

# AIR OF INJUSTICE

How Air Pollution  
Affects the Health  
of Hispanics  
and Latinos



July 2004 League of United Latin American Citizens.



League of United Latin American Citizens  
2000 L Street, NW Suite 610  
Washington, DC 20036  
202 833-6130

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Clear the Air  
1200 18<sup>th</sup> Street, NW, 5<sup>th</sup> floor  
Washington, DC 20036  
202-887-1341

Written by: Martha Keating, Clean Air Task Force  
Edited by: Maya Bassford, Angela Ledford, Clear  
the Air, Gabriela D. Lemus, Ph.D.,  
LULAC

Technical Assistance: MSB Associates

Special thanks to: Dr. Cecilio Ortiz-García, Assistant Professor at The University of Texas-Permian Basin, Odessa, Congressman Raúl Grijalva (7<sup>th</sup> Congressional District of Arizona), Roger Rivera, President, National Hispanic Environmental Council and New Mexico Governor Bill Richardson for their contributions to the report.

# Foreword



## State of New Mexico *Office of the Governor*

Bill Richardson  
*Governor*

June 2004

Estimado lector:

I am honored to present the foreword to this important report.

I share the environmental concern that members of Clear the Air and the League of United Latin American Citizens address every day.

This report confirms what many have feared: Hispanic communities disproportionately suffer health problems that result from living with pollution from power plants. Low-income and minority populations are subject to elevated environmental risks throughout the country, so this finding may not be surprising. But it is factual information that can provide a foundation for change.

Our nation needs to provide better protection for people who are affected by these environmental factors. And we need to require the implementation of clean new technologies that will prevent much of the pollution our communities experience today.

By doing so — by embracing new approaches and new technologies — we will pass on a safer, cleaner world to future generations. We will help address serious health problems facing people today. We will continue to strengthen the world's most dynamic economy.

Many in the Hispanic world come from families whose connections to land and water go back for generations and generations. Others have moved into the Hispanic community in recent years. Whoever is affected, and wherever they come from, it is critical for us to put clean air, clean water, and healthy land back at the top of the nation's list of priorities.

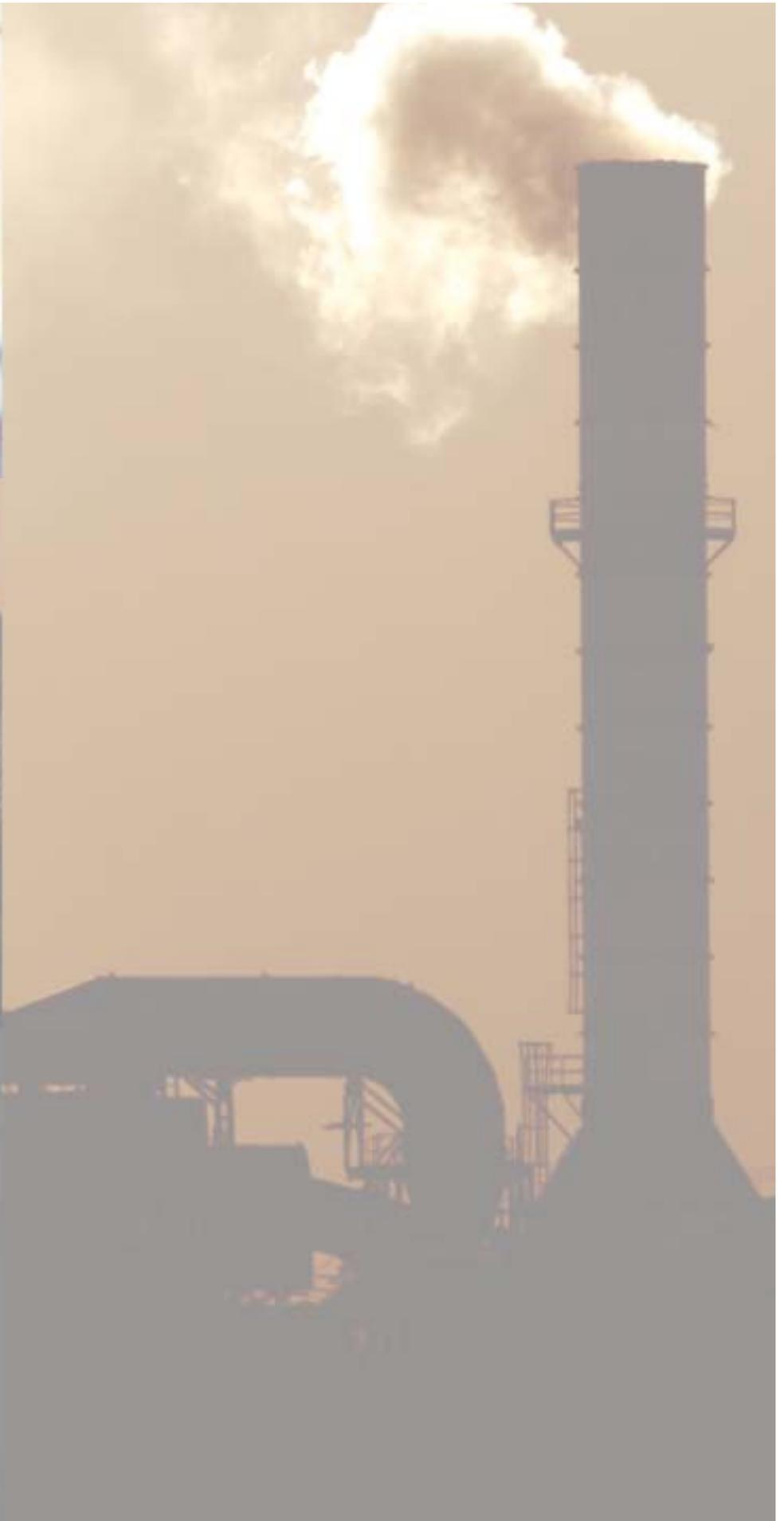
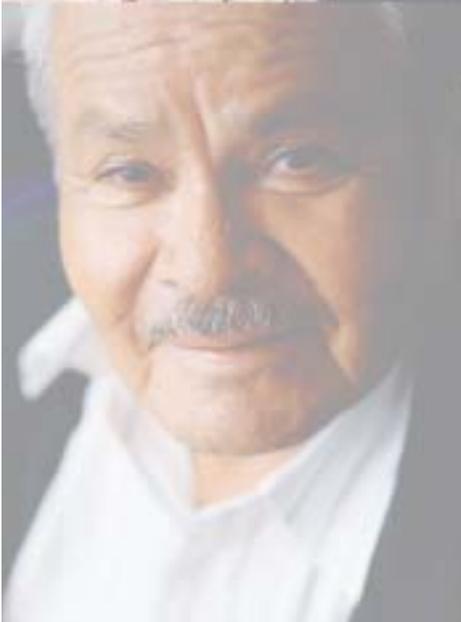
I welcome the information in this report. And I will help make sure that this information is part of the national policy dialogue.

Thank you for giving me the opportunity to participate in your important work.

Atentamente,

A handwritten signature in blue ink that reads "Bill Richardson".

Bill Richardson  
Governor of New Mexico



## AIR OF INJUSTICE

# How Air Pollution Affects the Health of Hispanics and Latinos

## Executive Summary

**H**ispanic families suffer serious health effects caused by air pollution. Studies show that the very air breathed by Hispanic Americans is likely to be harmful to their health.<sup>1</sup> Latino children and adults living in polluted areas are more likely to suffer adverse health effects, such as asthma attacks. For many, the situation is worsened by a lack of health insurance and by language barriers.

Air pollution from power plant smokestacks, cars and trucks, construction equipment, and other sources includes fine particle “soot” pollution, ozone smog and dangerous air toxics such as mercury. The health effects of these pollutants include breathing problems, stunted lung growth, and babies that are born with low birth weight, among many other serious health effects. Air pollution is keeping children with asthma home from school, as the incidence of asthma in Latino families reaches epidemic proportions.

**The air in Latino communities violates air quality standards.** More than half of the U.S. population (55 percent) lives in areas with unhealthy levels of ozone or particle pollution.<sup>2</sup> Hispanics make up 13 percent of the U.S. population, yet in 2002 more than seven out of ten Hispanics (71 per-

cent) lived in counties that violated federal air pollution standards for one or more pollutants.<sup>3</sup>

**Hispanics are exposed to high levels of pollution.** More than 13.5 million, or 35 percent of Hispanics, live in areas that violate the federal air pollution standard for particulate matter, known commonly as soot, which causes premature death and other serious health effects. More than 19 million, or 50 percent of Hispanics, live in areas that violate the federal air pollution standard for ozone, one of the major triggers for asthma attacks.

**Thirty-nine percent of the Latino population lives within 30 miles of a power plant** – the distance within which the maximum effects of fine particle soot from the smokestack plume are expected to occur.<sup>4</sup>

**Hispanics living below the poverty level are more likely to be vulnerable to the effects of air pollution.** High poverty rates restrict housing options for Latino families, and lack of health insurance limits access to quality health care. These economic factors exacerbate the impact air pollution has on low-income families. About 52 percent of Hispanics under the age of 65 do not have insurance and overall Hispanics account for an alarming one-quarter of the nation’s 74

million uninsured people.<sup>5</sup> Poverty and uninsured rates are even higher for Spanish-speaking Hispanics.

**Power plant emissions of mercury contaminate fish, posing a major health threat to the Latino community.** 1.3 million Hispanics nationwide actively participate in fishing as a recreational, social, or family activity.<sup>6</sup> However, much of the Latino community is unaware that invisible toxic chemicals, such as mercury, PCBs and pesticides, might be present in the water that they fish in or in the fish that they eat. In a number of studies it has been shown that Latino sport and commercial anglers catch a variety of sport-fish and consume fish more frequently, than white consumers. At the same time, Hispanics and other minorities are less likely than whites to be aware of fish consumption advisories.

**Global warming could seriously affect the health, economic and social well being of Hispanics.**<sup>7</sup> Warming of the planet together with more drought conditions in some regions and flooding in others could induce crop failures, famines, flooding and other environmental, economic and social problems.<sup>8</sup> At highest risk are communities that have the fewest technical and social resources.<sup>9</sup>

**Hispanics are regularly excluded from federal research activities and data collection efforts.**

The exclusion of Hispanics from these critical national data systems means that environmental health issues affecting Hispanics are going undocumented. Although many Latino communities are in close proximity to power plants, they have the least amount of representation with the health researchers who inform our nation's policymakers.

