HISPANICS AND ENVIRONMENTAL VOTING IN THE U.S. CONGRESS

by

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ABSTRACT

Prior studies have found that African American members of Congress are more likely to vote pro-environmentally than their white colleagues, but so far little is known about the voting behavior of other nonwhite members. We examine trends in the environmental voting behavior of Hispanic members and examine how they compare to those of African American and white members. We test hypotheses about the likely causes of the disparities in voting patterns. Specifically, we examine the effect of both member characteristics and constituency characteristics on voting behavior. Results show that Hispanics are more likely to vote pro-environmentally than whites but less likely than African Americans. Results also suggest that much of the difference with white members can be attributed to Hispanic members more liberal ideological leanings. As one of the fastest growing minority populations in the U.S., Hispanics have the potential to have a lasting impact on Congress and environmental policy.

Keywords: Hispanics, race, environmental voting, U.S. Congress

CHAPTER 1*: Introduction to the research project*

Over the past several decades there has been increasing research interest in African-Americans' concern for, and attitudes towards, environmental issues (Hershey and Hill 1977; Jones and Carter 1994; Mohai 1990; Mohai and Bryant 1998; Mohai 2003; Taylor 1989). This research has paralleled the rise of the environmental justice movement, a movement concerned with the disproportionate burdens of pollution on low-income and minority neighborhoods. Since the 1980's, evidence has been mounting that communities of color are being affected by greater levels of environmental hazards than white communities (Chavis and Lee 1987; GAO 1983 Mohai and Bryant 1992). A prevailing cultural myth has been that African-Americans are generally less concerned about environmental issues than whites. The rise of the environmental justice movement in the 1980's cast doubt on this commonly held belief and led to increased study of African-Americans' environmental concern that continues into today. The research investigating African-Americans' environmental concern has become extensive compared to other minorities, and has often overlooked a key minority population, Hispanic Americans. Despite the fact that Hispanic populations in the United States also share a disproportionate burden of environmental hazards in their communities, and have mobilized their communities in the environmental justice movement, there has been relatively little attention paid to where Hispanic Americans, and Hispanic policymakers, stand on environmental issues (Bengston and Sanchez 2004; Lynch 1993).

Researchers suggest that this gap in the literature needs to be remedied (Bengston and Sanchez 2004; Burger et al. 2004; Lynch 1993). Similar to earlier claims made about African-Americans, it has been argued that Hispanic Americans are not as interested in the environment as whites (Greenberg 2003; Johnson et al. 2004). Johnson et al. (2004), for example, reported that foreign-born Latinos scored lower on their environmental concern measure, the New Ecological Paradigm (NEP), than whites. However, this research ignored past critiques of measuring environmental concern vis-à-vis participation in environmental organizations and used "reading environmental magazines" as an indicator for environmental behavior, which might not be a prudent choice for a highly illiterate population (Wiley 1994). In the case of African-Americans, further research helped to deconstruct the myth of disinterest by showing

that African-Americans are as concerned, if not more concerned, about the environment as white Americans (Jones and Carter 1994; Mohai and Bryant 1998; Mohai and Kershner 2002.) Will this also hold true for another minority population living under the same conditions? This research thesis will work to rectify this dearth in knowledge.

These issues take on a greater importance in light of the fact that Hispanic Americans are currently the United States' largest ethnic minority, thus making it an important political demographic group for the upcoming decade (Diaz 2002). Correspondingly, the number of Hispanic Congressional representatives has increased dramatically in recent years, increasing their political clout (Crabtree 2000). What impact might they have on environmental policy development in the future? Research of African-American policymakers' environmental concern, by Mohai and Kershner (2002), found that members of the Congressional Black Caucus are consistently more likely to vote pro-environmentally than their white counterparts, even when controlling for party. One of their hypotheses suggests that such concern might stem from high incidences of environmental burdens in these members' districts, leading to higher levels of concern. Because it has been shown that disproportionate environmental burdens in Hispanic communities also exist, will this higher level of environmental concern be reflected in the environmental voting of members in the Congressional Hispanic Caucus? This is a timely question due to the significant increase in the number of Hispanic Congressional representatives in recent years, starting from only one in 1970 to a record 24 in 2004 (Amer 2004). With Hispanic Americans' increasing numbers in the general population, and in Congress, one wonders how this increasingly powerful caucus will weigh in on environmental policy issues in upcoming decades.

This research thesis will work to develop this body of literature by addressing three primary questions: [1] Does the environmental orientation (as reflected on votes for environmental legislation) of Hispanic members differ from that of their non-Hispanic Congressional counterparts? [2] If so, what explains these differences? [3] What are policy implications of racial differences in environmental voting?

This research thesis uses archival records to examine the environmental voting patterns of Hispanic Congressional members as they relate to personal and constituency characteristics.

Hypotheses are developed based on the literature of legislative decision making, with a particular emphasis on what influences Congressional environmental voting, and literature on the subject of public opinion and the environment. Three sources of data are used: (1) League of Conservation Voters scores, to ascertain environmental voting patterns (2) US Census data from Congressional districts, to determine socio-economic characteristics of constituents and (3) Federal Election Commissions data, to determine campaign contributions from energy industries.

The next chapter is an examination of previous research on race and environmental concern. Chapter 3 is followed by a review of the literature looking at influences on Congressional voting and socio-economic characteristics linked to environmental concern. Chapters 4 and 5 lay out the methods used for the analysis and the results of these analyses. The final chapter draws conclusions from results and works to establish a profile of Hispanic Congressional members' environmental voting record and the relationship between Congressional members' personal and constituency characteristics and their environmental voting pattern.

CHAPTER 2: *Past Research on Environmental Concern in Study Group*

To understand where Hispanics and Hispanic Congressional members stand on environmental issues, we must look to the few studies that have examined Hispanic Americans' environmental concern. While most of the studies have been limited in scope, focusing only on local populations, there is one national survey that hints at elevated environmental concern amongst the larger Hispanic population. Kalof et al. (2002: 9) analyzed a national sample of 590 respondents, 83% of whom were White and 4.1% Hispanic. Questioning respondents on their environmental attitudes, they found, "whites were significantly less likely than Hispanics to endorse pro-environmental beliefs." One of the more localized studies, focused on respondents in Albuquerque, New Mexico, discovered similar findings (Burger et al. 2004). A different mode of analysis examined the Spanish language press for five years to ascertain how these news organizations represented the various US government agencies[1] that handle natural resources. Results showed 81 percent of the views expressed about these agencies in the US Spanish media were favorable (Bengston and Sanchez 2004). However, not all studies have been so clear-cut. A recent survey of 1,513 New Jersey that found, that African-Americans had the highest environmental concern, followed by whites, and English-speaking Hispanic Americans. However, they found Spanish-speaking Hispanic and Asian respondents were far behind in the environmental concern, although, the author felt these findings might have been confounded by the fact the Spanish-speaking population was older and less educated (Greenberg 2005).

In addition to these few survey studies, we can also glean insight into Hispanic American environmental concern by looking at publicly available opinion polls of Hispanic Americans. For example, a 1999 Harris Poll telephone survey of 1010 households' nationwide found that 65% of Hispanic respondents believed the country's environment will be worse by the year 2020, in comparison to 43% of white respondents, and 39% of African Americans (Harris Poll 1999). The 1989-1990 National Latino Political Survey showed, "Latino voters and non-voters, regardless of national origin, supported increasing the government's role in five of the ten policy areas," with one of these areas being the environment (Desipio 1996: 66). And in 2002 a survey done by

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[1] These included the USDA Forest Service, USDI Park Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, USDI Bureau of Reclamation, and the US Army Corps of Engineers.

Bendixen and Associates found 81% of Hispanic respondents supported the establishment of more wilderness areas in California (McHugh 2004). Although these studies hint at high levels of environmental concern among Hispanic Americans, there has been very little attention given to this group in the broader environmental debate. In spite of this conspicuous absence in the broader arena, Hispanic Americans' environmental concern is clearly evidenced by the work of many Hispanic organizations.

Hispanic American environmental groups are well established in the United States. One of the most well known is the United Farm Workers organization. While many assume this organization only focused on labor issues, it also had clear environmental justice motivations as well. This can be seen by Cesar Chavez leading marches to protest the unregulated use of pesticides which were harming migrant farm workers health (Botello 1999). Other such groups are still fighting today, such as Californian, Latino-led, environmental group, El Pueblo Para El Aire y Agua Limpio (People for Clean Air and Water), PODER (People Organized in the Defense of the Earth and her Resources) and The Southwest Network for Environmental and Economic Justice (Jimenez 2005; Coppola 2006; Dominguez 2004). The presence, and persistence, of these community-based environmental organizations further supports the idea that there is environmental concern amongst Hispanic Americans.

