GREENING LABOR UNIONS: ENVIRONMENTAL CONCERNS

OF UNION MEMBERS

By

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ABSTRACT

The labor and environmental movements have had a complicated relationship with periods of cooperation as well as conflict, but recently there has been increasing collaboration at the national level. Whether such a trend of cooperation can be sustained will partially depend on grassroots-level connections between the two movements. However, there has been little empirical research on the environmental attitudes of union members, which is important for understanding the potential for shared values between union members and environmental activists. This thesis analyzes 1993, 2000, and 2010 General Social Survey data to examine if the environmental attitudes of people in union households have changed given shifting labor-environment relations and broader political-economic conditions. I find that union membership does not influence environmental concern in weaker economic times (1993 and 2010) but that it has a positive effect on environmental concern in stronger economic times (2000). Thus, union household are generally no less concerned about the environment than non-union households. Therefore, strengthening connections between union members and environmental activists may be a feasible strategy for invigorating both the labor and environmental movements.

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CHAPTER 1

INTRODUCTION

The size and strength of the American labor movement has decreased over the past 40 years, union membership rates fell from nearly a quarter of the workforce in 1973 to only 11.8% in 2011 (Hirsch and Macpherson, 2012). Recently, one of the remaining bastions of union density, the public sector, is being threatened by attempts to eliminate public employee collective bargaining rights (Aronowitz 2011). Meanwhile, global climate change continues to accelerate and political action on reducing greenhouse gas emissions appears doubtful for the near future (McCright and Dunlap 2011). These political crises are forcing both the labor and environmental movements to look toward new strategies to achieve their goals and to collaborate with one another. Blue-green collaboration can help both groups achieve goals they would not have won on their own (Gottlieb 2001; Obach 2002), and labor scholars have explored how social movement unionism and coalition building can help revitalize the U.S. labor movement (Tattersall 2010).

Labor and environmental coalitions, however, face challenges as the two movements have a mixed relationship with periods of cooperation as well as conflict. Unions have at times been advocates for the environment, but perceptions of a jobs versus the environment dichotomy has been one of the main barriers to broader and stronger union and environmentalist collaboration (Zoller 2009). During the 1960s and 1970s unions helped to pass major environmental legislation and mobilized around issues of clean air and toxics. Yet in the 1970s and 1980s, during a period of deindustrialization and waning union power, relations between unions and environmentalists were generally tense, although there was cooperation in specific places and industries (Gould, Lewis and Roberts 2004; Estabrook, Siqueira, and Machado 2000). Collaboration on trade issues and toxics in the 1990s, particularly at the 1999 WTO protests in

Seattle, was then marred by disagreements over the Kyoto climate protocol and a lack of sustained coalitions (Gould, Lewis and Roberts 2004).

Recently there has been an increase in labor-environment collaboration. In the mid-2000s, unions shifted their stance on climate change and began working with environmental organizations, including forming the Blue Green Alliance (BGA) in 2004 with several large environmental groups, to advance green job creation and climate change mitigation (Savage and Soron 2011; Bird, Lawton, and Purnell 2010; Gould, Lewis, and Roberts 2004). Yet, conflict over jobs and environmental protection continues to create rifts, as seen by the recent controversy over the proposed Keystone XL pipeline that led construction unions to leave the BGA in January 2012 (Restuccia, 2012).

The success and sustainability of labor-environment coalitions likely depends on grassroots connections between workers and environmentalists that can overcome divisions and the "jobs versus the environment" dichotomy that has persisted despite often contradictory empirical evidence (Goodstein, 1999; Obach, 2002). Shared values and ideologies are important for motivating people to participate in social movements and sustaining cross-movement coalitions (Stern et al., 1999). Thus, learning about union members' environmental attitudes can enable assessment of their support for the goals of the environmental movement and the potential for shared ideology. Yet, beyond national level policy statements and local case studies, there is little information on what rank and file union members think about the environment and its' relationship to the economy. Is the increased focus on environmental issues by union leadership and national coalitions associated with rank and file concerns about the environment? How have changing economic and political conditions influenced concerns about the environment and the economy?

This paper will assess whether union households show differences in environmental concern compared to non-union households and if union members agree with the goals of environmentalism. While the existing literature has used case studies, interviews and media analysis to study specific coalitions and labor-environment relations at an organizational or national level (Bonanno and Blome, 2001; Zoller, 2009), I investigate environmental attitudes at the individual level of union members by using analysis of national survey data. I use the 1993, 2000 and 2010 General Social Survey (GSS) data to examine if the relationships between union membership and the environment have shifted in the past two decades given changing political-economic contexts and labor-environment relations. I empirically assess dominant assumptions about union members supporting jobs over the environment. By exploring the environmental concerns of union members across two decades, I also examine how the social bases of public support for social movements shift over time given changing socio-political contexts (Klandermans, 2000; McCright and Dunlap, 2008).

The use of nationally representative data allows for an analysis of broader trends in popular opinions and generalizations to union members at-large, beyond local contexts and particular cases. My research builds on case study and comparative-historical research to look at the generalized influence of union membership on environmental attitudes at the national scale and if public controversies around jobs and the environment, as well as blue-green collaboration, are reflected in the attitudes of union members. The study provides information useful for national-level coalition building and politics and insights for activists, policymakers and social movement organizations. My research can help guide creation of collective-action frames used to mobilize union members around environmental issues, inform actions by labor and

environmental leaders and provide insight to the potential shared values and goals of trade unionists and environmentalists.

CHAPTER 2

THEORETICAL FRAMEWORK

Class, Labor and Environmental Concern

My thesis draws from theory about environmental concern, labor-environment relations and the role of values and ideology in social movements to assess the environmental attitudes of union members and the implications for cross-movement coalitions. Environmental concern is commonly conceptualized in the literature as a multi-faceted construct that contains several aspects that are relatively distinctive but likely related to one another (e.g., Dunlap and Jones 2002; Xiao and Dunlap 2007). The main aspects are concern for specific environmental problems, willingness to pay (WTP), perception of economic-environmental trade-offs, policy support, environmental activism, general environmental concern and environmental worldviews. In this paper I focus on three aspects on environmental concern: willingness to pay, perception of economy-environment trade-offs, and concern for environmental problems. I explore the ways in which union membership as well as related factors of occupation and class influence environmental attitudes.

Union membership is theoretically relevant to environmental concern because of the impact union membership has on political attitudes and activism as well as the relationships between class and occupation with environmental concerns. Unions could be an important institution for developing environmental awareness, since, as Dietz et al. (1998) hypothesize, the link between environmentalism and social structure might occur in communities of discourse that shape core beliefs and in communities that use the environment for production or recreation. Unions create spaces for dialogue and consciousness-raising, which might lead union workers to see the connections between corporate power, exploitation and environmental destruction.

Unions influence the political beliefs of their members and are a venue where politics are regularly discussed (Leymon 2011; Lipset, Trow, and Coleman 1956). Members participate in democratically running the organization and interact with fellow workers, a process that can raise political consciousness and develop the skills for civic participation (Verba, Schlozman, and Brady 1995).