**The EPA must ensure environmental justice for Hispanics.** In 1994, President Clinton issued Executive Order 12898, "Federal Action to Address Environmental Justice in Minority Populations and Low-income Populations." The Executive Order directs federal agencies to pay attention to the environmental and human health conditions in minority and low-income populations with the goal of achieving environmental justice by making certain that such populations are not subjected to a disproportionately high level of environmental risk. However, the EPA has not identified populations addressed in the Executive Order, nor developed criteria for determining disproportionately impacted communities, thereby prohibiting the Agency from implementing the Executive Order as it was intended.

## Recommendations

Though the nation's clean air laws have succeeded in reducing air pollution over the last few decades, more must be done.

Together, we in the Latino community should challenge our policymakers, media in both Spanish and English, and elected officials that serve us to recognize the significance of air pollution from power plants and other sources, the harm it is having on the health of our families, and to stand up and demand action to reduce air pollution.

This report demonstrates that, as a community, we must call upon our leaders to do the following:

- Strictly implement clean air laws. Aggressive enforcement is essential to protect our communities. Power plants and other pollution sources must reduce their emissions of smog- and soot-forming pollutants as quickly as possible in order to enable communities to meet national air quality standards. In addition, EPA must require all power plants to reduce their mercury

emissions to the maximum extent possible using the latest technology by 2008 as required by current law.

- Close the Clean Air Act's 30 year-old loophole for old, dirty power plants and require all coal-fired power plants, both new and old, to comply with modern emission control standards.
- Require power plants to reduce their carbon dioxide pollution.
- Include Hispanics in health research that provides the basis for critical national data systems.
- Urge EPA to develop a comprehensive strategic plan to ensure appropriate training is provided, clearly define the mission of the Office of Environmental Justice, determine if adequate resources are being applied to environmental justice, and develop a systematic approach to gathering information related to environmental justice.

# Our Shifting Borders

## Changes in Hispanic/Latino Demographic Patterns and their Environmental Justice Implications

by Dr. Cecilio Ortiz-García

The confluence of social justice considerations and environmental concerns has brought home the realization that minority communities across the United States disproportionately bear the impact of environmental risks associated with a number of human activities. In fact this paradigm arguably has risen to a prominent place on the United States environmental policy agenda in the last 20 years. Riding on the coattails of the first and second waves of environmental concern in the United States and the Civil Rights Movement, this “third wave” of American environmentalism<sup>10</sup> has concentrated on:

- The relationship between the location of LULUs (Locally Undesirable Land Uses, including landfills, incinerators and other polluting industries) and the environmental health of minority populations,
- The exclusion of politically unorganized communities of color from the environmental policy process, and
- The exploration of a whole array of factors

that make minority populations vulnerable to environmental injustices.

Analysis has expanded to show that minority communities often do not equally enjoy the benefits associated with environmental enforcement and are consistently left out of environmental decision making.

These developments in the area of environmental policy have fueled the growth of what is now called the Environmental Justice Movement (EJ). Over the years, EJ has entered the public policy arena at all levels of the governmental apparatus, raising awareness over the relationship between environmental policy and social justice issues.

In 1994, President Clinton issued Executive Order 12898 directing federal agencies to make EJ considerations a priority, and in 1995 the Environmental Protection Agency promulgated its Environmental Justice Strategy delineating the agency’s EJ program. Moreover, EJ has opened the door for grassroots

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*Dr. Ortiz-García is an Assistant Professor at University of Texas-Permian Basin, Odessa, Texas.*



Factors such as access to education help determine where a population lives and works.

involvement by minority communities in the decision-making processes that bring about changes in the way we “socially construct” environmental policy.

Since the events surrounding the efforts to stop the site of a landfill in the mostly African American community of Warren County, North Carolina in the early 1980's, numerous case studies have been undertaken to analyze systematically both the dynamics, plight and grassroots efforts of politically, economically, and socially vulnerable minority populations to fight the unequal distribution of environmental goods and bads in their communities. Places such as Kettleman City in California,<sup>11</sup> Smelertown in El Paso,<sup>12</sup> or Cataño in Puerto Rico<sup>13</sup> evoke memories of bitter fights with both industry and governmental agencies over community control of their environmental health and prosperity and, moreover, symbolize the efforts of minority communities to gain a place at the decision making table when it comes to environmental policy decisions being taken “in their own backyard.”

Hispanics/Latinos in particular, present us with an opportunity to analyze the relationship between current demographic changes in this minority population, and the risk factors associated with the propensity for environmental justice issues to emerge in their communities. By analyzing data from the 2000

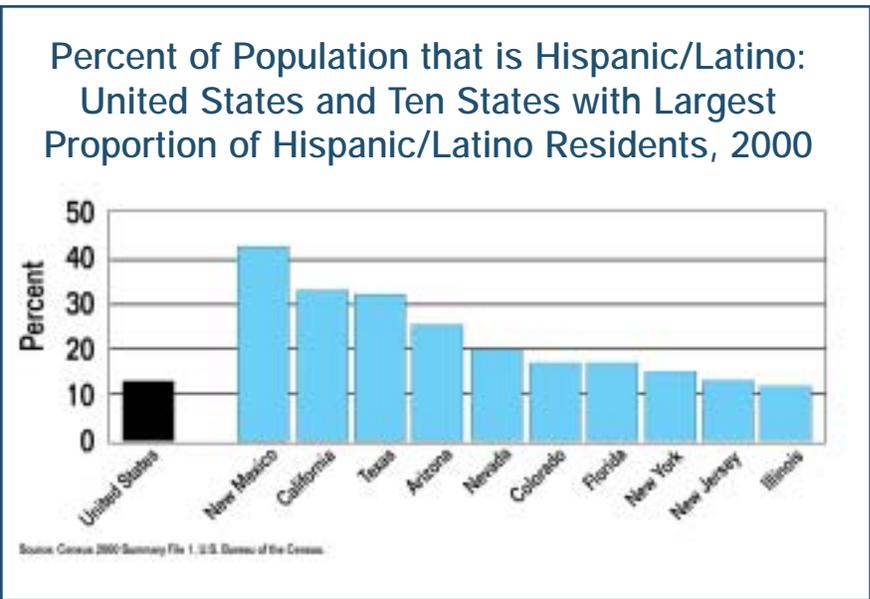
Census regarding the Hispanic/Latino population we see that, in fact, demographic boundaries of this “majority minority” need to be redrawn.

## Hispanics/Latinos Shifting Demographics

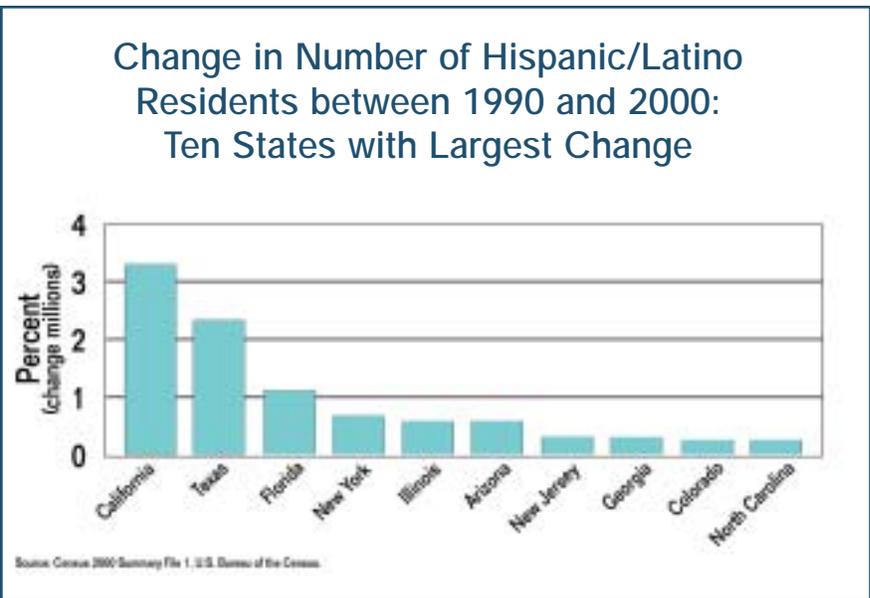
Hispanics/Latinos are a people in motion.<sup>14</sup> The rapid growth of the Hispanic/Latino population has profound implications for the localities where it is concentrated. Because the Latino population is young, along with becoming the nation's largest ethnic minority group in the U.S., Hispanics/Latinos still denote signs of a very vulnerable population. It is widely known that access to a quality education is increasingly important for finding well paying and rewarding jobs in the current information/technology intensive economy. These factors also determine where families live and work. Jobs that require more education and pay more often bring with them less environmental risk at the workplace and can allow families the economic freedom to live in neighborhoods with fewer environmental problems.

Low educational attainment, exemplified most vividly by double-digit high school dropout rates, continue to mire the Hispanic/Latino population. Nationally in 2000, 28 percent of Hispanic/Latinos 16–24 years of age drop out of high school without earning a diploma or completing a GED, compared to only 13 percent of African Americans and seven percent of whites.<sup>15</sup> Similarly, Hispanics/Latinos continue to be underrepresented among bachelor degree recipients.<sup>16</sup> In 2000, only six percent of bachelor degrees were awarded to Hispanics/Latinos, despite the fact that they constitute more than 13 percent of the college age population.<sup>17</sup> Therefore a correlation is found between educational attainment and high poverty rates. In 1999 the earnings advantage of the male college graduate over his high school graduate and dropout counterparts were 68 and 147 percent respectively up from 29 and 57 percent in 1979.<sup>18</sup>

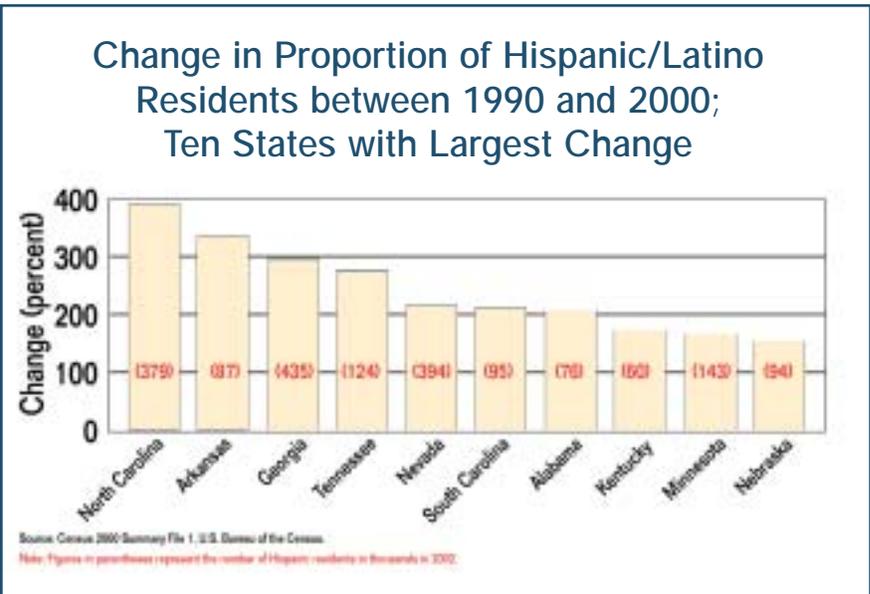
The largest Hispanic/Latino population in the United States according to the 2000 Census lives in “maritime ring” or “border” states (California, Texas, New York, Florida, Illinois, Arizona, New Jersey, Colorado and Washington). Recent census data has begun to present a different picture that points to a significant demographic shift in the population to places other than border or maritime ring states (see graph right).<sup>19</sup>



The states with the largest change in the number of Hispanic/Latino residents between 1990 and 2000 are shown right.