Although the above evidence lends support to the notion that the broader Hispanic American population is environmentally concerned, to date there have been no quantitative studies investigating whether this concern affects the decisions of Hispanic policymakers. Therefore, we must look to existing qualitative information to get some idea as to where they stand on the environment. We can apply the same type of qualitative investigation to Hispanic Congressional members. It is striking that there have been many Hispanic members of Congress recognized for their outstanding environmental activities. One such example is Lucille Roybal-Allard. Elected to the US House of Representative in 1987, she is one of the main affiliates of the environmental justice group Madres del Este de Los Angeles (Mothers of East Los Angeles, or MELA). This group successfully protested the construction of a waste incinerator in a predominately Hispanic community. Congresswoman Roybal-Allard is said to have been instrumental in helping MELA become established (Lopez 2004). Congresswoman Roybal-

Allard is not the only Hispanic Congressional member with an environmental activist history. Hilda L. Solis was elected in 2000 and won the John F. Kennedy Profile in Courage Award for her work on environmental justice issues in California (Solis 2003). In addition, Jose Serrano, a Hispanic representative from New York, published an article entitled, *A Greater Sense of Pride: Congressman José E. Serrano and Environmental Justice in the Bronx*, which looks at environmental justice in his district as well as his accomplishments on these issues (Serrano 2005). The fact that Hispanic Congressional members are highlighting environmental issues and emphasizing environmental justice might show us these issues are salient to the citizens they represent.

CHAPTER 3: *Influences on Legislative Behavior*

This research thesis will attempt to quantify this concern amongst Hispanic representatives of Congress by examining their environmental voting records and to account for the influences on voting behavior. Political scientists have long tried to discern the pattern behind Congressional representative's voting behavior. It is a highly complicated task to try and interpret the effects of various pressures and considerations such as: party loyalty, logrolling, local politics, committee issues, staff concerns, all set against the backdrop of personal ideology and experience. Despite this nebulous of motivations, researchers have been able to tease out important indicators of how a representative's issue preference is determined. In the following, these factors are examined and how they may account for Hispanic and non-Hispanic differences in pro-environmental voting are discussed.

Political Party Affiliation & Ideology

The most important determinants in Congressional voting behavior have been found to be party affiliation and political ideology (Asher and Weisberg 1978; Bullock and Brady 1983; Froman 1963, Hurley and Wilson 1989; Weisberg 1978). But, both the Democratic and Republican Party can be described as having "ideological diversity" (Fleisher and Bond 1996: 2). This means that within the Democratic Party there are those members that can be classified as more conservative than their mainstream Democratic counterparts, and within the Republican Party there are those members that can be classified as more liberal than their mainstream Republican counterparts. A large amount of ideological diversity has the potential to make it impossible to predict a party's voting behavior, but studies have shown that this is not the case. Poole and Rosenthal examined all Congressional roll call behavior from 1789 to 1985 and found that Congressional voting behavior can be accounted for by just using the party membership dimension (Poole and Rosenthal 1991). While political ideology, such as liberal and conservative, were also found to help explain voting behavior this was shown to be of lesser importance. (Poole and Rosenthal 1991).

Party membership has also been found to be an important influence on how a representative votes on environmental issues. Nelson (2002: 518) examined a decade of League of Conservation Voter scores and determined, "'green' voting tends to be highly partisan." Hird (1993) found party membership to be a significant indicator of pro-environmental voting even when controlling for political ideology. Several studies have concluded that the partisanship of environmental protection has been increasing in Congress in recent decades and Democrats have taken the lead (Kahane 1996; Kamieniecki 1994; Nelson 2002; Shipan and Lowery, 2001). Shipan and Lowery (2001) analyzed Congressional environmental voting records over three decades and found that, on average, Democrats pro-environmental voting doubled that of Republicans. While these differences might be growing, there is evidence this partisan divide has always been there.

The theoretical underpinnings of these findings have been speculated on by researchers Dunlap and Allen (1976), who point out that environmental protection measures often require actions that runs counter to conservative ideology (Dunlap and Allen 1976; Sayeed and Shang 2001). They note that Republicans have traditionally held a more pro-business stance, are less supportive of government intervention in social problems, and have a less innovative posture towards the use of government intervention generally (Dunlap and Allen 1976). This disposition would expectedly make Republicans less likely to support environmental legislation, which often calls for regulation of business, strengthening of government control and drastic changes to status quo policies (Dunlap and Allen 1976). In Clausen's seminal work (1973), *How Congressmen Decide*, he clearly stated that the protection of the environment is a partisan dimension of Congressional voting, and he places it in the 'government management and the regulation of enterprise' dimension of Congressional voting. As Clausen explains:

> "The concept of government management implies a rather direct intervention of the government in economic affairs and the disposition of natural resources…there is something akin to an ideological division between Republicans and Democrats regarding [this]." "In classical political-economic terms, this difference consists of opposing positions on the merits of the doctrine of *laissez faire*….in practice [this] doctrine accommodates some degree of government activity on behalf of the business." This view can be traced back to the nineteenth century, "when farmers and workers engaged in sporadic revolts against the financial and industrial giants…Rockerfeller, Carnegie, DuPont,

Morgan," in, "attempts to get the government to regulate" them. "Then, later, and now it is the Democratic Party which has opposed the doctrine of *laissez faire* as the ultimate solution; then, later, and now it is the Republican Party that has embraced the doctrine of *laissez faire*." (Clausen 1973: 47, 214)

Clausen contends the Republican Party is based on a laissez faire premise that holds that the greatest societal good can be produced by expanding business, which will then create jobs and boost the economy. This belief relies on a protection of business and limited government intervention. Such a position can be expected to run counter to many environmental policies which call for imposing restrictions on businesses and expanding government intervention in their affairs. On the other hand, Democrats are seen as generally more opposed to the laissez faire premise. Rather they believe, instead, that a demand for goods is created by putting money into the pockets of the masses, which will increase demand for products, and thus boost the need for jobs, thereby benefiting the economy. This philosophy is less concerned about private enterprise and the control of government growth. When framed in terms of environmental legislation, this position lends itself to supporting policies which require restrictions of private enterprises and expanding government presence for the benefit of the masses. In his analysis Clausen argues that Congressional members often resort to these political 'beliefs' to determine how to vote on legislation. Deferring to these political platforms helps representatives limit the amount of energy they spend on trying to understand complex policy problems, which often have unknown societal consequences. This has particular importance for environmental legislation which has, overtime, become framed in these partisan terms. If representatives are faced with voting on a piece of "pro-environmental" legislation, this fact alone will ensure their party affiliation will automatically give them guidance on how to vote.

Studies have shown that those in the general populace who identify as Democrats also have higher levels of environmental concern (Lowe, et al. 1980). This is of particular relevance to this study as, "the Latino community has historically voted strongly Democratic" (Alvarez and Bedolla 2001: 31). Alvarez found that "policy positions affect Latino party identification more than ideology or demographic variables like education and income" and, "in contrast to findings for Anglos, income does not have a significant effect on Latino partisanship" (Alvarez and Bedolla 2001: 41). The identity of the Democratic Party as the "environmental party" has been

broadly accepted by the electorate. Gallup and Zogby polls show that the majority of American's believe Democratic candidates would handle environmental issues better and voters have aligned themselves accordingly (Michaels, 2002). Peltzman (1984) furthermore argues that voters are often ignorant of a representative's voting record and therefore use the labels of conservative, moderate, and liberal to help determine for whom they will vote. When voters, and their representatives, gladly take on these political labels they are limiting resource expenditures associated with developing opinions about every piece of legislation. Political party is comparable to a brand name; it gives voters an easily comprehendible picture of who the representative is. To ensure they remain loyal to this label, a representative will vote according to this philosophy thereby lowering the information cost associated with forming and expressing an opinion to voters and ensuring constituent support (Jacoby 1991; Peltzman 1984). So while on the surface party membership looks to be the primary driver of roll-call voting, in reality how a representative votes is partly due to the pressures their constituency puts on them to fit a political party label.

Geography of Hispanics and its Connection to Political Donations

The US Hispanic population and Hispanic Congressional representatives are concentrated in certain areas in the US. This is meaningful to this analysis because research has shown that people living in similar environments tend to have similar political and social perspectives (Froman 1963). The 2003-2004 Congress had 24 Hispanic members in its House of Representatives. All of these representatives are from only seven states: Arizona, California, Illinois, New Jersey, New York, Texas and Florida.