However, relations between unions and environmentalists are commonly perceived as being contentious because of conflicts over jobs versus the economy and class differences. Workers in polluting industries have an economic interest in maintaining and growing the sector since, as Marx explained, capitalists exploit workers but workers depend on wage labor for their livelihoods. Specific industries and firms could experience increased costs of production from environmental regulation, and potentially decrease employment or move to locations with less environmental regulation. In Schnaiberg's (1980) treadmill of production theory, labor collaborates with capital and the state to demand continued growth. Environmental destruction, particularly occupational hazards and deterioration of community health, as well as economic exploitation may lead workers to reject the treadmill ideology.

There are contradictory theoretical arguments for how occupational experiences shape understandings of the environment, but occupation is an important social structural and institutional location that shapes people’s norms, expectations, values and experiences (Oesterle 2001). Workers in blue-collar manual and manufacturing occupations might perceive a greater personal economic threat from environmental protection than white-collar workers (Kahn 2002; Kazis and Grossman 1982). Post-materialism theory posits that middle-class white-collar workers will be more concerned about the environment because they are less economically threatened by environmental regulations and have cultural values associated with

environmentalism (Cotgrove and Duff 1980; Ingelhart 1977; Novotny 2000). However, other scholars have argued that blue-collar workers are actually more concerned about environmental issues since they face more on-the-job exposure to health and environmental hazards (Gordon 1998).

Union members' environmental attitudes are also related to class, which may influence people's environmental consciousness and relationship to the environmental movement. Building from Bourdieu's concept of habitus and cultural capital, Rose (1997) argues that different class positions shape the construction of identities and values, which influence concern about the environment. Class and cultural differences have created tensions between the labor and environmental movements. The mainstream environmental movement largely comprises white middle-class professionals, although alternative histories have highlighted the environmental activism of working class and minority communities (Gottlieb 2001; Montrie 2000; Novotny 2000). Still, mainstream environmental groups have historically focused on preservation and conservation, which often overlooks the economic needs of working class communities, particularly maintaining jobs, and their environmental concerns about public health and industrial hazards (Zoller 2009). Environmental organizations tend to be more deliberative, reach decisions through discussion and consensus and have morally driven politics, while unions are more hierarchical, and structured, and motivated by material issues (Zoller 2009). According to Rose (1997), middle-class movements are motivated by ideals and seek to make change through consciousness raising, while working-class movements respond to immediate conditions and opposition to authority.

Income and wealth may also shape people's attitudes towards the environment. According to the affluence hypothesis, people are concerned about the environment once they

have met their material needs and thus poorer people will place less priority on the environment (Diekman and Franzen 1999). On the other hand, environmental justice theory contests assumptions about upper-class environmentalism and asserts that working class and minority communities are disproportionately exposed to environmental hazards (e.g. Atlas 2002; Davidson & Anderton 2000; Grant, Trautner, Downey, & Thiebaud 2010), which leads to greater awareness and concern about environmental conditions (Buttel and Flinn 1978). The objective problems hypothesis posits that environmental concern is shaped by people's direct experience of environmental conditions and exposure to ecological hazards- an argument used to account for environmentalism in the Global South (Brechin 1999).

The environmental attitudes of union members are not determined solely by their social position but shaped by ideology, union and social movement organizations' tactics, and political and economic conditions. Workers would benefit from transforming relations of production to be more ecologically and socially sustainable and gain little from increasing profits and economic growth. Yet, dominant ideology leads workers to blame pro-environmental policies for job loss, rather than management cost-cutting strategies and the broader power relations that lead to the exploitation of nature and labor (Freudenberg, Wilson, & O'Leary 1998). Capitalist hegemonic ideology and job blackmail by corporations have exacerbated division between workers and environmentalists (Bullard 1990). Divide and conquer strategies have separated these two powerful social movements and the jobs verse the environment rhetoric is particularly effective during periods of poor economic conditions and high unemployment (Foster 1993; Gottlieb 1992). Corporations help create this ideology through issue management strategies, which are reinforced by media portrayals of a jobs verse the economy dichotomy (Zoller 2009).

Social Movements

Social movement scholars have called for a renewed focus on ideology and emphasized the important role of values, beliefs and culture in motivating mobilization and sustaining movement participation (Stern, et al. 1999; Zald 2000). Thus, in this paper I use survey data about attitudes and opinions to explore the impact of blue-green coalitions on their members and the potential to mobilize union members around the environment. Public support is an important resource for social movements to mobilize and utilize (Burstein 1998; Giugni 1998; Stern el al. 1999). People who agree with the goals of a movement are presumably adherents who could be mobilized under the right conditions (McAdam et. al 1988). McCright and Dunlap (2008) find that sympathetic values and a coherent ideology amongst social movement participants are important for sustaining action. Therefore, understanding union members' attitudes is important for assessing their possible support for the goals of the environmental movement and engagement in environmentalism activism. Concerns about the environment could be a potential shared value between the two movements- therefore the degree of union members' support for environmentalism is key for understanding ideological alignment between the two movements and possibilities for collective action (McCright and Dunlap 2008).

Values and opinions are important for informing social movement strategies and communications because the framing of issues can create a meaningful and emotional rational for action when frames are connected to people's beliefs and define a problem and potential solutions (Snow and Benford 1988). Framing issues in ways that connect to core beliefs can spark and sustain action. In turn, strong coalitions rely on shared values, personal connections and participation at the grassroots level since developing common consciousness and goals depends not only leadership but also rank and file involvement (Bonanno & Blome, 2001). Recruiting people and sustaining engagement with a movement or coalition is easier if people

have similar beliefs (Mix 2011). Thus, my investigation can provide insight into the environmental issues that are meaningful to union members that can inform how union activists and environmental organizations develop strategic action frames and communicate about the environment.

My focus on attitudes is not meant to assert that social movements are entirely, or even predominantly, driven by attitudes or values. Political, social and economic structures, as well as resources, play important roles, and values need to be understood within structures of power and in relation to people's unique interpretations and understandings. Some resource mobilization theorists have argued that agreement on values is not necessary for mobilization, but that publics must simply become sympathizers with the movement (McCarthy and Zald, 1977). Thus, the lack of alignment on environmental values between the labor and environmental movements does not preclude the possibility of joint collective action, but would likely make mobilization and strategic framing more challenging.

CHAPTER 3

LITERATURE REVIEW

Labor Environment Relations

Relationships between unions and environmentalists have been mixed with periods of collaboration as well as conflict. Union approaches to the environment are not monolithic, as different unions, leaders and rank and file activists have taken varied positions and changed over time. Yet, the "environment versus economy" rhetoric dominates much national discourse on the relationship between the labor and environmental movements and conflicts in particular areas and industries have received heightened media and political attention (Adkin 1998; Dewey 1998; Estabrook, Siqueira, and Machado 2000). Many politicians, business leaders, and media commentators use rhetoric of "jobs versus the environment," which positions protecting the environment as hurting economic prosperity and job preservation (Matthews 2010). However, empirical research finds limited evidence of negative job and economic impacts of environmental regulation (Goodstein 1999; Jaffe et al. 1995; Smulders et al. 2011). Some economists, environmentalists, and policymakers argue that environmental regulation can actually create jobs, especially in green manufacturing and pollution reduction (Renner and Peterson 2000).