Two notable additions to this list, namely Georgia and North Carolina, begin to paint a picture of the changing Hispanic/Latino demographic landscape. Furthermore, the graph (right) shows the ten states (North Carolina, Arkansas, Georgia, Tennessee, Nevada, South Carolina, Alabama, Kentucky, Minnesota and Nebraska) with the highest changes in proportion of their Hispanic/Latino residents in that same decade, demonstrating the shifting nature of our borders.



These states are emerging as new “border states” where Hispanic/Latino populations are quickly adapting to existing social, economic, political and environmental conditions. But, are these new states equipped

with the institutional, technical, administrative and political capacity to deal with environmental justice issues that might affect these still vulnerable populations? If that capacity is not there, Hispanics/Latinos could find themselves on the short end of the stick in terms of suffering a disproportionate impact from environmental harms related to energy generation, agricultural activity, industrial processes, urbanization patterns, etc.

From this discussion the realization emerges that the same level of concern placed on the vulnerable condition of Hispanics/Latinos should be placed on the vulnerabilities of the environmental policy apparatus of these new Border States to enforce environmental justice directives and protect the environmental well-being of Hispanics/Latinos.

## Hispanics Face Disproportionate Environmental Health Risks



**H**ispanics in the U.S. face a disproportionate risk of exposure to environmental hazards because of where they live and work and because of the types of occupations in which they are engaged. In 1990, the Science Advisory Board of the U.S. Environmental Protection Agency (EPA) determined the top environmental threats to human health. The top threats were identified as ambient (outdoor) air pollution, worker exposure to chemicals in industry and agriculture, indoor air pollution and contaminated drinking water. In terms of risk of exposure, Hispanics face significant threats to health from each of these four factors, and often fare the worst of any ethnic group.<sup>20</sup>

While this report focuses on power plant air pollution and its impact on the health of the Latino community, its purpose is also to raise awareness of significant related issues facing the Latino community. As each of these problems is entwined with another, so are the solutions.

The Latino community is threatened by:

- **Exposure to multiple environmental threats.** Occupational exposure to chemicals, indoor air pollution and contaminated drinking water put the Latino community at risk. These exposures, in combination with exposure to outdoor air pollution, make Hispanics overall more susceptible to health risks.
- **Poverty.** More than 20 percent of Hispanics (including 30 percent of Latino children) are living in poverty. This level of poverty affects housing choices and whether families are able to afford medical insurance. In general, this community has limited access to health care; Hispanics with limited English proficiency are among the most underserved.
- **Lack of information.** Surprisingly, little is known about the impacts of environmental pollution on Hispanics. The Latino community is essentially excluded from federal research and data collection activities because the methods used to collect the information do not adequately sample Latino subgroups.

Hispanics are disproportionately suffering from the health effects caused by air pollution, such as asthma. Much of the reason is due to a lack of insurance because of low socio-economic status, combined with barriers to health care that include a lack of linguistically and culturally responsible medical facilities. Approximately 20 percent of Hispanics who forego health care do so because of language issues. Those with limited English proficiency are among the most underserved, making them the most susceptible to health complications from the power plant-produced pollutants.

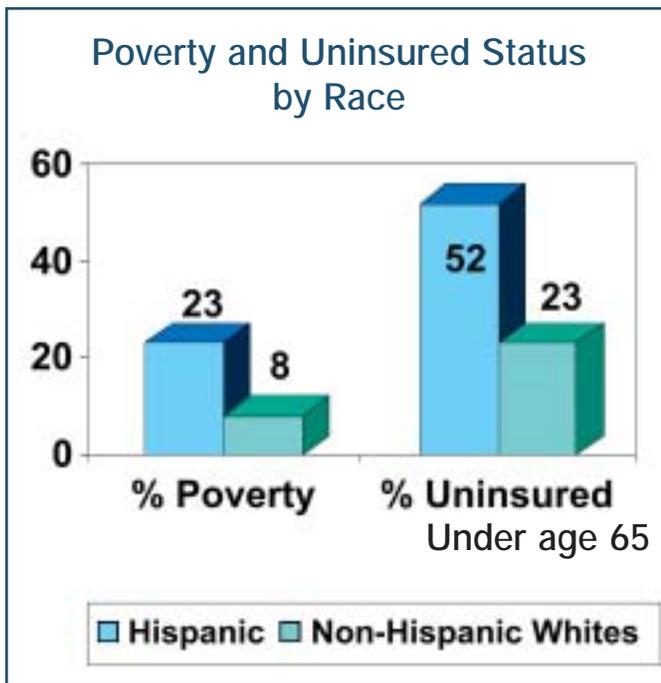
A March 2003 report released by the Robert Wood Johnson Foundation found that 18.5 million or 52 percent of all Hispanics under the age

## Lack of Data Collection Means Impacts on Latino Health Go Largely Undocumented<sup>21</sup>



A number of national health data collection systems exist to assess the health of the U.S. population. Policymakers use the collected information to respond to health and environmental problems. Unfortunately, Hispanics are regularly excluded from federal research activities and data collection efforts. The methods used to collect the data neither require the identification of different ethnic groups nor collect enough data on Hispanics so that the information can be broken out into different ethnic subgroups. Field researchers, not trained interpreters, typically conduct interviews. According to the General Accounting Office, no existing database currently provides accurate, complete and available information on the entire Latino population, including subgroups, residing in the U.S.<sup>22</sup>

The U.S. Department of Health and Human Services has 21 national data collection systems. Seventeen of the 21 do not collect enough data on Hispanics for the information to be broken out by subgroup. Six do not collect any data on Hispanics. Only one, the National Vital Statistics System, collects data for all Latino subpopulations. The exclusion of Hispanics from these critical national data systems means that environmental health issues affecting Hispanics are undocumented. Many Latino communities live in close proximity to power plants and in turn have the least amount of representation with the health researchers who inform our local and national policymakers.



of 65 did not have health insurance coverage in 2001–2002.<sup>23</sup> Hispanics represent 25 percent of the total number of uninsured people in the country, a disproportionate number when compared with the total percentage of the Latino population, which stands at 13 percent.<sup>24</sup>

## Latino Families Face Health Problems from Air Pollution

The Latino community is an ethnically diverse population, representing approximately 17 different groups. According to the 2000 U.S. census, 66.1 percent of Hispanics residing in the U.S. are of Mexican descent, 14.5 percent are from Central and South America, nine percent from Puerto Rico, four percent from Cuba and over six percent of other Latino origins.<sup>25</sup> These distinctive subgroups are important because there is considerable variability within the Latino population in terms of where people live, their income and even their susceptibility to disease, among other factors.

Power plants populate the eastern seaboard, where they can be found in or next to every single major metropolitan city. In the Midwest, dozens

of these coal-burning power plants are located in the middle of heavily Latino communities. The same is true for power plants in the Southwest — specifically in Arizona, New Mexico and Colorado.

**The air in Latino communities violates air quality standards.** More than half of the U.S. population (55 percent) lives in areas with unhealthy levels of ozone or particle pollution.<sup>26</sup> Hispanics make up 13 percent of the U.S. population. In 2002, 71 percent of Hispanics lived in counties that violated federal air pollution standards for one or more pollutants.<sup>27</sup> The map on the opposite page presents the counties that are in “non-attainment” for federal air pollution standards and the percent of the county population represented by Hispanics.

**Latinos are exposed to high levels of particulate matter pollution.** More than 13.5 million Latinos, or 35 percent of the Latino population, live in areas that violate the federal air pollution standard for particulate matter (either PM<sub>10</sub> or PM<sub>2.5</sub>).<sup>28</sup>

**Latinos are exposed to high levels of ozone pollution.** More than 19 million Hispanics, or 50 percent of the Latino population, live in areas that violate the federal air pollution standard for ozone.<sup>29</sup>

## Smog, Asthma, and Hispanics

Pollution from power plants, cars and trucks, construction equipment, and other sources form particulate matter, ozone smog and air toxics. Some particulate matter is emitted directly as soot; however, the most dangerous particles are formed when the sulfur dioxide gas from power plants and other sources is transformed into tiny acidic sulfate particles in the atmosphere. All of these pollutants have been associated in some way with respiratory hospitalizations, lost school days due to asthma attacks, low birth weight, stunted lung growth and even infant death. In particular, the incidence of asthma in the Latino community is reaching epidemic proportions.

