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**UNDERSTANDING AFRICAN AMERICAN ENVIRONMENT CONCERN:
DOES RACE PLAY A ROLE?**

by

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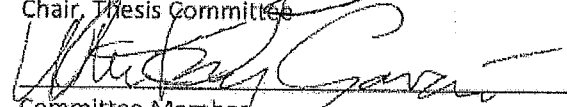
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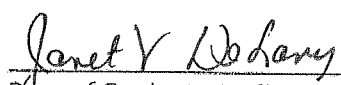
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Abstract

Understanding African American Environmental Concern:

Does Race Play A Role?

Michael Brice

The goal of this paper is to better understand what factors shape African Americans' environmental attitudes. The research topic stems from a questionable assumption that African Americans view the environment as a lower priority concern. Researchers over the last thirty years have been interested in studying what is called the social basis of concern for environmental quality. The objective of this analysis is to investigate whether racial differences can explain expressions of several environmental attitudes more than other socio-demographic differences. The data for this research comes from the 2010 General Social Survey (GSS) dataset. The results showed that African Americans, as a whole, do not have vastly different opinions about environmental concern than whites. However, major differences were observed amongst the subcategories. Interestingly, some African American subpopulations did not appear to express higher levels of environmental concern, contrary to prior research and common assumptions. Targeted subpopulation research will be needed.

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Introduction and Problem Statement

The goal of this paper is to better understand what factors shape African Americans' environmental attitudes. For this research, "environmental attitudes" encompasses participating in environmental activism, financing environmental initiatives, and concern for the environment in general. The primary emphasis of this project is to supplement the relatively small body of research on African American attitudes about these different environmental concepts. "Is race a primary predictor of levels of concern for the environment," is the exploratory question. The rationale for this study comes from the author's personal experience engaging in environmental issues¹ and from the marginal amount of research regarding African Americans' environmental concerns as compared to other areas such as civil rights issues. The research topic stems from a questionable assumption that African Americans view the environment as a lower priority concern than say civil rights, especially when compared to their white counterparts (Hershey and Hill 1977; Buttel 1978; Mohai 1990; Dunlap and Jones 1992; Rainey 2008).

This "Lack of Concern Myth," for the environment as Robert Jones coined it, has its roots in 1970s popular culture and the association of African Americans with civil rights issues (Jones and Carter 1994). Furthermore, expressing concern for the environment and participating in conservation movements was also seen by several

¹ During the last few years, I have participated in several environmental activist groups and have also attended the Left Forum, which is an annual progressive leaning conference. Many times, I have noticed that I am the only African American (or one of a small percentage) attending these events. While I know this perception is completely anecdotal, this experience has sparked my interest for further investigation.

scholars as an activity of more affluent Americans in the 1970s and 80s (Williams 1970; Buttel 1978). Although it was logical to assume that economic hardship impacted other interests, a critical unspoken assumption was that race in and of itself contributed to predicting environmental interest (Kreger 1973; Tucker 1982). Could this assumption still exist in contemporary America? Other environmental attitude studies regularly included various socio-demographic variables however, race is sometimes unacknowledged despite its continued relevance in the American landscape and the potential positive and/or negative consequences of its use (Van Liere and Dunlap 1980; Dunlap and Jones 1992; Jones and Carter 1994; Jones & Rainey 2002).

Environmental attitude studies with an African American concentration from the last decade have largely focused on distinct communities; while research at the national level has been limited. Although this project cannot achieve a true random national scale, one avenue for understanding wider public opinion comes from studying data attained through the 2010 General Social Survey (GSS) dataset. The GSS has been conducted by the National Opinion Research Center (NORC) on a bi-annual basis since 1973. An important benefit for this project is the use of environmental opinion modules, presented in specific years, and designed to question Americans in a number of areas. In addition to having more general environmental questions in all GSS surveys, on three occasions, 1993, 2000 and 2010 almost forty environmental specific questions were asked of respondents. This research utilizes data recorded from the 2010 study.

The value in studying the 2010 data is that the survey captures sentiment from a decade of major events that have dramatically impacted the United States. From 9/11 to

Hurricane Katrina, to the financial collapse of 2008, the conditions concluding the first decade of the twenty-first century were vastly different from those at the end of the twentieth. Awareness of environmental issues over the last decade has also increased in the U.S. Whether individuals agree or disagree about climate change, talking about environmental issues such as climate change, promotes contentious debates. With research about environmental issues becoming a major focus of the academic community², survey data from the 2010 General Social Survey (GSS) presents a unique snapshot of American opinions at the end of the first decade of the 21st century.

The major research question being explored here is: Can attitudes about environmental concern be explained by only looking at race, or do other socio-demographic factors make stronger arguments? Furthermore, because of race, are there major differences between self-identified, non-Hispanic African Americans and whites in their attitudes towards other environmental initiatives such as activism or financial support of environmental causes within the 2010 survey data? Based on these questions, the principle hypothesis is that self-identified, non-Hispanic African Americans tend to articulate less environmental concern than their white counterparts. Several other sub-hypotheses will be introduced later in the paper. In order to analyze these inquiries, a select number of questions were pulled from the GSS to measure topics such as level of concern, environmental activism and support for environmental financing. The literature review follows this introduction and emphasizes the theoretical developments regarding

² A web search using the academic search premier database for the term “environmental concern” for the decade of the 1990’s displayed 159 peer reviewed papers. The same search for the decade of the 2000’s displayed 2878 peer reviewed papers.

African Americans' environmental concern and also what prior research on this topic exists. The next section elaborates on the hypotheses being tested in this research. The following section highlights the data being used and the methods for analysis. Next, the results will be examined and finally the ramifications for future research are discussed.

Researchers over the last thirty years have been interested in studying what is called the social basis of concern for environmental quality (Van Liere and Dunlap 1980; Dunlap and Jones 1992). A much smaller body of work, however has attempted to assess the basis of African Americans' environmental concern. Therefore, this study holds importance for several reasons. First, if public assumptions still persist regarding African Americans' lack of concern for environmental issues, African Americans could potentially lack representation when dealing with environmental issues. Secondly, if the public were to think someone can only engage in environmental activism once all their basic needs are met, potential negative economic stereotypes about persons of color could lead to discounting voices from across a racial landscape. Finally, Americans' attitudes about environmental issues, such as climate change, as captured by nationally representative samples, have shown a decline in support in recent years (McCright and Dunlap 2011; Moser 2010; Pike and Herr 2011; Scruggs and Benegal 2012). If race and cultural priority³ somehow contribute to differing perceptions about the environment, this understanding could provide another avenue through which researchers and community groups engage the community.

³ African Americans are usually tied to civil right issues when talking about what priorities certain groups have.

Literature Review

Early Research on African American Environmental Concern

A major theme of 1970's research on environmental attitudes focused on the idea of economy versus environment. One of the first studies interested in gauging public environmental concern was the work of Frederick Buttel and William Flinn (1976). In that study, the authors were interested in the extent to which support for economic growth and environmental concern were related, specifically within the environmental movement. In order to study this relationship, the team utilized data from a 1968 statewide survey of Wisconsin residents that was then transformed into an attitudinal scale of support for economic growth. Buttel and Flinn (1976) predicted that consistent support for environmental issues in the face of economic difficulty was greater amongst the middle than the working class. The study found that indeed, the middle class held consistent its environmental beliefs when correlated with economic expansion, more so than the working class, presumably because the researchers "reform" measure tapped into working class Americans' attitudes that embodied a more straightforward threat to their desired economic expansion (Buttel and Flinn 1976).

The theme of working class and minority preference for economic growth over environmental concerns was proposed again by Buttel in 1978. In that paper, Buttel (1978) who, for a second time used survey data from Wisconsin residents, argued that support for economic growth was an important component of mass public belief systems in relation to environmental quality, and therefore it was important to determine the structural basis of how such support was developed. He believed that the American

working class was tied to both economic and welfare state expansion, at least in the short term because of economic insecurity. He also believed that a countermovement against environmentalism was developing because the arguments expressed by working class citizens centered on whether the cost of environmental concern was too high. Thus, while Buttel agreed that the American left saw environmental issues as important, the working class was tied to economic concerns. The only way to secure working class support for controlling economic expansion and environmental degradation was to tie policies to alternatives that alleviated inequality and economic insecurity (Buttel 1978). However, others saw Buttel's use of term "working class" as a scapegoat for describing environmental concern apathy by certain racial groups.

During this time, African American researchers were also beginning to study localized environmental attitudes of African Americans. Marjorie Hershey and David Hill (1977) conducted survey research of two hundred teenagers in Florida to determine whether racial differences in adults' perceptions of environmental issues transmitted to the younger generation. They were also interested in whether the issue of environmental protection had a different meaning for African Americans than whites. The authors attempted to account for a number of popular culture assumptions about African American attitudes towards pollution at the time, particularly from sources such as TV programming. This conjecture featured statements such as: their assumed lower socioeconomic status affected their opinions; they generally received fewer years of formal education than whites; they were likely to be exposed to different levels of pollution than whites were; and because of feelings of less effectiveness in politics, African Americans had more of a reason to exhibit psychological denial (Hershey and

Hill 1977). After controlling for socioeconomic status, the study found that African American Florida pre-adults were much less likely than whites to define pollution in complex terms, to see environmental quality as a serious concern for the whole community and to identify with environmentalist goals. They were also less in favor of limiting economic development for the sake of environmental protection. The authors suggested that their findings showed evidence for a subcultural socialization thesis, which says that subcultures are shaped by special political interests, values and experiences (Hershey and Hill 1977).

The 1980's saw the establishment of environmental sociology as a sub-category of study. Sociology had been slow to study environmental factors' influence on social life because of the emphasis on social organization, which was seen as outside of the environmental realm (Catton 1980). At this time, however, environmental sociologists began studying peoples' attitudes towards the natural environment, which was later termed "environmental concern." Much of this literature focused on how to best measure environmental concern, which social and demographic characteristics best predicted levels of environmental concern, and comparisons of environmental concern among different populations (Dunlap and Jones 1992). Some of the common socio-demographic characteristics used to analyze the social bases of environmental concern were variables such as age, education, income, political ideology, political party, gender, and race (Van Liere and Dunlap 1980).

A review of previous literature on the social basis of environmental concern compiled by Van Liere and Dunlap (1980) identified five hypotheses that were examined

in the prior decade. Age was presumed to be a major influence of environmental attitudes, as younger people were thought to be more concerned about environmental issues than older people. Another hypothesis used in the previous decade was that social class was an influence on environmental attitudes. It was believed that environmental concern was positively correlated with social indicators such as education, income and occupational prestige (Devall 1970). One explanation for this is that the upper and middle classes solved their basic material needs and thus were free to focus on self actualizing ideas like environmental issues. The use of Maslow's hierarchy of needs was proposed as justification for minorities and working class members' lack of concern for environmental issues (Mohai 2003). Finally, it was believed that urban residents, the members of the political left, and men were more likely to be concerned about the environment than country residents, conservatives, and women. Van Liere and Dunlap (1980) found that only three of the hypothesized relationships should be considered empirical generalizations. Age, education, and political ideology were consistently associated with environmental concern, thus making the authors confident in concluding that younger, well-educated, and politically liberal counterparts were more concerned about the environment (Van Liere and Dunlap 1980). The most interesting aspect from this study was that race was not included as a major hypothesis for environmental concern. Research including race as standard variable was limited at the time.

This work was followed by Susan Cutter's work in 1981. Cutter's work with city residents in Chicago is seen as the first comprehensive study in the 80s that challenged many of the common assumptions about African Americans from that day. She performed survey research on 22 communities comprising some 940 inner-city residents

in Chicago. Cutter (1981) concluded that the environmental movement in general, and environmental concern in particular, was not solely a concern of the white upper or middle class. Her study revealed that concern about environmental pollution was even more prevalent among African Americans within those inner-city communities than whites, and especially so for those who lived near solid waste disposal sites (Cutter 1981). Race, however, did not add significantly to any of the "explained variation" in community concern about pollution (water, air, noise, and solid waste) problems after five community-level variables were included in a multiple regression model. This research would lead to a reexamination and reinterpretation of African American attitudes from that point forward.

The second phase of African Americans' environmental attitude research focused on the impact of residential location on defining environmental experience. Reports were beginning to highlight the effects of dirty energy sources in African American communities, and the ways in which those realities constructed environmental attitudes. One of the leading researchers on this front was Robert Bullard, whose work in the mid-80s in some of the poorest areas of Houston, Texas led to a number of community environmental reforms. A major conclusion from his studies was that African Americans were greatly concerned about their localized environmental situation, which usually reflected the inequality inherent in poorer neighborhoods (Bullard 1990). For example, as wealth began flooding the South in the 1980's, uneven economic development deteriorated many of the rural African American communities. Another study by Charles Connerly (1986) investigated how different definitions of concern for economic growth related to each other, to concern for the environment and to social demographic

characteristics of the respondents. He found that concern for economic growth and environmental concern represented different attitudinal perspectives. African Americans and Hispanics were shown to be equally supportive of state spending on environmental issues as whites. That support decreased, however, when African Americans were told that improving the environment could negatively impact their economic conditions (Connerly 1986).

The early 1990s saw a handful of African American researchers from diverse backgrounds showing interest in studying the extent to which African Americans and whites differed on concerns for environmental quality. Robert Jones and Lewis Carter (1994) examined the emergence of several environmental stereotypes such as the lack of African Americans' involvement in conservation groups or some African American leaders' challenges of the idea of environmentalism as collectively suggesting that African Americans and other minority groups were less environmentally concerned than whites. The authors also assessed the overall validity of those stereotypes by reviewing research reported since 1980 and through a series of analyses of nationwide GSS trend data from 1973-90. The results showed that when answering the question "Does the US spend too little, too much, or the right amount, on the environment" African Americans were slightly more supportive of increasing environmental spending than whites over the sixteen year period and also more consistent (Jones and Carter 1994). African Americans were also more consistent than whites in their support for environmental protection in general. Their research also found that during times of economic hardship there was a decrease in support for environmental spending not by African Americans but by whites. They argued that while there were in fact differences in ways in which African

Americans and white Americans engaged in environmental issues, having concern for the environment was not exclusively a “white thing.”

