

**Who Participates in Today's Environmental Movement?
Not the Rich or the Educated**

**Honors & Political Science Thesis
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Abstract

It appears that only when gas prices spike, do Americans remember their environmental ethics. Environmental organizations have evolved through the decades to separate entities with no real overarching values; where each lobbies for separate issues and compete for membership. Public opinion on environmental issues is also not solidified, as it depends on awareness, education, and demographic factors. These attitudes and behaviors can play a key role in supporting more environmentally friendly candidates. The re-framing of environmental concerns into quality of life issues may encourage even more reinforcement of environmental values. I use the Minnesota Report Card on Environmental Literacy to investigate just how crucial awareness of environmental issues is for group membership, voting behaviors, and consumer decisions. Early results show that increasing environmental awareness is central to reinvigorating the environmental movement.

Introduction

The Environmental Movement as a whole has not been the biggest news story or the most contested public policy issue in quite some time. Recently the United States is fighting terrorism, budget cuts, and constitutional amendments to ban gay marriage. Environmental issues are particularly interesting to me, and my research aims to discover what factors are most characteristic of environmentalists today. Are they younger people with a college education or an older generation that has been part of the movement for decades?

With such hot button issues as global climate change and soaring gas prices, environmentalists and environmental organizations alike have what seems to be an uphill battle. A healthy planet and clean space to live should be among our top priorities, but as public opinion shows, they are not. Analyzing those who are presently part of the movement may give clues as to where it is headed and how to effectively gain more support.

Literature Review

Evolution of the Environmental Movement

Environmentalism in the United States now encompasses issues stretching from preserving a local wetland to worrying about excess greenhouse gases in our atmosphere. Since the birth of the “Environmental Movement” in the late 1960’s and early 1970’s, our country has mobilized into many different factions.

The first Earth Day on April 22, 1970 is often cited as the beginning of the movement. Nationwide environmental education campaigns generated an elevated sense of the importance of having the environment in the political arena. Concern for the environment’s protection soon created a broad based public demand for more vigorous and comprehensive federal action to prevent environmental degradation (Vig & Kraft, 11).

The Environmental Protection Agency created in 1970, helps enforce a myriad of laws, restrictions, and regulations regarding clean air, clean water, and land use in general. Significant legal accomplishments of the EPA include enforcing Acts such as the Clean Air Act, the Water Quality Act, and the Endangered Species Act. Before the EPA was established, the federal government had little role in maintaining the public’s health by protecting the environment.

The National Environmental Policy Act signed into law in 1970 by Richard Nixon required environmental impact statements for all major federal actions. It also provides a separate council to advise Congress and the president on environmental issues. Nixon even titled the 1970’s as the “environmental movement decade.”

Meanwhile, disasters around the world show the dangerous side of industrial production. The Bhopal pesticide tragedy in India, the Chernobyl nuclear meltdown, and the Exxon Valdez oil spill in Alaska all brought the national spotlight to the environment.

Major environmental organizations like the Sierra Club and The Nature Conservancy grew in the 1980's, as a direct result of environmental disasters and the anti-environmental policies of the Reagan Administration. Those disasters and anti-environmental policies solidified their opportunity to continue with the environment's protection and further grow as an organized interest. Organizations proliferated and began campaigning for special issues regarding everything from fuel efficiency to recycling pop cans to preserving open spaces.

As the 1990's proceeded, many of these same groups were accused of becoming corporate environmentalists, with funding and safeguarding their own status as top priority. National organizations appeared to be growing away from their once standard grassroots appeal – while they moved toward fighting for membership and competing with other groups for the best sound bites and bumper sticker slogans. Robert Duffy points out that there are thousands of organizations active today, and no single lobbying organization can capture the full range of activities now employed by environmental groups (2003, 82).

While most environmental groups have similar general interests and long-term goals, like safeguarding natural spaces from excessive development or having safe water to drink, their priorities and means of action may differ. One group may send activists to destroy machinery involved in the destruction and another may call a meeting of local residents to resolve issues. Large mainstream environmental organizations are able to hire lobbyists to persuade elected officials to vote in an earth friendly manner. One group may even execute all three of these strategies.

The scope of these actions is wide ranging, but ultimately is guided by some of the same principles. They also must combat other issues that may take precedence over the environment. The war on terror and stories related to national security usually override any concern group members or voters have for a healthy planet.