Asthma is the most common chronic disease among children.<sup>30</sup> Between 1980 and 1994, the prevalence of asthma increased 74 percent among children five to 14 years of age.<sup>31</sup>

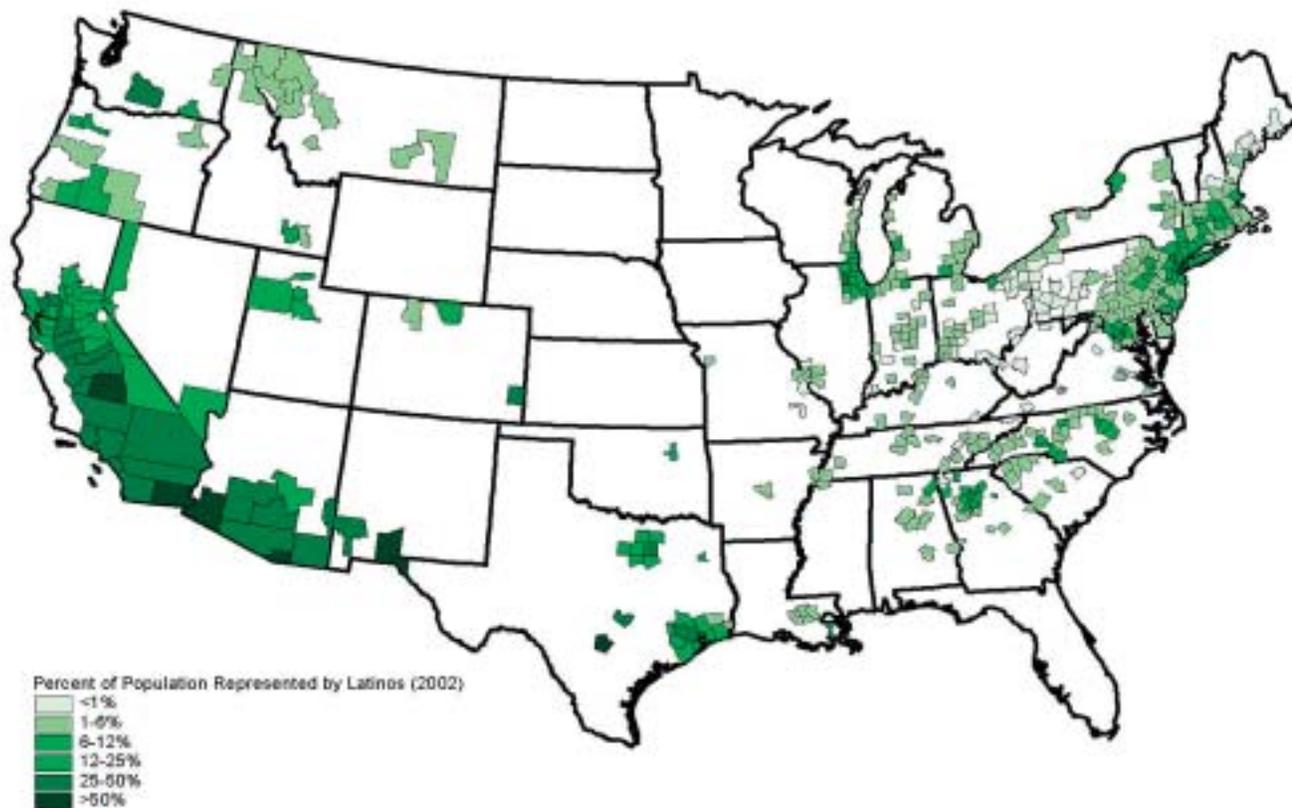
The incidence of asthma in children of Latino mothers is two-and-a-half times that of non-Latino white children.<sup>32</sup> A recent study found that Hispanic, African-American, and Asian/Pacific Islander mothers experienced higher levels of air pollution and were over twice as likely to live in the most polluted counties compared to white mothers.<sup>33</sup>

The highest rates of asthma in the U.S. have been reported among inner city Puerto Ricans. As

many as 20 percent of Puerto Rican children aged six months to 11-years-old are afflicted – a greater percentage of children than any other ethnic group.<sup>34</sup> In Chicago, a health survey of six communities found that 34 percent of Puerto Rican children (aged 0 –12) had been diagnosed with asthma compared to 20 percent of non-Hispanic white children in the same communities.<sup>35</sup>

The age-adjusted asthma mortality rate for Hispanics between 1990 and 1995 was 15.3 per million people. Puerto Ricans had the highest mortality rate from asthma of any ethnic group (40.9 deaths per million people). Mexican-Americans had the lowest mortality rate among the Latino groups (9.2 deaths per million people).<sup>36</sup>

**Percent of Population in Non-Attainment Areas Represented by Latinos**



*Hispanics includes the diverse community of Mexicans, Puerto Ricans, Cubans, Central and South Americans.*

*Non-attainment means the area exceeds federal air pollution standards for one or more of the following pollutants: lead, carbon monoxide, SO<sub>2</sub>, particulate matter (PM<sub>10</sub>), 1-hour ozone standard, 8-hour ozone standard and PM<sub>2.5</sub>. Based on August 2003 U.S. EPA Green Book and Fall 2003 determination of 2000-2002 values for 8-hour ozone standard and PM<sub>2.5</sub>.*



Asthma rates in minority children overall are doubling every ten years. The New York Department of Health reports levels of asthma of up to 30 percent in minority populations of children.<sup>37</sup>

When ozone levels were high, the rate of hospitalization for African Americans and Latinos was twice that of whites over the time period studied. Latinos and African Americans without health insurance were admitted to the hospital more than those with insurance, which reflects the lack of access to preventative health care by the uninsured.

### Air Pollution and Children

Emergency room visits for asthmatic children are strongly linked to ozone levels. Especially during the summer months, daily hospital admissions and emergency room visits increase as ozone levels increase. These trends have been shown in the U.S., Mexico and Canada.<sup>38, 39</sup>

While scientists have documented that children are generally more susceptible to ozone pollution than adults, asthmatic children are more vulnerable and some subgroups of asthmatic children appear to have heightened susceptibility. A recent study suggests that asthmatic children born preterm and/or with low birth weights are at greater risk from ozone exposures.<sup>40,41</sup> Affluence may play a role as well; children in homes without air conditioners suffered higher exposures than those in homes with them because air conditioners are effective in reducing indoor ozone levels.<sup>42</sup>

A growing body of evidence supports the potential association between ozone and premature death in adults.<sup>43</sup> A Mexico City study links exposure to ozone and nitrogen oxides to infant death.<sup>44</sup> The study also found that the relationship between air pollution and infant death was even stronger when particulate matter levels were considered in the analysis.

The children's health study in California suggests that particulate matter may slow lung function growth in children. Children examined in a dozen communities near Los Angeles experienced a three to five percent relative reduction in lung function growth between the most polluted and least polluted cities as a result of exposure to particulate matter.<sup>45</sup> When children moved to communities with cleaner air, lung function growth rates increased.<sup>46</sup>

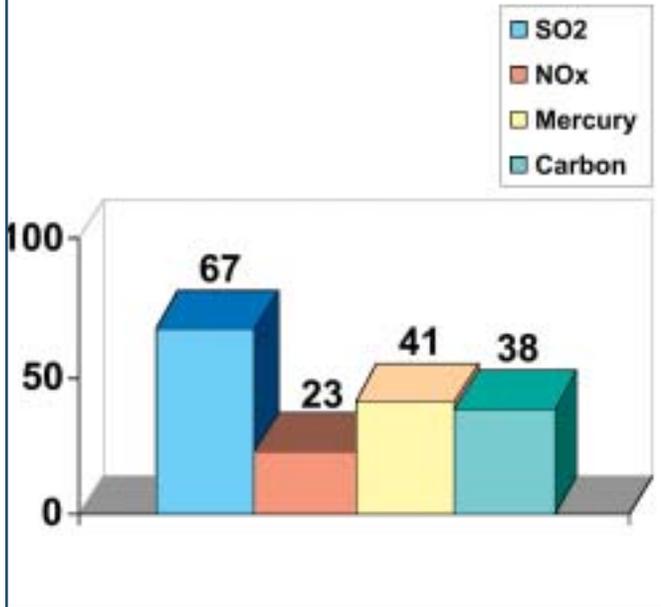
### Power Plants: The Biggest Industrial Source of Dangerous Air Pollution

Exposure to pollution from power plants occurs in two main ways: direct and indirect. Direct exposure means actual inhalation of air pollutants. Indirect exposure includes eating food or drinking water that has been contaminated by air emissions deposited on the earth and accumulated in the food chain. Some power plant air toxics may be absorbed through the

# Health Effects of Power Plant Pollutants

Pollutant	What is it?	How is it produced?	Health effects	Most vulnerable populations
<b>Ozone</b>	Ozone is a highly corrosive, invisible gas.	Ozone is formed when nitrogen oxides (NO <sub>x</sub> ) react with other pollutants in the presence of sunlight.	Rapid shallow breathing, airway irritation, coughing, wheezing, shortness of breath. Makes asthma worse. May be related to premature birth, cardiac birth defects, low birth weight and stunted lung growth.	Children, elderly, people with asthma or other respiratory disease. People who exercise outdoors.
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>	SO <sub>2</sub> is a highly corrosive, invisible gas. Sulfur occurs naturally in coal.	SO <sub>2</sub> is formed in the gases when coal is burned. SO <sub>2</sub> reacts in the air to form sulfuric acid, sulfates, and in combination with NO <sub>x</sub> , acidic particles.	Coughing, wheezing, shortness of breath, nasal congestion and inflammation. Makes asthma worse. SO <sub>2</sub> gas can de-stabilize heart rhythms. Low birth weight, increased risk of infant death.	Children and adults with asthma or other respiratory disease.
<b>Particulate Matter (PM)</b>	A mixture of small solid particles (soot) and tiny sulfuric acid droplets. Small particles are complex and harmful mixtures of sulfur, nitrogen, carbon, acids, metals and airborne toxics.	Directly emitted from coal burning. Formed from SO <sub>2</sub> and NO <sub>x</sub> in the atmosphere.	PM crosses from the lung into the blood stream resulting in inflammation of the cardiac system, a root cause of cardiac disease including heart attack and stroke leading to premature death. PM exposure is also linked to low birth weight, premature birth, chronic airway obstruction and remodeling, and sudden infant death.	Elderly, children, people with asthma.
<b>Nitrogen Oxides (NO<sub>x</sub>)</b>	A family of chemical compounds including nitrogen oxide and nitrogen dioxide. Nitrogen occurs naturally in coal.	NO <sub>x</sub> is formed when coal is burned. In the atmosphere can convert to nitrates and form fine acidic particles. Reacts in the presence of sunlight to form ozone smog.	NO <sub>x</sub> decreases lung function and is associated with respiratory disease in children. Converts to ozone and acidic PM particles in the atmosphere.	Elderly, children, people with asthma.
<b>Mercury</b>	A metal that occurs naturally in coal.	Mercury is released when coal is burned.	Developmental effects in babies that are born to mothers who ate contaminated fish while pregnant. Poor performance on tests of the nervous system and learning. In adults may affect blood pressure regulation and heart rate.	Fetuses and children are directly at risk. Pregnant women, children and women of childbearing age need to avoid mercury exposure.
<b>Carbon Dioxide</b>	Coal has the highest carbon content of any fossil fuel.	Carbon dioxide is formed when coal is burned.	Indirect health effects may be associated with climate change including the spread of infectious disease, higher atmospheric ozone levels and increased heat and cold-related illnesses.	People of Color, children, people with asthma.

