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Environmental Concerns: Race, Gender, and Income

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Abstract

This research examines the attitudes of residents from Greater New Orleans towards environmental concerns. The vast literature on environmental concern has identified explanations for environmental concern by focusing attention on particular demographics that help us understand why concerns generally vary among groups. However, certain communities with high levels of environmental concern or reasons for concern do not necessarily reflect the norm. Greater New Orleans is one such community. This study therefore attempts to develop an explanation of perceived environmental concerns throughout the region, paying particular attention to demographic differences that may better explain why levels of concern differ in environmentally disadvantaged communities. The results illustrate that all areas of race, gender, and class have an important effect on individuals' concern for the environment. But, unlike other communities, greater explanations are found in gendered analysis than found in other studies. Here, we observe that (a) minorities in Greater New Orleans are as concerned as whites and (b) that women, regardless of income level, are more concerned than men about environmental pollutants. This reinforces the belief that the level of publics' environmental concern is directly related to their experience with air and water quality in the communities in which they live.

Key Terms:

Environmental Justice; Race; Gender; Income; New Orleans

This paper was first prepared for a Political Science Research Methodology class in Fall 2005 at Xavier University of Louisiana. It has been revised for submission to Xavier's online undergraduate journal, XULAnEXUS.

Introduction

This study examines the attitudes of people towards environmental concerns. There is a tendency of people to develop attitudes toward certain political issues based on their personal circumstances. Americans have strong and broad concerns about the environment; these are frequently based on their own moral values (Kempton, Boster, & Hartley, 1995). Some scholars suggest that people's level of concern about the environment may be related to their race, gender, and income. People's relationships to the environment have to be understood in the context of historical and contemporary class, race, and gender relations (Taylor, 1997). Therefore the purpose of this study is to fully address the question: how do attitudes towards environmental concerns differ based on demographic classifications? Much of the political decisions that have been made and will be made in relation to this question are based on the condition of the

environment. Thus, this study hopes to convey a better understanding of the way people mold their environmental views, just as the study of political science encourages the exploration of social issues as a whole.

Hypotheses and Review of Literature

Often when an issue of concern is raised enough times and with adequate supporters, it will be addressed by legislation. All environmental concerns are and should be a concern for everyone in the world. Throughout time, many laws have been passed to help the effort to preserve our environment as much as possible. These laws have made precedence due to the high levels of concerns from environmental agencies, interest groups, and others. For example, according to the U.S. Environmental Protection Agency (EPA), several recommendations have been made including a 2003 report stating the need to increase priorities of environmental equity. The EPA wishes “to establish environmental justice as a national priority and to focus the attention of federal agencies on environmental and health conditions in low-income communities and communities of color with a view towards achieving environmental protection for all communities” (2003, p. 9). The independent variables of this review are race, gender, and income. The impact of these three variables on environmental concern will establish what causes individuals’ level of concern to vary.

The first hypothesis involves the variable of race. The question is: How might a person’s race affect his/her environmental concerns? There are data specifying that African Americans and minorities alike have been the victims of environmental injustice. The EPA Environmental Equity Report 2003 stated, “Communities of color, low-income, and tribal communities suffer from numerous adverse pollution impacts from non-sustainable environmental practices that could be reduced or eliminated through pollution prevention measures” (p. 15). Institutional barriers have kept millions of African-Americans and other ethnic minorities in polluted neighborhoods and hazardous, low-paying jobs (Bullard, 1990). Therefore, this study attempts to ascertain the level of minorities’ concern for the environment. Evidence from surveys has demonstrated that African Americans, and people of color in general, are as concerned about the environment as white people (Mohai & Bryant, 1998). This fact can be attributed to the low-paying industrial facilities who disproportionately seek certain geographic locations in which to operate, which are conveniently in low-income minority communities, further illustrating that minorities are more likely than others to be concerned about the state of their environment (Bullard, 1990).

The second hypothesis involves the variable of gender. The question is: Does one gender demonstrate more or less concern for the environment than the other? There is an implication that stay-at-home moms are very concerned with environmental matters. Women have additional domestic responsibilities such as food preparation, childcare, and maintaining family health, while men's domestic responsibilities may be limited (Sass, 2002). This assertion can be clarified by looking back at patriarchal history. A women’s place was always in the home, taking care of the house and the children, while the men worked to make a living. It has been theorized that gender differences in environmental concern exist because women are socialized from childhood onward to be family care-givers and nurturers, while men are socialized to be the “bread winners” and economic providers for the family (Mohai, 1997). According to Scott and Willits

(1994), women with young children were more likely to indicate concern about the environment. The testing of this hypothesis will determine whether women are more likely than men to be concerned about the environment.