Figure 1: US Census Bureau map of the 2000 Hispanic American Population
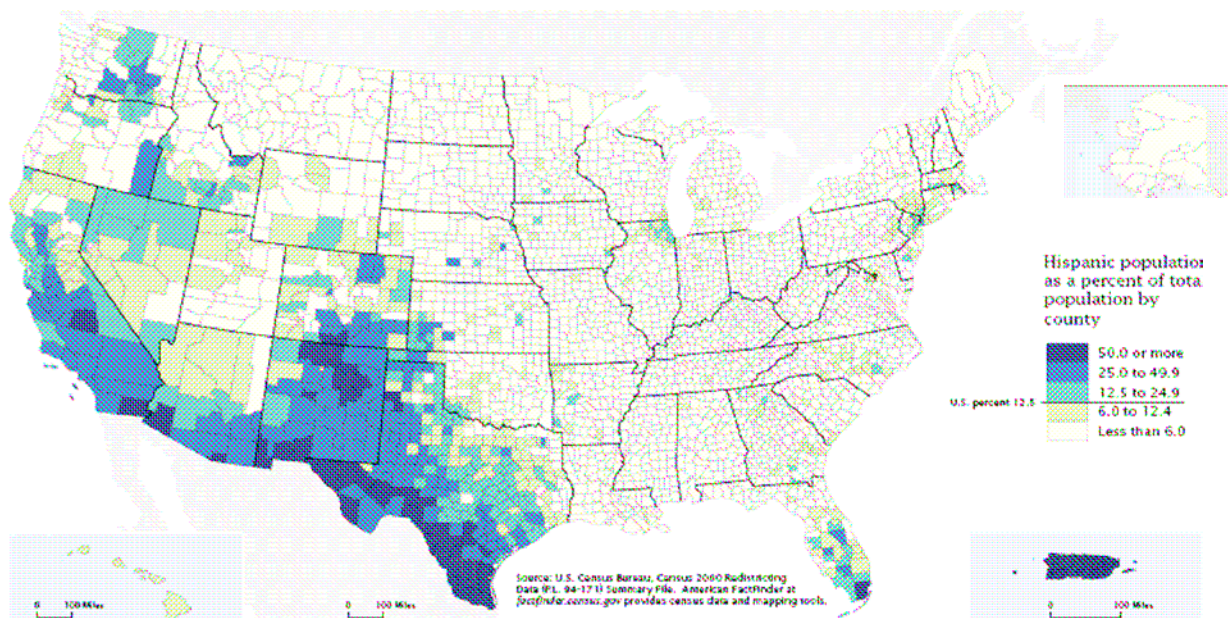
More than three-quarters of Hispanics live in the West or South (see Figure 1; US Census 2000). This is significant for this analysis because, studies have shown that southern Congressional members, irregardless of party, tend to vote less pro-environmentally than their northern counterparts (Mohai and Kershner 2002; Nelson 2002; Shipan and Lowry, 2000). This discrepancy between Congressional members from southern states, and non-southern states, is said to be growing (Maggiotto and Wekkin 2000; Stonecash, 1999).   While some attribute this discrepancy to cultural differences, others believe economic considerations need to be taken into account (Shipan and Lowry, 2001).

Various industries are often over represented in certain regions in the US, such as oil and gas in the South, and farming in the West and Midwest (EIA, 2004; Census Bureau 1995; OER, 2006)[2]. These industries become a part of the identity of the region, economically and socially. It is reasonable to assume that representatives of these areas might be more sympathetic to the economic concerns of these business sectors. However, this can force certain tradeoffs when environmental policy is under discussion. This is due to the fact that environmental regulation is often seen as being at odds with economic development, and thus could affect a representative's regional economic interests (Clawson, et al., 1998). Political scholars believe representatives will tend to vote against environmental regulation that is perceived as harmful to economic development in their home districts (Clawson, et al., 1998; Shipan and Lowry, 2001). This theory has been supported by studies done on Congressional support for energy policy. Findings have shown that opposition to regulation of oil production is positively correlated with the amount of oil produced in a representative's district (Bernstein 1989). "The greater the oil production in the district, the lower the opposition to the oil companies by the representative from that district" (Bernstein 1989: 85). A study by Mitchell (1979) examined House of Representative votes for a bill that proposed to deregulate natural gas production. He found representatives that were from states whose economies were reliant on gas production were more likely to favor deregulation than those from states without gas producers. This position has also been supported by a study which showed that the greater the economic importance of crude oil producers in a state, the more likely the representative was to support legislation benefiting this industry (Kalt 1981).

Congressional scholars observe that, "members of Congress seldom experience financial pressures and lobbying pressures from groups that have little or no economic or organizational claims in their districts" (Bernstein 1989: 110). It seems a logical move for a company based in a certain state, or district, to take an interest in the policymakers which affect their business. Conversely, it also seems logical for a representative to begin a working relationship with a business that is supplying tax revenue and jobs to their voters. Empirical evidence has shown this
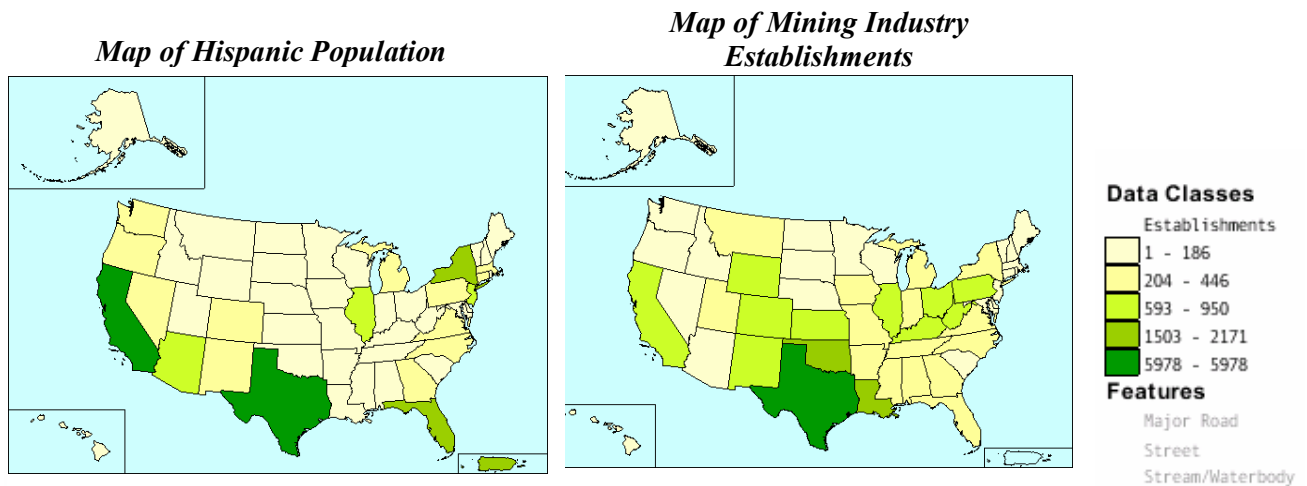
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2 The top oil producing states are: Texas, Alaska, California, Louisiana, and New Mexico and the top natural gas producers are: Texas, Oklahoma, New Mexico, Wyoming, Louisiana (EIA 2004). The top agricultural producer was California followed by Texas, Iowa, Kansas and Nebraska (Census Bureau 1995).

relationship can often be seen in Congressional members voting behavior (Frendeis and Waterman 1985; Gopoian, et al.1984; Saltzman 1987). Obvious favoritism for one's campaign contributors is equivalent to political suicide. However, barring a quid pro quo vote for campaign donations, research has shown that the amount of funding a representative gets from pro-business Political Action Committees (PAC)[3] has a significant impact on their pro-business voting behavior (Clawson, et al., 1998; Fellowes and Wolf, 2004; Luke and Krauss, 2004).

The costs of environmental regulation, such as pollution controls, are highly concentrated on certain industries, for example the oil and petroleum industry (Eismeier and Pollock 1988). These industries are overly represented in the states where the Hispanic population is highly concentrated. This can be seen from the two maps below in Figure 2.[4]

Figure 2: Map of US mining industry compared to map of US Hispanic Population. Source: U.S. Census Bureau, Census 2000 Summary File 1, Matrix P8.

Map of Hispanic Population

Map of Mining Industry Establishments

Data Classes
Establishments
1 - 186
204 - 446
593 - 950
1503 - 2171
5978 - 5978
Features
Major Road
Street
Stream/Waterbody

Research has shown that energy industries are increasingly creating corporate PACs and seeking access to legislatures in return for campaign contributions (Jackson and Engel 2003). Therefore, when a Congressional representative is asked to vote on an environmental policy they might take into consideration the wishes of a campaign contributor who perceives their goals in

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[3] A committee set up by a corporation, labor union, or special-interest group. Holt, Sarah. (2002) The University of York. "glossary of key terms in American politics." york.ac.uk

[4] Mining industries include establishments that extract mineral solids, such as coal and ores; liquid minerals, crude petroleum; and gases, such as natural gas. These terms include quarrying, well operations, beneficiating and other preparation customarily performed at the mine site, or as a part of mining activity (census 1997).

opposition to environmental goals. Studies have shown such pressure has been effective in the past, and business interests have been successful at delaying and derailing environmental legislation. One such incidence was seen in the 1980's during the Reagan administration when key industry leaders were successful at delaying the federally funded National Aid Precipitation Assessment Program (Clawson et al., 1998). Because of this pressure it, "took ten years and $600 million dollars to figure out whether acid rain was in fact a problem" (Clawson et al., 1998: 8).

While there has been some debate in the literature to the extent that PAC donations affect roll call voting behavior, a theory has emerged and received support, which has shed some light on the relationship between Political Action Committees and representatives (Jackson and Engel 2003). This research shows it is not just about how much money is donated, but about how much money is not donated. Congressional researchers have termed this the "PAC punishment strategy," which is used against Congressional members who have voted against corporate interests (Engel and Jackson, 1998; Jackson and Engel 2003). Key legislative leaders have been quoted as saying that voting against a powerful business PAC's interests will mean donations to the dissenters' reelection challenger (Jackson and Engel 2003). This research shows that PACs are more likely to punish those to whom they donate money to already. Strattmann (2002: 345) found that, "junior legislators are more responsive to changes in contribution levels than senior legislators." Because so many of the Hispanic members of Congress are junior members, who often have yet to develop a solid base of financial support, such pressure could be an influencing factor in their voting patterns.