### Percent Contribution of Coal-Fired Power Plant Emissions to National Total



skin from direct contact with contaminated water or soil. Children can be exposed to power plant toxics by ingesting contaminated soil while playing.

Power plants are major sources of some of the most common and harmful pollutants:

**Sulfur dioxide (SO<sub>2</sub>).** On a national basis, power plants emit 68 percent of SO<sub>2</sub>.<sup>47</sup> The SO<sub>2</sub> gas emitted from power plants is a strong respiratory irritant that is inhaled by people living near the plant. In addition, SO<sub>2</sub> forms sulfate particles that mix with other particles to form “fine particulate matter” downwind of the plant, which can have serious health impacts even at great distances from the source. Power plants are responsible for about half of the fine particulate matter in the eastern part of the U.S. and contribute a significant portion in the West.

**Nitrogen oxides (NO<sub>x</sub>).** Power plants are responsible for 23 percent of the nation’s emissions of NO<sub>x</sub>.<sup>48</sup> NO<sub>x</sub> and hydrocarbons react in

sunlight to form ozone smog. While ozone in the upper levels of the atmosphere provides a protective layer from ultraviolet radiation, ozone smog is a pollutant at ground level and is harmful to lungs. NO<sub>x</sub> also forms nitrate, which is a major constituent of fine particulate matter.

**Mercury.** Power plants are the largest industrial source of mercury emissions, emitting 41 percent of the nation’s total mercury emissions.<sup>49</sup> When mercury enters a water body, it can be converted to a more toxic form that is concentrated in fish. Fish consumption advisories in 43 states warn against eating certain types or sizes of fish to protect against mercury exposure. Mercury is most dangerous for the developing brain and nervous system of the fetus.

**Air toxics.** Coal-fired power plants are the largest source of hazardous air toxics, including mercury. Emission tests at coal-fired power plants have detected 67 different air toxics.<sup>50</sup> Of these, 55 are known to be either neurotoxic (toxic to the nervous system) or developmental toxins (poisonous to the human development process).<sup>51</sup> In addition, 24 have been characterized as known, possible, or probable human carcinogens.<sup>52</sup> In just one year (1999), power plants released 78 million pounds of developmental and neurological toxins to the air and surface waters.<sup>53</sup> Currently, power plants are not required to limit their toxic air emissions.

**Greenhouse gases.** When carbon dioxide and other greenhouse gases build up in the atmosphere, they trap heat, causing increased temperature and altered precipitation patterns (or global warming). Power plants release 38 percent of all of the carbon dioxide emitted from burning fossil fuels in the U.S.<sup>54</sup> As a result of human activities, global average surface temperatures may increase by three to ten degrees (F) by the end of the century.<sup>55</sup> This increase in temperature is predicted to speed the spread of infectious diseases, increase heat and cold-related stress, and, under many conditions, increase ozone smog (the formation of which depends, in part, on heat and sunlight).

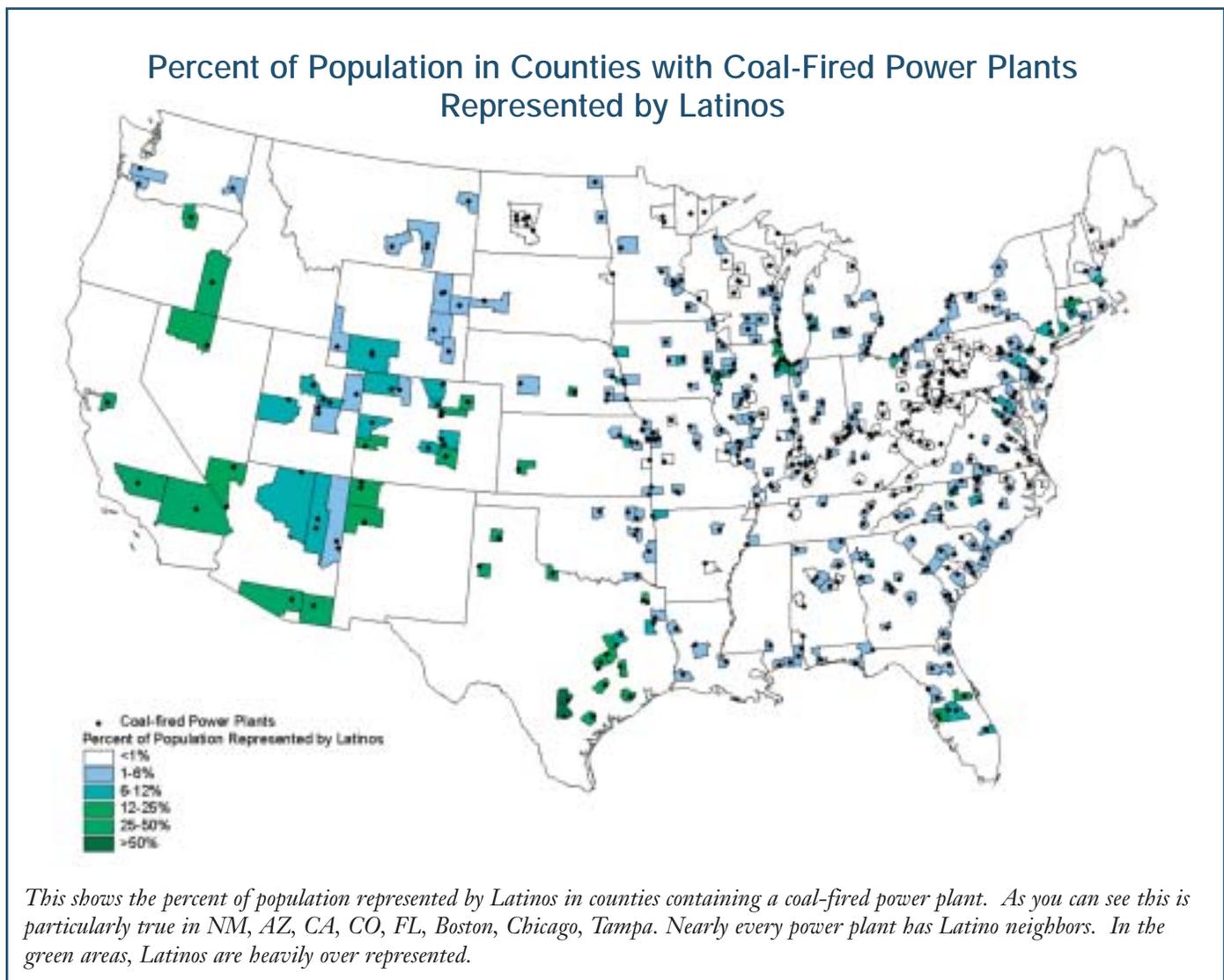
## Mercury Pollution Affects Hispanic Americans

In 2001, there were 1.3 million licensed Latino anglers.<sup>56</sup> Together, these fishermen spent more than \$695 million on fishing trips and equipment.<sup>57</sup> However, much of the Latino community is unaware that invisible toxic chemicals, such as mercury, PCBs and pesticides, might be present in the water that they fish in or in the fish that they eat.

Coal-fired power plants are the largest unregulated industrial source of mercury, producing more than 40 percent of all mercury pollution in the U.S.<sup>58</sup> Airborne mercury eventually deposits

in water bodies, where it is converted to methylmercury and accumulates in fish tissue. As larger fish eat smaller ones, mercury concentrations increase in the bigger fish, a process known as bioaccumulation. Consequently, larger predator fish have higher mercury concentrations as a result of eating contaminated prey.<sup>59</sup>

Mercury contamination in fish across the U.S. is so widespread that health departments in 43 states have issued fish consumption advisories.<sup>60</sup> Of these, 19 states have consumption advisories for every inland water body for at least one fish species; ten states have consumption advisories for canned tuna, and eight have statewide coastal marine advi-





sories for king mackerel. The U.S. Food and Drug Administration (FDA) also has issued a consumer advisory for pregnant women, women of childbearing age, nursing mothers and young children. These groups are advised not to eat swordfish, tilefish, shark and king mackerel because of high mercury levels.<sup>61</sup> In July 2002, an independent com-

## Health Effects of Mercury

Methylmercury interferes with the development and function of the central nervous system. Pre-natal exposure from maternal consumption of fish can cause later impairments in children. Infants may appear normal during the first few months of life but later display subtle health effects, such as poor performance on neurobehavioral tests, particularly on tests of attention, fine motor function, language, visual-spatial abilities (e.g., drawing) and memory. These children will likely have to struggle to keep up in school and might require remedial classes or special education.<sup>67</sup>

Children and developing fetuses are most vulnerable to mercury exposure. Fish tainted by methylmercury consumed by the mother passes through the placenta to the developing fetus. Mercury exposure prior to pregnancy is as critical as exposure during pregnancy because mercury is stored in tissues and is slowly excreted from the body. The first weeks of pregnancy also represent a critical time for fetal development. Nursing mothers, pregnant women, women of childbearing age (i.e., 15 to 44 years of age) and children should avoid mercury exposure.<sup>68</sup>

mittee of food safety advisors convened by FDA recommended that consumption advisories also be issued for canned tuna. In March 2004, the FDA issued a new advisory adding canned albacore tuna to the list of fish that should not be eaten more than once a week by sensitive populations. Canned “chunk light” tuna was added to the list of fish that should not be eaten more than twice a week by these populations.<sup>62</sup> However, the Special Supplemental Nutrition Program for Women, Infants and Children, which provides food assistance to low-income women, infants, and children who are at nutritional risk, provides canned tuna fish in their food packages.

Research suggests that Latino anglers tend to believe that consuming fish poses few risks, unless the fish are visibly sick or there are obvious sources of water pollution. According to one study, which specifically evaluated Latino anglers, participants were not aware that toxic chemicals – such as mercury, PCBs and pesticides – might be present in the fish, let alone that those chemicals could affect their health.<sup>63</sup>

A number of studies show that Latino anglers eat a variety of sport-fish and eat fish more frequently than white consumers.<sup>64</sup> At the same time, Hispanics and other minorities are less likely than whites to be aware of fish consumption advisories.<sup>65</sup> State-sponsored advisories are minimally effective because of their limited distribution and complex wording. Advisories are often distributed with fishing licenses, which not all anglers obtain. In one study, only 30 percent of Latino anglers were licensed, and the state agencies made little effort to share advisory information with unlicensed anglers.<sup>66</sup> Also, advisories are usually written in English, which Spanish-speaking anglers may not be able to translate. Thus, Latino anglers and their families may unknowingly consume contaminated fish.