African American researchers in the early 90s also expressed astonishment at the development of localized environmental awareness in what many began coining as the “environmental justice movement.” One of the first scholars to identify the movement was Robert Bullard. His important work, *Dumping in Dixie* published in the 1990’s is considered the first book to address the development of the environmental injustice movement. The work examined the widening economic, health and environmental disparities between racial groups and socioeconomic groups at the end of the twentieth century. Bullard’s work in Houston eventually led to a lawsuit against the city of Houston, the state of Texas and also the corporation Browning Ferris Industries (Bullard 2000). The lawsuit originated from a plan to place a municipal landfill in a suburban, middle-income neighborhood of African American single-family homeowners. Due to uneven economic development and land use disparities in many African Americans’ southern communities, the landfill plan was virtually forced upon the community. The lawsuit became known as *Bearn v. Southwestern Waste Management* and was the first lawsuit in the United States charging environmental discrimination in waste facility location under the Civil Rights Act. While the lawsuit was unsuccessful in stopping the development of the waste facility, it did strengthen movement participants and ushered in a new level of awareness to environmental injustice.⁴

⁴ The environmental justice movement is concerned with the pursuit of social justice and the preamble to the Principles of environmental justice adopted at the First National People of Color Environmental Leadership Summit in Washington D.C., 1991 reflects the primacy of this concern. According to the

Contemporary Research on African American Environmental Attitudes

During the 2000s, while studies of African Americans' environmental concerns were still marginal, a handful of researchers continued conducting studies emphasizing the localized distinction of environmental issues. Three notable projects were conducted over the last decade investigating African Americans' relationship to the environment. In 2003, Paul Mohai published his findings from his ongoing research first completed in 1990 in the Detroit inner city area. The 1990 Detroit Area Study included face to face interviews with a sample of 180 African American and 575 white residents. The 2002 update continued face to face interviews but with a sample of 132 African American and 183 white residents. Mohai wanted to challenge the notion that concern for the environment was seen as a luxury want, something out of reach for African Americans and that environmental issues took a back seat to other priorities.

Using trend data from the GSS, Mohai hypothesized that if environmental issues experienced locally are not distinguished from those witnessed from a distance, such as Arctic oil spills, or ozone layer depletion, African Americans would be less likely to express concern about these sets of issues. However, they would probably be just as concerned about localized issues such as landfill pollution. In order to investigate this question, he created five categories of environmental issues.⁵ Respondents were asked to

environmental justice movement, all Americans, regardless of whether they are white or African Americans, rich or poor, are entitled to equal protection under the law. The environmental justice advocates for quality education, employment, and housing, as well as the health of physical environments in which individuals, families and groups live (Bullard 2000).

⁵ The five categories were: Pollution issues with implications for human health, Nature preservation issues, Resource conservation issues, Global environmental issues, Neighborhood environmental issues

mention up to three environmental problems and interviewers recorded whether respondents mentioned any one of the five categories. The results from that question show very similar percentages of African Americans and whites mentioning any pollution issue and/or nature preservation issue. A statistically significant relationship was recorded for recycling and global environmental issues as whites were much more likely to mention those issues than African Americans. However, African Americans overwhelmingly mentioned neighborhood environmental problems as compared to whites (26% vs. 3%).

The open-ended question was followed by a set of closed-ended questions that asked African Americans and whites to rate the seriousness of the 5 categories on a 5 point Likert scale, ranging from “a very serious problem,” to “not a problem at all.” On the issue of pollution, the average rating of the seriousness of these problems according to African Americans was higher than it is according to whites. In particular, a higher percentage of African Americans rated air pollution and pollution of drinking water as very serious problems. Ozone layer depletion was significant for whites. Also, African Americans again consistently rated neighborhood environmental problems as higher than whites. They also consistently described the quality of their neighborhood lower than did whites. Mohai’s results showed that African Americans showed just as much if not greater concern than whites about environmental problems that were a direct result of the unequal environmental conditions in which they lived (Mohai 2003).

He would ultimately refer to this idea of localized concern as the “environmental deprivation” explanation of racial difference in environmental concern (Mohai 2003).

This idea states that due to economic and social conditions, African Americans' disproportionately experienced environmental degradation in fundamentally different ways than most white Americans (Mohai 2003). However, it is important to note that little effect on racial differences in environmental concern was found when controlling income and education. Mohai believed this contradicted the hierarchy of needs explanation. He suggests that African Americans are strong environmentalists whether it is expressed concern, individual actions, membership in environmental groups, or votes by African-American members of congress.

In 2006, Robert Jones and Shirley Rainey published the results of a two-year study of African Americans living in the Red River Community (RRC) of Clarksville, Tennessee. RRC is a poor, working class community with approximately twenty five hundred residents and the residents live next to the polluted Red River. Their research focused on the environmental health and justice perceptions of community members in this mostly racially segregated neighborhood. They were interested in studying what they called "perceived differential exposure to environmental risks." This framework posits that responses to environmental conditions are mediated by interpretive processes that are shaped by a variety of sociocultural, economic, and biophysical factors. These processes create different meanings, values, and social priorities for individuals that ultimately have real consequences to people and the environment.

In order to perform the two-year study, census tract information was used to identify eligible households with one thousand mail surveys sent out. A total of two hundred and forty seven completed and returned questionnaires with approximately 42%

African American, 51% non-Hispanic white and 7% other comprised the study. The authors first conducted in depth interviews with people from the RRC and greater Clarksville County area. They then created four environmental indexes which gauged a number of local environmental issues. Based on the results of the interviews, Jones and Rainey (2006) found that as a group, African Americans were significantly more concerned than whites about local environmental conditions, scoring significantly higher than whites on 13 of the 14 items from the primary Environmental Concern (EC) Index. They concluded that the findings confirmed previous research that showed African Americans are just as concerned and in some cases more concerned about the environment than whites. African Americans in the study were highly aware and articulate expressing the environmental concerns they experienced daily.

Shirley Rainey (2008) recently took the study of African Americans' environmental perception in a different direction. She performed an examination of social demographic variables among African Americans to see if African American residents' environmental attitudes differ among themselves and whether the results were consistent with findings in the general population. The research was an extension of her work in the Red River Community (RRC) of Clarksville, TN. Her research attempted to show how environmental concern varied with demographic variables such as age, education, income, political ideology, political party, residence, gender, and race within the community. Research focused on the social bases of concern was usually performed at the national level and Rainey noted many times minorities are underrepresented. Therefore her work focused solely on the distinction within the RRC. The results came from returned survey questionnaires of two hundred forty-seven households. The most

important finding from the follow up study was that many of the perceived assumptions about African Americans' environmental concern were not supported. Rainey saw African Americans in the study as unified about their concern, as there was no statistically significant difference between income groups and educational groups, all members shared similar levels of concern. While all African Americans in the community appeared to show some level of concern, democrats, males, and older people are more concerned than Republicans, females and younger people (Rainey 2008).

Rainey's work in RRC highlighted a growing track of research which stems from the environmental justice movement. A main pillar of the movement is the identification of linkages between the location of environmental pollution and race. Environmental racism, as it has been called, assumes African Americans are exposed to more pollution and more serious environmental degradation than Whites. This disproportionate and unequal distribution of environmental hazards exposes them to greater health risks. A major claim of its activists is that communities of color (including other minority groups) and the poor face these unequal challenges because of prejudice, discrimination, and racism. Minorities, the poor, and other less powerful groups are also less able to mount a sustained effort to challenge these environmental injustices than Whites and more affluent groups (Bullard, 1994; Mohai & Bryant, 1992). Minority groups' opinions about environmental issues could be dramatically impacted by this disproportionate exposure to hazards, particularly at the local levels. Environmental racism is an important research area, however, this investigation does not account for its possible effect.

Contemporary work has continued to strengthen the argument that African Americans are just as concerned as white Americans about environmental issues. While research has made a number of important contributions, there is still limited research comparing white and African American environmental attitudes. This limited research could still open up the idea that race could be a primary factor in determining environmental concern. The next section examines the theoretical linkage between race and concepts such as economics and socio-demographic information.

Theoretical Consideration for Race Effect on African American Environmental Attitudes

Understanding the historical importance race has played in America within the context of explaining behaviors and attitudes is extremely important. In America, race and culture are tightly interwoven concepts that are believed to affect a number of social outcomes. As Hollinger (1999) states, differences in color are assumed to be associated with cultural and economic differences. Balibar (1996) believed that race in America many times is seen as simply a black/white dichotomy. Researchers have articulated that constructing race in this manner allows for generalizations about the “African Americans’ community,” racial identity, and its consequences. Harrison and Harrison (2001) argue that racial ideology has been entrenched in hundreds of years of history and has a firm hold on the social and psychological composition of America. Racial identity is a socialization process shaped by experiences with one’s family, community, school, group, and social affiliations. One’s identity serves to make life more stable but is constantly reshaped through their various development stages such as gender, race and class. This evolving construction of race as Balibar (1996) explains is functional in America because race is used as an important summarizing factor in many experiences. Ideas stemming from racial identity development such as stereotypes play a key role in helping to understand the process of racialization within America.

Race as a social category is built on the assumption that there is some important level of in-group homogeneity and that there is constancy in the experience of being a group member. As Celious and Oyserman (2001) also point out, stereotypes and

prejudices are built on the same assumption of within-group sameness. This assumed in-group identification across a broad spectrum of experiences allows for the continued stereotyping of groups on a number of issues. A recent example of this is an *American Thinker*, article (Marcus, 2011) which questioned why all African Americans vote for President Obama. In the article the author talked about an unspoken, subliminally understood “Black Code,” which all African Americans adhere to. While unscientific in delivery, articles such as this emphasize the power race possesses on the potential consequences of negative stereotypes about groups. These may be particularly harsh for lower-class African Americans who, viewed as being prone to criminality, social misconduct, immorality, and lack of intelligence (Massey & Denton, 1993), are at risk of being excluded from neighborhoods, schools and perhaps most importantly jobs. Despite burdensome class barrier experiences, research has shown regardless of socio-economic standing, African Americans perceive their opportunities through a racial lens (Durant and Sparrow 1997). Because overcoming negative racial stereotypes and out-group assumptions still present a challenge to select groups such as African Americans, it is important that researchers continue to study how and if race continues to factor as an issue in this society.

To highlight this point, a theory that was questioned for racial overtones called the Economic Contingency Hypothesis (ECH) was created to rationalize perceived environmental concern differences. ECH, like other early theories of environmental concern appeared to focus more on social factors such as class, political identification, and education than race. However, the critique many African American researchers had was that these theories were initially developed to partially strengthen the assumed idea

of a lack of African American environmental concern instead of starting from an unbiased stance. ECH states that in times of difficult economic conditions, economically disadvantaged citizens significantly reduce their attention to other issues, including the environment, in order to focus on stabilizing their economic lives (Morrison et al 1972; Buttel 1978). Presumably, in such cases, the disadvantaged would favor policies, whether they were destructive to the environment or not, that increased their economic standing. Researchers in the 1970s suggested that the energy crisis in the mid-1970s and its legacy of spiraling inflation, rising unemployment, corporate practices such as “job blackmail,”⁶ and a faltering economy seemed to put more pressure on African Americans than whites to choose between jobs and protecting the environment, even while factoring in socio-economic status (Mohai 1998; Jones and Carter 1994).

As stated earlier, one of the first scholars to advocate this hypothesis was Frederick Buttel. In short, Buttel was a leading voice for other researchers in arguing that when economic conditions worsen, or at least were perceived as worsening, those who are economically disadvantaged will be the first to withdraw their support for environmental protection and give priority to economic goals. One of ECH’s assumptions was that only African Americans would inherently be faced with this dilemma. As Mohai (2003) suggested, the decline in environmental concern should have occurred disproportionately among the lower socioeconomic strata and, by extension, other economically vulnerable sectors of society, such as racial minorities and women.

⁶ In the 1982 book, *Fear at Work: Job Blackmail, Labor, and the Environment*. Authors Richard Kazis and Richard Grossman detailed the use of job blackmailing by corporations as a way to spilt trade unionists from environmentalists. Participating in environmental actions was characterized by corporations as a job killing program.

Specifically, ECH predicted that as economic conditions worsen the variance between environmental concern and socioeconomic status, race, and possibly gender would increase as the lower strata, minorities, and women have to give priority to economic well-being over environmental quality (Buttel 1976). The main problem with this theory was that racial stereotyping was built into the concept.

The economic contingency hypothesis has been harshly criticized by African American commentators for its racial overtones (Bullard 1990; Dunlap and Jones 1992; Mohai 1998; Rainey 2008). However, surprisingly, other African American scholars in various literature have also expressed the idea that economic concerns would outweigh other issues for African Americans such as environmental concerns (Taylor 1989). Research on African Americans has tended to focus on examining existing disparities in other American institutions. Even today, major disparities exist between African Americans and their white counterparts in several major areas such as household wealth, employment participation, and incarceration rates, some of these having virtually nothing to do with socio-economic status. A reality of our time is that the African American community is faced with many of the same issues that were being fought at the beginning of the environmental movement and therefore assumptions could still persist.

The ramifications of racial identity theory suggest that a concept such as environmental concern can be viewed through an in-group/out-group stereotype, effectively masking the nuance needed when addressing issues such as environmental racism. While asking whether African Americans are as concerned about the environment as whites seems controversial or imprudent, the fact is this line of

questioning is consistent with others inquires today, which use race as a variable for investigation. Furthermore, the assumption of race as a motivating factor has also been addressed in countless other arenas, such as the current 2012 presidential elections. This section investigates whether race does indeed play a significant role in influencing environmental attitudes.

Hypotheses

The objective of this analysis is to investigate whether racial differences can explain expressions of several environmental attitudes more than other socio-demographic differences. For this research, the dependent variables making up environmental attitudes include articulating environmental concern, expressing support for environmental finance, and engagement in environmental activism. The green concern index weighs how worried a person is about the environment; the green finance index indicates how willing a person is to provide funding for improving the environment; while the green activism index assesses an individual's involvement in various environmental advocacy endeavors. Based on the premise that environmental concern can be explained simply using a racial distinction, a number of hypotheses will be tested using the GSS 2010 data.

H₁: Self-identified non-Hispanic African Americans tend to articulate less “green-concern” than their self-identified non-Hispanic white counterparts, even when controlling for other socio-demographic variables.