The third and final hypothesis involves the variable of income. The question is: Does one's income influence one's concern for the environment? The social class a person belongs to is determined by household income. Some literary works suggest that these class divisions are beginning to disappear. However, they are just as present as ever. The expectation is that higher income allows one to relocate from an environmentally hazardous community, whereas those with low incomes cannot feasibly do so enabling their concern for their surroundings. The third hypothesis will test the relevance of the theories of relative and absolute deprivation (Van Liere & Dunlap, 1980) within the context of environmental concern. Relative and absolute deprivation theory identifies the environmental hazards of pollution and degradation by how the public relates its concern for them. This again would justify the level of environmental concern of minorities and individuals with low income since they are exposed to these hazards at much higher rates. Van Liere and Dunlap insist that environmental deprivation is relative instead of absolute based on the amount of exposure minority and low-income communities are subjected to in their environment. David Friedman depicts low-income individuals and minorities alike as being detrimental to the success of industry and visa-versa, the same industry which creates environmental pollutants (1998). Industry members and supporters suggest that although hazardous waste facilities are undesirable neighbors, the petrochemical plants, municipal and commercial landfills, and other waste management enterprises provide employment opportunities for needy communities (Adeola, 1998).

In this study, the hypotheses that will be tested by empirical data collection and measurements are:

H₁: Minorities are more likely to be concerned about the environment than whites.

H₂: Females are more likely to be concerned about the environment than males.

H₃: Lower-income individuals are more likely to be concerned about the environment than wealthier individuals.

The analytic testing of these hypotheses will further demonstrate the effects that these variables have on environmental concerns.

Data & Method

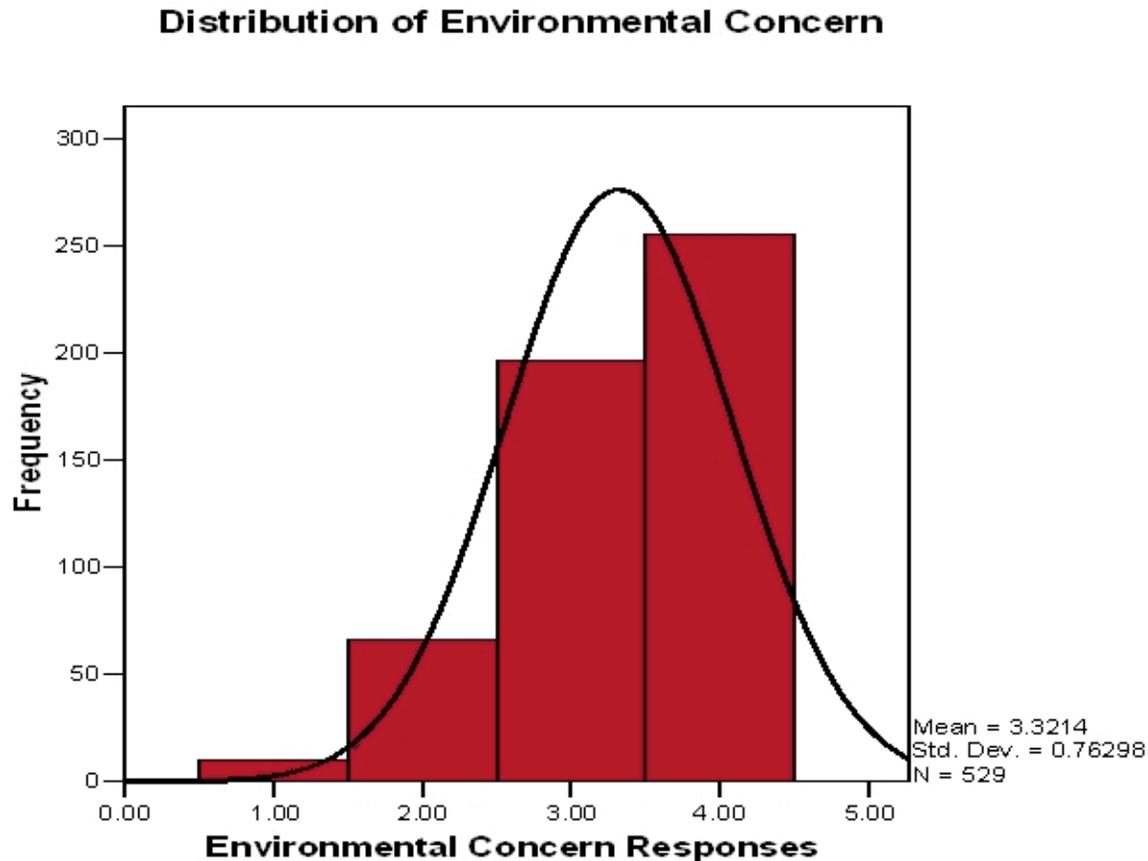
The nature of the research design is cross-sectional. The data sampled 540 human subjects living in the Greater New Orleans region. These data were collected in a study in a political science class at Xavier University of Louisiana in the Fall 2001 semester. SPSS (Statistical Package for the Social Sciences) Version 12 was used to process the data. The data was obtained from a random sample of respondents. Using city zip codes, a survey was conducted by telephone by students enrolled in the political science course. The data is being shared here with a student audience for educational purposes. The methodology adopted was both univariate and bivariate analysis. A univariate histogram was used to illustrate the overall level of concern for the environment among individuals, which is the dependent variable. The bivariate analysis was used to represent the relationship between the dependent and independent variables. A simple graph, illustrating the difference of means, was created to determine which