## Greenhouse Gases and Global Warming

Global warming could seriously affect the health,

economic and social well being of Hispanics.<sup>69</sup> Changes in the Earth’s atmosphere are occurring due to the buildup of greenhouse gases. As shown below, power plants account for nearly 50 percent of carbon emissions emitted from fossil fuel use in the U.S.

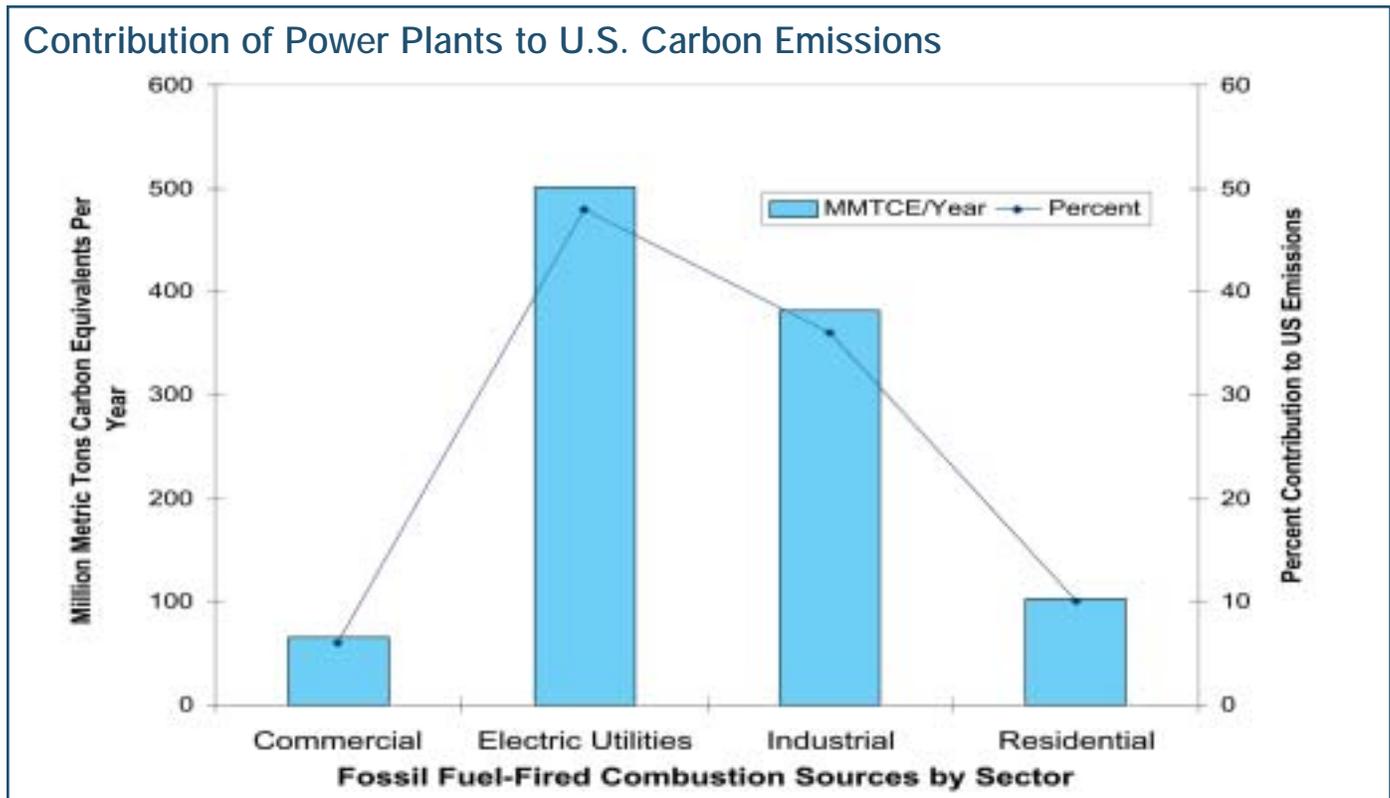
Warming of the planet together with more drought conditions in some regions and flooding in others could induce crop failures, famines, flooding and other environmental, economic and social problems.<sup>70</sup> At highest risk are communities that are the most exposed and have the fewest technical and social resources. Other consequences of climate change include:

**Higher Levels of Ozone Smog.** Global warming could enhance ozone formation, which could, in turn, exacerbate ozone-related health problems such as asthma attacks.<sup>71</sup>

**More Natural Disasters.** A warming climate has adverse affects on seasonal river flows, flood levels, droughts, fisheries, food security/supply, and loss of biodiversity. If global warming trends continue, floods and droughts will become more persistent.

The number of tropical hurricanes is expected to rise, increasing risks to humans, property and ecosystems from heavy rain, flooding, storm surges and high winds. The health impacts of these natural disasters include physical injury; poorer nutritional status (particularly among children); increases in respiratory and diarrheal diseases due to overcrowding of survivors and limited access to potable water; increased risk of water-related diseases due to disruption of water supply or sewage systems; and release of chemicals or waste from storage sites into flood waters.<sup>72</sup>

**El Niño and La Niña** (weather events resulting from changes in ocean circulation) are projected to occur more frequently due to global warming. La Niña is mostly responsible for heavy precipitation and flooding, particularly in Columbia. In contrast, some areas including Southern Brazil experience severe droughts during La Niña events. If El Niño events increase, so will forest decay, resulting in the release of large amounts of carbon that will add to CO<sub>2</sub> accumulation. El Niño events in the past have also spawned widespread and severe fires. Since these events are projected to increase



with global warming, more catastrophic fires may occur, especially when combined with an increase in forest flammability from logging.

**Increases in Infectious Disease.** A warmer climate means that more areas of the U.S. will be hospitable to insects and the diseases they spread (like malaria, St. Louis encephalitis, Lyme disease, and Dengue fever) and rodents (carriers of the hanta virus). The map below shows areas of the U.S. that may see increases in the incidence of Dengue fever cases. Many of these diseases cause flu-like symptoms and can be treated when caught early. El Niño and La Niña events also influence the spread of diseases by increasing the habitat range of vectors like mosquitoes. For example, vector-borne diseases are expected to increase, at higher elevations, in particular diseases such as malaria and dengue fever in Brazil, Peru, Bolivia, Argentina, and Venezuela.

At the World Climate Change Conference in Moscow in September 2003, scientists said that nearly 160,000 people die each year from side effects of global warming ranging from malaria to malnutrition. The scientists from the World Health

Organization and the London School of Hygiene and Tropical Medicine predicted that this number could double by 2020 and that children would be the hardest hit. In addition, most deaths would be in developing nations in Africa, Latin America and Southeast Asia, which would be hardest hit by the spread of malnutrition, diarrhea and malaria in the wake of warmer temperatures, floods and droughts.<sup>73</sup>

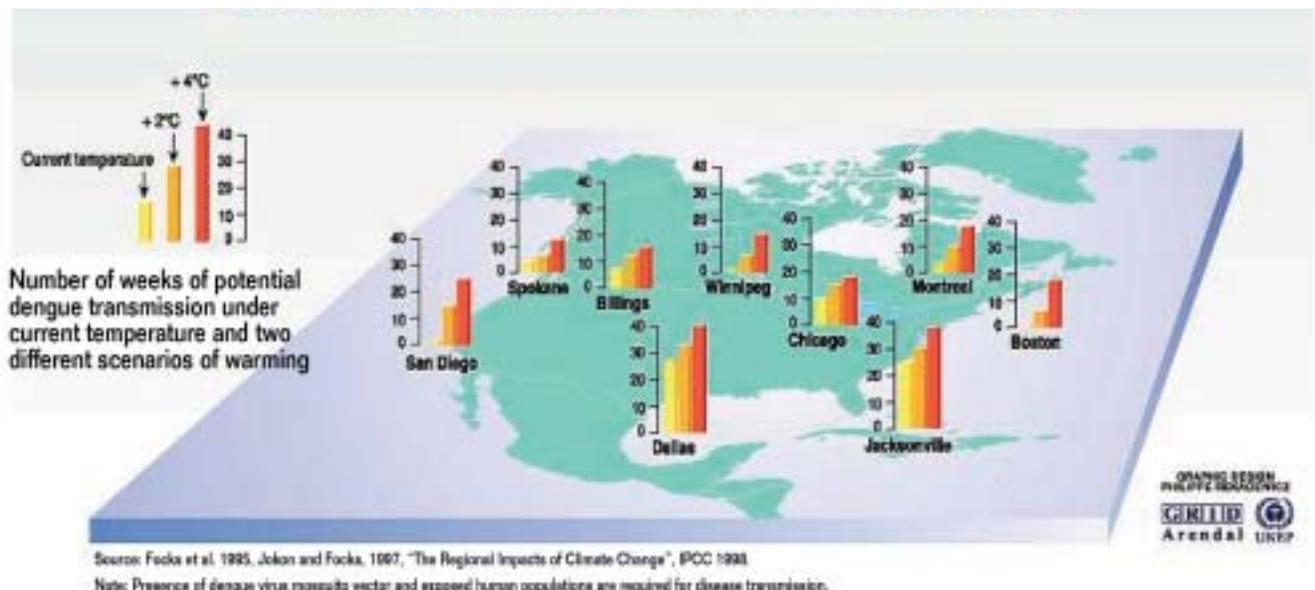
## Global Warming Impact on Latinos

At highest risk from global warming are communities that are the most exposed and have the fewest technical and social resources.<sup>74</sup> The poverty rate of Latinos<sup>75</sup> certainly suggests that many in the Latino community are particularly vulnerable to exposure and consequent health problems.

**Latino families rank among the poorest of American families.** In 1999, one out of five Latino families was poor (20.2 percent) while the poverty rate of white non-Latino families was 5.5 percent.

**A significant proportion of Latino children is poor.** About three in ten (30 percent) Latino

## Potential Dengue Transmission in Case of Temperature Rise



children lived in poverty compared with 9.4 percent of white non-Latino children.

**Puerto Ricans have the highest poverty rate of all Latinos.** In 1998, 31 percent of Puerto Ricans lived in poverty, followed by Mexicans (27 percent), Central and South Americans (20 percent) and Cubans (14 percent).