Measuring Public Opinion on the Environment

While many would like to think that an overwhelming majority of citizens believe that protecting the environment and its resources are important, some surveys show otherwise. A study of national problems shows that issues such as unemployment, government spending, crime, and public education are usually more important than environmental problems (Bowman, 6). Another survey in May 1996 by both CBS News and The New York Times asked Americans about the most important problems facing the country, and the environment did not even make the list (Bowman, 5).

A 2004 Gallup study found the proportion of those who believed that environmental protection should be given priority, “even at the risk of curbing economic growth,” had eroded by a staggering 20 percentage points over the past four years. The number willing to “prioritize protection of the environment” over the economy was now the lowest on record since 2000, at 49% (Bosso & Guber, 82).

Doesn't polluted water coming out of your faucet and nearby leaking landfills worry Americans? It does, but other issues take precedence. To counteract this lack of direct engagement, individuals may give money to an environmental group and consider themselves 'taken care of.' This can be seen as delegating the task of protecting the planet to an organized group - so they can go about their own business. But these citizens are still an important part of the movement.

Without their membership dues and generous donations, organizations would crash. Organizations are designed to coordinate and represent citizens so that their action has far more chance to succeed than when the effort is expended separately (Nagel, 126). Yet at the same time, these groups are still segmented with no real universal consensus on how best to tackle environmental problems.

Even in political campaigns, the environment has taken a backseat. In 1988 both Dukakis and Bush promised to be the environmental president, but in the 2004 campaigns the environment hardly seemed like a speck on the radar.

Even if strong public concern for the environment exists, it may not translate into direct policy responses. If we knew how to translate it directly, we might see a national environmental movement today like we did decades ago, driven and prosperous. Instead, our elected representatives focus on issues most relevant to their constituents, and as previously stated, the people are not currently making the environment a priority.

Framing of Environmental Issues

Is relying on these organizations to lobby on behalf of the environment missing the point of being an environmentalist? It seems environmentalists were once passionate individuals in concerned organizations working together towards known ecological goals.

Hal Rothman uses the appointment of James Watt, Reagan's Secretary of the Interior, to show how Watt "Drew a line that defined environmentalism out of the American mainstream and made its advocates extremists" (Rothman, 169). Watt's office seemed to pit jobs against the environment in the "starkest of terms," in what becomes a decisive framing concern. Politicians and economists today still use these expressions when explaining policy decisions.

Many studies argue that issue framing is vital to both organizations and individuals alike for accomplishing goals and setting standards. Michael Shellenberger and Ted Nordhaus make a compelling claim about the "Death of Environmentalism" (2004). Mentioning that environmentalists believe they are the only ones able-bodied enough to save

the planet, this 'thing' they must protect is the environment. Shellenberger and Nordhaus believe this is the wrong framing of the situation.

Disappointed and unhappy with mainstream environmental organizations, they discuss how we can connect living life in an environmentally friendly way to our core American values, principles, and deeply held beliefs. This may create a new form of environmentalism – one that could lead us into the future.

Other than preferring other issues than the health of the planet, individuals may just not be knowledgeable enough to form their attitudes regarding the environment. Bosso and Guber (2006, 84) find that popular opinion on environmental issues is ambivalent and ill informed under the best of conditions. Many voters may not even see a difference between parties or candidates on environmental issues. Most Americans demand action after a crisis, for example – cleaning up an oil spill, but don't ask for preventative measures.

Even within the Minnesota Report Card on Environmental Literacy data, it shows that 60% percent of Minnesota adults believe they are knowledgeable about environmental issues and problems, but only 47% have an above-average knowledge about the environment. Those 47% correctly answered five or more out of eight general environmental knowledge questions, and only 11% received an "A," answering seven to eight questions correctly (Murphy, 2004).

Bosso and Guber (2006) also point out that language choice plays a significant role in issue framing. Emotions tied to words like 'safer, cleaner, and healthier' usually are more successful than promoting the environment's health for its own sake. Groups must also avoid scientific and technical jargon such as 'watershed' and 'riparian' in making a case, and instead use familiar words like 'drinking water' and 'pollution' (Duffy, 105). Republicans and

development lovers also have a rhetoric of their own; they frame the argument around the economy prospering at the expense of the environment.