hypothesis would be supported or rejected. The data contained over sixty variables; twelve possible variables were considered to assist in explaining the dependent variable. All the initial independent variables were plotted to demonstrate their relationship with the dependent variable. The observations that are being examined are the independent variables that had the most notable effect on environmental concerns.

Measurement

The dependent variable used is a multi-item measure. It is comprised of specific concerns linking with the environment; a single scale was created. The scale is titled *Environmental Concern*. The items in the data set included several areas of concern for the environment. These were concern for air, water, pest, fish, river, soil, and waste pollution. I elected to focus on concern for air quality and water pollution. This means that I am examining, as my dependent variable, the means of responses to the questions: “How concerned are you about the Air?” and “How concerned are you about Water pollution?” The first value of ‘Not at all concerned about the environment’ depicts the lowest level of concern, whereas, ‘Very concerned about the environment’ is the highest.

Figure 1
Figure



Looking at the distribution of responses (Figure 1), we find that from a sample of 540 respondents there are 4 “don’t know” and 7 missing responses which reduced the number of valid responses to 529 with concern for air and water pollution. The dependent variable is coded by the values of: 1. Not at all concerned; 2. Not very concerned; 3. Somewhat concerned; and 4. Very concerned. The frequency illustrates 48.4% of respondents are very concerned about the environment, 37.2% are somewhat concerned, 12.5% are not very concerned, and 1.9% are not at all concerned. The histogram with a natural curve depicts a negative/left skewness of responses from the mean. The modal response is “very concerned” but there is enough deviation from the norm to warrant an explanation of why some individuals are more concerned about their environment than others.