Before a representative decides how to vote, there are some very real trade-offs which have to be weighed. Because Congressional representatives receive their campaign payroll from donors, but must rely on their constituencies for their job, they must work to maintain a balance between satisfying their constituency, their donors, and their own personal beliefs. For each vote they must gauge how salient the issue is to each of these interests, and what the tradeoffs are for a vote.

Socio-demographic Characteristics' Effect on Environmental Voting

Since researchers began analyzing Congressional voting patterns, they have searched for the exact relationship between constituencies and Congressional members voting behavior (Fleck and Kilby, 2002; Froman, 1963; Mcdonagh 1993; Wright-Gerald, 1989). While they have failed to come to an agreement on the model, and the extent to which constituents' opinions affect a members voting record, it is assumed that because Congressional representatives rely on voters to reelect them, there is some underlying relationship.   This underlying relationship is also expected to be working in environmental legislation, but it is unclear exactly how. Lowery and Shipan (2001) concluded that further studies need to be undertaken to relate constituency characteristics and Congressional members' League of Conservation Voter scores. This research thesis will work to unravel this dynamic. Because we have no direct measure of environmental concern on a Congressional district level, we turn to socio-economic indicators that have been linked to environmental concern previously. Past research has found that key variables are linked to pro-environmental voting; some of these are related to the personal traits of the Congressional member and others relate to characteristics of their constituencies (Mohai and Kershner 2002).

Poverty and Environmental Concern

"Hispanic children are more likely than either black or white children to be poor."
"In 1997, 61 percent of poor Hispanic children lived in neighborhoods with a high concentration of poor residents (more than 40 percent in poverty), compared with 56 percent of poor white children and 53 percent of poor black children."
(Anderson Moore 2001: 8)

There has been much debate over whether poverty is positively correlated to environmental concern. The argument which has largely dominated the literature in previous eras is based on psychologist Abraham Maslow's Hierarchy of Needs Theory (Van Liere and Dunlap, 1980; Hershey and Hill 1977-1978). This theory contends human needs can be ranked, with the most basic needs of food, water, shelter and safety having the utmost importance (Maslow, 1943). Accordingly, these needs must be met before other, 'higher-order', needs, such as environmental issues, can be addressed. Using this theory one could contend that those in poverty have more pressing needs to address than those raised by environmental degradation.

However, this theory fails to gain support from research that has shown poverty is highly correlated with environmental concern (Uyeki and Holland, 2000).

It is problematic to apply Maslow's Hierarchy of Needs Theory towards understanding the links between poverty and environmental concern is the failure to recognize many people in poverty view environmental degradation as having a direct impact on their 'basic needs'. Calls for environmental protection to defend these basic needs are often expressed through protest movements, like the one recently reported on in China where local farmers attacked a pharmaceutical plant that they blamed for destroying their crops (Bodeen 2005). Such protests are not uncommon in subsistence living communities with few resources to mobilize. Tribes in Papua New Guinea were so driven to prevent the continued pollution of their rivers by mine trailings that these once political disenfranchised tribes were able to get their case heard on an international stage (Kirsch 2003). These anecdotes are further supported by international survey data which has shown, "those in the poorest nations register the highest levels of ecological concern" (Gardner 1995: 200). Such evidence supports the countering argument to Maslow's Hierarchy of Needs Theory, which is termed the Environmental Deprivation Theory (Whittaker, et al 2003). This theory argues that those in poverty will experience greater rates of environmental pollution, thereby impinging to a greater extent on their lives, and increasing their environmental concern.

Research done domestically further supports the Environmental Deprivation Theory. Mohai and Bryant (1998) analyzed the effect of exposure to pollution on environmental concern in the Detroit metropolitan area, and how these factors related to race. Their findings suggest that African-Americans are more likely to live in the proximity of environmental pollution and have significantly higher rates of environmental concern about neighborhood pollution. Research done on a national level by Uyeki and Holland (2000) found similar findings while analyzing General Social Survey questions which were used to establish environmental attitudes. They concluded that African-Americans, those with lower incomes, and less education, were shown to have more pro-environmental responses.

Although neither of these studies looked specifically at Hispanic Americans' environmental attitudes, preliminary data support the notion that Hispanics have high levels of environmental concern. A recent study done on the environmental perceptions of 356 residents in Albuquerque, New Mexico found that Hispanics had lower incomes but higher levels of environmental concern than whites (Burger, et al. 2004). Because of this study's limited scope, its authors conclude that broader study needs to be done on Hispanic Americans environmental concern. Nevertheless, it is hypothesized here that, because disproportionate numbers of Hispanics live in poverty, and that poverty is associated with disproportionate environmental burdens, Hispanic voters are more likely to be concerned about the environment than white voters.

Educational Attainment

Until the late 1970's it was generally accepted that higher socioeconomic status translated to greater environmental concern (Mohai 1985). But socioeconomic status has often had a multifaceted definition. Many studies looked at environmental organization membership to determine environmental concern. However these groups draw a disproportionate number of member's from the upper middle class (Mohai 1985). When this issue is looked at more closely we see that while those in lower socioeconomic classes seldom hold memberships in national environmental organizations, they do, however, support grassroots movements (Taylor 1998). In addition, when we separate socioeconomic status into educational level, income and/or occupational prestige we see that the association between income and environmental concern becomes ambiguous, although it is found that education is strongly correlated with environmental concern. In Van Liere and Dunlap's (1980) seminal work looking at the extant studies linking socioeconomic characteristics and environmental concern they found:

> In general, evidence relating to the broad social class hypothesis- i.e., considering the three dimensions of education, income, and occupational prestige- provides very weak support for the assertion that social class is positively associated with environmental concern. What support there is rests primarily on the moderately strong relationship between environmental concern and education" (Van Liere and Dunlap 1980).

While the educational backgrounds of the representatives in this study are not expected to be appreciably different, we do expect member's constituents to have varying degrees of educational attainment. This is significant for this study due to the fact that Mohai and Kershner (2002) found the educational backgrounds of constituents were modest predictors of a representative's environmental voting.

Urban and Rural Differences

Because Hispanic Americans are, "the most urbanized ethnic/racial groups in America, with over 90 percent living in metro areas," the connection between urbanization and environmental concern is of interest to this study (Kandel and Cromartie 2004: 35). Dunlap and others have found that urban populations have higher levels of environmental concern than rural populations, especially when local environmental problems were the focus (Alm, et al., 1996; Lowe, et al. 1980; Van Liere and Dunlap 1980). Mohai and Kershner's (2002) research showed: the more urbanized a Congressional district, the higher the pro-environmental voting of their Congressional representatives. Dunlap and Tremblay (1978) hypothesized this increased concern was due to greater exposure to pollutants in urban settings. Conversely, they remarked on the fact that rural populations are more reliant on extraction industries, which would lead them to favor economic development over environmental protection (Dunlap and Tremblay 1978). These two theories have been termed the 'extractive-commodity theory' and 'differential exposure' theory and have been the most prevalent in trying to understand why urban residents have been found to have higher levels of environmental concern.

Characteristics of Representatives Linked to Environmental Concern

In addition to constituency characteristics, member characteristics may be linked to pro-environmental voting. Some of the characteristics linked to environmental concern are much easier to relate to on a Congressional member level. One of these characteristics is gender. The gender variable has some interest to this study as almost 40 percent of the Congressional Hispanic Caucus examined in this study are women. This is a relatively high percentage compared to the 12 percent of women who make up the total House of Representatives (Eilperin

2000). Across cultures and age groups, women have been shown to have higher levels of environmental concern than men (Du Nann Winter and Koger 2004; Stern, et al. 1993). This concern is especially apparent when the environmental problems are local (Davidson and Freudenberg ,1996; Mohai 1992). Concern for local environmental problems is demonstrated by the fact that women are more likely to occupy leadership positions in local, grassroots organizations, rather than national environmental organizations (Taylor 1998). This behavior was also seen in two Hispanic Congressional members, Congresswoman Roybal-Allard and Hilda L. Solis, who were both actively involved in local environmental struggles prior to coming to Congress. Taylor (1998) notes, "the importance of women in environmental groups of color and in the environmental justice movement cannot be understated" (Taylor 1998: 47).

There are several hypotheses which try to unravel these findings. The one most widely supported is that women generally have a greater aversion to risk than men. This is termed the 'Safety Concern Hypothesis' and was supported by Davidson and Freudenburg's (1996) extensive literature review. This hypothesis holds that women are generally more concerned with health and safety then men, and thus more affected and concerned about environment pollutants. This hypothesis relies heavily on the theory that women are socialized to be 'nurturers', and thus will be more concerned how this pollution will affect their families, than men, who are socialized to be the economic 'providers'.