Calling it a 'fair balance' between the environment and the economy, their language becomes believable. Most Americans wouldn't want to give up their jobs for a better environment. Jack Nagel finds this to be true, as he states that personal costs and selective incentives commonly play a larger role in the decision to participate than collective goals like protecting the environment (1987, 49.) Environmental organizations are still trying to figure out how to make the environment a top national priority while competing with their opponent's rhetoric - as well as soaring gas prices, black outs, and rising unemployment.

In Deborah Lynn Guber's *Tale of Two Initiatives* (2001), she finds that in two separate cases, content and language of campaign messages are key to understanding public willingness to pay for or support protective environmental policies. In her first case study, Guber looks at the 1986 California Safe Drinking Water and Toxic Enforcement Act, or what's more commonly called Proposition 65. A group of concerned California citizens filed a lawsuit against offending companies who were knowingly releasing 'significant amounts' of toxic substances into drinking water.

Proposition 65 succeeded because of the wording on the ballot and in the campaign. "Prohibiting the discharge of toxic substances into drinking water" and "Requiring warnings of toxic chemicals exposure" were particularly appealing to voters. Even those who had not heard of the initiative before Election Day were also likely to support it because of those phrases (Guber 2001, 124).

Opponents argued that the Proposition 65 would harm the California economy, drive away jobs, and not result in one single glass of cleaner water (123). Although this

initiative was a strict environmental policy put before California voters, the voters ultimately preferred to view the proposal as a clear-cut health and quality-of-life issue.

In the second case study, another California ballot initiative hoped that a new policy regulating the recycled content of all product packaging would 'close the loop' in the state's burgeoning recycling program (Guber 2001, 126). Opponents of the recycling policy argued that consumers were the ones most likely to bear the burden of mandated repackaging, and it would cost families up to \$230 a year in higher product prices.

To demonstrate this, the opponents outspent environmental sponsors by 13:1 on their advertising campaign. By reframing the issue as a packaging ban rather than a pro-recycling policy, opponents successfully shifted public attention away from environmental concern and the initiative was not passed. Guber reveals that this shift also allowed opponents to simplify the issue and link public attitudes to political ideology and long-standing beliefs about bureaucratic waste and inefficiency (2001, 129).

Deborah Guber again asserts that political adversaries frequently use powerful rhetoric to persuade environmentally concerned voters that the marginal benefit of regulation fails to exceed its cost. Both of these cases show the importance of issue framing in understanding the dynamics of electoral choice (2001: 130). But how will the movement continue into the future?

The Future?

Hal Rothman asserts that making pollution real for the American public is the appropriate foundation for bringing the environmental movement back together (2001, 127). Will it take more disasters to convince the American people to care more about the planet's well being? Deborah Guber offers a fairly optimistic outlook in her most recent book,

“Environmentalists should take heart in the knowledge that environmental issues can influence ballots cast in elections (2003, 121). Showing citizens how they are affected may produce the most action; but the question remains – how will it be structured?”

Public opinion research can help determine where the public stands on environmental protection and possibly what types of appeals are more likely to resonate with the public. (Duffy, 103). Even beyond public opinion, we need a broad based coalition that reaches across parties, religious ideologies, and demographics. This is being discussed as the new approach to the environmental movement. This agenda will likely go above individual pollution problems and integrate all aspects of consumerism, religion, and moral values into environmentalism.

Connecting a healthy environment for one’s own health and prosperity is necessary for the movement’s survival. Deborah Guber refers to a study by Mark Baldassare and Cherly Katz to demonstrate this position. They find that respondents who worry about the impact of environmental problems on their own personal well-being are more likely to recycle, conserve water, buy environmentally safe products, and limit their driving to reduce air pollution, an effect not matched in predictive ability by any other social, political, or demographic trait (2001,158). Having citizens make conscious consumer decisions may lead to other citizen action, including campaigning for environmentally responsible candidates and keeping them in office.

Finding who has this underlying principle of environmental stewardship will help set the agenda in political campaigns and may be further carried out through legislation. It may also enable environmental organizations to bolster their most committed members - as well as target those who are ready to participate in the movement.