Unions also have a long history of environmentalism and collaboration with environmental organizations around issues of toxics, pollution, health and safety, and international trade (Bonanno & Blome 2001). Peck (2006) claims that pollution has been very important in broader American working class politics. Blue-collar unions have historically been active on issues of pollution and workplace hazards (Leopold 2007). Worker environmentalism can be traced to the roots of the labor movement in the early industrial factories of the late 1800s

and workers' awareness of unhealthy working conditions and the disruption of nature and rural lifestyles by industrialization (Gottlieb 1992).

Organized labor was instrumental in helping pass key environmental legislation in the 1960s and 1970s, such as the Clean Water Act of 1970. During this period environmentalists also showed support for workers' issues. For example, the Sierra Club supported the Oil Chemical and Atomic Workers (OCAW) in their 1973 strike against Shell Oil over health and safety demands (Montrie 2000). Yet in the late 1970s and 1980s, deindustrialization, a conservative political climate, and attacks on organized labor contributed to more contentious relationships (Gould, Lewis and Roberts 2004). Environmentalists failed to support labor on several key issues, such as working conditions in farming, and unions shrank away from environmental actions. Many of the national-level coalitions broke apart, although there were a few successful local efforts around specific issues (Obach 2002).

Periods of intense dispute in the 1980s and early 1990s, particularly in the Northwest timber industry that pitted workers against spotted owls, captured the national discourse (Foster, 1993). Yet in the mid 1990s unions and environmentalists began to renew their social movement strategies to push back against conservatism and corporate-backed attacks on labor rights and the environment (Gould, et al., 2004). The anti-globalization movement brought them together, symbolized by the 1999 WTO protests in Seattle and the "Teamsters and Turtles" slogan (Gould et al., 2004). However splits emerged around the union opposition to the 1997 Kyoto climate agreement, although environmental organizations arguably did little to gain union support, and a lasting coalition was not sustained (Gould et al., 2004; AFL-CIO 1998).

Since the early 2000s there has been a renewed effort at labor-environment coalitions and framing of the environment as an economic and social justice issue. The growth of the

environmental justice movement that analyzes corporate power, race and class, as well as the focus by some unions on broader social issues increases opportunities for collaboration and overcomes past differences in culture and class (Novotny 2000; Zoller 2009). Green jobs have become popular political rhetoric that links environmental sustainability with job creation and attempts to overcome the dichotomy between the environment and the economy. Union environmentalism is part of broader turn towards social unionism, and unions that have promoted social unionism have been more effective at overcoming jobs verse the environment conflicts (Siegmann 1985).

The AFL-CIO and major unions have shifted their policy stances to support action on climate change, particularly international frameworks and national legislation to reduce greenhouse gas emissions, and have mobilized around climate change as a social and economic justice issue (AFL-CIO 2009). In 2004 the Blue Green Alliance (BGA) was formed between leading mainstream environmental organizations, including the Sierra Club and the Natural Resources Defense Council, and several large unions, including the U.S. Steelworkers and the Service Employees International Union (Savage and Soron 2011). Environmental organizations in the BGA have also taken steps to support unions by adopting some of their key demands, including stronger union organizing laws (Obach 2004).

Yet, labor-environment coalitions are fragile and continue to face divisions over jobs. Coalitions have stumbled over workers' concerns that environmental regulation will cost jobs and assistance, including alternative employment and training, are rarely provided for workers displaced by environmental protections (Montrie 2000). Environmentalists have not been consistent defenders of social and economic justice, and have been slow to recognize the socio-economic impacts of environmental regulation (Siegmann 1985). The recent dispute over the

Keystone pipeline is indicative of these ongoing divisions. The Laborers Union (LIUNA), Teamsters and other construction unions supported the pipeline because it would create jobs for their members while other unions and environmental organizations opposed the project due to the environmental hazards and subsequent greenhouse gas emissions. This led LIUNA to leave the BGA (Restuccia 2012).

Values and Framing in Cross-Movement Coalitions

Collaboration may benefit both workers and environmentalists, as coalitions can help both groups achieve goals they could not accomplish by working alone (Gottlieb 2001; Obach 2004a). Coalition building has received increased attention from scholars and activists interested in strategies for revitalizing organized labor and found coalitions to be effective in building worker power (Tattersall 2010). However, these recent blue-green coalitions will not be long lasting and sustainable without grassroots commitments and agreement on fundamental issues and values (Gordon 1998).

Creating shared identities, values and personal relationships is particularly important for cross-movement coalition formation and can help overcome tensions between trade unionists and environmentalists (Mayer 2009; Mayer, Brown, and Morello-Frosch 2010). Fine's (2011) research on union-community coalitions found that successful efforts require commitment, deep connections and mutual self-interest. Mayer, Brown and Morello-Frosch (2010) found that blue-green coalitions need a shared collective identity and collective action frames that mobilize members. Frames and rhetoric can bridge different groups and create a sense of shared interest as well as create new meanings and collective identities around the environment (Novotny 2000). Frames of public and occupational health and corporate accountability have been useful for forming local blue-green alliances especially around issues of specific hazards and toxics

(Edwards 2011; Estabrook et al. 2000; Mayer 2009). However, little of the existing literature examines rank and file union members' attitudes about the environment (Siegmann 1985).

Environmental Concern and Union Membership

Empirical research on the social, demographic, and political predictors of environmental concern finds that age, education, political ideology, and gender are quite robust predictors (Jones and Dunlap 1992; Xiao and McCright 2007), while income, race religious beliefs, and place of residence are much less consistent (Jones and Dunlap 1992; Diamantopoulos et al. 2003; Dietz, Stern, & Guagnano 1998; Gelissen 2007). Younger, more educated and more liberal people and women have shown greater concern. Still, the stereotype of young liberal environmentalists is likely an overstatement (Scott 1994). People of color and women have shown stronger pro-environmental attitudes, particularly for local environmental problems, but less so for measures that include economic costs (Dunlap & Scarce 1991; Mohai 1990; Mohai and Bryan 1998; Klineberg 1998; Wall 1995). Dietz et al. (1998) found that employment in extractive industries only negatively affected support for spending on the environment, not other measures of environmental concern, and that employment in polluting industries was not significant. The significant predictors vary by what measure of environmental concern is being used, but the three facets I focus on, willingness to pay, perceptions of economic-environment trade-offs and concerns about specific environmental problems appear to be influenced by similar factors (Ivanova and Tranter 2008; Mostafa 2001).

Environmental problems have become increasingly polarized and contested political issues, and attitudes about the environment appear to be based more upon political ideologies rather than scientific evidence. Partisan divides exist over support for pro-environment policies

as well as attitudes towards and involvement with the environmental movement (McCright and Dunlap 2011; Dunlap, Xiao and McCright 2001).

Scholars also find that at the population level, environmental attitudes are shaped by larger economic trends. Pro-environmental beliefs and policy support are lower during weaker economic times than during stronger ones (Elliott, Regens, and Seldon 1995; Elliott, Seldon, and Regens 1997;Guber 2003; Kahn and Kotchen 2011). For instance, Scruggs and Benegal (2012) find that decreases in public concern about climate change are related to economic insecurity created by recessions and poor labor market conditions.