The hypothesis regarding this distinction of concern among the two groups extends beyond a simple observation of African American and white. The hypothesis implies that if other socio-demographic variables are controlled for, then race will still play the most significant role in identifying levels of environmental concern between the two groups. Green-concern is the term that will be used to describe people's attitudes about environmental concern and its operationalization will be discussed later.

H₂: Self-identified non-Hispanic African Americans tend to engage less in “green-activism” activities than their self-identified non-Hispanic white counterparts even when controlling for other socio-demographic variables.

While researchers debate the significance of participating in environmental groups, such actions represent an effort to bring awareness to environmental concerns. Again, this hypothesis implies that if other socio-demographic variables are controlled for, then race will still play the most significant role in describing the characteristics of an environmental activist participant. Green activism is the term that will be used to describe participants’ environmental activism.

H₃: Self-identified non-Hispanic African Americans tend to be less supportive of providing “green-finance” for environmental actions than their self-identified non-Hispanic white counterparts even when controlling for other socio-demographic variables.

Financing environmental programs and strategies is a critical component of long term solutions to environmental issues. Understanding what characteristics influence support or opposition to these activities represents an important endeavor. This hypothesis implies that if other socio-demographic variables are controlled for, then race will still play the most significant role in a person’s willingness to fund environmentally improving policies. Green-finance is the term that will be used to describe people’s attitudes towards financing environmental strategies.

Methodology

The data for this research comes from the 2010 General Social Survey (GSS) dataset. The University of Chicago's National Data Program (NORC) for the Sciences has conducted the GSS consistently since 1972 and bi-yearly since 1994. It is considered the most comprehensive accounting of American attitudes, values and behaviors in the country (Jones 1994; Mohai 2003). It is also one of the most detailed and representative surveys in the country, including over 5000 variables. The GSS has specifically designed and conducted four environmental modules (1993, 1994, 2000, 2010), asking Americans detailed questions about their environmental preferences. While the 2010 sample is smaller, the GSS has merit since it maintains the same questions over time and passes practical tests of robustness.

A major benefit of using the GSS data is that it is a national representative survey, conducted primarily through face to face interviews. The respondents are randomly selected English or Spanish speaking persons age 18 or over, living in non-institutional arrangements within the United States. The sampling frame used by GSS was based on available census data and the environmental module questions were asked of 2044 randomly selected adults age 18 or older residing in the U.S. The 2010 GSS was the 28th fielding of the survey. The questionnaire contained standard demographic and attitudinal variables plus several special topics. The GSS is conducted purposely to serve as a valuable research tool for governments, universities and industry.

Since the social, environmental, political and even technological landscape in America has changed between 2000 and 2010, only the 2010 GSS data was used for

purposes of analysis. This sample still represents an important snapshot. The GSS 2010 environmental module is comprised of approximately fifty questions which fall into three overall categories. The survey data was downloaded from the GSS website <http://www3.norc.umd.edu/gss+website/> into SPSS for the study.

The sample for the 2010 data included 2044 (N=2044) respondents. Only those respondents who completed the questions on the 2010 environmental module were included. Also, the only racial groups included in the sample were non-Hispanic whites and non-Hispanic African Americans. While the Hispanic population continues to grow in America, this article's focus is to understand the environmental attitudes of the self-identified non-Hispanic African Americans participating in this survey. The relationship between whites and African Americans has shaped this country immensely so that many issues are viewed through this particular lens. The importance of minority group involvement in the environmental movement will continue to progress and future research will need to address this. African Americans and whites who identified as Hispanic were removed while the racial group coded as "3" or other was excluded because of the nature of the study. Approximately 411 of the respondents of the 2010 survey were excluded based on these criteria for a final sample of $n = 1633$ respondents in this analysis.

As the literature review stated earlier, the social bases of concern utilizes certain socio-demographic characteristics or socio-economic status variables to attempt to explain articulations of environmental concern. While race is the primary variable under study, these factors have been used in other studies as explanation of environmental

concern. Table 1 lists the percentages for seven of the descriptive statistics included in the study. Those variables include degree attainment, labor force status, political views, residential type and political affiliation. Table 2 includes the mean scores for socioeconomic index (SEI), respondent age and years of education.

Table 1. Percent per Attribute for Socio-Demographic Variables in the Analysis

| | White % | AA% | Total % | | White % | AA% | Total % |
|-------------------|---------|------|---------|-------------------|---------|------|---------|
| Race | 81 | 19 | 100 | | | | |
| | | | | Country, Non Farm | 11.7 | 5.9 | 11 |
| LT High School | 11.9 | 20.4 | 14 | Farm | 9.9 | 8.9 | 10 |
| High School | 50.1 | 52.3 | 51 | Town LT 50000 | 34.4 | 30.4 | 34 |
| Junior College | 6.5 | 10.2 | 7 | 50000 to 250000 | 18.4 | 19.8 | 19 |
| Bachelor | 20.9 | 10.5 | 19 | Big-City Suburb | 13.3 | 9.6 | 13 |
| Graduate | 10.6 | 6.6 | 10 | City GT 250000 | 12.3 | 25.4 | 15 |
| Full Time Work | 45.9 | 40.4 | 45 | Strong Dem | 12.3 | 40.9 | 18 |
| Part Time Work | 11.7 | 8.6 | 11 | Not Strong Dem | 16.1 | 23.4 | 17 |
| Temp No Work | 1.1 | 4.3 | 2 | Ind, Near Dem | 12.9 | 11.2 | 13 |
| Unemployed | 6.4 | 9.9 | 7 | Independent | 17.1 | 13.9 | 17 |
| Retired | 17.8 | 11.6 | 17 | Ind, Near Rep | 11.5 | 4 | 10 |
| School | 3.6 | 6.6 | 4 | Not Strong Rep | 15.6 | 5 | 14 |
| Keep House | 10.3 | 15.2 | 11 | Strong Rep | 11.7 | 1 | 10 |
| Other | 3.2 | 3.3 | 3 | Other | 2.9 | .7 | 3 |
| Extreme Liberal | 3.1 | 7.3 | 4 | Male | 44 | 38 | 43 |
| Liberal | 11.9 | 15.7 | 13 | Female | 56.1 | 62.2 | 57 |
| Slightly Liberal | 12 | 11.2 | 12 | | | | |
| Moderate | 38 | 39.2 | 38 | | | | |
| Slightly Conserve | 14.1 | 10.1 | 13 | | | | |
| Conservative | 17.5 | 11.5 | 16 | | | | |
| Extreme Conserve | 3.5 | 4.9 | 4 | | | | |

n = 1633, African Americans n = 304; Whites n = 1329

A number of interesting insights are gained from looking at Table1. Women are highly represented for both races especially for African Americans. African Americans also overwhelmingly identify as Democrat but curiously a large percentage consider

themselves conservative. The unemployment rates for each group currently reflect national trends but are a little high for whites. Finally, twice as many whites completed college as African Americans, while African Americans were twice as likely as whites to have not finished high school. Table 2 shows the mean score for several variables.

Socio-economic index (SEI) is a composite of occupational prestige, income and education variables. Occupational prestige is a job rating mechanism for determining worthiness. The variable is used by the National Opinion Research Center in its general surveys. According to Nakao (1992), a short order cook has an SEI of 32.73, while a veterinarian has a score of 90.04.

Table 2. Mean Scores of Descriptive Statistics for Variables in the Analysis

| | | N | Mean | Std Deviation |
|-------------------|-------|------|-------|---------------|
| SEI | White | 1242 | 50.48 | 18.98 |
| | AA | 263 | 42.77 | 17.17 |
| Age | White | 1328 | 49.44 | 17.66 |
| | AA | 303 | 44.42 | 16.84 |
| Yrs. of Education | White | 1327 | 13.66 | 2.99 |
| | AA | 304 | 12.87 | 2.81 |

Green-Concern. In order to study the concept of environmental concern, an index was developed using four variables from the GSS questions. These four variables were selected because of the varying dimension they capture in expressing concern for the environment. The green-concern index included measures of how much a respondent felt they worried about the future of the environment; whether respondents worried too much about modern human progress harming the environment; whether economic growth can occur with environmental protection and whether economic growth always harms the environment. The questions and their possible responses are presented in Appendix A.

All the responses were coded using a 5-point Likert scale ranging from 0 to 4, with 0 representing poor concern and 4 representing strong concern, moving from negative to positive. The questions and their responses can be found in Appendix A. According to Bowling (2002), an alpha score of 0.5 or higher is considered a sign of acceptable internal consistency. The alpha score for this index of 0.35 is low, however, these questions provide a diverse representation of environmental issues. The variables

for green concern were combined using the compute variable function in SPSS with score ranging from 0 to fifteen. The green concern index has a mean of 7.81 and a standard deviation of 2.38.

Green-Activism. The green activism index is made up of variables which attempt to gauge respondents' willingness to participate in environmental activities such as joining groups. The variables in this scale ask if the respondent is a member of any environmental group, whether in the last five years have they signed a petition about environmental issues, given money to an environmental group or have taken part in a protest or demonstration about environmental issues. While the GSS also asks respondents about daily environmental activities such as recycling, this paper was more interested in respondents' engagement at the macro level. The variable responses were coded as yes and no questions (yes=0; No=1) and combined into an index using the compute variable function. Index scores ranged from 0 to 4, with higher scores representing greater involvement in environmental activism. The questions and their responses can be found in the Appendix A. The green-activism scale had an alpha reliability of .62.

Green-Finance. The green finance index comprises variables which measure the willingness of the respondent to support or oppose spending (whether federal, local or personal) on environmental issues. This scale includes variables measuring how willing a respondent is to "pay much higher taxes" in order to protect the environment, how willing they are to take a cut in his/her standard of living in order to protect the environment, how willing they are to pay higher prices for goods and services in order to

protect the environment and whether they try to do what is right for the environment regardless of price. The four variables were combined into an index using the compute variable function with the scores ranging from 0 to 16, with higher scores representing greater willingness to support financing for environmental programs. The questions and their responses can be found in Appendix A. The green-finance scale had an alpha reliability of .72.

Regarding the use of socio-demographic variables in the study of environmental concern, there are several expectations which have been studied previously. Particularly, it is assumed that younger people, more educated, politically liberal and higher socio-economically advantaged persons will likely be more concerned about the environment. By breaking the racial groups down into subcategories, this will allow us to observe if the results exhibit these expected directions.

In order to examine the first two hypotheses, means testing of the dependent variables with the independent race variable was performed using SPSS to characterize group dispersion. Means testing was also conducted on the dependent variable between and within the socio-demographic subgroups and hypothesis testing was performed using the one-way Anova function. This procedure is useful for both descriptive and hypothesis testing of the environmental indexes. In order to observe the potential relationships between the green activism variable and race, a chi-square test of independence was performed. Chi-square is one of most used tests and is helpful when describing whether a significant association exists between two variables.

Results

The results of the means analysis that tested for differences among environmental concern and finance between races and within key socio-demographic variables are presented in this section. As are the relational analysis by races and within key socio-demographic variables regarding environmental activism. The study examines first green concern (H1) followed by green finance (H2), and finally green activism (H3). Table 3 highlights the results among race for green concern and green finance. The paper used an alpha level of .05 for statistical tests.

Table 3. Comparisons with Green Concern and Green Finance among Races

| | | N | Mean | SD | F | p |
|-----------------|--------|----------|-------------|-----------|----------|----------|
| GC Index | AA | 201 | 7.79 | 2.36 | .029 | .866 |
| | Whites | 868 | 7.82 | 2.38 | | |
| GF Index | AA | 191 | 7.68 | 4.09 | .664 | .415 |
| | Whites | 868 | 7.92 | 3.50 | | |

Significant ($p < .05$.) where higher mean scores reflect greater concern for environment and stronger willingness to fund environmental programs

Table 3 shows that no difference was found between racial groups on the green concern and green finance indexes. The near identical mean scores for both groups indicate a neutral opinion on scale ranging from 0-15 and 0-16 regarding concern for the environment and willingness to fund. An examination of the differences between socio-demographic racial subgroups showed no significant distinction amongst the nine variables.

The next step of analysis examined if any differences existed within racial subgroups regarding green concern and green finance by again including the nine socio-demographic variables. Table 4 has the results of the means procedure on the explanatory variables for each index and includes the p values and effect size for all socio-demographic groups.⁷

The use of socio-demographic variables provides more evidence that as a group African Americans are as concerned about the environment as whites. However, an interesting aspect was discovered while studying the mean scores of racial subgroups within each category. For example, Appendix B includes the mean scores comparison for the green concern index by race and within each sub category. As was stated earlier, research on the social bases of concern has identified a number of socio-demographic groups that should express greater concern for the environment. Political ideology is believed to influence levels of environmental concern as it is assumed that Liberal Democrats are more concerned about the environment than Conservative Republicans. Examining for assumed differences within subgroups provides a richer understanding of environmental attitudes predictors.

⁷ The tables with the mean and standard deviation scores between the groups and within each group can be found in the Appendix section from Appendix B-C.

Table 4. Comparisons with Green Concern and Green Finance within Racial Subgroups

| | Green Concern | | | | Green Finance | | | |
|-------------------|--------------------|----------------|-------------------|----------------|--------------------|----------------|-------------------|----------------|
| | Whites | | AA | | Whites | | AA | |
| | p | n ² | p | n ² | p | n ² | p | n ² |
| Age | <.001 ^c | .021 | .651 | .008 | .950 | .000 | .147 | .028 |
| Sex | .018 ^a | .006 | .262 | .006 | .410 | .001 | .959 | .000 |
| Labor Status | .339 | .009 | .008 ^b | .093 | .307 | .010 | .286 | .046 |
| Degree | .126 | .008 | .225 | .028 | <.001 ^c | .044 | .266 | .028 |
| Pol Affiliation | <.001 ^c | .122 | .172 | .052 | <.001 ^c | .073 | .532 | .032 |
| Pol View | <.001 ^c | .163 | .099 | .056 | <.001 ^c | .113 | .097 | .058 |
| Resident Type | .039 ^a | .013 | .590 | .019 | .311 | .007 | .253 | .035 |
| Yrs. Of Education | .029 ^a | .010 | .116 | .030 | <.001 ^c | .045 | .009 ^b | .059 |
| SEI | .495 | .004 | .959 | .004 | .019 ^a | .015 | .877 | .007 |

^a Significant $p < 0.05$., ^b Significant $p < 0.01$., ^c Significant $p < 0.001$

Effect Size, $n^2 = .01$ ~Small; .06~Medium; .14~Large

The results from the internal subgroup breakdown in Table 4⁸ reveal where differences emerge between the two groups. Whites who identify as liberal and Democrat were statistically more likely to express greater levels of environmental concern than conservatives. Also, the results showed that whites who were more educated expressed greater concern. These results are similar to those found in Dunlap's work on the social bases of concern. Mean differences were not found for African Americans in those groups. In fact, extremely liberal African Americans appear to be less concerned about the environment than conservative African Americans. This time, however, full time working African Americans expressed greater concern than those

⁸ The mean scores for this table are found in the Appendix section, appendix D-G.

unemployed, giving some credit to the idea that the economically disadvantaged may be more concern about personal well being. Similar results were found in the green finance index except for education. Once again, liberal and educated whites appeared to express greater willingness to fund environmental programs, however this time, African American college graduates also showed a greater willingness to fund programs than high school students. This was the only subgroup of African Americans that reported any assumed differences. These results highlight interesting distinctions between the groups and the possible need for further investigation.