Similar to gender, comparatively younger age groups are over represented in the Congressional Hispanic Caucus. The average age of a Hispanic Congressional member in our sample is 57, while the average Congressional representative is 58 years old. This has particular relevance to our study as much of the sociological research has found age negatively correlated with environmental concern (Lowe, et al. 1980; McBeth and Bennett 1998; Van Liere and Dunlap 1980). There are two main hypotheses as to why this is. The first is the aging process hypothesis, which argues that older age groups might be more integrated, and reliant, on society's status quo (Mohai and Twight 1987). Because environmental regulation often requires a change from 'business as usual', older age groups could be concerned that change will threaten their economic stability or deprive their children of the same opportunities (Mohai and Twight 1987). In addition, it might also be that such older age groups are just generally resistant to

change (Mohai and Twight 1987). The second suggested hypothesis is the cohort replacement theory. This holds that successive generations will be distinguishably socialized into different values and belief systems (Mohai and Twight 1987). Mohai and Twight (1987) tested these two theories by analyzing results from a national survey of over 7,000 individuals. They looked at the relationship of environmental concern with age, education, political liberalism, current residence, and past residence. Their results showed the age variable was significantly independent of the other variables influences on environmental concern. In addition, their findings did not support the aging process theory. Instead, they found support for the cohort replacement theory.

A review of past literature on environmental concern has shown us that there are several socioeconomic and demographic variables that can be linked with environmental concern. We have seen that political party affiliation can be expected to have a strong affect on environmental voting, and that those with more liberal ideologies, which can be generally associated with the Democratic Party, tend to vote more pro-environmental. We have also seen that those from non-southern states tend to show more environmental concern than those from Southern states. It is hypothesized this might be due to regional economies dependency on extractive industries, such as oil and gas. These economic circumstances might also play an impact in how much money is donated to a Congressional representative by energy PACs. Because of the often adversarial relationships between these industries and environmental interests, one might expect for members who have received more money from these PACs to have lower environmental voting scores. Finally we saw that women, younger generations, and those more highly educated, have been shown to have higher rates of environmental concern. By using these studies as a basis we will be able to create a model to help explain the environmental voting patterns of Hispanic Congressional members.

CHAPTER 4: *Methods*

The primary data set used for this analysis is League of Conservation Voters (LCV) scores for all Congressional members. The League of Conservation Voters is a non-profit, non-partisan organization based in Washington D.C. Since 1970 they have been publishing the *Environmental Scorecard*. In their words, "this scorecard represents the consensus of experts from 20 respected environmental and conservation organizations who select… key votes on which members of Congress should be graded" (LCV 2005). In essence, the LCV looks at how Congressional representatives vote on key legislation that is designated as meaningful environmental policy. A Congressional member's score is given as a percentage. This is calculated by dividing the number of "pro-environmental" votes by the total votes on the key legislation. One caveat is that LCV counts an absence as a negative mark on a representative's record. However, Mohai and Kershner (2002) recomputed LCV scores and determined this technique produced no excessive skews. Therefore, uncorrected LCV data were used for this analysis. LCV scores have been used in other analyses of similar type (Mohai and Kershner, 2002; Shipan 2001).

The key votes, on which LCV scores are based, cover a wide range of issues such as nature preservation, pollution, and health concerns, as well as spending and procedural issues affecting the environment. The LCV provides electronic data files for the 104th to 108th Congresses (see Table 1 for years). Therefore this analysis was limited to these Congresses. During this period there were no Hispanic Senators; therefore only the House of Representatives voting scores were examined.

Table 1: **Congressional terms used in analysis and the corresponding years**

Congress	Years
104th	1995 -1996
105th	1997-1998
106th	1999 - 2000
107th	2001 - 2002
108th	2003 - 2004

The second primary source of data was obtained from the Library of Congress. The Library of Congress and the General Printing Office published, *Hispanic-Americans in*

Congress, 1822-1995. After this they modernized and moved their database online, where it is updated every Congress. The data provides biographical information, such as age, gender, state represented, political party, etc, for all representatives.

To measure political ideology the American Conservative Union (ACU) score was used. ACU scores have been used to proxy political ideology in other studies (Mohai and Kershner 2002). Similar to LCV scores, Congressional members are rated on a scale of 0 to 100, with a score of 100 signifying a strong conservative ideology and 0 a strong liberal ideology. However, the bivariate correlation between political party and ACU score indicts that these two variables are virtually interchangeable (-.921) and thus Party was used for the rest of the analysis.

The third primary dataset used is the United States Census Bureau, Geological Survey (USGS), and Environmental Protection Agency's (EPA) Landview 6 database management and mapping program. This program combines each agency's data allowing for the merger of economic, demographic and environmental profiles of all Congressional districts. This allows us to examine the relationship between constituency characteristics and their representatives environmental voting. However, a limitation of this dataset is that it currently only has available Census data for the year 2000. While it is possible to just compare the 2000 Census data of Congressional districts to Hispanic representatives in the 2000 Congress, this would limit the evaluation to only 19 members. In order to utilize the most recent LCV data, we match the 2000 Census data with Representatives characteristics and LCV scores in the 2003-2004 (or the 108th) Congress. A further advantage of using data 108th Congress is that it contained more Hispanic members than earlier Congresses.

In addition to these three datasets, we obtained information on the money donated to individual representatives. These data were obtained from the Center for Responsive Politics. This organization is a non-profit, non-partisan organization that utilizes Federal Election Commissions data to track money donated to members of Congress. Political Action Committees (PAC) are categorized (see Table 2) by determining the industry or groups sponsoring them. Therefore, "a PAC supported by Exxon Mobil, for example, would be coded as an energy PAC"

(Weber 2005). As discussed earlier, PAC donations are thought to have an effect on Congressional members' legislative voting records. This research examines the relationship between energy PAC donations and Congressional member's LCV scores. Energy PACs were used because, as discussed in chapter 3, the oil and gas industry often opposes environmental legislation; thus, donations from these industries potentially influence Congressional members' votes on environmental legislation. While it might be true that other industries, such as automotive, chemical and the paper industry have a similar effect on environmental voting, current research only lends support for oil and gas ability to influence environmental voting. Therefore this research thesis will only focus on these industries, although the others do provide an interesting opportunity for future research. These data are limited to every other year. Therefore data are gathered on the amount of money donated by energy PACS to Congressional members for the 108th Congress and then compared with their LCV score for that Congress.

Table 2: Center for Responsive Politics categories of Political Action Committees.

PAC Categories
Agribusiness
Communication /Electronic
Construction
Energy/Natural Resource
Finance/Insurance /Real Estate
Health
Lawyers and Lobbyists
Transportation
Misc. Business
Labor
Ideology/Single-Issue

A second supplemental dataset was used to obtain data for rural and urban populations in a district. It would be preferable, for the sake of continuity, to use the Landview database, the main dataset discussed earlier. However, this database did not include any indicators for percentage of people living in urban or rural areas. To use the Landview's database for this variable, concessions would need to be made to find a substitute indicator. Census data from the Census Bureau's factfinder online database was used to determine the total number of rural and urban residents. The Census Bureau's factfinder is based on the same 2000 Census data used in the Landview database. However, the factfinder has retabulated this data for the 109th Congressional districts. This is not expected to have a significant effect on the data as Congressional district boundaries changed for only Maine, Pennsylvania, and Texas after the

108th Congress (census.gov). The US Census Bureau defines urban as areas which have no fewer than 2,500 people (factfinder.census.gov).

In the analysis, variables used to measure member characteristics included race, gender, age, party affiliation, and dollars received from energy PACs. Variables used to measure constituency characteristics included region of the Congressional district, percent employed in extraction industries, percent living in urban areas, percent living in rural areas, percent living in poverty, percent who are African American, percent who are Hispanic, percent with a graduate degree, and median household income of the district. See Table 3 below for descriptions of these variables and their source.