Despite the attention given to conflicts between workers and environmentalists and case studies on labor-environment coalitions, there is little recent empirical research on the environmental attitudes of individual union workers. Siegmann's (1985) analysis of a 1980 survey of AFL-CIO members, found that union members were largely supportive of environmental protection. Siegmann (1985) speculates that changing distribution of organized labor towards greater representation of public and service sector members may increase possibilities for union's pro-environmental actions; however, dwindling numbers in industrial unions, who have historically supported environmental protection, could also dampen union environmentalism. Obach (2002) used a 1997-1998 survey of state-level labor leaders and found that leaders had mostly positive views of their relationships with environmentalists. Union leaders were also concerned about environmental issues, but they did believe that in some instances environmental protection could harm workers. Except for respondents from unions in the timber industry, the surveyed labor leaders did not perceive potential job loss from environmental regulations as the reason for poor labor-environmental relations. Rather, labor

leaders' perception of poor labor-environmental relations were related to Republican control of state government and labor's cooperation with industry (Obach 2002).

Case studies have found several important factors in labor-environment relations. Mayer's (2009) examination of three local and regional level coalitions found that organizational and individual identities, concerns about health, and a favorable political opportunity structure account for successful labor-environment relations. Adkin's (1998) assessment of labor-environmental coalitions in Canada highlights the importance of leadership and rank and file attitudes that are shaped by political economic factors as well as by political ideology and organizational culture. Focusing on the organizational dynamics of state-level blue-green coalitions in U.S. states, Obach (2004a) finds that a complex interaction of structural conditions and organizational characteristics help explain labor-environmental relations, particularly the political context and union collaboration with management.

Environmental awareness and attitudes vary between leaders and rank and file members. Obach (2004a) contends that while cultural and ideological cleavages between union leaders and environmentalist leaders are limited, the same differences between rank and file members of both groups are likely greater. Bonanno and Blome's (2001) case study of the California timber industry reveals collaboration between union leaders and environmental leaders but continued tension and perceived opposing interests between rank-and-file members of both groups. Still, Watson (1990) claims that enlightened union leaders combined with favorable economic factors can create pro-environmental consciousness amongst workers, even in the timber industry where jobs are directly threatened by environmental regulation. Watson (1990) concludes that workers need greater exposure to ecological issues and knowledge to have a broader understanding of the environment.

CHAPTER 4

RESEARCH OBJECTIVES

In order to understand if union membership has an influence on workers' environmental concern, I will explore the differences in willingness to pay, perceptions of economy-environment trade-offs, and concern for environmental problems between union and nonunion households. I focus on specific attitudes about the environment rather than abstract values about nature, society and technology. Industrial, air and water pollution impact human health and safety, particularly in the workplace, and therefore might be relevant to union members' concern about health and safety. Assessing WTP and economic-environment trade-offs is particularly relevant because workers are often assumed to support the economy over the environment and conflicts between unions and environmentalists have been over jobs (Adkin 1998).

The existing literature does not provide a clear hypothesis regarding the environmental concern of union members compared to non-members. There is some limited evidence that unions and labor leaders have generally pro-environmental attitudes and policies. Also, increased awareness of workplace hazards and active participation in advocating for safer workplaces could contribute to a greater awareness of environmental problems among union members (Nelkin & Brown, 1984). The industrial practices that harm workers are also a health hazard to communities (Zoller, 2009) and workers sometimes see their workplace as part of the wider environment (Dowie 1995). However, there is not enough research to generalize to rank and file members. Therefore, I provide an exploratory assessment of the direct effect of union membership on individuals' environmental attitudes.

However, given the trend of politicalization of the environment, it is possible that union members are more pro-environment than nonmembers. Union members are more likely to vote for and support Democrats and more liberal candidates (Freeman, 2003; Juravich & Shergold,

1988). Union political campaigns have been effective in mobilizing members to vote and shaping their political views (Delaney, 1988) and therefore unions might also be successful in raising their members' environmental awareness. Thus, I assess if environmental attitudes amongst union members are mediated by political ideology and party identity.

Changing union composition across the two decades of my study might affect environmental attitudes. Research has found that the impact of unionization on political participation and attitudes varies by occupation and employment type (Rosenfeld 2010) (Zullo 2008). Thus, I control for type of occupation in order to account for the declining union rates in the private and industrial sectors. Private sector union membership has dropped from 24.2% in 1973 to 6.9% in 2011, while public sector membership has increased from 23% in 1973 to 37% in 2011- surpassing private-sector unionization (Hirsch and Macpherson 2012). During the time frame of my study, private sector union rates decreased from 11.1% in 1993 to 6.9% in 2011 and public sector union rates dropped only 0.7% (Hirsch and Macpherson 2012). In 2011, union density was highest amongst professionals (34%), educational services industry (33.3%) and public administration (32.7%), (Hirsch and Macpherson 2012b).

I also compare data from different years to see if the effect of union membership has shifted given changing labor-environment relations and political-economic contexts. The environmental concern literature points to the importance of context and political-economic structures in effecting attitudes. Research on blue-green coalitions has also shown that political climate and economic conditions have an impact on labor-environment relations and attitudes. Thus, I assess how support for the goals of environmentalism shift over time and how economic changes influence perceptions of trade-offs between the environment and the economy, willingness to pay for environmental protection and concern about pollution.

CHAPTER 5

METHODS

Data

I use 1993, 2000 and 2010 General Social Survey (GSS) data and each year includes the International Social Survey Program (ISSP) module on the environment that contains many survey items related to environmental concerns. GSS is a national in-person interview that has been conducted since 1972 and uses full-probability sampling of U.S. households and a two-stage sub-sampling design for nonresponses (National Opinion Research Center). The data set provides detailed demographic information as well as information about union membership and political beliefs. GSS data has regularly been used in the environmental concern literature (e.g., Jones and Dunlap, 1992). Due to the split-sample design only a portion of the total sample answered both sets of questions on union membership and the environment, so for 1993 (N=1557), 2000 (N=857), and 2010 (N=763). Fortunately the sample split is random, thus this sub-sample is still nationally representative, albeit with weaker statistical power due to smaller sample size.

Variables

My dependent variables are the three measures of environmental concern (*see table 1*). Two measures are composite indexes, environmental problems and willingness to pay, while the third measure, economic-environment trade-offs, uses one survey question. All responses have been recoded so that a higher score represents a more pro-environmental response.

Concern for environmental problems is an index made from four items asking respondents how dangerous for the environment is air pollution caused by cars, pesticides and chemicals used in farming, air pollution caused by industry, and pollution of the country's rivers,

lakes, and streams. Unfortunately, climate change is not included because wording on the survey questionnaire changed across different years. The index is reliable as the PCA factor loadings for the four items across the three years ranged between 0.45 and 0.54 and Cronbach's Alpha ranged between 0.74 and 0.80. Perception of environment-economic trade-offs is measured by one survey item that asks respondents if we worry too much about the future of the environment, not enough about the prices and jobs today. Willingness to pay combines three questions asking respondents to indicate if they would be willing to pay much higher prices, pay much higher taxes, and accept cuts in their standard of living to protect the environment. The PCA factor loadings for these three items across the three years ranged between 0.55 and 0.60 and Cronbach's Alpha ranged between 0.81 and 0.84.