Table 5. Percentage of Responses on Green Activism Index Between Groups
Green Activism

| | N | White % | AA % | Total btwn Race | Sig (2 Tailed) | r |
|-----------------|------|---------|--------|--------------------|-------------------|------|
| Race | | | | | .003 ^b | .123 |
| Highly Inactive | 824 | 70.5% | 82.9% | 72.9% | | |
| Inactive | 166 | 15.5% | 11.3% | 14.7% | | |
| Moderate Active | 93 | 9.0% | 5.0% | 8.2% | | |
| Active | 39 | 4.2% | .5% | 3.5% | | |
| Highly Active | 8 | .8% | .5% | .7% | | |
| Total | 1130 | 100.0% | 100.0% | 100.0% | | |

^a Significant $p < 0.05$., ^b Significant $p < 0.01$., ^c Significant $p < 0.001$
Effect Size, Cramer's V, r = Small 0.10; Medium 0.30; Large 0.50

The green activism index results were produced using cross-tabulations to examine the relation between the green activism index and the socio-demographic variables. The index included whether a person was a member of an environmental group, had giving money to an environmental group, signed a petition for an environmental group cause, or protested for an environmental cause. The results show that 72.9% of respondents score at the highly inactive level and another 14.7% were

inactive. Those numbers represent 87.6% of the total group. The Fisher's Exact test also showed that a significant relationship existed for African Americans and whites $\chi^2(N = 1130) = 18.54, p < .05$ even though there is very limited representation of African Americans in the active or highly active ($N = 2$) categories. A respondent's political outlook greatly impacted the degree to which that individual was involved in green activism. Extremely liberal whites were the only group to report less than a fifty percent response rate for the highly inactive category and the percentage (35% vs. 87%)⁹ compared to African Americans shows a significant disparity $\chi^2(N = 25) = 11.14, < .05$.

⁹ The percentages for the green activism groups are found in the appendix section. The tables are found from appendix H-Q.

Discussion

The results of the analysis give the impression that understanding the social bases of environmental concern, particularly amongst African Americans, is not a straightforward process. To better comprehend African Americans' levels of environmental concern, this study incorporated a number of socio-demographic predictors. The first hypothesis predicted that African Americans tend to articulate less "green-concern" than their white counterparts. To measure green-concern, a green concern index was created to gauge level of concern about the environment and perspective on human progress harming the environment. The second hypothesis predicated that African Americans tend to engage less in "green-activism" activities than their white counterparts. Green activism measured an individuals' engagement in several "activist" behaviors such as signing a petition. The final question predicted that African Americans were less supportive of providing "green-finance" for environmental actions than their white counterparts. An index called green-finance was created to measure a person's willingness to fund environmental programs. The results showed that African Americans, as a whole, do not have vastly different opinions about environmental concern than whites, and also are just as willing to fund efforts to help the environment. Even though both groups have low environmental activist participation, there appears to be a significant variation between each groups approach to this situation.

Subcategory analysis of the socio-demographic variables for each race revealed surprising results. The two most interesting variables of note are political ideology and years of education. These two variables have consistently shown in research that the

more liberal minded or the more educated an individual is, the more likely they are to believe environmental issues are important. Interestingly, extremely liberal minded African Americans actually reported almost equal concern ($M = 7.14$, $SD = 1.46$) than conservative minded members ($M = 7.13$, $SD = 2.55$). Mean scores for whites supported the assumption about political ideology as extreme liberals express high levels of concern when compared to conservatives. Also, African Americans with graduate degrees reported less concern than those with high school diplomas. The results from the green concern index suggest that the null hypothesis cannot be rejected. One would assume that these factors have a positive impact on a person's attitude about environmental issues and for whites the research supports this. African Americans who achieve higher education, on the other hand, may focus more on social issues and perceived pressure to maintain status in society. Another factor could be that liberalism for African Americans means something different than it does for whites.

Regarding the green-finance index, the results show that African Americans were just as willing as whites to show support for environmental action. The hypothesis that African Americans tend to be less supportive of "green-finance" for environmental actions than their white counterparts could not be supported with the results from the study. Funding for environmental programs at the national level and particularly on a personal level involve a number of factors, so it would make sense that race would have little influence. The results showed an even split amongst the groups in regards to the green-finance index which included several national level and personal level questions. Overall, 46% of African Americans, compared to 48% of whites were "very willing" to

“willing” to support the green-finance index questions. This outcome is consistent with what other researchers have discovered (Jones 2008; Mohai 2003; Dunlap and Jones 1992).

However, major differences were observed amongst the subcategories. While Liberal Democrats and more educated whites expressed greater enthusiasm for environmental financing than Conservative Republicans and less educated members, highly educated African Americans (graduate school) expressed less funding willingness than African American high school respondents. Liberal African Americans were actually less willing than conservatives African Americans to support environmental funding, which challenges the conventional assumption about political ideology. Perhaps the large support African Americans show for the Democratic Party hides the variation that is present within the group. African Americans may not associate with the Republican Party but still express conservative views on financial issues and perceive environmental funding as a hindrance to economic stability.

Participating in environmental activities is still indicative of a niche community, particularly with respect to the idea of what constitutes an environmentalist. The survey results from the General Social Survey suggest that both African Americans and whites are as unlikely to involve themselves in environmental lifestyle choices but that a significant relationship is present between the races. The numbers show that neither group is heavily involved but African Americans show an almost total lack of participation. Looking at the individual questions making up the index shows that a relationship is evident for whites on all the questions except participation in a protest for

environmental causes. This is not the case for African Americans and could have something to do with African Americans not being represented well in large environmental groups such as the Sierra Club.¹⁰

Even though the results show a relationship between race and environment, whites and African Americans are almost as unlikely to participate in environmental activities. With regards to the hypothesis that African Americans tend to engage less in “green-activism” than their white counterparts, the research does not support this but further research would need to be conducted to strengthen or dismiss this claim. There is a large enough distinction in the results to suggest that race could in some way play a significant factor in environmental activism involvement. Environmental activism may sound like an extreme undertaking but in fact, the index includes such acts as signing a petition or giving money to an environmental group. The results from the individual questions show that for these two acts, there is a relationship for whites who are more educated. For African Americans, this relationship does not exist, which again, highlights this interesting development for educated and more liberal African Americans. More in-depth research would need to be conducted as these findings contradict what some previous studies have highlighted.

One of the main limitations of this study is the lack of a time-series analysis to observe how the differences between African Americans and whites change over time. Having historical data would allow for greater comparisons and a more nuanced

¹⁰ According the analytic website quantcast, Sierra Club’s Oct 2012 overall membership showed African Americans made up only 5% of membership as compared to 83% for Caucasians.
<http://www.quantcast.com/sierraclub.org#!/demo&anchor=panel-ETHNICITY>

understanding of changes. Another limitation was the small sample size for some of the African American groups on the green-activism index. There is a big difference between being an activist and engaging in environmentally beneficial activities such recycling. Questions from the GSS do ask about such activities and should be included in future research. Future research could also benefit from the development of statistical modeling to study the relationship or differences between groups. At the same time, the research did benefit by using data from a well known nationally representative random sample. Also, the data included a variety of variables that allowed for development of encompassing indexes of important concepts.

Conclusion

Dealing with the effects of environmental disruptions is an increasingly major emphasis in the 21st century in all parts of the world, including the United States. Understanding where the public stands on these issues is consequently an important avenue of research. The purpose of this paper was to study non-Hispanic African Americans' environmental attitudes in order to understand if race itself somehow affected opinions, and whether those opinions, differed greatly from those of whites. The paper also looked for differences within African American socio-demographic subgroups in order to develop a richer understanding of environmental concern. A relatively small group of African American researchers for some time have studied this question (Lee 2008; Jones 2008; Mohai 2003; Jones & Rainey 2002; Bullard 2000; Jones and Carter 1994) in some respect because of an assumption that African Americans are less concerned for the environment than whites.

This research also draws on Dunlap's research on the social bases of environmental concern, which attempts to discover the relationships between social characteristics and level of environmental concern. This thesis attempts to offer additional insight on possible relationships between African Americans and the environment. The results from the survey population showed that the environmental concern of the interviewed African Americans presents a complex story. Two of the more interesting discoveries are that some of the African American subpopulations do not appear to express higher levels of environmental concern, contrary to prior research and common assumptions. In particular, highly educated and politically liberal African

American groups expressed no greater concern than high school educated and conservative African Americans. These results were especially true when these two African American groups were compared to whites in the survey population. Another area to research further are the dynamics of environmental activism and engagement in environmental activities. African Americans' lower level of involvement in environmental groups based on the survey population is highly compelling and reasons for this should be investigated. Additional research needs to be conducted, but if the results from this study can be further studied and expanded, this could have serious ramifications for environmental engagement strategies in African American communities.

What the findings here could signal is the need for more targeted subpopulation research that could explore varying environmental attitudes. Much of the research that has been conducted on African Americans has been restricted to lower socio-economic sectors. An assumption has been that lower class African Americans should be concerned more with household finances than environmental issues. Yet, this research has shown that future studies should consider investigating African Americans with higher socio-economic status. An area that has already been targeted (Lee 2008), but could use further research, is to study the environmental attitudes of African American college students. This group has potential to be introduced academically to environmental topics and potentially could have influence in society. Targeting subpopulations such as this could have a greater impact in terms of environmental awareness. Also, as minority groups as a whole become the majority in America, this dynamic opens up a wide range of research possibilities.

Hopefully, future research will continue challenging the idea that race in and of itself has an impact on environmental concern. However, as pointed out here, the issue is not as clear cut as many African American researchers insist. Environmental awareness is still not a priority issue in America and large numbers of African Americans continue to struggle with a number of problems that have direct consequences on their immediate lives. As environmental problems continue to become a larger concern, understanding what and how citizens think will continue to be important. The hope is that as society begins to fully engage this issue, there will not be questions centered on differences between groups but on how collectively society meets the challenges of developing a positive interaction with the environment.

Appendix A

Questions Comprising the Indexes

Green Concern

1. We worry too much about the future of the environment, and not enough about prices and jobs today.
 - a. 1 Strongly agree; 2 Agree; 3 Neither agree nor disagree; 4 Disagree; 5 Strongly disagree; 8 Don't know; 9 No answer; BK Not applicable
2. Almost everything we do in modern life harms the environment.
 - a. 1 Strongly agree; 2 Agree; 3 Neither agree nor disagree; 4 Disagree; 5 Strongly disagree; 8 Don't know; 9 No answer; BK Not applicable
3. People worry too much about human progress harming the environment.
 - a. 1 Strongly agree; 2 Agree; 3 Neither agree nor disagree; 4 Disagree; 5 Strongly disagree; 8 Don't know; 9 No answer; BK Not applicable
4. Economic growth always harms the environment.
 - a. 1 Strongly agree; 2 Agree; 3 Neither agree nor disagree; 4 Disagree; 5 Strongly disagree; 8 Don't know; 9 No answer; BK Not applicable

Green Finance

1. How willing would you be to pay much higher prices in order to protect the environment?
 - a. 1 Very willing; 2 Fairly willing; 3 Neither willing nor unwilling; 4 Not very willing; 5 Not at all willing; 8 Don't know; 9 No answer; BK Not applicable
2. And how willing would you be to pay much higher taxes in order to protect the environment?
 - a. 1 Very willing; 2 Fairly willing; 3 Neither willing nor unwilling; 4 Not very willing; 5 Not at all willing; 8 Don't know; 9 No answer; BK Not applicable
3. And how willing would you be to accept cuts in your standard of living in order to protect the environment?
 - a. 1 Very willing; 2 Fairly willing; 3 Neither willing nor unwilling; 4 Not very willing; 5 Not at all willing; 8 Don't know; 9 No answer; BK Not applicable
4. I do what is right for the environment, even when it costs more money or takes up more time.
 - a. 1 Very willing; 2 Fairly willing; 3 Neither willing nor unwilling; 4 Not very willing; 5 Not at all willing; 8 Don't know; 9 No answer; BK Not applicable

Green Activism

1. Are you a member of any group whose main aim is to preserve or protect the environment?
 - a. 1 Yes; 2 No; 8 Don't know; 9 No answer; BK Not applicable
2. In the last five years, have you signed a petition about an environmental issue?
 - a. 1 Yes; 2 No; 8 Don't know; 9 No answer; BK Not applicable
3. In the last five years, have you given money to an environmental group?
 - a. 1 Yes; 2 No; 8 Don't know; 9 No answer; BK Not applicable
4. In the last five years, have you taken part in a protest or demonstration about an environmental issue?
 - a. 1 Yes; 2 No; 8 Don't know; 9 No answer; BK Not applicable