Table 3: Breakdown and description of each variable used in proceeding analysis

Variable	Source	Description
Member Characteristics		
Party	Library of Congress	Democrats were scored as a 1. Republicans were scored a 0. Independents were excluded as their sample size was always less than 3.
Gender	Library of Congress	Female members were scored as a 1. Male members were scored as a 0
Race	Library of Congress	Hispanic members were scored as a 1. African American & Asian member were noted and excluded. All other members were scored as a 0 to signify white.
Age	Library of Congress	Age was imputed for each member.
Constituency Characteristics		
Region of District	Library of Congress	Member's states were noted and split into southern and non-southern states, using the Congressional Quarterly's definition of the South: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia. Non-southern sates were scored as a 1.
Percent Extraction Employee in District	Landview 6 database	2000 Census respondents, within a congressional district, who self identified as being employed in one of the following industries: "agricultural, forestry, fishing, hunting and mining."
Energy PAC Contribution Received	Center for Responsive Politics	Money donated to a Congressional member during the 108th Congress by a Political Action Committee (PAC) that was designated an Energy PAC.
Percent Urban Pop. in District	U.S. Census Bureau factfinder database	The U.S. Census Bureau classifies as urban all territory, population, and housing units located within urbanized areas (UAs) and urban clusters (UCs). • A cluster of one or more block groups or census blocks each of which has a population density of at least 1,000 people per square mile at the time. • Surrounding block groups and census blocks each of which has a population density of at least 500 people per square mile at the time. • Less densely settled blocks that form enclaves or indentations, or are used to connect discontiguous areas with qualifying densities.
Percent Rural Pop. in District	U.S. Census Bureau factfinder database	Rural consists of all territory, population, and housing units located outside of urbanized areas and urban clusters.
Percent in Poverty in District	Landview 6 database	Following the Office of Management and Budget's (OMB's) Directive 14, the Census Bureau uses a set of money income thresholds that vary by family size and composition to detect who is poor. If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family or unrelated individual is classified as being "below the poverty level." (census.gov)
Percent African American in District	Landview 6 database	2000 Census respondents who self identified as being , "Black, African-Am, or Negro."
Percent Hispanic in District	Landview 6 database	2000 Census respondents who self identified as being , "Spanish/Hispanic/Latino."
Median Income in District	Landview 6 database	Mean income is the amount obtained by dividing the total income of a particular statistical universe by the number of units in that universe. Thus, mean household income is obtained by dividing total household income by the total number of households. For the various types of income, the means are based on households having those types of income. (census.gov)
Percent District with Grad Degree in District	Landview 6 database	2000 Census respondents, within a congressional district, who self identified as the highlest level of school they COMPLETED as a masters (ie: MA, MS, MEng, MEd, MSW, MBA) or a professional degree (ie: MD, DDS, DVM, LLB, JD) or a doctorate degree (ie: PhD, EdD) (census.gov).

CHAPTER 5: Results

The primary thrust of this research thesis is to determine the environmental voting behavior of Hispanic Congressional members and factors contributing to these trends. We argue that members who have personal and constituency characteristics linked to environmental concern will be more likely to have higher League of Conservation Voter (LCV) scores. In our analysis we compare Hispanic and white Congressional members' LCV scores for the 104th to 108th Congresses (years 1995 to 2004) in order to determine which racial group has higher environmental voting scores. Next we investigate how these trends are related to the personal characteristics of individual Congressional members and demographics characteristics of their constituents.

Table 4 and 5 gives an overview of the data by showing the sample size broken down by race and each racial group's average LCV score for the 104th-108th Congresses.

Table 4: Sample size of Hispanic, white and African-American House of Representative members. Asian members were excluded, as they had the maximum of 4 members for all Congresses.

Congress	White	Hispanic	African-American
104th	375	18	38
105th	374	19	37
106th	377	19	36
107th	373	19	36
108th	369	24	38

Table 5: Mean environmental voting scores of Hispanic, African-American, white Congressional members. Scores are from 0 to 100, with 100 being the most pro-environmental position.

Congress	Average for Congress	Average LCV Score for White members	Average LCV Score for Hispanic members	Average LCV Score for African-American members
104th	47	41	66	84
105th	47	43	63	74
106th	48	43	70	80
107th	47	43	71	77
108th	46	41	67	85

By plotting these averages we can clearly see Hispanic members voting records lie somewhere in between African-American and white representatives for every Congress (see Figure 3). It is clear that African-American members of Congress consistently had the highest LCV score, followed by Hispanic and white members. While it is interesting that African-Americans had the highest LCV scores, this research thesis is specifically interested in Hispanic members environmental voting and will therefore be focusing primarily on this group. However, it is important to point out that these findings are consistent with Mohai and Kershner's findings (2002) which showed that African-American members of Congress had significantly higher LCV scores. It is also interesting to point out that Hispanic members; scores seemed to follow African-Americans' scores more closely than white members'

Figure 3: Average environmental voting sores for the 104th-108th Congress, without controlling for personal and demographic characteristics.
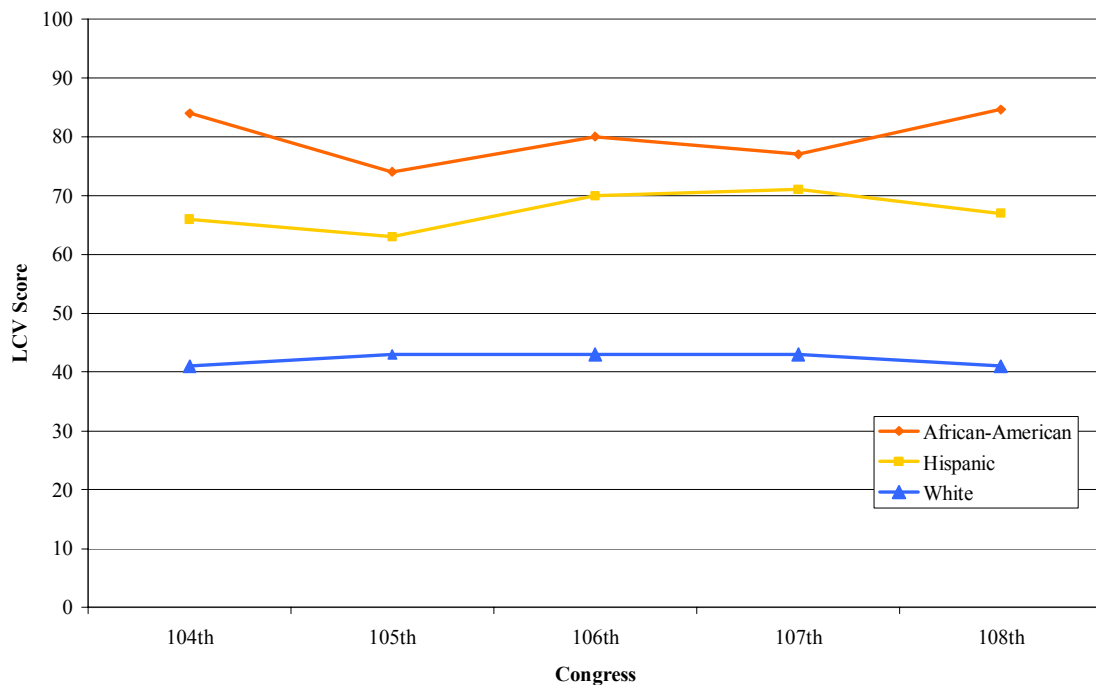
In order to determine if the differences between Hispanic and white members within each Congress in Figure 3 were statistically significant, independent t-tests were completed to compare the average environmental voting scores of Hispanic Congressional members' to those

of their white congressional counterparts. Results show Hispanic Congressional members' environmental voting scores were much greater than white members', and this difference was shown to be significant at the .05 level for every Congress (see Table 6).

Table 6: Independent T-test results comparing mean environmental voting scores of Hispanic and white Congressional members

Congress	Average LCV Score for White members	Average LCV Score for Hispanic members	p-value
104th Congress	41	66	.023
105th Congress	43	63	.020
106th Congress	43	70	.003
107th Congress	43	71	.001
108h Congress	41	67	.001

The results in Table 6 help us to answer our primary question as to whether there is a difference between Hispanic members' environmental voting and white members' environmental voting. Our results show us that Hispanic members tend to vote more pro-environmentally than white members and this difference is statistically significant for every Congress examined. To begin to answer the second part of our question, as to why this difference exists, we first examined the partisanship characteristics of these groups. Table 7 below breaks down the number of representatives in each Congress by party and race.

Table 7: Sample size of Hispanic and white House of Representative members

Sample Size

Congress	White Democrats	White Republicans	Hispanic Democrats	Hispanic Republicans
104th	159	216	15	3
105th	157	217	15	4
106th	159	218	16	3
107th	157	216	16	3
108th	147	222	19	5

Table 7 reveals a striking disparity. From these data we can see that Hispanic members of Congress are far more likely than white members to be Democrat than Republican. In fact, for every Congress there are roughly five times more Hispanic Democrats than Hispanic Republicans. Conversely, white members are shown to have more Republican members than Democrats for every Congress. If we repeat the trend analysis done in Figure 3, but instead of

just breaking environmental voting down by race, we also break it down by party, (see Figure 4 below) we can see that the differences between Hispanic and white representatives LCV scores appear to be explained by the disproportionate number of Hispanic members who are Democrats (see Figure 4). Note that the mean LCV scores of Hispanic and white Democrats in each Congress appear to be virtually identical, while similar patterns are found for Hispanic and white Republicans.