The primary independent variable is union membership, which is measured by a question asking whether the respondent or their spouse belongs to a union. I combine both respondents who are union members and whose spouses are members, an approach is consistent with the literature on political activity of union households (Radcliff, 2001).

I also use ten additional control variables for demographic, socio-economic and political factors. "Blue-collar" measures occupation using a GSS variable that is based upon a series of questions about work duties and occupation and then categorized using the 1980 U.S. Census Bureau occupational codes. The blue-collar variable was coded to equal one if the respondents' major occupational category was farming, forest and fishing; precision production, craft and repair; operators, fabricators and laborers; and coded equal to zero for all others (managerial and professional specialty; technical, sales and administrative support; and service). "Employed" is a dummy variable that distinguishes those respondents who are employed (part- or full-time) from all others. "Age" is measured in years. "Non-white" and "female" are dummy variables

distinguishing non-whites from whites and females from males. "Family income" is measured in adjusted real dollars. "Education" is the respondent's highest year of school completed. "Political ideology" is a 7-point scale (extremely conservative to extremely liberal) and "party identification" is a 7-point scale (strong Republican to strong Democrat). "City size" is measured in 1000s of people in the respondent's area of residence. Missing data on age, household income, education, political ideology, party identification, and city size have been recoded into the sample means or medians where applicable. Missing data for occupation (blue-collar) were left out.

Analysis

I first conduct bivariate analysis to compare levels of environmental concern for respondents in union households and non-union households for all eight individual survey items that measure environmental concern for the three years. I assess if union households' attitudes have fluctuated over time by comparing the percentages of respondents who had pro-environmental responses. Then I create multivariate OLS regression models that incorporate control variables and assess if union membership can account for differences in environmental concern independently of other factors. To account for potential mediating effects of political ideology, I apply a step-wise regression technique. I first test a regression predicting each of the dependent index measures using only union membership and demographic controls including gender, age, race, and residence. I then add political ideology and party affiliation followed by income, employment and education variables into the equation. This can enable the comparison of union membership's effects before and after the addition of these potentially mediating variables. For each of the three measures I run a separate test for each year and then compare the three years using standardized regression coefficients. All analyses are conducted using STATA

12.0. I tested all of models for potential multicollinearity using the Variance Inflation Factor (VIF) and found no evidence of this problem. The mean VIF values for the three years are well below 2.5—the standard rule of thumb for excessive multicollinearity (Allison 1998).

Table 1: Variables in the Study

Variable	GSS Name	Description	Coding	Mean	SD
DEPENDENT VARIABLES					
Concern about Specific Environmental Problems					
car pollution	carsgen	air pollution caused by cars is __ dangerous for the environment	1 (not at all); 2 (not very); 3 (somewhat); 4 (very); 5 (extremely)	3.55	0.87
chemical pollution	chemgen	pesticides and chemicals used in farming is __ dangerous for the environment	1 (not at all); 2 (not very); 3 (somewhat); 4 (very); 5 (extremely)	3.51	0.88
industrial pollution	indusgen	air pollution caused by industry is __ dangerous for the environment	1 (not at all); 2 (not very); 3 (somewhat); 4 (very); 5 (extremely)	3.89	0.84
water pollution	watergen	pollution of country's rivers, lakes, and streams is __ dangerous for the environment	1 (not at all); 2 (not very); 3 (somewhat); 4 (very); 5 (extremely)	2.01	0.90
Perceived Environment-Economic Trade-offs					
perceived trade-offs	grnecon	we worry too much about the future of the environment, and not enough about the prices and jobs today	1 (strongly agree); 2 (agree); 3 (neither agree nor disagree); 4 (disagree); 5 (strongly disagree)	3.99	0.88

Willingness to Pay or Sacrifice

prices	grnprice	pay much higher prices in order to protect the environment?	1 (not at all willing); 2 (not very willing); 3 (neither willing nor unwilling); 4 (fairly willing); 5 (very willing)	3.22	1.11
taxes	grntaxes	pay much higher taxes in order to protect the environment?	1 (not at all willing); 2 (not very willing); 3 (neither willing nor unwilling); 4 (fairly willing); 5 (very willing)	2.85	1.19
living standard	grnsol	accept cuts in your standard of living to protect the environment?	1 (not at all willing); 2 (not very willing); 3 (neither willing nor unwilling); 4 (fairly willing); 5 (very willing)	2.79	1.18

INDEPENDENT AND CONTROL VARIABLES

union household	union	respondent or spouse belongs to a union	0 (not member) 1 (self or spouse a member)	84.8 (0) 15.2 (1)	0.36
blue-collar	occ80	respondent's 1980 census occupation code	0 (service/white-collar) 1 (manual/blue-collar)	76.0 (0) 25.0 (1)	0.43
employed	wrkstat	labor force status	0 (not employed) 1 (employed)	39.4 (0) 60.6 (1)	0.49
age	age	age of respondent	age in years	46.45	17.49
non-white	race	race of respondent	0 (white) 1 (nonwhite)	80.7 (0) 19.3 (1)	0.39

female	sex	respondent's sex	0 (male) 1 (female)	42.9 (0) 57.1 (1)	0.49
family income	realinc	total family income	adjusted increasing values in real dollars	31481	28817
education	educ	highest year of school completed	year of school	13.21	3.01
political ideology	polviews	think of self as liberal or conservative	1 (extremely conservative); 2 (conservative); 3 (slightly conservative); 4 (moderate); 5 (slightly liberal); 6 (liberal); 7 (extremely liberal)	3.86	1.38
party identification	partyid	political party identification	1 (strong Republican); 2 (not strong Republican); 3 (independent, near Republican); 4 (independent); 5 (independent, near Democrat); 6 (not strong Democrat); 7 (strong Democrat)	4.14	2.05
city size	size	size of place	population in 1000s	375.0	1277.6

CHAPTER 6

RESULTS

Based upon results from the bivariate analysis (reported in table 2), there were few differences between union and nonunion households amongst the survey items related to environmental concern across the three years. Still, there was some limited evidence that union members have greater concerns about the environment, particularly willingness to pay. While there was only a statistically significant difference between union and non-union respondents for three of the measures, in each instance union households reported greater concern for the environment. For two measures of willingness to pay, union households were more concerned about the environment- in 1993 44.2% of union households were willing to pay higher taxes compared to 37.2% of non-union households and in 2000 a larger percentage of union households (48.7%) than non-union households (38.6%) were willing to pay higher prices. In 2010, 67.7% of union households reported that pollution of rivers, lake and streams was very or extremely dangerous for the environment compared to 56.8% of non-union households. These results problematize assumptions about union workers caring more about jobs and economic growth than the economy.

Additionally, the measures were fairly consistent across the three years and environmental concerns appeared to remain stable, except for the perception of the danger to the environment posed by pesticides and chemicals used in farming. Concern for pesticides and chemicals increased from 1993 to 2010 for both union (36.4% to 67.7%) and non-union households (37.8% to 56.8%). This is likely the result of growing concern about food safety and organics and possibly wider awareness about the impacts of chemicals on environmental and human health.