Figure 2

Figure

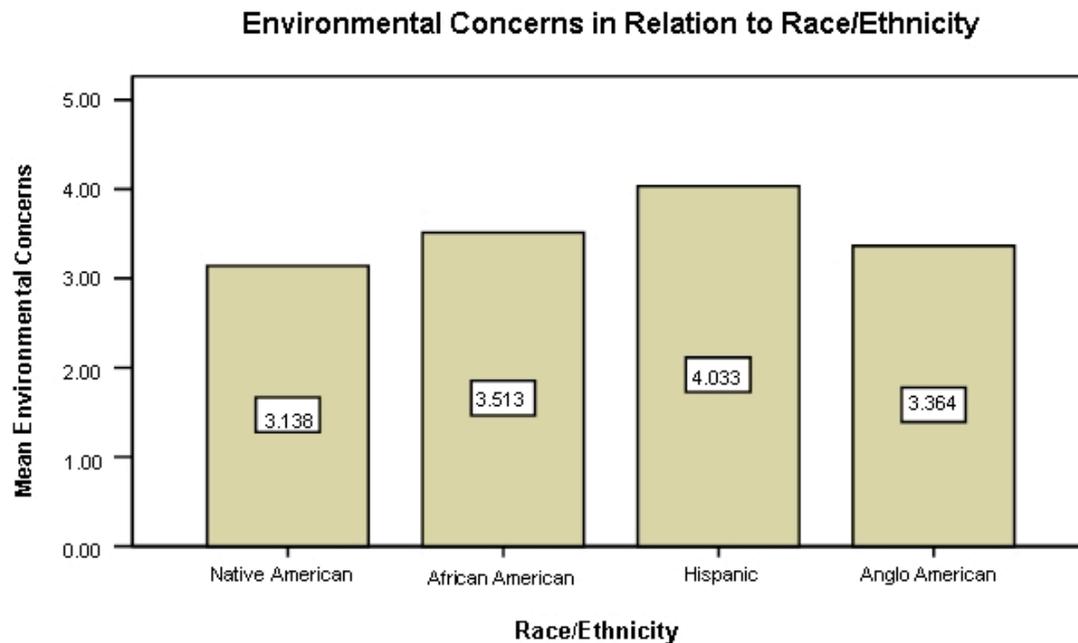
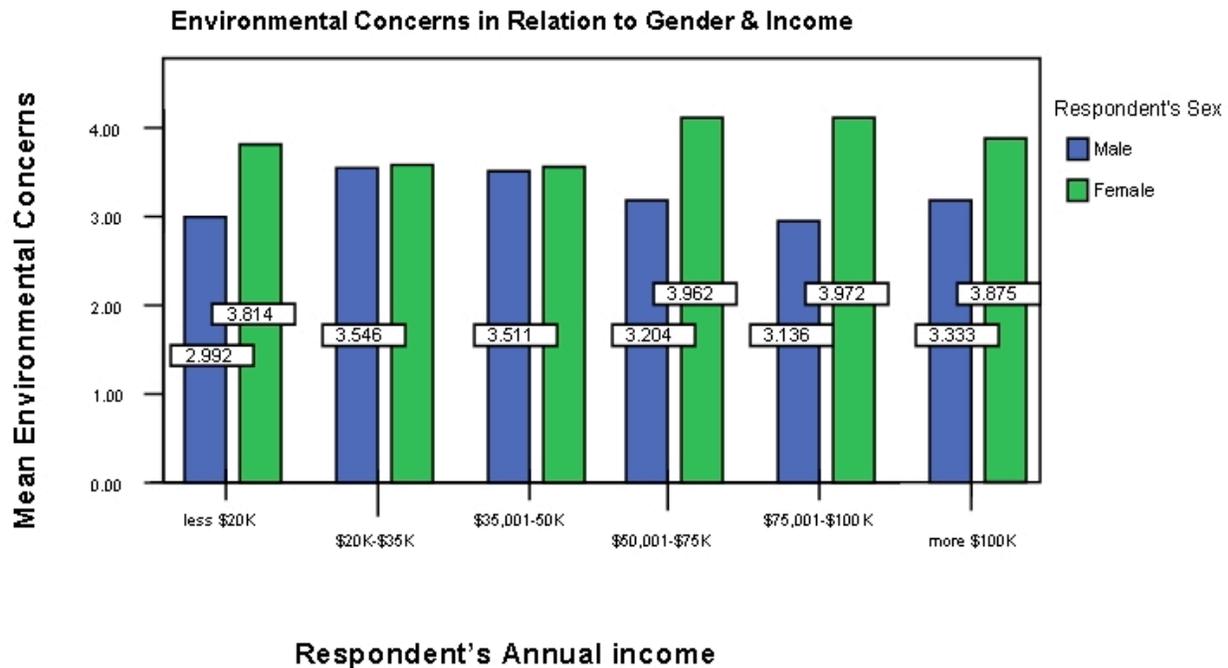


Figure 2 shows that both African Americans and whites are found to be “somewhat concerned” about the quality of air and water pollution, since the bar illustrating the mean African Americans response is at 3.5 and at 3.2 for whites. However, this same graph shows that Hispanics are “very concerned” with the quality of air and water pollution in their community. The bar illustrating Hispanics shows a placement at 4.0. The graph further depicts Native Americans’ concern for the environment at 3.1, i.e. “somewhat concerned.” This helps to support my thesis that minorities, and in particular African Americans, are just as likely, if not

more likely, to be concerned about environmental pollution than whites. Minorities are thus exposed to these pollutants at a higher likelihood because of where they live which yields a concern for the environment as a whole. Even though both groups are in the same mean range of 3.0 and 3.5, African Americans demonstrate a somewhat greater concern for air and water than whites. And, if extended to minorities, the score for Hispanics indicates that minorities are likely to be more concerned overall than whites. These findings may perhaps be attributed to the locations in which minorities reside, although no specific test was conducted to differentiate respondents by location.