Appendix B

Mean scores Green Concern Index Between Groups w/ Control Variables

| | | Green Concern | | | | p | n ² |
|-----------------|----------------|---------------|------------|---------|---------------------|------------------|----------------|
| | | N | White Mean | AA Mean | White Std Deviation | AA Std Deviation | |
| Race | | 1069 | 7.82 | 7.79 | 2.38 | 2.36 | .866 .000 |
| Age | | | | | | | .838 .000 |
| | 15-29 | 200 | 8.05 | 7.82 | 2.33 | 2.24 | |
| | 30-45 | 294 | 8.19 | 8.04 | 2.30 | 2.60 | |
| | 46-60 | 301 | 7.84 | 7.78 | 2.45 | 2.16 | |
| | 61 and over | 272 | 7.32 | 7.36 | 2.34 | 2.61 | |
| Sex | | | | | | | .866 .000 |
| | Male | 452 | 7.61 | 8.04 | 2.56 | 2.32 | |
| | Female | 617 | 7.99 | 7.65 | 2.23 | 2.38 | |
| Labor Status | | | | | | | .883 .000 |
| | Full Time Work | 480 | 7.96 | 8.05 | 2.48 | 2.27 | |
| | Part Time Work | 130 | 8.17 | 9.24 | 2.13 | 2.12 | |
| | Temp Not Work | 18 | 7.67 | 7.00 | 2.84 | 0.89 | |
| | Unemployed | 74 | 7.64 | 7.78 | 2.47 | 2.44 | |
| | Retired | 165 | 7.53 | 7.33 | 2.41 | 2.50 | |
| | School | 48 | 7.75 | 7.63 | 2.20 | 1.36 | |
| | Keep House | 91 | 7.58 | 6.55 | 2.18 | 2.80 | |
| | Other | 33 | 7.38 | 8.25 | 2.16 | 2.06 | |
| Degree | | | | | | | .866 .000 |
| | Lt High School | 126 | 7.57 | 7.00 | 1.89 | 2.36 | |
| | High School | 542 | 7.67 | 8.01 | 2.36 | 2.33 | |
| | Junior College | 78 | 8.20 | 7.95 | 2.43 | 2.40 | |
| | Bachelor | 218 | 8.03 | 8.05 | 2.66 | 2.50 | |
| | Graduate | 102 | 8.11 | 7.33 | 2.24 | 2.15 | |
| Pol Affiliation | | | | | | | .870 .000 |
| | Strong Dem | 200 | 8.91 | 7.40 | 2.24 | 2.46 | |
| | Not Strong Dem | 188 | 8.33 | 8.22 | 2.08 | 2.02 | |
| | Ind, Near Dear | 128 | 8.63 | 8.87 | 2.22 | 2.10 | |
| | Independent | 156 | 8.04 | 7.88 | 1.93 | 2.51 | |
| | Ind, Near Rep | 114 | 7.07 | 7.22 | 2.44 | 2.44 | |
| | Not Strong Rep | 148 | 7.43 | 7.33 | 2.19 | 2.61 | |
| | Strong Rep | 106 | 6.26 | 7.00 | 2.48 | | |

| | | | | | | | | |
|---------------------|------------------|-----|------------|---------|---------------------|------------------|------|----------------|
| Other Party | | 24 | 7.05 | 6.50 | 3.18 | 3.54 | | |
| | | N | White Mean | AA Mean | White Std Deviation | AA Std Deviation | p | n ² |
| Pol Views | | | | | | | .959 | .000 |
| | Extreme Lib | 46 | 10.16 | 7.14 | 2.37 | 1.46 | | |
| | Liberal | 125 | 9.11 | 8.92 | 2.14 | 2.48 | | |
| | Slight Lib | 121 | 8.34 | 7.31 | 2.00 | 2.70 | | |
| | Moderate | 390 | 7.92 | 7.72 | 2.08 | 2.21 | | |
| | Slight Con | 153 | 7.68 | 8.13 | 2.13 | 2.56 | | |
| | Conserve | 167 | 6.33 | 7.14 | 2.37 | 2.55 | | |
| | Extreme Con | 41 | 6.10 | 8.50 | 2.96 | 2.55 | | |
| Resident Type | | | | | | | .871 | .000 |
| | Country, Nonfarm | 113 | 8.06 | 6.71 | 2.21 | 1.73 | | |
| | Farm | 91 | 7.50 | 7.59 | 2.58 | 2.29 | | |
| | Town LT 50000 | 354 | 7.65 | 7.86 | 2.40 | 2.43 | | |
| | 50000-250000 | 203 | 7.88 | 7.95 | 2.37 | 2.53 | | |
| | Big City-Suburb | 117 | 8.39 | 8.12 | 2.43 | 2.61 | | |
| | City GT 250000 | 164 | 7.60 | 7.79 | 2.27 | 2.21 | | |
| Yrs. Of Education | | | | | | | .867 | .000 |
| | 0-8 | 40 | 7.26 | 7.33 | 1.96 | 3.20 | | |
| | 9-12th | 396 | 7.57 | 7.40 | 2.18 | 2.31 | | |
| | 13-16 | 497 | 7.96 | 8.23 | 2.50 | 2.31 | | |
| | 17-20 | 135 | 8.16 | 8.07 | 2.50 | 2.40 | | |
| Socioeconomic Index | | | | | | | .679 | .000 |
| | 0-20 | 190 | 7.92 | 7.71 | 2.17 | 2.21 | | |
| | 21-40 | 198 | 7.60 | 7.94 | 2.22 | 2.59 | | |
| | 41-60 | 205 | 7.73 | 8.03 | 2.39 | 2.26 | | |
| | 61-80 | 198 | 7.80 | 8.00 | 2.48 | 2.36 | | |
| | 81-100 | 194 | 8.05 | 8.04 | 2.62 | 2.38 | | |

^a Significant $p < 0.05$., ^b Significant $p < 0.01$., ^c Significant $p < 0.001$

Effect Size, $n^2 = .01$ ~Small; $.06$ ~Medium; $.14$ ~Large

Appendix C

Mean scores Green Finance Index Between Groups w/ Control Variables

| | | Green Concern | | | | p | n ² |
|-----------------|------|---------------|---------|---------------------|------------------|------|----------------|
| | N | White Mean | AA Mean | White Std Deviation | AA Std Deviation | | |
| Race | 1059 | 7.92 | 7.68 | 3.50 | 4.09 | .415 | .001 |
| Age | | | | | | .320 | .001 |
| 15-29 | 194 | 8.02 | 6.92 | 3.35 | 4.07 | | |
| 30-45 | 294 | 7.89 | 7.16 | 3.47 | 3.89 | | |
| 46-60 | 301 | 7.99 | 8.16 | 3.52 | 4.18 | | |
| 61 and over | 272 | 7.84 | 8.72 | 3.58 | 3.87 | | |
| Sex | | | | | | .415 | .001 |
| Male | 446 | 7.80 | 7.70 | 3.50 | 4.11 | | |
| Female | 613 | 8.00 | 7.67 | 3.50 | 4.09 | | |
| Labor Status | | | | | | .361 | .001 |
| Full Time Work | 489 | 8.11 | 7.20 | 3.43 | 4.12 | | |
| Part Time Work | 129 | 8.35 | 8.81 | 8.35 | 4.40 | | |
| Temp Not Work | 16 | 8.09 | 7.80 | 4.53 | 3.96 | | |
| Unemployed | 72 | 7.13 | 6.18 | 3.49 | 3.45 | | |
| Retired | 170 | 7.80 | 9.29 | 3.59 | 3.90 | | |
| School | 47 | 7.25 | 7.47 | 3.62 | 4.00 | | |
| Keep House | 113 | 7.58 | 7.72 | 3.46 | 3.85 | | |
| Other | 33 | 7.43 | 9.40 | 3.49 | 5.86 | | |
| Degree | | | | | | .415 | .001 |
| Lt High School | 119 | 7.62 | 8.03 | 3.42 | 4.46 | | |
| High School | 535 | 7.30 | 7.36 | 3.45 | 4.25 | | |
| Junior College | 82 | 8.37 | 9.41 | 3.17 | 3.86 | | |
| Bachelor | 221 | 8.54 | 7.30 | 3.56 | 2.77 | | |
| Graduate | 102 | 9.44 | 7.08 | 3.20 | 3.50 | | |
| Pol Affiliation | | | | | | .332 | .001 |
| Strong Dem | 269 | 9.30 | 7.41 | 3.52 | 4.00 | | |
| Not Strong Dem | 192 | 8.38 | 7.56 | 3.48 | 4.44 | | |
| Ind, Near Dear | 124 | 9.08 | 9.60 | 3.23 | 3.55 | | |
| Independent | 154 | 7.84 | 7.10 | 3.38 | 4.05 | | |
| Ind, Near Rep | 113 | 7.34 | 7.38 | 3.32 | 4.14 | | |
| Not Strong Rep | 116 | 7.32 | 7.75 | 3.39 | 3.77 | | |
| Strong Rep | 105 | 6.32 | 5.00 | 3.24 | | | |
| Other Party | 26 | 6.83 | 6.00 | 3.41 | 1.41 | | |

| | N | White Mean | AA Mean | White Std Deviation | AA Std Deviation | p | n ² |
|---------------------|-----|------------|---------|---------------------|------------------|------|----------------|
| Pol Views | | | | | | .505 | .000 |
| Extreme Lib | 46 | 10.53 | 7.71 | 3.87 | 5.57 | | |
| Liberal | 125 | 9.78 | 6.93 | 2.98 | 4.04 | | |
| Slight Lib | 121 | 9.09 | 7.79 | 3.16 | 2.26 | | |
| Moderate | 390 | 7.67 | 7.18 | 3.38 | 3.96 | | |
| Slight Con | 153 | 7.88 | 7.84 | 3.45 | 4.18 | | |
| Conserve | 167 | 6.32 | 9.23 | 3.16 | 4.03 | | |
| Extreme Con | 41 | 6.09 | 10.89 | 3.26 | 4.31 | | |
| Resident Type | | | | | | .425 | .001 |
| Country, Nonfarm | 109 | 7.64 | 8.08 | 3.43 | 4.87 | | |
| Farm | 93 | 7.71 | 9.36 | 3.33 | 3.65 | | |
| Town LT 50000 | 355 | 7.89 | 7.20 | 3.38 | 4.31 | | |
| 50000-250000 | 196 | 8.29 | 7.68 | 3.43 | 4.27 | | |
| Big City-Suburb | 138 | 8.27 | 6.30 | 3.63 | 4.24 | | |
| City GT 250000 | 167 | 7.44 | 8.19 | 3.90 | 3.50 | | |
| Yrs. Of Education | | | | | | .407 | .001 |
| 0-8 | 44 | 7.69 | 11.00 | 3.80 | 1.58 | | |
| 9-12th | 359 | 7.07 | 6.91 | 3.34 | 4.43 | | |
| 13-16 | 489 | 8.15 | 8.54 | 3.55 | 3.65 | | |
| 17-20 | 135 | 9.32 | 6.50 | 3.11 | 3.32 | | |
| Socioeconomic Index | | | | | | .518 | .000 |
| 0-20 | 183 | 7.74 | 8.20 | 3.48 | 4.02 | | |
| 21-40 | 192 | 7.26 | 7.46 | 3.58 | 4.32 | | |
| 41-60 | 205 | 7.94 | 7.42 | 3.30 | 4.19 | | |
| 61-80 | 194 | 8.20 | 7.53 | 3.44 | 3.92 | | |
| 81-100 | 199 | 8.50 | 7.73 | 3.59 | 3.35 | | |

^a Significant $p < 0.05$., b Significant $p < 0.01$., c Significant $p < 0.001$

Effect Size, $n^2 = .01$ ~Small; .06~Medium; .14~Large

Appendix D

Mean scores Green Concern Index Within White Group w/ Control Variables
Green Concern

| | | N | Mean | SD | p | n ² |
|-----------------|----------------|-----|------|------|--------------------|----------------|
| Age | | | | | <.001 ^c | .021 |
| | 15-29 | 145 | 8.05 | 2.33 | | |
| | 30-45 | 242 | 8.19 | 2.30 | | |
| | 46-60 | 241 | 7.84 | 2.45 | | |
| | 61 and over | 239 | 7.32 | 2.34 | | |
| Sex | | | | | .018 ^a | .006 |
| | Male | 380 | 7.61 | 2.56 | | |
| | Female | 488 | 7.99 | 2.23 | | |
| Labor Status | | | | | .339 | .009 |
| | Full Time Work | 395 | 7.96 | 2.48 | | |
| | Part Time Work | 109 | 8.17 | 2.13 | | |
| | Temp Not Work | 12 | 7.67 | 2.84 | | |
| | Unemployed | 56 | 7.64 | 2.47 | | |
| | Retired | 144 | 7.53 | 2.41 | | |
| | School | 32 | 7.75 | 2.20 | | |
| | Keep House | 91 | 7.58 | 2.18 | | |
| | Other | 29 | 7.38 | 2.16 | | |
| Degree | | | | | .126 | .008 |
| | Lt High School | 91 | 7.57 | 1.89 | | |
| | High School | 429 | 7.67 | 2.36 | | |
| | Junior College | 59 | 8.20 | 2.43 | | |
| | Bachelor | 199 | 8.03 | 2.66 | | |
| | Graduate | 90 | 8.11 | 2.24 | | |
| Pol Affiliation | | | | | <.001 ^c | .122 |
| | Strong Dem | 117 | 8.91 | 2.24 | | |
| | Not Strong Dem | 142 | 8.33 | 2.08 | | |
| | Ind, Near Dear | 105 | 8.63 | 2.22 | | |
| | Independent | 132 | 8.04 | 1.93 | | |
| | Ind, Near Rep | 105 | 7.07 | 2.44 | | |
| | Not Strong Rep | 136 | 7.43 | 2.19 | | |
| | Strong Rep | 105 | 6.26 | 2.48 | | |
| | Other Party | 22 | 7.05 | 3.18 | | |

| | N | Mean | SD | p | n ² |
|---------------------|-----|-------|------|--------------------|----------------|
| Pol Views | | | | <.001 ^c | .163 |
| Extreme Lib | 32 | 10.16 | 2.37 | | |
| Liberal | 99 | 9.11 | 2.14 | | |
| Slight Lib | 105 | 8.34 | 2.00 | | |
| Moderate | 311 | 7.92 | 2.08 | | |
| Slight Con | 130 | 7.68 | 2.13 | | |
| Conserve | 145 | 6.33 | 2.37 | | |
| Extreme Con | 31 | 6.10 | 2.96 | | |
| Resident Type | | | | .039 | .013 |
| Country, Nonfarm | 99 | 8.06 | 2.21 | | |
| Farm | 74 | 7.50 | 2.58 | | |
| Town LT 50000 | 303 | 7.65 | 2.40 | | |
| 50000-250000 | 163 | 7.88 | 2.37 | | |
| Big City-Suburb | 117 | 8.39 | 2.43 | | |
| City GT 250000 | 111 | 7.60 | 2.27 | | |
| Yrs. Of Education | | | | .029 | .010 |
| 0-8 | 34 | 7.26 | 1.96 | | |
| 9-12th | 299 | 7.57 | 2.18 | | |
| 13-16 | 413 | 7.96 | 2.50 | | |
| 17-20 | 121 | 8.16 | 2.50 | | |
| Socioeconomic Index | | | | .495 | .004 |
| 0-20 | 127 | 7.92 | 2.17 | | |
| 21-40 | 162 | 7.60 | 2.22 | | |
| 41-60 | 171 | 7.73 | 2.39 | | |
| 61-80 | 178 | 7.80 | 2.48 | | |
| 81-100 | 171 | 8.05 | 2.62 | | |