It is also interesting to note that larger percentages of people report being willing to pay higher prices rather than taxes or cuts in living standards to protect the environment. For example in 2010, 50.5% of union members were fairly or very willing to pay higher prices but only 34.4% were fairly or very willing to pay higher taxes. Willingness to pay taxes amongst union households decreased by nearly 10% from 1993 to 2010, but was not statistically different from non-union households. The lower support for taxes is likely a reflection of politicalization of taxes and anti-tax sentiments as well as individualistic and consumerist ideology. These attitudes could create challenges for environmental policies that rely on taxation, such as a carbon emissions tax, to raise revenue for environmental programs and incentivize environmental behaviors.

Multivariate Analysis

Results from the OLS (reported in tables 3,4 and 5) also show that union membership did not generally have an influence on environmental concern. In all but one of the nine models, after controlling for occupation, political beliefs, social economic status indicators and other demographic factors, union membership did not have a statistically significant impact on environmental concern. Thus, being in a union or having a spouse in a union, did not appear to shape respondent's concern about environmental problems, willingness to pay for environmental protection, or perception of trade-offs between the environment and economic growth. The context of political economic conditions and labor-environment relations does not appear to have a strong effect either, as there was little change across the three years of the study.

However, in 2000, during a strong economy, union households were on average more willing to pay and accept costs to protect the environment, with an effect size comparable to that of race, gender, and education. During weak economic times, 1993 and 2010, union households

were not less concerned about the environment, while in a stronger economic context, 2000, union households had similar levels of concern, except that union membership predicted greater WTP.

Political ideology and party did not mediate the relationship between union membership and environmental concern. Introducing the political variables into the model did not influence the relationship between union membership and environmental concern. In all three years, union membership was not a significant predictor of environmental problems and perceptions of economic trade-offs without controls and the introduction of political variables did not change the relationship. In 1993 and 2010, union membership was not significant in any of the models for WTP. For WTP in 2000, union membership was positive and significant without controls and remained so when political variables were added to the model. The magnitude of union membership's effect actually increased with the addition of control variables, thus belonging to a union predicts greater WTP beyond the effect of political beliefs and other demographic factors.

The literature has conflicting arguments about the relationship between occupation and environmental concern and my results revealed little difference in the environmental attitudes of blue and white-collar workers. Therefore, my analysis showed that environmental attitudes are not influenced by broad differences in people's occupations and their subsequent relationships to natural resources in later years. Blue-collar workers in 1993 were more worried about an overemphasis on the environment over jobs and the economy than were white-collar workers; occupation had a similar magnitude impact to political beliefs variables and household income. However, occupation became insignificant in subsequent years and was not significant for WTP in any year. This provides only very limited support that blue-collar/manual workers are more worried about jobs versus the environment.

Caution in interpreting these results should be noted as the measure of occupation is rather crude and groups occupations into two large categories that does not capture the diversity and particularity of workplace experiences. Using nationally representative data, I was not able to explore specific industries, such as mining that could have an impact on ideas about the environment, due to the small sample sizes of individual occupations.

As anticipated by the literature, environmental concern has become more politicized as more liberal people and stronger Democrats are on average more likely to have pro-environmental beliefs (e.g., Dunlap, Xiao, and McCright 2001; McCright and Dunlap 2011). Political ideology was significant and positive for all three measures and in all three years and was one the strongest predictors, increasing in strength over time. Political party affiliation was positive and significant for the three measures in 1993 and 2010, but not 2000, and increased in magnitude from 1993 to 2010.

Also consistent with the literature, younger, wealthier and more educated respondents tend to have more pro-environment attitudes, but the relationship depends on the measure of environmental concern (e.g., Xiao and McCright 2007; Hunter et al. 2004). Younger people were less concerned about environment-economic trade-offs in 1993 and 2000 and more concerned about environmental problems in 1993. Having more education was associated with less concern about environment-economic trade-offs in all three years as well as greater WTP in 1993 and 2000. Respondents with higher family income were less worried about an overemphasis on the future of the environment over today's jobs in all three years and more WTP in 1993. However, income was not statistically significant for concern about environmental problems. Women tend to express stronger concerns with specific environmental problems than do men, but are more or less similar to men in more general environmental beliefs (e.g., Hunter

et al., 2004). The results for these control variables provide evidence of construct validity for my environmental concern indicators.

Results regarding the efforts of other socio-demographic factors are generally inconsistent, which is not uncommon in the literature (e.g., Klineberg et al, 1998). Compared to being unemployed, full- or part-time employment increased worry about an overemphasis on the future environment over today's jobs, but only in 2010; employment status had no statistically significant effect on any other environmental concern indicator across the time period of the study. Across the three years, White respondents were less worried about an overemphasis on the environment over jobs and had greater WTP only in 2000 than non-White respondents, but this relationship was not consistent for other measures. Findings regarding the effects of city size were inconsistent- it was only a significant variable in 1993.

Environmental attitudes are complex constructs and the models only explain a modest amount of variation, which is consistent with previous research. For WTP, the adjusted R-squared of the three years ranged from 5.2% to 8.1%, which is not uncommon in the literature; models of environmental concern rarely account for more than 15% of variation (e.g., Klineberg, et al., 1998). The r-squared for the environmental problems model ranged from a low of 2.3% in 2000 to a high of 13.6% in 2010. The model for environment-economic trade-offs were consistently the strongest and accounted for between 15% and 18% of variation. The models were also able to explain more of the variation in 2010, which is partially the result of the increased influence of political variables.

Table 2: Environmental Concern of Respondents in Union Households and Non-Union Households in 1993, 2000, and 2010

	1993		2000		2010	
	Non-Union	Union	Non-Union	Union	Non-Union	Union
Concern about Specific Environmental Problems						
% "very" or "extremely" dangerous for the environment						
Air pollution caused by cars	47.5	47.1	44.4	49.3	44.5	46.2
Pesticides and chemicals used in farming	37.8	36.4	44.5	47.3	56.8	67.7*
Air pollution caused by industry	64.9	65.3	67.8	73.0	68.4	65.6
Pollution of country's rivers, lakes, and streams	69.4	69.8	72.9	79.7	70.0	68.8
Perceived Environment-Economic Trade-offs						
% "disagree" or "strongly disagree"						
We worry too much about the future of the environment, and not enough about the prices and jobs today	41	45.5	41.5	48.7	38.1	39.8
Willingness to Pay or Sacrifice						
% "fairly" or "very" willing to protect the environment						
Pay much higher prices	49.2	50.0	38.6	48.7*	47.2	50.5
Pay much higher taxes	37.2	44.2*	28.4	38.1	32.8	34.4
Accept cuts in your standard of living	31.8	34.3	26.2	30.4	35.1	38.7
Sample size	1304	242	705	148	667	93

* $p<0.05$ (Pearsons Chi-square). In these analyses, missing data is excluded in the variable "union household" (missing N=11, 4, and 3, for 1993, 2000, and 2010).

