: The Energy and Water Development Related Agencies Appropriations Act is also detailed above, as it came for a vote in the Senate only after being passed in the House of Representatives. There were no relevant sponsors or cosponsors of this legislation in the Senate.

H.R. 3435: This law providing additional funding for the “Cash for Clunkers” program is outlined above, as it was initiated and passed in the House of Representatives. There were no relevant sponsors or cosponsors of this legislation in the Senate.

Senate Joint Resolution 26: On January 1st, 2010, Alaska Senator Lisa Murkowski introduced Joint Resolution 26, which was intended to decrease the scope of EPA regulations. Following a Supreme Court decision in 2007, the EPA adopted a requirement to regulate emissions based on the “endangerment finding” that greenhouse gas emissions pose a threat to public health (Koss 2011, p. 51). Murkowski’s resolution suggested that Congress reject this new regulation in the EPA. Ultimately, this resolution was rejected in the Senate, thanks to last minute opposition by Senator Byrd in one of the last votes of his life (Koss 2011, p. 51). As passage of this resolution would have very significantly limited the power of the EPA to regulate greenhouse gas emissions, I include the votes of each Senator in my analysis. I do not include that sponsorship data because it is not does not count as advocacy of environmental legislation, as the legislation would have negated environmental legislation.

Senate Roll Call Vote 293: This roll call vote was similarly important in its rejection of legislation that would have severely limited the federal government’s ability to regulate the environment. This time, Senator Vitter proposed another amendment to the Interior-Environment Appropriations bill that would compel the Obama administration to suspend a moratorium on drilling in the Outer Continental Shelf. A motion was introduced to table this amendment, of which the sponsor and roll-call votes are included in the dataset.

Senate Roll Call Vote 295: Once in office, President Obama created a position called “Assistant to the President for Energy and Climate Change.” The role of this assistant is to advise the president and various agencies on the development of clean energy legislation. On September 24, 2009, Senator David Vitter from Louisiana submitted an amendment to the Interior-Environment Appropriations bill that would prevent funding from going to the

agencies' activities initiated by a suggestion of the Assistant to the President of Energy and Climate Change. A motion was introduced to table the Vitter amendment, which passed with a vote of 57-41 (LCV Scorecard 2009). The sponsor and roll-call votes on this motion are included in the Senate dataset. **S. Con. Res. 13:** Concurrent Resolution 13 of 2009 was a budget resolution developed by the Senate to lay out budget priorities for the upcoming year. While a congressional budget resolution is not a binding law, it lays the foundation for the appropriation bills that will later become federal law by highlighting certain priorities. A large portion of allocations in S. Con Res 13 are devoted to investment in clean energy and climate change mitigation. It includes both a "deficit-neutral reserve fund to invest in clean energy and preserve the environment" and underscores the importance for funding climate change legislation." S. Con Res was sponsored by Senator Kent Conrad from North Dakota, but did not have any cosponsors. S. Con Res was agreed upon and passed in the Senate on April 2, 2009, and passed in the House of Representatives twenty days later.

Senate Legislation—Sponsorship Analysis

Senate 1733: On November 5, 2009, the Senate Public Works Committee passed the "Clean Energy Jobs and American Power Act." S. 1733 was a companion bill to the so-called Waxman-Markey bill in the House, laying in place the groundwork for American's first cap-and-trade system. This bill would have required a 20% reduction in greenhouse gas emissions by 2020 and 83% by 2050. This optimistic bill never made it to a vote in the Senate, so is only coded for its sponsor.

Senate 3663: The "Clean Energy Jobs and Oil Accountability Act" was introduced in the Senate by Harry Reid in July 2010, as companion legislation to H.R. 3534, the "CLEAR ACT" discussed above. This legislation was intended to introduce more regulations into offshore drilling after the Gulf Oil spill. This bill also never came to a vote in the Senate (Hobson 2011, p. 59).

S. 247: The "Accelerated Retirement of Inefficient Vehicles Act" established a program similar to the Cash for Clunkers program developed by Steve Israel in the House of Representatives. The goal of this program was to encourage car-owners to purchase more energy efficient vehicles by rewarding them financially for turning in their more inefficient ones. This bill was referred to the Senate Committee on Energy and Natural Resources in the first month of the legislative session, but never emerged from committee.

S. 575 : In March 2009, less than a week after a similar bill was introduced in the House of Representatives, Senator Carper of Delaware introduced the Senate "Clean, Low-Emission, Affordable New Transportation Efficiency Act." This bill included provisions to secure funding for states and municipal governments to develop public transport systems with the goal of reducing emissions. This bill was referred to the Senate Committee on Environment and Public Works and never came to a vote.

S. 197: This bill, the "Crane Conservation Act," is a companion bill to one of the same title introduced in the House. This legislation would provide

funding to the Department of the Interior to aid the recovery of endangered species of cranes. While the House version of this bill was passed, the Senate one did not come to a vote.

S. 231: Connecticut Senator Joseph Lieberman introduced this bill intended “to designate a portion of the Arctic National Wildlife Refuge as wilderness.” ANWR has been a site of controversy for many years now, with some claiming that it is a pristine wilderness that must be protected from outside encroachment, with others claiming that its oil and gas reserves are an essential resource that should be exploited for the nation’s energy needs. Declaring ANWR as “wilderness” as defined by the 1964 Wilderness Act would prevent the area from being the site of oil and gas exploration.

S. 529: The “Great Cats and Rare Canids Act” introduced by Lieberman on March 5, 2009 was the companion bill to the bill of the same title introduced in the House and discussed above.

S. 696: This bill, the “Appalachia Restoration Act,” was very simple. Its sole purpose was to include a definition of fill material in the Federal Water Pollution Control Act. Fill material is a material that goes into a body of water and either increases the bottom elevation of the water or replaces it altogether with dry land. This amendment of the Clean Water Act was intended to exclude the spoil material from mining as a permissible form of fill material to be discharged into water, thus hindering efforts at mountaintop removal mining in Appalachia. This bill did not come to a vote in the Senate.

S. 1095: The last bill included in my analysis of sponsorship and cosponsorship behavior in the Senate is “America’s Low Carbon Fuel Standard Act,” a bill would have made drastic strides in reducing America’s greenhouse gas emissions. First, this bill would have required a higher percentage of vehicle fuel sold to include renewable sources, such as ethanol and biomass. Such legislation would have spurred research and development by putting the requirement on private industries to cope with the new regulations. This bill would also have tasked the Environmental Protection Agency with ensuring that the use of lower carbon fuels was indeed translating into a significant reduction of greenhouse gas emissions. This bill never came to a vote in the Senate.

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