^a Significant $p < 0.05$., ^b Significant $p < 0.01$., ^c Significant $p < 0.001$

Effect Size, $n^2 = .01$ ~Small; $.06$ ~Medium; $.14$ ~Large

Appendix E

**Mean scores Green Concern Index Within African American Group w/
Control Variables**

| | | Green Concern | | | | |
|-----------------|----------------|---------------|------|------|-------------------|----------------|
| | | N | Mean | SD | p | n ² |
| Age | | | | | .651 | .008 |
| | 15-29 | 55 | 7.82 | 2.24 | | |
| | 30-45 | 52 | 8.04 | 2.60 | | |
| | 46-60 | 60 | 7.78 | 2.16 | | |
| | 61 and over | 33 | 7.36 | 2.61 | | |
| Sex | | | | | .262 | .006 |
| | Male | 72 | 8.04 | 2.32 | | |
| | Female | 129 | 7.65 | 2.38 | | |
| Labor Status | | | | | .008 ^b | .093 |
| | Full Time Work | 85 | 8.05 | 2.27 | | |
| | Part Time Work | 21 | 9.24 | 2.12 | | |
| | Temp Not Work | 6 | 7.00 | 0.89 | | |
| | Unemployed | 18 | 7.78 | 2.44 | | |
| | Retired | 21 | 7.33 | 2.50 | | |
| | School | 16 | 7.63 | 1.36 | | |
| | Keep House | 29 | 6.55 | 2.80 | | |
| | Other | 4 | 8.25 | 2.06 | | |
| Degree | | | | | .225 | .028 |
| | Lt High School | 35 | 7.00 | 2.36 | | |
| | High School | 113 | 8.01 | 2.33 | | |
| | Junior College | 22 | 7.95 | 2.40 | | |
| | Bachelor | 19 | 8.05 | 2.50 | | |
| | Graduate | 12 | 7.33 | 2.15 | | |
| Pol Affiliation | | | | | .172 | .052 |
| | Strong Dem | 83 | 7.40 | 2.46 | | |
| | Not Strong Dem | 46 | 8.22 | 2.02 | | |
| | Ind, Near Dear | 23 | 8.87 | 2.10 | | |
| | Independent | 24 | 7.88 | 2.51 | | |
| | Ind, Near Rep | 9 | 7.22 | 2.44 | | |
| | Not Strong Rep | 12 | 7.33 | 2.61 | | |
| | Strong Rep | 1 | 7.00 | | | |
| | Other Party | 2 | 6.50 | 3.54 | | |

| | N | Mean | SD | p | n ² |
|---------------------|----|------|------|------|----------------|
| Pol Views | | | | .099 | .056 |
| Extreme Lib | 14 | 7.14 | 1.46 | | |
| Liberal | 26 | 8.92 | 2.48 | | |
| Slight Lib | 16 | 7.31 | 2.70 | | |
| Moderate | 79 | 7.72 | 2.21 | | |
| Slight Con | 23 | 8.13 | 2.56 | | |
| Conserve | 22 | 7.14 | 2.55 | | |
| Extreme Con | 10 | 8.50 | 2.55 | | |
| Resident Type | | | | .590 | .019 |
| Country, Nonfarm | 14 | 6.71 | 1.73 | | |
| Farm | 17 | 7.59 | 2.29 | | |
| Town LT 50000 | 51 | 7.86 | 2.43 | | |
| 50000-250000 | 40 | 7.95 | 2.53 | | |
| Big City-Suburb | 26 | 8.12 | 2.61 | | |
| City GT 250000 | 53 | 7.79 | 2.21 | | |
| Yrs. Of Education | | | | .116 | .030 |
| 0-8 | 6 | 7.33 | 3.20 | | |
| 9-12th | 97 | 7.40 | 2.31 | | |
| 13-16 | 84 | 8.23 | 2.31 | | |
| 17-20 | 14 | 8.07 | 2.40 | | |
| Socioeconomic Index | | | | .959 | .004 |
| 0-20 | 63 | 7.71 | 2.21 | | |
| 21-40 | 36 | 7.94 | 2.59 | | |
| 41-60 | 34 | 8.03 | 2.26 | | |
| 61-80 | 20 | 8.00 | 2.36 | | |
| 81-100 | 23 | 8.04 | 2.38 | | |

^a Significant $p < 0.05$., b Significant $p < 0.01$., c Significant $p < 0.001$

Effect Size, $n^2 = .01$ ~Small; .06~Medium; .14~Large

Appendix F

Mean scores Green Finance Index Within White Group w/ Control Variables

| | | Green Finance | | | |
|-----------------|----------------|---------------|------|------|-------------------------|
| | | N | Mean | SD | p n ² |
| Age | | | | | .950 .000 |
| | 15-29 | 141 | 8.02 | 3.35 | |
| | 30-45 | 244 | 7.89 | 3.47 | |
| | 46-60 | 241 | 7.99 | 3.52 | |
| | 61 and over | 241 | 7.84 | 3.58 | |
| Sex | | | | | .410 .001 |
| | Male | 379 | 7.80 | 3.50 | |
| | Female | 489 | 8.00 | 3.50 | |
| Labor Status | | | | | .307 .010 |
| | Full Time Work | 397 | 8.11 | 3.43 | |
| | Part Time Work | 108 | 8.35 | 3.51 | |
| | Temp Not Work | 11 | 8.09 | 4.53 | |
| | Unemployed | 55 | 7.13 | 3.49 | |
| | Retired | 153 | 7.80 | 3.59 | |
| | School | 32 | 7.25 | 3.62 | |
| | Keep House | 84 | 7.58 | 3.46 | |
| | Other | 28 | 7.43 | 3.49 | |
| Degree | | | | | <.001 ^c .044 |
| | Lt High School | 89 | 7.62 | 3.42 | |
| | High School | 428 | 7.30 | 3.45 | |
| | Junior College | 60 | 8.37 | 3.17 | |
| | Bachelor | 201 | 8.54 | 3.56 | |
| | Graduate | 90 | 9.44 | 3.20 | |
| Pol Affiliation | | | | | <.001 ^c .073 |
| | Strong Dem | 113 | 9.30 | 3.52 | |
| | Not Strong Dem | 144 | 8.38 | 3.48 | |
| | Ind, Near Dear | 104 | 9.08 | 3.23 | |
| | Independent | 133 | 7.84 | 3.38 | |
| | Ind, Near Rep | 105 | 7.34 | 3.32 | |
| | Not Strong Rep | 136 | 7.32 | 3.39 | |
| | Strong Rep | 104 | 6.32 | 3.24 | |
| | Other Party | 24 | 6.83 | 3.41 | |

| | N | Mean | SD | p | n ² |
|---------------------|-----|-------|------|--------------------|----------------|
| Pol Views | | | | <.001 ^c | .113 |
| Extreme Lib | 32 | 10.53 | 3.87 | | |
| Liberal | 94 | 9.78 | 2.98 | | |
| Slight Lib | 104 | 9.09 | 3.16 | | |
| Moderate | 320 | 7.67 | 3.38 | | |
| Slight Con | 128 | 7.88 | 3.45 | | |
| Conserve | 145 | 6.32 | 3.16 | | |
| Extreme Con | 32 | 6.09 | 3.26 | | |
| Resident Type | | | | .311 | .007 |
| Country, Nonfarm | 97 | 7.64 | 3.43 | | |
| Farm | 79 | 7.71 | 3.33 | | |
| Town LT 50000 | 305 | 7.89 | 3.38 | | |
| 50000-250000 | 158 | 8.29 | 3.43 | | |
| Big City-Suburb | 115 | 8.27 | 3.63 | | |
| City GT 250000 | 113 | 7.44 | 3.90 | | |
| Yrs. Of Education | | | | <.001 ^c | .045 |
| 0-8 | 39 | 7.69 | 3.80 | | |
| 9-12th | 298 | 7.07 | 3.34 | | |
| 13-16 | 408 | 8.15 | 3.55 | | |
| 17-20 | 121 | 9.32 | 3.11 | | |
| Socioeconomic Index | | | | .019 ^a | .015 |
| 0-20 | 124 | 7.74 | 3.48 | | |
| 21-40 | 157 | 7.26 | 3.58 | | |
| 41-60 | 174 | 7.94 | 3.30 | | |
| 61-80 | 175 | 8.20 | 3.44 | | |
| 81-100 | 177 | 8.50 | 3.59 | | |

^a Significant $p < 0.05$., ^b Significant $p < 0.01$., ^c Significant $p < 0.001$

Effect Size, $n^2 = .01$ ~Small; $.06$ ~Medium; $.14$ ~Large

Appendix G

**Mean scores Green Finance Index Within African American Group w/
Control Variables**

Green Concern

| | | N | Mean | SD | p | n ² |
|-----------------|----------------|-----|------|------|------|----------------|
| Age | | | | | .147 | .028 |
| | 15-29 | 53 | 6.92 | 4.07 | | |
| | 30-45 | 50 | 7.16 | 3.89 | | |
| | 46-60 | 58 | 8.16 | 4.18 | | |
| | 61 and over | 29 | 8.72 | 3.87 | | |
| Sex | | | | | .959 | .000 |
| | Male | 67 | 7.70 | 4.11 | | |
| | Female | 124 | 7.67 | 4.09 | | |
| Labor Status | | | | | .286 | .046 |
| | Full Time Work | 80 | 7.20 | 4.12 | | |
| | Part Time Work | 21 | 8.81 | 4.40 | | |
| | Temp Not Work | 5 | 7.80 | 3.96 | | |
| | Unemployed | 17 | 6.18 | 3.45 | | |
| | Retired | 17 | 9.29 | 3.90 | | |
| | School | 15 | 7.47 | 4.00 | | |
| | Keep House | 29 | 7.72 | 3.85 | | |
| | Other | 5 | 9.40 | 5.86 | | |
| Degree | | | | | .266 | .028 |
| | Lt High School | 30 | 8.03 | 4.46 | | |
| | High School | 107 | 7.36 | 4.25 | | |
| | Junior College | 22 | 9.41 | 3.86 | | |
| | Bachelor | 20 | 7.30 | 2.77 | | |
| | Graduate | 12 | 7.08 | 3.50 | | |
| Pol Affiliation | | | | | .532 | .032 |
| | Strong Dem | 78 | 7.41 | 4.00 | | |
| | Not Strong Dem | 48 | 7.56 | 4.44 | | |
| | Ind, Near Dear | 20 | 9.60 | 3.55 | | |
| | Independent | 21 | 7.10 | 4.05 | | |
| | Ind, Near Rep | 8 | 7.38 | 4.14 | | |
| | Not Strong Rep | 12 | 7.75 | 3.77 | | |
| | Strong Rep | 1 | 5.00 | | | |
| | Other Party | 2 | 6.00 | 1.41 | | |

| | N | Mean | SD | p | n ² |
|---------------------|----|-------|------|-------------------|----------------|
| Pol Views | | | | .097 | .058 |
| Extreme Lib | 14 | 7.71 | 5.57 | | |
| Liberal | 27 | 6.93 | 4.04 | | |
| Slight Lib | 14 | 7.79 | 2.26 | | |
| Moderate | 78 | 7.18 | 3.96 | | |
| Slight Con | 19 | 7.84 | 4.18 | | |
| Conserve | 22 | 9.23 | 4.03 | | |
| Extreme Con | 9 | 10.89 | 4.31 | | |
| Resident Type | | | | .253 | .035 |
| Country, Nonfarm | 12 | 8.08 | 4.87 | | |
| Farm | 14 | 9.36 | 3.65 | | |
| Town LT 50000 | 50 | 7.20 | 4.31 | | |
| 50000-250000 | 38 | 7.68 | 4.27 | | |
| Big City-Suburb | 23 | 6.30 | 4.24 | | |
| City GT 250000 | 54 | 8.19 | 3.50 | | |
| Yrs. Of Education | | | | .009 ^b | .059 |
| 0-8 | 5 | 11.00 | 1.58 | | |
| 9-12th | 91 | 6.91 | 4.43 | | |
| 13-16 | 81 | 8.54 | 3.65 | | |
| 17-20 | 14 | 6.50 | 3.32 | | |
| Socioeconomic Index | | | | .877 | .007 |
| 0-20 | 59 | 8.20 | 4.02 | | |
| 21-40 | 35 | 7.46 | 4.32 | | |
| 41-60 | 31 | 7.42 | 4.19 | | |
| 61-80 | 19 | 7.53 | 3.92 | | |
| 81-100 | 22 | 7.73 | 3.35 | | |

^a Significant $p < 0.05$., ^b Significant $p < 0.01$., ^c Significant $p < 0.001$

Effect Size, $n^2 = .01$ ~Small; $.06$ ~Medium; $.14$ ~Large

Appendix H

Percentage of Responses on Green Activism Index Between Groups w/ Control Variables

| | | Green Activism | | | Total btwn Race | Sig (2 Tailed) | r |
|--------|-----------------|----------------|---------|--------|--------------------|-------------------|-------------------|
| | | N | White % | AA % | | | |
| Sex | | | | | | | |
| Male | | | | | | .111 | .209 |
| | Highly Inactive | 319 | 67.1% | 80.0% | 69.2% | | |
| | Inactive | 75 | 17.1% | 12.0% | 16.3% | | |
| | Moderate | | | | | | |
| | Active | 45 | 10.4% | 6.7% | 9.8% | | |
| | Active | 20 | 4.9% | 1.3% | 4.3% | | |
| | Highly Active | 2 | .5% | .0% | .4% | | |
| | Total | 461 | 100.0% | 100.0% | 100.0% | | |
| Female | | | | | | .128 | .027 ^a |
| | Highly Inactive | 505 | 73.0% | 84.4% | 75.5% | | |
| | Inactive | 91 | 14.4% | 10.9% | 13.6% | | |
| | Moderate | | | | | | |
| | Active | 48 | 8.0% | 4.1% | 7.2% | | |
| | Active | 19 | 3.6% | .0% | 2.8% | | |
| | Highly Active | 6 | 1.0% | .7% | .9% | | |
| | Total | 669 | 100.0% | 100.0% | 100.0% | | |