Methodology and Analysis

Using the Minnesota Report Card on Environmental Literacy survey data from 2004, I analyze what makes an environmentalist today. This survey was conducted by The Wilder Research Center in St. Paul and jointly funded by the Minnesota Office of Environmental Assistance and Hamline University. This 15 minute phone survey gathered information from 1,000 random Minnesota residents between August and November of 2003 regarding their environmental literacy. The questions were then placed into three key categories dealing with environmental knowledge, attitudes and behavior. These questions were then scored and recoded into three separate report cards, using a scale from A to F. Other survey sections included demographic information.

The environmental knowledge section consisted of 13 fact based questions to determine what residents *actually knew* about the environment. Environmental attitude questions were added to examine what they *believe* about certain environmental issues like air pollution, water quality threats, and corporate environmental responsibility. Finally, the environmental behavior questions reveal what respondents do in their daily lives, and contain the two environmental questions with which my research is most concerned.

The first regarding political behavior asked if a candidate's stance or record on environmental protection issues was important or not in their voting decision, and the second was the frequency with which they have donated money to an environmental organization in the past year. Other important behavior questions involved conserving water, using alternate transportation, and lawn maintenance questions.

Combining my two central behavior questions, I create a new index of political environmental activity. This creates one new dependent variable. It was recoded into a five point scale from very low to very high environmental political activity. This index will first

be tested against important demographic factors such as sex, education level, income, and age. Then later, tested with the different environmental report card scales. I wanted to find specific factors that are attributed to how active someone is in the environmental movement. In Jack Nagel's *Participation*, he clearly states that the typical supporters of public interest lobbies are educated and affluent (1987, 140). Is that statement representative of today's environmentalist? Using the index of donating money to an organization and if the candidate's record or stance matters in their voting decisions, I anticipate some significance in both the demographic factors and report card scores.

Table 1: Environmental Political Activity by Education level and Gender

			Education			Total
			HS graduate or less	2-year degree	College graduate or more	
Men	Environmental Political Activity	Very Low	14 18.4%	23 23.0%	23 14.9%	60 18.2%
		Low	20 26.3%	27 27.0%	33 21.4%	80 24.2%
		Moderate	23 30.3%	31 31.0%	42 27.3%	96 29.1%
		High	12 15.8%	15 15.0%	35 22.7%	62 18.8%
		Very High	7 9.2%	4 4.0%	21 13.6%	32 9.7%
		Total	76 100.0%	100 100.0%	154 100.0%	330 100.0%
Women	Environmental Political Activity	Very Low	17 13.5%	24 14.4%	10 5.1%	51 10.5%
		Low	32 25.4%	31 18.6%	37 19.0%	100 20.5%
		Moderate	49 38.9%	67 40.1%	65 33.3%	181 37.1%
		High	22 17.5%	30 18.0%	48 24.6%	100 20.5%
		Very High	6 4.8%	15 9.0%	35 17.9%	56 11.5%
		Total	126 100.0%	167 100.0%	195 100.0%	488 100.0%

Men's Gamma = .153 Approximate significance of .022
 Women's Gamma = .246 Approximate significance of .000

Table 1 shows a weak Gamma relationship between female environmental political activity and education, and an even weaker relationship in males. As shown, those with a college education are represented in the moderate and higher environmental political activity categories, with the females again leading in almost every category. Even if higher percentages fall there, looking at the moderate activity level of both genders reveals that there is not a large difference in education levels.

With males, we see 30.3%, 31%, and 27.3% who are moderately active and have all different education levels. Also with females, a small variation exists between education levels on the moderately active respondents, with 38.9%, 40.1%, and 33.3%. In short, education levels do not spell out who is most active in the movement.

Table 2: Environmental Political Activity by Income and Gender

			Income				Total
			Up to \$30,000	\$30,001 to \$50,000	\$50,001 to \$75,000	Over \$75,001	
Men	Environmental Political Activity	Very Low	5 14.3%	16 25.4%	14 17.1%	19 15.0%	54 17.6%
		Low	8 22.9%	14 22.2%	22 26.8%	31 24.4%	75 24.4%
		Moderate	9 25.7%	23 36.5%	26 31.7%	30 23.6%	88 28.7%
		High	11 31.4%	7 11.1%	12 14.6%	29 22.8%	59 19.2%
		Very High	2 5.7%	3 4.8%	8 9.8%	18 14.2%	31 10.1%
	Total	35 100.0%	63 100.0%	82 100.0%	127 100.0%	307 100.0%	
Women	Environmental Political Activity	Very Low	14 13.0%	10 10.8%	8 7.0%	12 9.8%	44 10.1%
		Low	28 25.9%	23 24.7%	21 18.4%	21 17.2%	93 21.3%
		Moderate	41 38.0%	28 30.1%	44 38.6%	47 38.5%	160 36.6%
		High	19 17.6%	20 21.5%	24 21.1%	21 17.2%	84 19.2%
		Very High	6 5.6%	12 12.9%	17 14.9%	21 17.2%	56 12.8%
	Total	108 100.0%	93 100.0%	114 100.0%	122 100.0%	437 100.0%	