Figure 4: **Trend analysis comparing LCV scores of Hispanic and white House of Representative members, broken down by party**
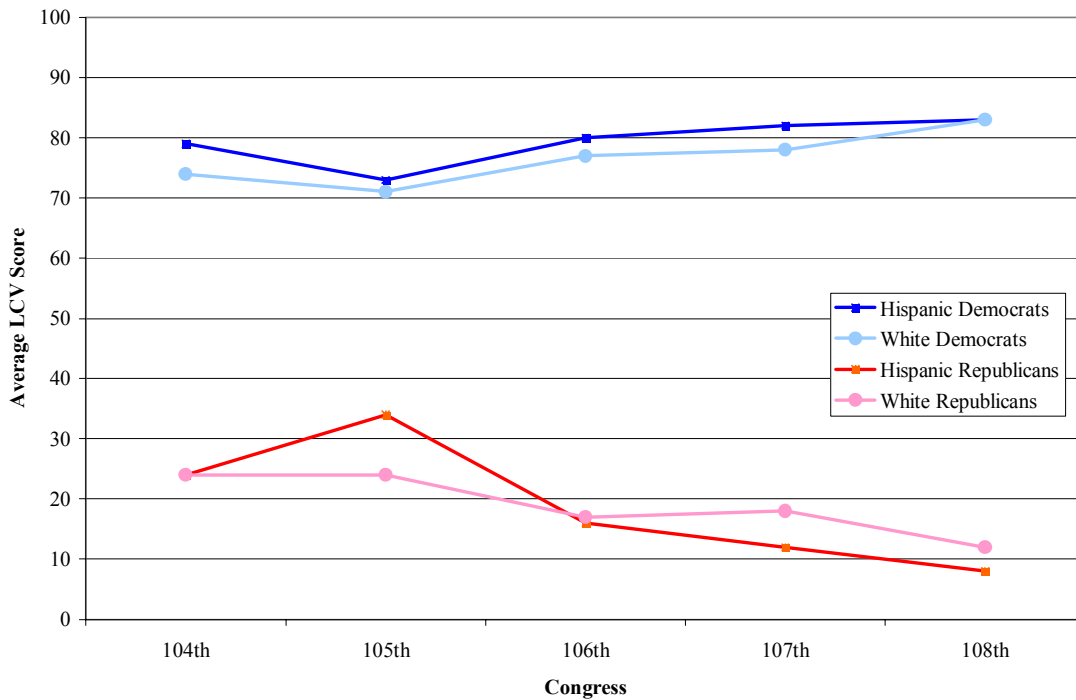
To summarize, our results suggest that there are indeed differences between Hispanic Congressional members and white Congressional members. Overall, Hispanic members were shown to have significantly higher environmental voting scores than white Congressional members, but when controlling for party this discrepancy decreases. Indeed, the higher LCV scores for Hispanic members appear to be due to the higher number of Hispanic members in the Democratic Party. The next section of this paper will scrutinize this outcome further by taking into account other variables which might be affecting differences in environmental voting.

Understanding Differences in Hispanic and White Member's LCV Scores

In order to more fully understand the disparities in environmental voting between Hispanic and white members, multivariate analyses were conducted on data from the 108th Congress. Only one Congress was chosen in order to ensure that results would not be confounded by overlapping data for Congressional members. The 108th Congress was chosen because it was the most recent Congress for which data exist. It also had the most Hispanic Congressional members. In order to see if this Congress varied from other Congresses, an ANOVA test on the mean environmental voting scores of each Congress was conducted (see Table 8 below). Results show us that the 108th Congress' environmental voting scores are not appreciably different from the other Congresses in this dataset.

Table 8: **Analysis of Variance results comparing average LCV score for the 104th-108th Congresses. Note that there is no significant difference between LCV scores.**

	Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Between groups	1827.53	4	456.88	.343	.849
Within Groups	2348536	1763	1332.13		

Note: Dependent Variable: LCV score

In examining the range of factors that might be accounting for the disparities between Hispanic and white members, the first step was to examine the bivariate correlation coefficients between the range of possible explanatory variables discussed in the theory and methods chapters and the LCV scores (see Table 9 below).

Table 9: Bivariate Correlation Matrix for all Variables used in model.

Variable	LCV	Gender	Race	Age	Region	Percent Extraction Employee	Energy PAC Money	Percent Urban Pop	Percent Rural Pop	Percent in Poverty	Percent African American	Percent Hispanic	Median Income	Percent with Grad Degree
Gender 1=female	.179***													
Race 1=Hispanic	.160**	.135***												
Age	-.043	.056	.024											
Region 1=non-south	.305***	.136***	-.030	-.014										
Percent Extraction Employee	-.246***	-.092	-.008	.049	-.068									
Energy PAC Money	-.375***	-.084	-.100*	.072	-.199***	.208***								
Percent Urban Pop.	.342***	.205***	.210***	-.008	.232***	-.506***	-.193***							
Percent Rural Pop.	-.344***	-.211***	-.213***	.018	-.240***	.500***	.190***	-.974***						
Percent in Poverty	.155**	.007	.527***	.039	-.210***	.354***	.035	-.116*	.121*					
Percent African American	.106*	-.065	-.047	-.013	-.408***	-.183***	.025	.049	-.037	.323***				
Percent Hispanic	.210***	.173***	.775***	.020	-.001	.032	-.081	.428***	-.439***	.540***	.087			
Median Income	.075	.112*	-.230***	-.064	.269***	-.445***	-.104*	.479***	-.482***	-.752***	-.209***	-.123*		
Percent District with Grad Degree	.238***	.150**	-.230***	-.024	.167***	-.429***	-.139***	.481***	-.463***	-.473***	.075	-.120*	.734***	
Party 1=Dem	.878***	.127**	.190***	-.008	.147**	-.095	-.289***	.225***	-.228***	.316***	.161***	.246***	-.114*	.061

Note: N=390

*   *Statistical significance level of p < 0.05*
**   *Statistical significance level of p < 0.01*
*** *Statistical significance level of p < 0.001*

It is important to note that all but one of the independent variables are related to environmental voting in the hypothesized direction. Contrary to our hypothesis, age was shown to be negatively related to LCV score, although it was not statistically significant. As expected, being female, Hispanic, a Democrat or from a non-southern state is positively and significantly related to higher environmental scores. Similarly, Congressional members from districts with greater urban, more educated, larger African-American, or larger Hispanic populations are also significantly more likely to have higher LCV scores. Finally, the higher the median income in a Congressional member's district the more likely the member is to have a higher environmental voting score, although the correlation was not statistically significant. Conversely, representatives from districts with a high percentage of rural residents, those who received more money from Energy PACs, and those who had a greater number of residents working in the extraction industry, were significantly less likely to vote pro-environmentally.

The next step was to perform multivariate analyses to determine the relative importance of the independent variables and their combined effect in predicting pro-environmental voting. As with much sociological research, one of the main concerns about the data is multicollinearity. If the Pearson's correlation coefficient between two variables was found to be greater than 0.7 one of the variables was removed from the model (Cohen, et al 2003; Zhang 2005). This high of a correlation indicates to us that one variable is representative of the other. There were three relationships where this high collinearity was found. The first of these relationships was between the Hispanic population percentage in a member's district and the race of the member (see Table 9). In this case the correlation was found to be .775. This tells us that a member's race is nearly completely determined by the percentage of Hispanics residents in a district. Mohai and Kershner (2002) found similar findings with African-American representatives (ie: the percentage of African American voters in a member's district was nearly determinative of the member's race representing the district). Because this research thesis is primarily concerned with how the race of a Congressional representative affects their environmental voting, the race variable was kept and the percentage of Hispanic population in a district was taken out.

With a correlation of -0.974, the next relationship found to have multicollinearity was between the percentage of urban population in a district and the percentage of rural population in a district. This relationship was not unexpected because the Census Bureau defines a rural population as those populations who aren't classified as urban populations (see Table 9). See Table 3 for a more detailed definition of these populations. As discussed in Chapter 2, the demographic analysis of the Hispanic American population tells us that the majority of this group can be found in urban areas. Because this research thesis is primarily concerned with Hispanic Americans, it is desirable to capture the urban group in our analysis. In addition, a review of the correlation table shows us that rural population is more highly correlated with other variables in the table than urban population is. It is for these reasons the variable rural population was purged from the data and only urban population was used.

The final relationship where multicollinearity was found to be a problem was between the two variables, median income in a Congressional district and percentage of residents with graduate degrees (see Table 9). These two variables were positively and significantly correlated at 0.734. Because median income was also strongly correlated with the percentage of district residents living in poverty, which gave a Pearson coefficient of -0.752, the median income variable was excluded.

To understand to what extent other variables than party explain the significant difference found between Hispanic and white members' environmental voting scores, alternative regression models with the LCV score as the dependent variable were analyzed (see Table 10). Models 1-9 in Table 10 below included independent variables one at a time to test each specific variable's effect on the significance of race in determining LCV scores. Model 10 includes all of the independent variables. By examining Table 10 we can see that the race variable maintains its significance until we add: party, percentage poverty, or percentage urban population. Among these three independent variables the party variable has the largest standardized beta coefficient (.879) and appears to explain most of the racial difference in environmental voting (i.e., these differences appear to be the result of the disproportionate number of Hispanic members who are Democrats.) In addition, racial differences were eliminated when controlling for party membership, percent in the district living in poverty, or percent in the district living in urban

areas. Thus, party membership appears to be the most important factor in explaining the variance in environmental voting.