^a Significant $p < 0.05$., b Significant $p < 0.01$., c Significant $p < 0.001$

Effect Size, Cramer's V, r = Small 0.10; Medium 0.30; Large 0.50

Appendix I

Percentage of Responses on Green Activism Index Between Groups w/ Control Variables

| | | Green Activism | | | Sig (2 Tailed) | r |
|----------------|-----------------|----------------|---------|--------|-------------------|------|
| | | N | White % | AA % | | |
| Age | | | | | | |
| 15-29 | | | | | .891 | .081 |
| | Highly Inactive | 156 | 74.0% | 77.6% | | |
| | Inactive | 38 | 18.7% | 17.2% | | |
| | Moderate | | | | | |
| | Active | 8 | 4.0% | 3.4% | | |
| | Active | 3 | 2.0% | .0% | | |
| | Highly Active | 3 | 1.3% | 1.7% | | |
| | Total | 208 | 100.0% | 100.0% | | |
| 30-45 | | | | | .010 ^b | .219 |
| | Highly Inactive | 224 | 68.1% | 93.0% | | |
| | Inactive | 49 | 18.3% | 5.3% | | |
| | Moderate | | | | | |
| | Active | 23 | 8.8% | 1.8% | | |
| | Active | 9 | 3.6% | .0% | | |
| | Highly Active | 3 | 1.2% | .0% | | |
| | Total | 308 | 100.0% | 100.0% | | |
| 46-60 | | | | | .154 | .146 |
| | Highly Inactive | 228 | 68.9% | 83.3% | | |
| | Inactive | 41 | 13.9% | 9.1% | | |
| | Moderate | | | | | |
| | Active | 35 | 12.0% | 7.6% | | |
| | Active | 12 | 4.8% | .0% | | |
| | Highly Active | 1 | .4% | .0% | | |
| | Total | 317 | 100.0% | 100.0% | | |
| 61 and over | | | | | .847 | .061 |
| | Highly Inactive | 214 | 72.2% | 75.0% | | |
| | Inactive | 38 | 12.5% | 15.0% | | |
| | Moderate | | | | | |
| | Active | 27 | 9.4% | 7.5% | | |
| | Active | 15 | 5.5% | 2.5% | | |
| | Highly Active | 1 | .4% | .0% | | |
| | Total | 295 | 100.0% | 100.0% | | |

^a Significant $p < 0.05$., ^b Significant $p < 0.01$., ^c Significant $p < 0.001$
 Effect Size, Cramer's V, r = Small 0.10; Medium 0.30; Large 0.50

Appendix J

Percentage of Responses on Green Activism Index Between Groups w/ Control Variables

| | | Green Activism | | | | Sig (2 Tailed) | r |
|----------------|-----------------|----------------|---------|--------|--------------------|-------------------|------|
| | | N | White % | AA % | Total btwn Race | | |
| Labor Status | | | | | | | |
| Full Time Work | | | | | | .058 | .140 |
| | Highly Inactive | 351 | 68.5% | 82.0% | 70.9% | | |
| | Inactive | 81 | 18.0% | 9.0% | 16.4% | | |
| | Moderate | | | | | | |
| | Active | 44 | 8.9% | 9.0% | 8.9% | | |
| | Active | 17 | 4.2% | .0% | 3.4% | | |
| | Highly Active | 2 | .5% | .0% | .4% | | |
| | Total | 495 | 100.0% | 100.0% | 100.0% | | |
| Part Time Work | | | | | | .296 | .200 |
| | Highly Inactive | 87 | 63.1% | 81.0% | 65.9% | | |
| | Inactive | 22 | 16.2% | 19.0% | 16.7% | | |
| | Moderate | | | | | | |
| | Active | 16 | 14.4% | .0% | 12.1% | | |
| | Active | 6 | 5.4% | .0% | 4.5% | | |
| | Highly Active | 1 | .9% | .0% | .8% | | |
| | Total | 132 | 100.0% | 100.0% | 100.0% | | |
| Temp Not Work | | | | | | .497 | .357 |
| | Highly Inactive | 15 | 72.7% | 100.0% | 83.3% | | |
| | Inactive | 2 | 18.2% | .0% | 11.1% | | |
| | Moderate | | | | | | |
| | Active | | 0% | 0% | 0% | | |
| | Active | 1 | 9.1% | .0% | 5.6% | | |
| | Highly Active | | 0% | 0% | 0% | | |
| | Total | 18 | 100.0% | 100.0% | 100.0% | | |
| Unemployed | | | | | | .210 | .239 |
| | Highly Inactive | 63 | 74.1% | 95.2% | 79.7% | | |
| | Inactive | 9 | 13.8% | 4.8% | 11.4% | | |
| | Moderate | | | | | | |
| | Active | 5 | 8.6% | .0% | 6.3% | | |
| | Active | 0 | 0% | 0% | 0% | | |
| | Highly Active | 2 | 3.4% | .0% | 2.5% | | |
| | Total | 79 | 100.0% | 100.0% | 100.0% | | |
| Retired | | | | | | .859 | .078 |
| | Highly Inactive | 137 | 72.3% | 81.5% | 73.7% | | |

| | | | | | | | |
|------------|-----------------|-----|--------|--------|--------|-------|------|
| School | Inactive | 21 | 11.9% | 7.4% | 11.3% | 1.000 | .134 |
| | Moderate | | | | | | |
| | Active | 19 | 10.7% | 7.4% | 10.2% | | |
| | Active | 8 | 4.4% | 3.7% | 4.3% | | |
| | Highly Active | 1 | .6% | .0% | .5% | | |
| | Total | 186 | 100.0% | 100.0% | 100.0% | | |
| Keep House | Highly Inactive | 33 | 65.6% | 70.6% | 67.3% | .325 | .166 |
| | Inactive | 10 | 21.9% | 17.6% | 20.4% | | |
| | Moderate | | | | | | |
| | Active | 3 | 6.3% | 5.9% | 6.1% | | |
| | Active | 1 | 3.1% | .0% | 2.0% | | |
| | Highly Active | 2 | 3.1% | 5.9% | 4.1% | | |
| Other | Total | 49 | 100.0% | 100.0% | 100.0% | .380 | .331 |
| | Highly Inactive | 104 | 77.8% | 84.4% | 79.4% | | |
| | Inactive | 17 | 12.1% | 15.6% | 13.0% | | |
| | Moderate | | | | | | |
| | Active | 5 | 5.1% | .0% | 3.8% | | |
| | Active | 5 | 5.1% | .0% | 3.8% | | |
| | Highly Active | 0 | 0% | 0% | 0% | | |
| | Total | 131 | 100.0% | 100.0% | 100.0% | | |
| | Highly Inactive | 32 | 87.5% | 66.7% | 84.2% | | |
| | Inactive | 4 | 6.3% | 33.3% | 10.5% | | |
| | Moderate | | | | | | |
| | Active | 1 | 3.1% | .0% | 2.6% | | |
| | Active | 1 | 3.1% | .0% | 2.6% | | |
| | Highly Active | 0 | 0% | 0% | 0% | | |
| | Total | 38 | 100.0% | 100.0% | 100.0% | | |
| | | | | | | | |

^a Significant $p < 0.05$., b Significant $p < 0.01$., c Significant $p < 0.001$

Effect Size, Cramer's V, r = Small 0.10; Medium 0.30; Large 0.50

Appendix K

Percentage of Responses on Green Activism Index Between Groups w/ Control Variables

| | | Green Activism | | | | Sig (2 Tailed) | r |
|----------------|-----------------|----------------|---------|--------|--------------------|-------------------|------|
| | | N | White % | AA % | Total btwn Race | | |
| Degree | | | | | | | |
| Lt High School | | | | | | .895 | .045 |
| | Highly Inactive | 137 | 89.3% | 86.0% | 88.4% | | |
| | Inactive | 15 | 8.9% | 11.6% | 9.7% | | |
| | Moderate | | | | | | |
| | Active | 3 | 1.8% | 2.3% | 1.9% | | |
| | Active | 0 | 0% | 0% | 0% | | |
| | Highly Active | 0 | 0% | 0% | 0% | | |
| | Total | 155 | 100.0% | 100.0% | 100.0% | | |
| High School | | | | | | .273 | .094 |
| | Highly Inactive | 452 | 77.0% | 85.1% | 78.7% | | |
| | Inactive | 77 | 14.3% | 9.9% | 13.4% | | |
| | Moderate | | | | | | |
| | Active | 31 | 5.7% | 4.1% | 5.4% | | |
| | Active | 9 | 2.0% | .0% | 1.6% | | |
| | Highly Active | 5 | .9% | .8% | .9% | | |
| | Total | 574 | 100.0% | 100.0% | 100.0% | | |
| Junior College | | | | | | .623 | .157 |
| | Highly Inactive | 53 | 59.3% | 72.0% | 63.1% | | |
| | Inactive | 19 | 23.7% | 20.0% | 22.6% | | |
| | Moderate | | | | | | |
| | Active | 9 | 11.9% | 8.0% | 10.7% | | |
| | Active | 3 | 5.1% | .0% | 3.6% | | |
| | Highly Active | 0 | 0% | 0% | 0% | | |
| | Total | 84 | 100.0% | 100.0% | 100.0% | | |
| Bachelor | | | | | | .492 | .124 |
| | Highly Inactive | 128 | 56.9% | 76.2% | 58.7% | | |
| | Inactive | 39 | 18.3% | 14.3% | 17.9% | | |
| | Moderate | | | | | | |
| | Active | 30 | 14.7% | 4.8% | 13.8% | | |
| | Active | 19 | 9.1% | 4.8% | 8.7% | | |
| | Highly Active | 2 | 1.0% | .0% | .9% | | |
| | Total | 218 | 100.0% | 100.0% | 100.0% | | |
| Graduate | | | | | | .244 | .238 |

| | | | | |
|-----------------|----|--------|--------|--------|
| Highly Inactive | 54 | 50.6% | 83.3% | 54.5% |
| Inactive | 16 | 18.4% | .0% | 16.2% |
| Moderate | | | | |
| Active | 20 | 20.7% | 16.7% | 20.2% |
| Active | 8 | 9.2% | .0% | 8.1% |
| Highly Active | 1 | 1.1% | .0% | 1.0% |
| Total | 99 | 100.0% | 100.0% | 100.0% |

^a Significant $p < 0.05$., b Significant $p < 0.01$., c Significant $p < 0.001$

Effect Size, Cramer's V, r = Small 0.10; Medium 0.30; Large 0.50

Appendix L

Percentage of Responses on Green Activism Index Between Groups w/ Control Variables

| | | Green Activism | | | Total btwn Race | Sig (2 Tailed) | r |
|------------------------|-----------------|----------------|---------|-------|--------------------|-------------------|------|
| | | N | White % | AA % | | | |
| Pol Affiliation | | | | | | | |
| Strong Dem | | | | | | .000 ^c | .308 |
| | Highly Inactive | 138 | 55.5% | 81.8% | 66.7% | | |
| | Inactive | 34 | 20.2% | 11.4% | 16.4% | | |
| | Moderate | 21 | 12.6% | 6.8% | 10.1% | | |
| | Active | 10 | 8.4% | .0% | 4.8% | | |
| | Highly Active | 4 | 3.4% | .0% | 1.9% | | |
| | Total | 207 | 100% | 100% | 100% | | |
| Not Strong Dem | | | | | | .268 | .160 |
| | Highly Inactive | 150 | 71.6% | 83.0% | 74.6% | | |
| | Inactive | 27 | 14.9% | 9.4% | 13.4% | | |
| | Moderate | 14 | 6.8% | 7.5% | 7.0% | | |
| | Active | 8 | 5.4% | .0% | 4.0% | | |
| | Highly Active | 2 | 1.4% | .0% | 1.0% | | |
| | Total | 201 | 100% | 100% | 100% | | |
| Ind, Near Dear | | | | | | .036 ^a | .281 |
| | Highly Inactive | 80 | 59.0% | 75.0% | 62.0% | | |
| | Inactive | 26 | 20.0% | 20.8% | 20.2% | | |
| | Moderate | 15 | 14.3% | .0% | 11.6% | | |
| | Active | 7 | 6.7% | .0% | 5.4% | | |
| | Highly Active | 1 | .0% | 4.2% | .8% | | |
| | Total | 129 | 100% | 100% | 100% | | |
| Independent | | | | | | .566 | .107 |
| | Highly Inactive | 136 | 74.8% | 83.9% | 76.4% | | |
| | Inactive | 22 | 12.9% | 9.7% | 12.4% | | |
| | Moderate | 16 | 10.2% | 3.2% | 9.0% | | |
| | Active | 4 | 2.0% | 3.2% | 2.2% | | |
| | Highly Active | 0 | 0% | 0% | 0% | | |
| | Total | 178 | 100% | 100% | 100% | | |
| Ind, Near Rep | | | | | | .229 | .184 |

| | | | | | | | |
|----------------|-----------------|-----|-------|--------|-------|-------|------|
| | Highly Inactive | 86 | 71.0% | 100.0% | 73.5% | | |
| | Inactive | 18 | 16.8% | .0% | 15.4% | | |
| | Moderate | 12 | 11.2% | .0% | 10.3% | | |
| | Active | 1 | .9% | .0% | .9% | | |
| | Highly Active | 0 | 0% | 0% | 0% | | |
| | Total | 117 | 100% | 100% | 100% | | |
| Not Strong Rep | | | | | | 1.000 | .071 |
| | Highly Inactive | 124 | 80.9% | 83.3% | 81.0% | | |
| | Inactive | 21 | 13.5% | 16.7% | 13.7% | | |
| | Moderate | 5 | 3.5% | .0% | 3.3% | | |
| | Active | 3 | 2.1% | .0% | 2.0% | | |
| | Highly Active | 0 | 0% | 0% | 0% | | |
| | Total | 153 | 100% | 100% | 100% | | |
| Strong Rep | | | | | | 1.000 | .053 |
| | Highly Inactive | 84 | 76.1% | 100.0% | 76.4% | | |
| | Inactive | 12 | 11.0% | .0% | 10.9% | | |
| | Moderate | 9 | 8.3% | .0% | 8.2% | | |
| | Active | 5 | 4.6% | .0% | 4.5% | | |
| | Highly Active | 0 | 0% | 0% | 0% | | |
| | Total | 110 | 100% | 100% | 100% | | |
| Other Party | | | | | | 1.000 | .191 |
| | Highly Inactive | 19 | 65.4% | 100.0% | 67.9% | | |
| | Inactive | 6 | 23.1% | .0% | 21.4% | | |
| | Moderate | 1 | 3.8% | .0% | 3.6% | | |
| | Active | 1 | 3.8% | .0% | 3.6% | | |
| | Highly Active | 0 | 3.8% | .0% | 3.6% | | |
| | Total | 27 | 100% | 100% | 100% | | |