Men's Gamma = .104 Approximate significance of .109

Women's Gamma = .135 Approximate significance of .009

Above in Table 2 I find an even weaker relationship between environmental political activity and income levels. I expected to find a higher activity rating for those having higher incomes (>\$75,000), as they are most able to 'afford' to donate money and participate in environmental issues. Yet the data does not support that hypothesis. The largest category of active males (36.5%) falls into the moderate activity level with incomes of \$30,001-\$50,000 - which is surprising.

While the largest category of active females (38.6%) are those with slightly higher household incomes (\$50,001-\$75,000) are still found in the moderate activity level. Fascinating to look at is that roughly the same percentage of females (17.6%) who scored 'high' on the activity scale fell into the "Up to \$30,000" and also those with household

incomes of over \$75,000 (17.2%). There is no clear cut income level that provides for who is most active in the environmental movement.

Table 3: Environmental Political Activity by Age and Gender

			Age				Total
			18-34 years	35-44 years	45-64 years	65 or older	
Men	Environmental Political Activity	Very Low	15 26.8%	16 20.3%	19 13.4%	10 18.5%	60 18.1%
		Low	15 26.8%	17 21.5%	36 25.4%	13 24.1%	81 24.5%
		Moderate	12 21.4%	28 35.4%	39 27.5%	17 31.5%	96 29.0%
		High	10 17.9%	12 15.2%	31 21.8%	9 16.7%	62 18.7%
		Very High	4 7.1%	6 7.6%	17 12.0%	5 9.3%	32 9.7%
	Total	56 100.0%	79 100.0%	142 100.0%	54 100.0%	331 100.0%	
Women	Environmental Political Activity	Very Low	10 13.0%	16 13.8%	15 7.8%	10 9.8%	51 10.5%
		Low	19 24.7%	24 20.7%	42 21.8%	15 14.7%	100 20.5%
		Moderate	27 35.1%	41 35.3%	72 37.3%	41 40.2%	181 37.1%
		High	13 16.9%	23 19.8%	40 20.7%	24 23.5%	100 20.5%
		Very High	8 10.4%	12 10.3%	24 12.4%	12 11.8%	56 11.5%
	Total	77 100.0%	116 100.0%	193 100.0%	102 100.0%	488 100.0%	

Men's Gamma = .096 Approximate significance of .125
 Women's Gamma = .098 Approximate significance of .054

Again in Table 3, we see another demographic factor that has a weak relationship. Environmental political activity can hardly be defined by age! The largest percentage of moderately active males (35.4%) fall into the age category of 35-44 years, while the largest percentage of moderately active females (40.2%) are actually 65 or older. Also interesting to note is the extreme similarity between both males and females aged 45-64 in the high and very highly active categories. Both have percentages right around 20% for the high category and 12% for the very high category.

This almost parallel relationship does not take place anywhere else when analyzing environmental political activity by age group. Table 3 shows that the people participating in the movement are in all age categories.

Since my demographic factors did not show much variation or significance, I used my activity index against each of the report card scales for environmental knowledge, attitudes, and behavior.

Table 4: Environmental Political Activity by the Environmental Knowledge Score and Gender