Table 3: Standardized Coefficients from Multivariate Linear Regression Models Predicting Concern about Specific Environmental Problems, Perceived Environment-Economic Trade-offs, and Willingness to Pay or Sacrifice in **1993**

1993	**Problems**			**Trade-offs**			**WTP**		
Predictor	1	2	3	1	2	3	1	2	3
Union	0.017	-0.007	-0.005	0.045	0.031	0.018	0.047	0.020	0.017
Political ideology		0.112*	0.086*		0.160*	0.058*		0.177*	0.180*
Party identification		0.096*	0.119*		-0.030	0.119*		0.061*	0.087*
Blue-collar			-0.006			-0.077			-0.048
Employed			-0.034			0.028			-0.032
Age			-0.109*			-0.144*			-0.029
Non-White			-0.042			-0.152*			-0.036
Female			0.120*			-0.016			-0.029
Family income			-0.032			0.069*			0.054*
Education			0.042			0.171*			0.108*
City size			0.060*			-0.083*			-0.060*
Adjusted R-squared			0.056			0.152			0.073
Sample size			1481			1481			1481
Mean Variance Inflation Factor					1.25				

*= $p<0.05$. The somewhat smaller sample sizes in this table (compared to those in Table 2) are due to the exclusion of missing values in the "blue-collar" variable. For the "union household" variable, I recoded missing values (see Ns in Table 2 note) as non-union households. For all others variables, missing values were recoded into appropriate medians or means.

Table 4: Standardized Coefficients from Multivariate Linear Regression Models Predicting Concern about Specific Environmental Problems, Perceived Environment-Economic Trade-offs, and Willingness to Pay or Sacrifice in **2000**

2000	**Problems**			**Trade-offs**			**WTP**		
Predictor	1	2	3	1	2	3	1	2	3
Union	0.047	0.051	0.064	0.023	0.033	0.046	0.066*	0.075*	0.090*
Political ideology		0.111*	0.112*		0.131*	0.106*		0.151*	0.138*
Party identification		0.054	0.032		-0.063	0.040		-0.014	0.039
Blue-collar			-0.026			-0.028			-0.064
Employed			-0.004			-0.061			-0.046
Age			0.006			-0.152*			-0.070
Non-White			0.021			-0.193*			-0.089*
Female			0.062			-0.073*			-0.095*
Family income			-0.070			0.074*			0.021
Education			0.051			0.176*			0.093*
City size			0.030			-0.013			0.011
Adjusted R-squared			0.023			0.120			0.052
Sample size			811			811			811
Mean Variance Inflation Factor					1.21				

*= $p<0.05$. The somewhat smaller sample sizes in this table (compared to those in Table 2) are due to the exclusion of missing values in the "blue-collar" variable. For the "union household" variable, I recoded missing values (see Ns in Table 2 note) as non-union households. For all others variables, missing values were recoded into appropriate medians or means.

Table 5: Standardized Coefficients from Multivariate Linear Regression Models Predicting Concern about Specific Environmental Problems, Perceived Environment-Economic Trade-offs, and Willingness to Pay or Sacrifice in **2010**

2010	**Problems**			**Trade-offs**			**WTP**		
Predictor	1	2	3	1	2	3	1	2	3
Union	0.023	0.03	0.040	0.005	0.004	-0.020	-0.013	-0.009	-0.037
Political ideology		0.182*	0.203*		0.257*	0.223*		0.169*	0.160*
Party identification		0.198*	0.193*		0.033	0.118*		0.135*	0.144*
Blue-collar			0.008			-0.061			-0.056
Employed			0.044			0.089*			0.036
Age			-0.018			-0.063			-0.023
Non-White			-0.024			-0.173*			0.018
Female			0.118*			0.023			0.010
Family income			-0.064			0.082*			0.047
Education			-0.043			0.132*			0.072
City size			0.029			0.053			0.012
Adjusted R-squared			0.136			0.179			0.082
Sample size			686			686			686
Mean Variance Inflation Factor					1.24				

*= p<0.05. The somewhat smaller sample sizes in this table (compared to those in Table 2) are due to the exclusion of missing values in the "blue-collar" variable. For the "union household" variable, I recoded missing values (see Ns in Table 2 note) as non-union households. For all others variables, missing values were recoded into appropriate medians or means.

CHAPTER 7

DISCUSSION

Based on these three years of GSS data, there was insufficient evidence to reject the null hypothesis that union membership is unrelated to environmental attitudes. This analysis found that union membership did not influence attitudes about the environment and that people in union households had similar environmental attitudes compared to people in non-union households. The lack of change from 1993 to 2010 suggests that economic context and labor-environment relations did not have a strong effect on union members' environmental concerns. Thus, changes in rank and file union attitudes towards the environment did not drive conflict or collaboration between unions and environmentalists. However, it is also important to note that union households were more willing to pay in 2000- a measure of environmental concern that working class and union members are often assumed to care less about.

My results challenge common portrayals of union members as narrowly concerned about their jobs and as hostile to protecting the environment. Highly visible public conflicts over the protection of spotted owls in the early 1990s, the more general and strong "jobs vs. the environment" discourse, and a relatively weak economy did not lead to lower environmental concern among union members relative to other people in 1993. Similarly, a widespread economic recession and the political challenges to unions in the late 2000s did not translate into weaker environmental concern among union members in 2010. In all three years, about half of union members were willing to pay higher prices for the environment, although higher taxes were certainly less popular, only about 1/3 support paying more taxes.

Surprisingly, the one measure for which union members were more pro-environment was the willingness to pay for environmental protection. The prosperous economic conditions of the late 1990s and early 2000s may have contributed to the greater willingness to pay of union

respondents compared to non-union respondents in 2000, providing limited evidence that people in union households have stronger pro-environmental attitudes than non-union households during a strong economy. The growing economy and relatively low unemployment of that time likely allowed unions to focus on issues beyond financial stability (such as protection of environmental quality) and accept costs to protect the environment, while non-union households may have continued to be concerned about the economy. Also, the greater WTP among unionists in 2000 may be attributable to earlier collaboration between workers and environmentalists to protest the 1999 WTO meetings and free trade and the symbolic "Teamsters and turtles" slogan that sparked hopes for blue-green collaboration (Peck, 2006). Unions also shifted during that time towards more progressive policies (Gould et al. 2004). Possibly the visual imagery and stories of unions and environmentalists marching together in the streets as well as environmentalists coming out in support of a key economic issue was more powerful to union members then high-level policy decisions and international meetings that occurred in the late 2000s. The greater WTP of union respondents in 2000 is likely due to the interaction of prosperous economic conditions and greater labor-environmental collaboration of the time period.

However, growing blue-green coalitions and collaboration around green jobs and climate change since the mid 2000s was not related to an increase in union members' environmentalism in 2010. Overall, the analysis does not provide evidence that the pro-environmental policies of national unions and their subsequent education and mobilization efforts have had a widespread impact on rank and file union members.