^a Significant $p < 0.05$., ^b Significant $p < 0.01$., ^c Significant $p < 0.001$

Effect Size, Cramer's V, r = Small 0.10; Medium 0.30; Large 0.50

Appendix M

Percentage of Responses on Green Activism Index Between Groups w/ Control Variables

| | | Green Activism | | | | Sig (2 Tailed) | r |
|-----------------|-----------------|----------------|---------|-------|--------------------|-------------------|------|
| | | N | White % | AA % | Total btwn Race | | |
| Pol Views | | | | | | | |
| Extreme | | | | | | | |
| Lib | | | | | | .011 ^a | .512 |
| | Highly Inactive | 25 | 35.5% | 87.5% | 53.2% | | |
| | Inactive | 8 | 22.6% | 6.3% | 17.0% | | |
| | Moderate | | | | | | |
| | Active | 6 | 19.4% | .0% | 12.8% | | |
| | Active | 4 | 12.9% | .0% | 8.5% | | |
| | Highly Active | 4 | 9.7% | 6.3% | 8.5% | | |
| | Total | 47 | 100% | 100% | 100% | | |
| Liberal | | | | | | .069 | .260 |
| | Highly Inactive | 73 | 52.0% | 80.8% | 57.9% | | |
| | Inactive | 24 | 20.0% | 15.4% | 19.0% | | |
| | Moderate | | | | | | |
| | Active | 18 | 17.0% | 3.8% | 14.3% | | |
| | Active | 10 | 10.0% | .0% | 7.9% | | |
| | Highly Active | 1 | 1.0% | .0% | .8% | | |
| | Total | 126 | 100% | 100% | 100% | | |
| Slight Lib | | | | | | .353 | .179 |
| | Highly Inactive | 86 | 66.4% | 68.4% | 66.7% | | |
| | Inactive | 19 | 15.5% | 10.5% | 14.7% | | |
| | Moderate | | | | | | |
| | Active | 14 | 9.1% | 21.1% | 10.9% | | |
| | Active | 9 | 8.2% | .0% | 7.0% | | |
| | Highly Active | 1 | .9% | .0% | .8% | | |
| | Total | 129 | 100% | 100% | 100% | | |
| Moderate | | | | | | .506 | .091 |
| | Highly Inactive | 322 | 75.4% | 84.1% | 77.2% | | |
| | Inactive | 60 | 15.2% | 11.4% | 14.4% | | |
| | Moderate | | | | | | |
| | Active | 26 | 7.0% | 3.4% | 6.2% | | |
| | Active | 8 | 2.1% | 1.1% | 1.9% | | |
| | Highly Active | 1 | .3% | .0% | .2% | | |
| | Total | 417 | 100% | 100% | 100% | | |
| Slight Conserve | | | | | | .103 | .229 |

| | | | | | | | |
|----------------|-----------------|-----|-------|-------|-------|------|------|
| Conserve | Highly Inactive | 115 | 67.2% | 95.8% | 71.4% | .925 | .058 |
| | Inactive | 23 | 16.8% | .0% | 14.3% | | |
| | Moderate | 19 | 13.1% | 4.2% | 11.8% | | |
| | Active | 3 | 2.2% | .0% | 1.9% | | |
| | Highly Active | 1 | .7% | .0% | .6% | | |
| | Total | 161 | 100% | 100% | 100% | | |
| Extreme Con | Highly Inactive | 140 | 81.2% | 79.2% | 80.9% | .423 | .261 |
| | Inactive | 23 | 12.8% | 16.7% | 13.3% | | |
| | Moderate | 8 | 4.7% | 4.2% | 4.6% | | |
| | Active | 2 | 1.3% | .0% | 1.2% | | |
| | Highly Active | 0 | 0% | 0% | 0% | | |
| | Total | 173 | 100% | 100% | 100% | | |
| | Highly Inactive | 33 | 80.6% | 66.7% | 76.7% | | |
| | Inactive | 6 | 9.7% | 25.0% | 14.0% | | |
| | Moderate | 2 | 3.2% | 8.3% | 4.7% | | |
| | Active | 2 | 6.5% | .0% | 4.7% | | |
| | Highly Active | 0 | 0% | 0% | 0% | | |
| | Total | 43 | 100% | 100% | 100% | | |

^a Significant $p < 0.05$., ^b Significant $p < 0.01$., ^c Significant $p < 0.001$
 Effect Size, Cramer's V, r = Small 0.10; Medium 0.30; Large 0.50

Appendix N

Percentage of Responses on Green Activism Index Between Groups w/ Control Variables

| | | Green Activism | | | Sig (2 Tailed) | r |
|------------------|-----------------|----------------|---------|--------|-------------------|------|
| | | N | White % | AA % | | |
| Resident Type | | | | | | |
| Country, Nonfarm | | | | | .455 | .169 |
| | Highly Inactive | 100 | 81.0% | 100.0% | | |
| | Inactive | 9 | 8.6% | .0% | | |
| | Moderate | | | | | |
| | Active | 8 | 7.6% | .0% | | |
| | Active | 2 | 1.9% | .0% | | |
| | Highly Active | 1 | 1.0% | .0% | | |
| | Total | 120 | 100% | 100% | | |
| Farm | | | | | .379 | .221 |
| | Highly Inactive | 80 | 78.6% | 77.8% | | |
| | Inactive | 13 | 13.1% | 11.1% | | |
| | Moderate | | | | | |
| | Active | 7 | 7.1% | 5.6% | | |
| | Active | 1 | 1.2% | .0% | | |
| | Highly Active | 1 | .0% | 5.6% | | |
| | Total | 102 | 100% | 100% | | |
| Town LT 50000 | | | | | .165 | .128 |
| | Highly Inactive | 290 | 74.4% | 87.1% | | |
| | Inactive | 46 | 12.9% | 8.1% | | |
| | Moderate | | | | | |
| | Active | 23 | 6.3% | 4.8% | | |
| | Active | 18 | 5.7% | .0% | | |
| | Highly Active | 2 | .6% | .0% | | |
| | Total | 379 | 100% | 100% | | |
| 50000-250000 | | | | | .158 | .176 |
| | Highly Inactive | 139 | 62.7% | 82.5% | | |
| | Inactive | 42 | 21.9% | 12.5% | | |
| | Moderate | | | | | |
| | Active | 18 | 9.5% | 5.0% | | |
| | Active | 7 | 4.1% | .0% | | |
| | Highly Active | 3 | 1.8% | .0% | | |
| | Total | 209 | 100% | 100% | | |
| Big City-Suburb | | | | | .128 | .198 |
| | Highly Inactive | 96 | 62.9% | 82.1% | | |

| | | | | | | |
|-----------------|-----|-------|-------|-------|------|------|
| Inactive | 23 | 16.4% | 14.3% | 16.0% | | |
| Moderate | | | | | | |
| Active | 17 | 14.7% | .0% | 11.8% | | |
| Active | 8 | 6.0% | 3.6% | 5.6% | | |
| Highly Active | 0 | 0% | 0% | 0% | | |
| Total | 144 | 100% | 100% | 100% | | |
| City GT 250000 | | | | | .292 | .167 |
| Highly Inactive | 118 | 62.9% | 77.6% | 67.8% | | |
| Inactive | 32 | 20.7% | 13.8% | 18.4% | | |
| Moderate | | | | | | |
| Active | 20 | 12.9% | 8.6% | 11.5% | | |
| Active | 3 | 2.6% | .0% | 1.7% | | |
| Highly Active | 1 | .9% | .0% | .6% | | |
| Total | 174 | 100% | 100% | 100% | | |

^a Significant $p < 0.05$., b Significant $p < 0.01$., c Significant $p < 0.001$
Effect Size, Cramer's V, r = Small 0.10; Medium 0.30; Large 0.50

Appendix O

Percentage of Responses on Green Activism Index Between Groups w/ Control Variables

| | | Green Activism | | | Sig (2 Tailed) | r |
|-------------------|-----------------|----------------|---------|--------------------|-------------------|------|
| | | N | White % | AA % | | |
| Yrs. Of Education | | | | Total btwn Race | | |
| 0-8 | | | | | .762 | .123 |
| | Highly Inactive | 46 | 84.1% | 81.8% | 83.6% | |
| | Inactive | 7 | 11.4% | 18.2% | 12.7% | |
| | Moderate | 2 | 4.5% | .0% | 3.6% | |
| | Active | 0 | 0% | 0% | 0% | |
| | Highly Active | 0 | 0% | 0% | 0% | |
| | Total | 55 | 1.00 | 1.00 | 1.00 | |
| 9-12th | | | | | .696 | .075 |
| | Highly Inactive | 370 | 84.0% | 84.3% | 84.1% | |
| | Inactive | 44 | 9.6% | 11.1% | 10.0% | |
| | Moderate | 19 | 4.2% | 4.6% | 4.3% | |
| | Active | 6 | 1.8% | .0% | 1.4% | |
| | Highly Active | 1 | .3% | .0% | .2% | |
| | Total | 440 | 1.00 | 1.00 | 1.00 | |
| 13-16 | | | | | .040 ^a | .141 |
| | Highly Inactive | 336 | 64.2% | 80.7% | 67.1% | |
| | Inactive | 92 | 19.6% | 12.5% | 18.4% | |
| | Moderate | 47 | 10.4% | 4.5% | 9.4% | |
| | Active | 21 | 4.8% | 1.1% | 4.2% | |
| | Highly Active | 5 | 1.0% | 1.1% | 1.0% | |
| | Total | 501 | 100% | 100% | 100% | |
| 17-20 | | | | | .084 | .246 |
| | Highly Inactive | 72 | 50.4% | 86.7% | 54.5% | |
| | Inactive | 21 | 17.9% | .0% | 15.9% | |
| | Moderate | 25 | 19.7% | 13.3% | 18.9% | |
| | Active | 12 | 10.3% | .0% | 9.1% | |
| | Highly Active | 2 | 1.7% | .0% | 1.5% | |
| | Total | 132 | 100% | 100% | 100% | |

^a Significant $p < 0.05$., b Significant $p < 0.01$., c Significant $p < 0.001$
 Effect Size, Cramer's V, r = Small 0.10; Medium 0.30; Large 0.50

Appendix P

Percentage of Responses on Green Activism Index Between Groups w/ Control Variables

| | | Green Activism | | | | Sig (2 Tailed) | r |
|---------------------|-----------------|----------------|---------|-------|--------------------|-------------------|------|
| | | N | White % | AA % | Total btwn Race | | |
| Socioeconomic Index | | | | | | | |
| 0-20 | | | | | | .776 | .103 |
| | Highly Inactive | 180 | 83.5% | 88.9% | 85.3% | | |
| | Inactive | 19 | 10.1% | 6.9% | 9.0% | | |
| | Moderate | | | | | | |
| | Active | 9 | 4.3% | 4.2% | 4.3% | | |
| | Active | 2 | 1.4% | .0% | .9% | | |
| | Highly Active | 1 | .7% | .0% | .5% | | |
| | Total | 211 | 100% | 100% | 100% | | |
| 21-40 | | | | | | .834 | .086 |
| | Highly Inactive | 159 | 76.0% | 78.0% | 76.4% | | |
| | Inactive | 34 | 16.2% | 17.1% | 16.3% | | |
| | Moderate | | | | | | |
| | Active | 9 | 4.2% | 4.9% | 4.3% | | |
| | Active | 5 | 3.0% | .0% | 2.4% | | |
| | Highly Active | 1 | .6% | .0% | .5% | | |
| | Total | 208 | 100% | 100% | 100% | | |
| 41-60 | | | | | | .412 | .131 |
| | Highly Inactive | 159 | 72.0% | 77.8% | 72.9% | | |
| | Inactive | 30 | 14.3% | 11.1% | 13.8% | | |
| | Moderate | | | | | | |
| | Active | 18 | 8.2% | 8.3% | 8.3% | | |
| | Active | 9 | 4.9% | .0% | 4.1% | | |
| | Highly Active | 2 | .5% | 2.8% | .9% | | |
| | Total | 218 | 100% | 100% | 100% | | |
| 61-80 | | | | | | .376 | .125 |
| | Highly Inactive | 131 | 64.6% | 72.7% | 65.5% | | |
| | Inactive | 34 | 16.3% | 22.7% | 17.0% | | |
| | Moderate | | | | | | |
| | Active | 28 | 15.2% | 4.5% | 14.0% | | |
| | Active | 7 | 3.9% | .0% | 3.5% | | |
| | Highly Active | 0 | .0% | .0% | .0% | | |
| | Total | 200 | 100% | 100% | 100% | | |
| 81-100 | | | | | | .110 | .194 |
| | Highly Inactive | 121 | 57.7% | 87.0% | 61.1% | | |

| | | | | |
|---------------|-----|-------|------|-------|
| Inactive | 32 | 17.7% | 4.3% | 16.2% |
| Moderate | | | | |
| Active | 26 | 14.3% | 4.3% | 13.1% |
| Active | 16 | 8.6% | 4.3% | 8.1% |
| Highly Active | 3 | 1.7% | .0% | 1.5% |
| Total | 198 | 100% | 100% | 100% |

^a Significant $p < 0.05$., b Significant $p < 0.01$., c Significant $p < 0.001$
 Effect Size, Cramer's V, r = Small 0.10; Medium 0.30; Large 0.50

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