			Environmental Knowledge Score					Total
			F (0-4)	D (5-6)	C (7-8)	B (9-10)	A (11-13)	
Men	Environmental Political Activity	Very Low	9 27.3%	13 24.1%	18 19.4%	15 16.1%	5 8.6%	60 18.1%
		Low	11 33.3%	17 31.5%	22 23.7%	24 25.8%	7 12.1%	81 24.5%
		Moderate	8 24.2%	15 27.8%	23 24.7%	29 31.2%	21 36.2%	96 29.0%
		High	5 15.2%	8 14.8%	21 22.6%	14 15.1%	14 24.1%	62 18.7%
		Very High	0 .0%	1 1.9%	9 9.7%	11 11.8%	11 19.0%	32 9.7%
	Total		33 100.0%	54 100.0%	93 100.0%	93 100.0%	58 100.0%	331 100.0%
Women	Environmental Political Activity	Very Low	23 18.4%	13 7.9%	10 9.1%	5 7.0%	0 .0%	51 10.4%
		Low	25 20.0%	36 22.0%	26 23.6%	10 14.1%	4 21.1%	101 20.7%
		Moderate	48 38.4%	66 40.2%	35 31.8%	26 36.6%	6 31.6%	181 37.0%
		High	23 18.4%	31 18.9%	23 20.9%	17 23.9%	6 31.6%	100 20.4%
		Very High	6 4.8%	18 11.0%	16 14.5%	13 18.3%	3 15.8%	56 11.5%
	Total		125 100.0%	164 100.0%	110 100.0%	71 100.0%	19 100.0%	489 100.0%

Men's Gamma = .249 Approximate significance of .000

Women's Gamma = .185 Approximate significance of .000

When environmental knowledge scores are accompanied by the activity index, we find slightly higher Gamma rates, especially in the males. Table 4 points out that those with a very low to moderate activity in males are those who scored the worst (F-D) on the

environmental knowledge scale (27.3%, 24.1%, 33.3%, and 31.5% respectively). For females, the percentages scoring the worst (F-D) still scored higher on activity level (20.0%, 22.0%, 38.4%, and 40.2%). This means that even though they may not have answered all of the environmental knowledge questions correctly, females are still more active.

Furthermore, there were only a few case numbers where females scored an "A" in any of the environmental political activity scales, but the female activity scores seem to gradually increase where they had better knowledge. This can be illustrated with the percentages reading left to right: 18.4%, 18.9%, 20.9%, 23.9%, and 31.6%. Males on the other hand bounce back and forth within the high activity row; with percentages of 15.2%, 14.8%, 22.6%, 15.1%, and 24.1%. According to this table, environmental knowledge may play a role in getting an idea of those who are most active.

Table 5: Environmental Political Activity by the Environmental Attitude Scale and Gender

			Environmental Attitude Scale			Total
			Low	Medium	High	
Men	Environmental Political Activity	Very Low	20 41.7%	23 20.7%	13 7.8%	56 17.2%
		Low	12 25.0%	33 29.7%	34 20.5%	79 24.3%
		Moderate	8 16.7%	36 32.4%	52 31.3%	96 29.5%
		High	6 12.5%	16 14.4%	40 24.1%	62 19.1%
		Very High	2 4.2%	3 2.7%	27 16.3%	32 9.8%
		Total	48 100.0%	111 100.0%	166 100.0%	325 100.0%
Women	Environmental Political Activity	Very Low	5 13.9%	20 14.5%	20 6.8%	45 9.7%
		Low	11 30.6%	36 26.1%	48 16.4%	95 20.4%
		Moderate	15 41.7%	57 41.3%	99 33.9%	171 36.7%
		High	3 8.3%	21 15.2%	75 25.7%	99 21.2%
		Very High	2 5.6%	4 2.9%	50 17.1%	56 12.0%
		Total	36 100.0%	138 100.0%	292 100.0%	466 100.0%

Men's Gamma = .440 Approximate significance of .000

Women's Gamma = .388 Approximate significance of .000

When the environmental attitude scale is used with environmental political activity, I found a major difference in the 'very low' activity category and 'low' attitude category. Males in this category made up 41.7% of the column; meaning that those who did not have a pro-environment attitude were not participating in the activity (donating money frequently or evaluating a candidate based on their environmental stance or record). If then you look at the female section for the same cross tab, only 13.9% fall into the 'very low' category. The majority of females are found at the moderate activity level, with fairly similar percentages of

41.7%, 41.3%, and 33.9% across the attitude scale. Males on the other hand, are predominately spread out in the low activity level.

This demonstrates that females are participating in environmental political activities slightly more than the males. These are also the most significant gamma levels so far (.440 for males and .388 for females), meaning that environmental political activity is more associated with a more positive environmental attitude than any of the demographic factors looked at previously.