These high poverty rates indicate that such communities and families are more likely to have poor access to health insurance and medical care. As noted above, the potential health impacts of climate change include increased prevalence of infectious disease such as Dengue fever and West Nile virus, more heat-related stress and illness, and more asthma attacks from higher levels of ozone smog.<sup>76,77</sup> These diseases can be fatal when not treated, particularly for seniors and people with compromised immune systems. Unfortunately, individuals without health insurance will be hit the hardest; the uninsured rate for English-speaking Latinos is one and a half that of whites.<sup>78</sup> For Spanish-speaking Latinos, the uninsured rate is nearly four times greater than that of whites.<sup>79</sup>

## Global Warming Impacts on Latin America

Power plants operating today are the number one industrial source of several major air pollutants, including carbon dioxide which is a major cause of global warming. The Intergovernmental Panel on Climate Change (IPCC) special report on regional impacts of climate change has also predicted specific

impacts of global warming on South America.<sup>80</sup>

Mexico will have warmer and drier conditions – a shift in weather patterns which is expected to add further hardship to an agricultural economy already stressed by low and variable rainfall.

A case study in Belize, looking at a range of temperature and precipitation changes on maize, red kidney beans, and rice production, concluded that Belizean farmers might well see their livelihoods destroyed as a result of reduced rainfall and increased temperatures.

Under current climate conditions in Latin America, banana crops are already adversely affected by flooding. Increases in storm frequency and heavy precipitation could add additional stress and lead to lower crop yields.

Modeling studies of wheat, maize, barley, soybeans, potatoes, and grapes in Uruguay, Argentina, Brazil, Mexico and Chile show crop yields declining in nine of 12 studies, as a result of increased temperature and changes to water regimes. The most at-risk farmers would be low-income farmers who may suffer serious financial loss from even small changes in crop yield and productivity.

Increased temperatures, ultraviolet radiation, sea-level rise and changes in pest ecology may threaten Argentina, in particular.

**Hispanics are demanding greater progress on air pollution to improve the quality of life for our families and communities.**

## Case Study

# U.S./Mexico Border Air Quality

by Dr. Cecilio Ortiz-García

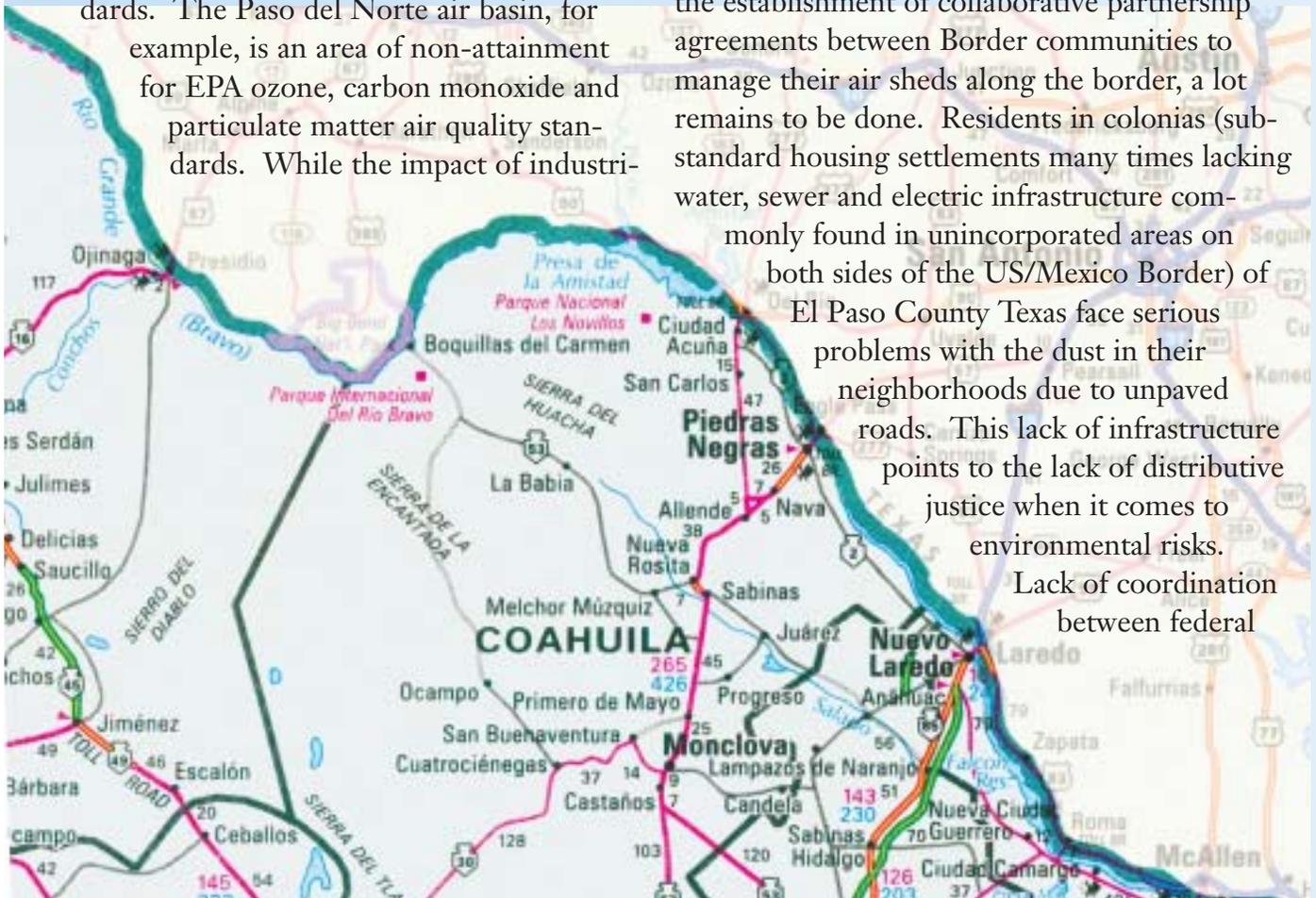
Assistant Professor at University of Texas-Permian Basin, Odessa, Texas.

The U.S./Mexico border faces a number of environmental challenges of significant magnitude. Air quality issues, in transnational settings such as this one, represent some of the most complex environmental issues involving climate, geography, economics, politics and environmental justice, just to name a few. Large numbers of border residents reside in areas of non-attainment under both Mexican and American environmental air quality standards. The Paso del Norte air basin, for example, is an area of non-attainment for EPA ozone, carbon monoxide and particulate matter air quality standards. While the impact of industri-

al emissions associated with the Maquiladora industry (US multinational companies that set subsidiary operations in Mexico) are significant other sources also contribute to poor air quality at the U.S./Mexico border (i.e., unpaved roads, idling lines of cars and diesel trucks sitting for hours at a time at the international bridges, the burning of debris including tires in the brick-making process in Ciudad Juarez).

While significant progress has been made in the establishment of collaborative partnership agreements between Border communities to manage their air sheds along the border, a lot remains to be done. Residents in colonias (substandard housing settlements many times lacking water, sewer and electric infrastructure commonly found in unincorporated areas on both sides of the US/Mexico Border) of El Paso County Texas face serious problems with the dust in their neighborhoods due to unpaved roads. This lack of infrastructure points to the lack of distributive justice when it comes to environmental risks.

Lack of coordination between federal



agencies at the international bridges when it comes to the flow of goods and humans is a factor in the amount of border traffic. In fact, research shows the international bridges are hot spots for the accumulation of “bad ozone” affecting the border population.<sup>81</sup>

The industrial activity and population boom the border has seen in the past 20 years is rapidly outstripping the electrical generation capacity of the area. It is estimated that between 2001 and 2011 the border will need an additional generating capacity of approximately 60,000 megawatts for ten Mexican and U.S. states that comprise the border.<sup>82</sup> While a number of NGO’s and other policy actors continue to press for the use of renewable energy sources as part of the mix of energy sources, reality suggests most of this electricity will be generated by the fossil fuels utilized by thermoelectric plants. Conservative estimates suggest that this increase in emissions from thermoelectric plants will dump 56,000 additional tons of NO<sub>x</sub>, 83,000 additional tons of SO<sub>2</sub>, and 144,000 additional tons of CO<sub>2</sub> a year on an air basin already at risk.<sup>83</sup> The consequences and impact on human health, the environment and other natural resources such as water sources could be disastrous.

Despite this bleak picture, binational institutions are reaching out in a more formal fashion to address these issues. In 1993, leaders in El Paso-Juarez region along the Texas-Mexico border, with help from the Environmental Defense Fund, established the Paso del Norte Air Quality Task Force to inform the international community about air quality problems and to initiate joint pollution reduction projects. The task force’s binational activities included working with Juarez officials to improve Mexican

vehicle inspection and maintenance programs and to set up emission diagnostic centers and training programs for mechanics to help them comply with Mexican environmental laws. Mexican instructors were trained at University of Texas-El Paso and Colorado State University and, in turn, trained more inspectors in Mexico.

The task force also has worked with federal agencies to speed up the use of alternative fuel vehicles and address traffic congestion at border crossings. The task force further recommended the creation of an International Air Quality Management District to provide a method to conduct local activities including data collection, pollution prevention, public education, technology transfers, and the development of cross-border pollution control strategies.<sup>84</sup> Much more needs to be done to address the air quality issues affecting the very vulnerable minority populations at the U.S./Mexico border. This is truly an issue of justice.



## Case Study

# Hispanics Fighting Power Plant Pollution in Illinois

**A**s Hispanic residents of Chicago, Gladys and Miguel Martinez understand the effects of power plant pollution firsthand. Highlighted in an article in the *Chicago Reader* they explained that all three of their children suffer from asthma and occasional pneumonia. For a time, Michael, their four-year-old was going to the emergency room twice a week.<sup>85</sup>

Their case is not unique for residents living near power plants. Research by the Harvard School of Public Health showed that the Fisk and Crawford power plants, located in predominantly Latino neighborhoods of Chicago, cause 40 premature deaths, 2800 asthma attacks, and 550 emergency room visits *every year*.<sup>86</sup>

In response to these challenges, several communities have been active in trying to draw attention to and reduce the pollution emitted from these power plants. The Little Village Environmental Justice Organization, located in the Latino neighborhood of Little Village, has been organizing against Chicago's power plant pollution for years. Several Latino groups have staged demonstrations against the adjacent Crawford plant, which continues to operate with

old, out-of-date pollution control equipment. One demonstration took place in front of Mayor Richard Daley's office.