Table 10: **Series of multiple linear regressions with LCV score as the dependent variable. Variables shown to be statistically significant at a p<.05 are highlighted in red.**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Race 1=Hispanic	(-.007) a .788 b	(.169) .000	(.161) .001	(.138) .006	(.227) .000	(.124) .009	(.108) .066	(.092) .058	(.158) .001	(.022) .391
Party 1=Democrat	(.879) .000									(.809) **.000**
Region 1=nonsouth		(.310) .000								(.144) **.000**
Age			(-.047) .352							(-.024) .240
Gender 1=female				(.160) .001						(.022) .310
% Grad Degree					(.290) .000					(.121) **.000**
Energy PAC Money						(-.363) .000				(-.071) **.001**
% Poverty							(.098) .098			(.011) .719
% Urban								(.322) .000		(.002) .934
Extraction Employee									(-.245) .000	(-.092) **.000**
Constant	*12.28*	*22.70*	*429.3*	*38.66*	*14.74*	*52.66*	*32.71*	*-8.454*	*49.29*	*199.4*
Sig	.000	.000	.304	.000	.003	.000	.000	.272	.000	.242
R-square	**.771**	**.121**	**.028**	**.051**	**.105**	**.156**	**.032**	**.125**	**.085**	**.843**
Sig	.000	.000	.004	.000	.000	.000	.098	.000	.000	.000

Note: N=390 Dependent Variable: LCV Score   P < .05 : highlighted in red
a: number in parentheses represents standardized regression coefficients.
b: number outside of parentheses represents statistically significance levels.

In Model 10 (Table 10) we entered all the independent variables into a regression to control for spurious relationships among the variables. With an R-Square of .843 we can see that these variables almost entirely explained pro-environmental voting, with the party variable representing the dominant influence. Despite all of the variables being included in the model, the standardized beta coefficient for party is only reduced slightly. At the same time the two other variables shown to decrease race's significance (percentage urban population and the percentage poverty) are no longer statistically significant. This confirms that the principal reason for the difference in environmental voting between Hispanic and white members' is indeed party membership. All of the other variables are in the expected direction, except for age, which is shown to be negatively correlated with LCV score. The variables shown to be statistically

significant in determining LCV score are: party, region, energy PAC money received, percentage of district employed in extraction industry and percentage with a graduate degree.

Our analysis above shows that the higher environmental voting scores of Hispanic members can be attributed to the fact that they are disproportionately in the Democratic Party, which in turn is related to liberal ideology and voting. In order to determine what variables explain why Hispanic members are more likely to be Democrats, we conducted a logistic regression of all representatives with party as the dependent variable (see Table 11). We performed logistic regression because the dependent variable is dichotomous (1=Democrat, 0 =Republican). In models 1-8 in Table 11 independent variables are added one at a time to test each specific variable's effect on the significance of race in determining party affiliation. An examination of Table 11 shows us that only one variable affects the significance of the race variable in determining party membership. This was the variable percentage of district residents in poverty. This suggests that the reason why Hispanic members are more likely to be Democrat is that districts with high proportions of residents living in poverty are more likely to vote for Democratic candidates. Model 9, Table 11, is a complete model showing that Hispanic members from non-Southern states, those representing districts with more educated populations, those with smaller proportions of people employed in extraction industries, and those receiving fewer contributions from energy PACs are significantly more likely to be Democrats. These data suggest that it is the poverty percentages in member's districts that appear to account for the over representation of Hispanic members in the Democratic Party.

Table 11: Series of multiple logistic regressions with all representatives, with party membership as the Dependent variable. Variables shown to be statistically significant at a p<.05 are highlighted in red.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Race *1=Hispanic*	(.399)a .494 b	(1.40) .007	(1.75) .001	(1.82) .000	(1.74) .001	(1.64) .002	(1.96) .000	(1.50) .005	(-.160) **.032**
% Poverty	(.131) .000								(.354) **.000**
% Urban (divided by 1,000)		(.003) .000							(.002) .093
Extraction Employee			(-.088) .062						(-.154) **.042**
Region *1=nonsouth*				(.713) .002					(1.10) **.000**
Age					(-.003) .803				(-.436) .975
Gender *1=female*						(.671) 039			(.260) .542
% Grad Degree							(.057) .034		(.102) **.018**
Energy PAC Money (in $1,000)								(-.025) .000	(-.028) **.000**
chi-Squared	**(41.97)**	**(28.92)**	**(18.02)**	**(23.94)**	**(14.37)**	**(18.60)**	**(18.86)**	**(56.41)**	**(149.2)**
sig.	.000	.000	.000	.000	.001	.000	.000	.000	.000
Constant	**(-1.86)**	**(-2.02)**	**(-.221)**	**(-8.99)**	**(5.01)**	**(-.474)**	**(-.912)**	**(.306)**	**(-5.15)**
sig.	.000	.000	.118	.000	.817	.000	.001	.055	.668
-2 log likelihood	490.03	503.07	513.98	508.06	517.63	513.40	513.14	475.60	382.81

Note: N=390 Dependent Variable: Party membership   P < .05 : highlighted in red

a: number in parentheses represents standardized regression coefficients.
b: number outside of parentheses represents statistically significance levels.

CHAPTER 6: *Summary and Conclusions*

Until recently we have known little about the environmental attitudes and actions of Hispanic Americans. Results of the few studies and polls that have examined this group's environmental attitudes have shown that Hispanic Americans have high levels of environmental concern (Bengston 2004; Burger et al. 2004; Desipio 1996; Greenberg 2005; Harris Poll 1999; Linda Kalof, et al 2002; McHugh 2004). Although there have been no studies that have investigated if this concern translates to Hispanic policy makers, qualitative information shows that these Congressional members are generally active in environmental issues and have received recognition for their environmental accomplishments (Lopez 2004; Solis 2003). This thesis research worked to quantify environmental concern amongst Hispanic policy makers by analyzing their environmental voting patterns for the 104th-108th Congresses. The evidence supports the idea that Hispanic Americans in Congress are significantly more likely to vote pro-environmental than their white congressional counterparts.

This study also attempted to identify what characteristics of individual members and their constituents could account for these higher environmental voting scores of Hispanic Congressional members. In order to do this we drew upon the body of literature that has investigated influences on Congressional voting. In addition we incorporated the literature that has examined socio-economic characteristics of individuals associated with environmental concern. With these variables we were able to create a model that explained 84% of the variance in environmental voting. The following variables were used to assess members' personal characteristics: the representative's race, party, age, gender, and the amount of money donated to a representative by an energy PAC. The following variables were used to assess constituency characteristics: region, percent in district with a graduate degree, percent living in poverty, percent living in urban areas, and percent employed in the extraction industry.

All of the variables were found to be related to a member's LCV score in the expected direction, with the exception of age. Consistent with our literature review, we found that being a Democrat was strongly and significantly related to a more pro-environmental voting score. In addition, we found that members from non-southern states, who had less money donated to them by energy PACs, and had higher rates of district residents with a graduate degree, with fewer

district residents employed in the extractive industries, were significantly more likely to have higher LCV scores, at a .001 significance level. While not as statistically significant, we also found that members who were older, female, had higher poverty levels, and urban populations, in their district were more likely to vote pro-environmentally.

It was also of interest to our study why Hispanics tended to join and/or vote for the Democratic Party. In our analysis we found that race was a significant indicator in determining party membership until we added the variable percent poverty in a members' district. This tells us that the high rates of poverty in a member's district appear to account for why Hispanic representatives are over represented in the Democratic Party. While it is quite possible there are economic factors prompting residents with high rates of poverty to vote for Democrats, we cannot rule out there is also an environmental factor. The environmental deprivation theory holds that those in poverty will experience higher rates of environmental pollution and thus be more concerned about environmental issues. It could be argued this data lends support to this argument, but further analysis will need to be done. Our analysis also found that members from non-southern states, who had received less money from energy PACS, had fewer district residents employed in the extractive industries, and had higher percentages of district residents with graduate degrees and urban populations were significantly more likely to be Democrats at a significance level of .005.

Our analysis produced some relationships which deserve further investigation in future analyses. Although we excluded African-Americans from our regression analysis, we did uncover that African American members of Congress voted more pro-environmentally than Hispanic members for every Congress examined. These high environmental voting scores are consistent with past research (Mohai and Kershner 2002). However, to draw the conclusion that this is a significant difference, more analyses will need to be done. In addition, it was shown that age was not related to LCV score in the expected direction. Past research has shown that younger individuals are more likely to show environmental concern than older individuals. However, our results show just the opposite. After investigating these data further it was found that a possible explanation for this could be the fact that younger Republicans members have much lower environmental voting scores than older Republican members. While it is true that younger

Democrats are voting more pro-environmental than older Democrats, the sharp decline in environmental voting scores of younger Republicans is pulling down the scores for the younger member group as a whole. However, in order to ensure that this explanation holds true when other variables are held constant further analysis will need to be done.

As the number of Hispanic Americans in Congress, and in the US population, increases it leaves many in the environmental policy field to wonder how this ever more powerful caucus will weigh in on environmental issues. Even though there has been very little written about Hispanic American's environmental concern, this data sheds light on the affect Hispanic Congressional members will have on environmental legislation as they increase their power in Congress. Results from this study show us that Hispanic members of Congress are more likely to be Democrats and more likely to vote pro-environmentally. If these trends continue, it is expected that this group will continue to support pro-environmental policy and help shape the national agenda on environmental issues to one of increased environmental protection.

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