Table 6: Environmental Political Activity by Environmental Behavior Scale and Gender

			Environmental Behavior Scale			Total
			Low	Medium	High	
Men	Environmental Political Activity	Very Low	30 40.5%	29 19.3%	1 .9%	60 18.1%
		Low	34 45.9%	41 27.3%	6 5.6%	81 24.5%
		Moderate	8 10.8%	57 38.0%	31 29.0%	96 29.0%
		High	2 2.7%	18 12.0%	42 39.3%	62 18.7%
		Very High	0 .0%	5 3.3%	27 25.2%	32 9.7%
	Total		74 100.0%	150 100.0%	107 100.0%	331 100.0%
Women	Environmental Political Activity	Very Low	19 20.0%	25 12.4%	7 3.6%	51 10.4%
		Low	41 43.2%	50 24.9%	10 5.2%	101 20.7%
		Moderate	32 33.7%	84 41.8%	65 33.7%	181 37.0%
		High	2 2.1%	32 15.9%	66 34.2%	100 20.4%
		Very High	1 1.1%	10 5.0%	45 23.3%	56 11.5%
	Total		95 100.0%	201 100.0%	193 100.0%	489 100.0%

Men's Gamma = .758 Approximate significance of .000

Women's Gamma = .631 Approximate significance of .000

When I ran a cross tab analysis between the environmental behavior scale and my activity index, my results matched my expectations as shown in Table 6. Even though there are some low cell frequencies, it shows that both males and females who had a low or “anti-environmental” behavior were most likely not to be participating in the activities. These percentages are 40.5% and 45.9% for the males, and 20.0% and 43.2% for females. That 40.5% for males and 20.0% for females again supports that females are more active than males.

Continuing to look down the low behavior scoring column, I found virtually no respondent with high or very high environmental political activity levels. This should be obvious, as the majority of respondents for both males and females who scored high or higher on the activity index were also represented in the high or “pro-environment” behavior scale. Male percentages in these categories were 39.3% and 25.3%, and females with 34.2% and 23.3%. Behavior scores also yielded higher gamma ratings, with males at .758 and females at .631. Table 6 provides the strongest evidence for the theory that daily environmental behaviors are the best predictor of environmental political activity.

To summarize my findings so far, education, income, and age did not show clear factors of what makes an environmentalist today. Using the Minnesota Report Card scales of environmental knowledge, attitude, and behavior I did find higher Gamma rates, which may be better indicators than traditional demographic factors.

To be certain of this, I use multivariate regression to control for each of the independent variables - the three environmental scales of knowledge, attitude, and behavior.

Table 7: Regression Analysis of Environmental Political Activity

Independent Variables	Unstandardized Coefficients B(SE)	β
<i>Constant</i>	1.137(.15)	
Environmental Knowledge	.082(.027)**	0.086
Environmental Attitude	.354(.05)*	0.205
Environmental Behavior	.828(.046)*	0.518
R ² = .369		

Added Demographic Controls

<i>Constant</i>	0.638(.216)	
Environmental Knowledge	0.095(.032)**	0.099
Environmental Attitude	.317(.053)*	0.182
Environmental Behavior	.820(.049)*	0.510
Education	0.11(.049)*	0.074
Income	0.01(.028)	0.011
Age	0.08(.038)*	0.065
Sex	0.198(.078)*	0.082
R ² = .389		

**p<.01

*p<.05; Standard error in parentheses

Table 7 provides the multivariate regression results showing that environmental behaviors are the largest predictor for determining how active a person is in the environmental movement. This equation is:

$$Y (\text{predicted environmental political activity}) = \text{constant} + \text{environmental knowledge} + \text{environmental attitude} + \text{environmental behavior} + e\dots$$

The R square value is .369, meaning that 36.9% of the variance in political activity is explained by the independent variables. Significance is found for each of the variables, attitudes and behavior at the .05 level and knowledge at the .01 level; but the environmental behavior score yielded the highest coefficient or B. The coefficient represents when a unit change in X (behavior) produces a change in Y, or here it means respondents are a half step more active (.510).

To control for demographic characteristics, I ran the regression formula once more but added education level, income, age, and sex. Looking at these new scores in Table 7, I have a slightly higher R squared term (.389) and again environmental behaviors show up as the strongest predictor of environmental political activity. Going back to the survey questions, these environmental behaviors include taking shorter showers to conserve water, turning off the lights when you leave a room, using public transportation, fertilizing and maintaining your lawn, and maintaining a compost bin. Both of these regression results show that those participating in the behaviors listed above are the most active in the environmental movement.