Figure 3

Figure



On further analysis, a look at the impact of gendered socioeconomics offers interesting insights. Figure 3 shows the effect that a person's gender and income have on the environment. Respondents of lower income in the \$20K to \$50K salary range are more concerned for the environment than those respondents of higher income in the \$50,001 to over \$100K range. As stated previously, income/class is an indicator that needs to be understood to identify individuals' relationship with environmental concern. Income levels illustrate individuals' concern for the environment by validating those of low income as subject to possible disproportionate victimization via environmental hazards.

In addition, the plot clearly illustrates that females, regardless of their level of income, are more concerned about the environment than males of any level of income. The findings from this graph have therefore led to new hypotheses about levels of income. Prior to these

observations, I focused on gender and income on an individual basis. However, by examining intersections of gender and income, I was able to arrive at a stronger conclusion, one which illustrates that women in every income bracket are more concerned with the environment than men. Women who earn an income of less than \$20K are shown to be just as concerned about the environment as women who earn more than \$100K. So, there is evidence here to suggest that what we are observing is not a class effect but a gender effect that better explains environmental concern. Also, all the graphs illustrate that environmental concern does differ more across gender than class lines, because women are simply more concerned than men. As previously mentioned, women have additional domestic responsibilities that include being caregivers which enables their sense of concern for the environment (Sass, 2002; Scott and Willits, 1994). This further exemplifies the relationship between women and their environment and suggests that women may be more likely to be concerned with the environment than men because they are more directly affected by negative elements of their environment.

Discussion/Conclusion

This research shows that concerns for the environment are determined by race, gender, and income. There are three separate conclusions that can be derived from this study. Each of these conclusions comes from the three hypotheses previously stated. The first conclusion is that, African Americans and whites have similar concerns about the environment, yet minorities as a whole are more likely to be concerned about the environment. Activists and scholars have produced evidence that minorities have been disproportionately victimized by exposure to toxic wastes by companies that have deliberately built their disposal facilities near minority communities (Roach, 2005). The second conclusion is that, females are more likely to have environmental concerns than males. The third conclusion is that income levels do not affect the amount of concern a person has about the environment. In this study the single variable of income did not yield much variation in concern. There was a sort of plateau effect for the level of concern among the respondents, most of who had some concern for the environment. However, when income and gender interact, the gender effect assumes greater efficacy in explaining concern than the class effect (i.e. income). The results imply that environmental activists should voice their feelings to interest groups to lobby for legislatures to change current issues which affect them. I believe that in most cases there is a failure of knowledge of the environment. The EPA does not conduct adequate informational forums in certain demographics groups to educate people on the environment and to address the related concerns.

Limitations and Future Implications

The main limitations of this study are sample size and a lack of variation in the ethnicity of respondents. A larger sample could have yielded greater results with a true correspondence to the actual make-up of the region. Had there been more respondents of each race the study would have more likely yielded better results. Nevertheless, this study was of great significance to the study of environmental justice as a whole, since the distribution of concern can be linked to the injustice of the siting of hazards. I focused on those core demographic factors of race, gender, and income which have been identified in the literature and previous studies as factually correlating to environmental concerns.

This study is significant because it sheds light on the concern that minority and low-income communities express for their environments while living amidst continued environmental injustices. In addition, it contributes to new knowledge based on its examination of concerns individuals held pre-Katrina in New Orleans. This could be used with future studies to depict any changes or further variations in respondent's reservations for environmental concern from then to now.

Strategies for future analysis would be concentrated around the environmental effects of Hurricane Katrina in New Orleans. In Post-Katrina New Orleans there has been a major shift in demographics across the board in regards to race, gender, and income. For example, an influx of Hispanics has entered New Orleans with a large percentage of African American taking up residence elsewhere. Since the hurricane, the environmental concerns that were not much of an interest to people before may now be of greater concern. For instance, communities may be more concerned about soil contamination, landfills, and storm waste disposal, all of which could be conducted in a new study which focuses on the environmental concerns stemming from Hurricane Katrina in the Greater New Orleans region. I hope to continue the pursuit of knowledge on this key area of research, examining related issues in both legal and political contexts.

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