The results raise issues about the influence of unions on their members' attitudes and broader political and social beliefs. The socialization processes and political education programs in unions that contribute to higher political participation and stronger support of Democrats do

not appear to have had a similar impact on concerns about the environment (Freeman 2003). How relevant are unions in people's lives and do they continue to be meaningful organizations that can mobilize and influence their members? However, caution is needed in interpreting the findings because only a few unions in the BGA have led labor-environment efforts and the three-year GSS dataset is not be able to capture the impact of these specific unions on their members. My analysis does not provide an assessment of union tactics and coalition building efforts, rather I have shown that at the national level the attitudes of union members do not appear to have been impacted by leadership policies

In order to raise environmental awareness amongst their members, unions will likely need to continue expanding outreach and education efforts. Likewise, environmental groups will need to raise awareness amongst their members about working class and labor issues. Grassroots connections and interactions between union members and environmental activists are needed since the direct experience of working together and creating personal relationships are important for developing positive labor-environment relations, and likely more powerful than newsletters and meetings about environmental topics. Forging relationships also requires confronting local disputes and tensions over environmental regulation, and the economic concerns of workers at the community level. The recent blue-green coalitions will likely prove unsustainable, much like past attempts, without grassroots connections and commitments (Gordon, 1998).

Since environmental concern amongst unionists did not differ from nonunion workers in my data, they might be as likely to share concerns and values with the environmental movement as the general public. Thus, union members could potentially be mobilized to participate in the environmental movement and be a source of movement participants who need to be mobilized under the right conditions (McAdam et al. 1988). Unions have historically supported

environmental protections and workers have advocated for limiting environmental hazards in their workplaces and their communities (Dewey 1998). Environmental organizations should continue to reach out to union members who are no less sympathetic to their goals than the wider population and build relationships with unions. Pro-environment actions by unions may also resonate with their membership, particularly when framed around environmental problems such as industrial air pollution and contamination of waterways. In my study, union members shared a concern with the environmental movement about the ways industry and modern society degrades the environment. Framing environmental initiatives as raising taxes is likely to be an ineffective approach and thus policies should be discussed using other language and terminology. Yet, outside groups and the media often frame environmental protection as a tax with economic costs. Union members appear to be fairly willing to pay higher prices, thus arguments that environmental policies will raise prices on consumer goods do not appear to be that effective.

More broadly, my results also contest notions of the environment being an elite concern and show that environmentalism is not an upper class and white phenomenon. Neither income nor employment status were robust predictors of environmental concern. Being employed was not consistently associated with greater environmental concern, even for measures of willingness to pay or being worried about environment-economic trade-offs. Whites and people with higher income were less worried about a focus on the environment hurting the economy, but race and income did not have the same effect for other measures of environmental concern. Nonwhites and people with different income levels were equally concerned about environmental problems, particularly pollution, and were equally willing to contribute financially to environmental protection.

Mobilization around environmental issues and forging coalitions with environmental activists could be part of a broader strategy of union revitalization, particularly because concern for the environment does not appear to be an exclusively wealthy, white or male concern. As unions organize in service sectors and industries that are increasingly female in a so-called knowledge economy, pro-environment positions and blue-green collaboration might be effective. After all, women, younger, and higher-educated people have consistently shown greater concern for the environment and could be more receptive to organizing around environmental issues, and supportive of building coalitions with environmentalists. The face of organized labor is likely to continue changing and reflect different demographics and industries, particularly public sector and service jobs. As younger generations move into the workforce, they are likely to have more pro-environmental attitudes and different experiences with environmentalism than older workers. Pro-environmental policies and coalitions could help unions attract younger workers and remain relevant to this younger generation.

Yet, the politicalization of the environment also raises issues for unions. While union members are more liberal and more likely to support Democrats (Beachler 2009; Rogers and Teixeira 2000), environmental issues might not be connected to the reasons they vote for Democrats which are based more on economic issues. For unions representing workers who are more conservative, strong environmental stances might be interpreted as partisan and outside of the union's political scope. Economic issues and concerns about workplace justice and fairness might attract people from a broad political spectrum, but environmental issues might be increasingly interpreted as partisan or ideological concerns.

CHAPTER 8

CONCLUSION

Curious about growing collaboration between the labor and environmental movements as well as ongoing tensions over jobs verse environmental protection, I examined whether union households differ from nonunion households in their environmental concern. I also examined if the relationship between union membership and environmentalism had changed since 1993 and if shifting labor-environment relations and changing political and economic conditions impacted environmental attitudes. The results suggest that union membership did not have much influence on attitudes about the environment and union households were not more or less pro-environment than non-union households in the period of 1993-2010. Thus, recent labor-environment coalitions have not influenced the attitudes of rank and file members nor have changing political climates and economic conditions. On the other hand, union members are not less concerned about the environment and increased collaboration between unions and environmental activists could be a useful strategy for invigorating both the labor and environmental movements.

The relationships between union membership, occupation and environmental concern are complex and often ambiguous, as are many predictors of environmental concern, but these are salient issues that need further research. Understanding the environmental attitudes of union members and factors that influence environmental attitudes is important for invigorating both the labor and environmental movements and exploring perceptions of tension between jobs and the environment. Thus, further research is needed to explore relationships between union membership, occupation and environmental concern.

My research had several limitations and thus I have recommendations for future research. Due to the split-sample design of GSS, the final samples in all three years, and particularly for 2000 (N=811) and 2010 (N=686), are relatively small. Such small samples are less than ideal for

a study on union membership because nationally union membership rates have fallen to about 12%. Thus, future studies should seek out either a larger sample or use a disproportionate stratified design to ensure enough union members in the final sample. This national level data also does not allow for a detailed analysis of occupation and I reduced occupation to a dichotomous measure that overlooks much of the nuanced interactions between work and the environment. Larger data sets might also allow for more detailed analysis of occupation but further conceptualization of the relationship between occupation and environmental concern is also needed.

The GSS data did not provide information on what union respondents or their spouses belonged to. I also did not include measures of union support and involvement. Unions have very different histories, political programs and strategies, which could be related to the environmental and political attitudes of their members. Unions such as the United Steelworkers and the Service Employees International Union (SEIU) have been active on environmental issues, while others have not been involved and some have opposed some environmental policies. Unions represent workers in particular industries and occupations that have unique relationships to natural resource use and exposure to environmental and occupational hazards, as well as potential job threats from environmental protection. Targeted surveys of union members could account for specific union membership and directly explore the environmental attitudes of union members and their support for blue-green coalitions and environmental policies.

My study looked at measures of environmental concern, but other research on environmental activism, behavior and policy support of union members would also be pertinent and useful for examining coalitions and environmental politics. Also, the GSS survey questions about the environment and the economy are not ideal because they are difficult to interpret and

double-barreled. Thus, I only selected one survey item, but this is not a robust or complete measure of how people view the relationship between environmental protection and the economy. Future research should develop a more comprehensive multi-item measure of how people view the relationship between environmental protection and the economy.

Researching environmentalists' attitudes towards unions and economic issues would also be useful for understanding coalitions and ideological compatibility between the two movements. Blue-green coalitions require commitment and support from both unionists and environmentalists, thus research should explore how both groups perceive of each other and how membership shapes understandings of nature, society and the economy.

Finally, qualitative research is also needed to compliment this quantitative analysis in order to understand how the environment is meaningful to union members and environmentalists and particular experiences and conditions shape attitudes and social mobilization. Interviews can help explore more nuanced relationships between union membership, work and environmental attitudes and the ways people articulate and understand these issues.

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