However, in order to verify that my behavior result was not showing such high levels of significance due to the fact that my political activity index was derived from two political questions in the behavior scale, I modified the behavior scale. This required recoding and computing variables within the behavior question section of the original survey. The new behavior scale consisted of a scale from 1-3, or pro-environmental to anti-environmental behaviors. The variables I recoded included the survey questions regarding shorter showers, energy conservation, using public transportation, and maintaining a compost bin. I did not include the lawn maintenance question because I could not perfectly recode all possible respondent answers. I also did not include the two political questions about donating money or evaluating a candidate's stance as I was aiming to test the behavior report card without those factors to see if the relationship would remain as strong.

The correlation between the political activity index and the original behavior scale was .558 with an R^2 of .311, and I wanted to verify the strength with further analysis. Using the same questions, I run multivariate regression with my modified behavior scale – first

with just the independent variables of attitude, knowledge, and modified behavior, and then again with the four demographic factors. These results are shown in Table 8 below.

Table 8: Regression Analysis of Environmental Political Activity with Modified Behavior Scores

Independent Variables	Unstandardized Coefficients	
	B(SE)	β
<i>Constant</i>	1.616(.312)*	
Environmental Knowledge	.117(.051)*	0.128
Environmental Attitude	.676(.095)*	0.401
Environmental Behavior-MODIFIED	.283(.099)**	0.159
$R^2 = .241$		
With Added Demographic Controls		
<i>Constant</i>	.631(.473)	
Environmental Knowledge	.101(.058)	0.111
Environmental Attitude	.558(.101)**	0.332
Environmental Behavior-MODIFIED	.275(.103)*	0.155
Education	.231(.100)	0.149
Income	.035(.057)	0.61
Age	.238(.085)*	0.167
Sex	.238(.085)	0.057
$R^2 = .271$		

**p<.01

*p<.05; Standard error in parentheses

Table 8 shows that the modified behavior scale is still significant again on the dependent variable, my environmental political activity index. Environmental attitudes are now showing higher coefficient terms as compared to the modified behavior scale, but I expected the modified behavior coefficient to not be as large (as in the first two models of regression.) According to these new results, we can say that attitudes and behaviors matter the most when determining who is most active, as the attitudes are significant at the .01 level and the modified behaviors are at the .05 level when demographics are added into the

regression formula. Also interesting to note is that when accounted for, education and income are not statistically significant in this regression model.

Again, demographic factors hardly seem significant in pinpointing who an environmentalist is today, but can be better explained by what they do and believe about environmental issues on a daily basis.

Conclusion

Spelled out with regression, I find that those most likely to be politically active in the Minnesota environmental movement today are those who take time out of their daily lives to be a little more environmentally conscious. While this research may not convince everyone to take four minute showers or donate hundreds of dollars to The Sierra Club, it does suggest avenues for reinvigorating the environmental movement.

It seems that individual environmental activism stems from deeply held beliefs that are driven by both their knowledge and attitudes about environmental issues and problems. As shown in Tables 1-3, most demographic factors have little to do with activity levels. Even if one holds a Ph.D., it does not necessarily mean that he or she is more active or even more knowledgeable with reference to environmental issues and the movement. This is contrary to most other modes of political participation (voting), where the single biggest predictor is education.

This also reminds us of how crucial the re-framing of environmental issues into new lifestyle questions can be to further progress. As found in previous research stated earlier, those who are worried about the impact of environmental problems on their own well-being are more likely to participate in daily activities of the environmental movement. This was supported by my findings as well, where those with 'pro-environment' attitudes and behaviors are contributing the most to the movement. Jack Nagel points out that the

calculus of participation implies that people are more willing to take part when there is more at stake. Participation that is intense, extensive, and lasting becomes possible when collective decisions govern all important facets of life (1987, 43). What could be more important than clean drinking water and fresh air to breathe?

First people must realize that we are not just protecting the environment for the environment's sake, but for the people's sake as well. Convincing the public to do the 'little things' that add up will in turn yield more environmentally friendly candidates and continue to fully operate environmental organizations. Many Americans stand for a balance between "making a living" and protecting nature, but now they must learn to see that protecting nature will "make living" possible.

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