In February of 2002, The Little Village Environmental Justice Organization joined with other community groups to pass a referendum in two predominantly Latino Chicago precincts supporting a proposed city ordinance that calls for reductions in emissions of sulfur dioxide, nitrogen oxides, mercury, and carbon dioxide from these Chicago power plants. While the resolution is currently stalled in the City Council, it has sent a message to all lawmakers that local residents will not tolerate the injustice of power plant pollution.<sup>87</sup>

Hispanics now compose 13 percent of the total U.S. population, and this number is growing quickly. As new Latino communities emerge, many of them will be forced to confront the health effects caused by pollution from power plants. The activism in Chicago is not unique. Many communities are beginning to mobilize against the threat toxic emitting power plants have to their livelihood and, in the future, many more are likely to join the fight.



## Case Study

# The Urban Forest of the New Millennium

## Hispanics Preserving the “Lungs of San Juan”<sup>89</sup>

by **Dr. Cecilio Ortiz-García**

Assistant Professor at University of Texas-Permian Basin, Odessa, Texas.

*“The day will arrive in which the politicians will do the just thing for our people out of political necessity.”*

— César Chávez



*“La tierra de Borínquen donde he nacido yo, es un jardín florido de mágico primor. Un cielo siempre nítido le sirve de docel, y dan arrullos plácidos las olas a sus pies...”*

— “La Borinqueña,”  
M. Fernandez Juncos

The words of César Chávez show the realistic understanding of the “political rationality” that many times dominates the decision-making framework of our institutions of government under a pluralistic liberal democracy. Alternatively, the lyrics of Puerto Rico’s “national anthem” present us with an exemplary metaphor to symbolize what the relationship between public administration and the “island” ecological environment should be. The words in Fernandez Juncos’ version of “La Borinqueña,” speak about an island characterized by “gardens” of magical beauty, set upon a background of clear blue skies and cradled by the placid lullaby of the deep blue seas surrounding her. Politicians, public administrators and particularly those involved in environmental policymaking; as operating arms of the state, and guardians of the public interest, have a particular duty to act as stewards of the environment. In particular reference to the above captioned lyrics, Puerto Rican public administrators dealing with environmental policy in the island need to act as

“gardeners” of the alluded “garden of magical beauty”; always vigilant of the invading forces that might threaten its livelihood and survival.

But what happens when the same institution entrusted with protection of this garden are consistently found to be its worst enemy? Such is the case in Puerto Rico where according to the EPA Toxic Releases Inventory for the year 2000, four of the top five facilities in Puerto Rico with the highest amount of chemical releases into the

## Case Study (cont.)

local environment were all power generation plants operated by the Puerto Rico Electric Power Authority (PREPA). The EPA suggests that that year as much as 10.4 million pounds of toxic releases could be attributed to PREPA's power generating plants. Puerto Rico's programs of economic development, which at one time afforded the island accolades as "America's Showcase in the Caribbean" for most of the '50's and '60's with Operation Bootstrap, continue to demand the need for major infrastructure investments that are now tolling a hefty price on the island's environment. This put public administrators and policymakers dealing with environmental protection on the island in the precarious position of having to face the quintessential environment vs. development paradox.

These infrastructure investments started to threaten the very life of the last forest areas inside the city of San Juan. Lately, there has been an emphasis on the importance urban vegetation can have directly and indirectly on local air quality. From temperature reduction to removal of air pollutants and the reduction building energy use, thus reducing emissions from power plants are some of the natural benefits of urban forests in metropolitan areas such as the city of San Juan. A 400-acre wooded area adjoining the University of Puerto Rico's Botanical Gardens became the target for destruction of an infrastructure project in the island. The Department of Transportation and Public Works eyed part of the forest for a section of Route 66 between the towns of Rio Piedras and Rio Grande. In addition, 17 construction permits had been issued by the planning board for sites within the forest's perimeters. The forest became the center of a debate between Senate President Charlie Rodriguez and Governor Pedro Rosello, who have different ideas about how the land should be used. A bill co-

authored by Rodriguez designated the area for conservation as the Urban Forest of the New Millennium but was effectively killed by Rosello describing it as "having deficiencies."

An unlikely mixture of policy actors came to the rescue of the "lungs of San Juan." Professor Jose Molinelli, Department Chair of Environmental Sciences at the University of Puerto Rico, became the forest's staunchest supporter. Before the conservation bill was re-written, Molinelli made his case to legislators using aerial photographs, maps and hydrological charts that outline the forest's perimeters and the encroaching developments that surround it. He took over the media in educating the public about the natural air filtering effects of the forest and many of its other attributes. Furthermore, he joined forces with the U.S. Forest Service to develop a tree inventory of the forest. By utilizing his students in collaboration with Forest Service personnel, the university professor played a leading role in the development of scientific evidence about the ecological importance of the forest, and gained political momentum to present that evidence to the governor.

Ultimately politicians did what they did because it was politically expedient to do so, echoing the words of César Chávez captioned at the beginning of this segment. Puerto Rican civil society showed the potential of becoming an effective policy entrepreneur in the area of environmental protection by coming to the rescue of the urban forest. By developing linkages with intermediary sectors of society such as academia, these groups are opening their own space for effective policymaking increasing their level of protest and contestation against state projects considered harmful to the "garden" so emulated by Fernandez Juncos, and precious to all Puerto Ricans.

# A National Solution to Power Plant Pollution

**A**s this report has shown, air pollution from power plants and other sources imposes a serious public health and environmental burden on the Latino community and society at large. The nation's clean air laws have succeeded in reducing air pollution over the last few decades, but much more must be done.

Early in 2002, President Bush announced his version of a power plant clean-up plan called the "Clear Skies Initiative." This proposal, unfortunately, offers too little, too late. The "streamlining" of the existing Clean Air Act under this plan would result in more pollution being emitted than the Clean Air Act currently allows. In addition to weakening or eliminating portions of the Clean Air Act, the President's plan would delay pollution reductions by up to a decade from when they would occur if the Clean Air Act were simply enforced as written. Unlike other proposed plans to cleanup power plants, the Bush plan also fails to address emissions of carbon dioxide.

## Enforce the Law, Don't Weaken It

Because the President's air pollution plan has garnered little support in Congress, the Administration is now seeking to implement "Clear Skies" through the regulatory process, essentially bypassing Congress. The Administration has:

- Finalized regulations which allow old, dirty power plants to avoid installing modern pollution controls when making life-prolonging modifications;

- Proposed weak regulations that would delay and dilute much needed reductions in toxic mercury pollution; and

- Proposed regulations governing transported air pollution that contain unnecessary delays and weak emission standards.

Each action is a rollback of the Clean Air Act.

*First Step Backward: The Bush administration allows old, dirty power plants to stay dirty*

On New Years Eve 2002 and Labor Day 2003, the Bush administration finalized two sets of regulations that essentially made obsolete a key provision of the Clean Air Act known as New Source Review. New Source Review is a provision designed to protect the health and welfare of local communities surrounding nearly 17,000 industrial facilities throughout the country, including power plants. These provisions kick in whenever industrial facilities make major modifications that substantially increase pollution, requiring installation of modern pollution controls.

When Congress passed the Clean Air Act more than 30 years ago, it gave existing facilities a "grandfather" exemption. This loophole allows older facilities to avoid modern pollution control standards on the theory that the old plants will "retire" and be replaced by new cleaner technologies. If the plants do not retire but remain in operation, they are required to install modern pollution equipment if they change or upgrade the plant in any way that significantly increases emissions. Consequently, the New Source Review pro-

gram is the primary backstop against disaster for many communities that face an unrelenting increase in toxic emissions.

The Bush administration's attempt to dramatically weaken this critical component of the Clean Air Act suffered a major setback recently when the U.S. Court of Appeals ruled that power plants and other industrial polluters cannot take advantage of these new regulatory loopholes. The court will continue to stay the effect of the loopholes pending litigation over its legality.

*Second Step Backward: Mercury safeguards are delayed for more than a decade*

The Bush administration also issued a mercury proposal that sets aside more than a decade of work to curb toxic mercury emissions from the largest unregulated source of mercury pollution, the electric power industry. In amending the Clean Air Act in 1990, Congress included mercury on a list of 188 hazardous air pollutants (HAPs) for which EPA was to identify sources and impose the most stringent control standards possible, known as Maximum Achievable Control Technology (MACT) standards.

In order to justify such stringent controls, EPA was required to undertake two studies of mercury emissions and other HAPs from power plants before deciding whether to impose MACT standards. After lengthy delay, EPA submitted the required reports to Congress in 1997 and 1998, and, on December 20, 2000, issued a formal finding that regulation of mercury from utilities is appropriate and necessary, thereby setting into motion the development of strong mercury standards.

However, in the summer of 2003, the Bush administration abandoned the consensus building process that EPA had set up to design the mercury regulations. Instead, the Administration began developing proposals that mirrored the President's Clear Skies proposal. The proposed regulations put forth in December 2003 allow for

more than 600 percent more mercury pollution for the next decade than what EPA said was possible just two years ago.<sup>88</sup>

*Third Step Backward: Lenient fine particulate rule means Americans will breathe unhealthy air for years to come*

Finally, the Bush administration has proposed regulations dealing with fine particle pollution that fall far short of what is necessary to both protect public health and the environment. The reductions announced in EPA's fine particle transport rule also known as the CAIR proposal, are virtually identical to those envisioned in the President's air pollution initiative. EPA promises a six million ton reduction in sulfur dioxide, leaving unabated more than 3.2 million tons per year of emissions in the eastern U.S. This is in contrast to EPA's original Clear Skies "Straw proposal," which allowed only two million tons of sulfur dioxide to be emitted in the entire nation (At the request of the White House in 2001, EPA began to develop three-pollutant legislation that would couple nationwide caps on nitrogen oxides, sulfur dioxide, and mercury with the repeal most of the Clean Air Act requirements relating to power plant emissions). The Straw proposal would have coupled nationwide caps on nitrogen oxides, sulfur dioxide, and mercury with the repeal of all or most of the Clean Air Act requirements relating to power plant emissions. The additional sulfur dioxide will, by 2020, lead to an additional 4,000 avoidable deaths per year, and \$34 billion per year in avoidable health damages.<sup>89</sup>

## The Federal Environmental Policy Framework for Environmental Justice

As previously mentioned in this report, in 1994, President Clinton issued Executive Order 12898, "Federal Action to Address Environmental Justice in Minority Populations and Low-income

Populations,” to ensure such populations are not subjected to a disproportionately high level of environmental risk. In 1995, the EPA promulgated its Environmental Justice Strategy delineating the agency’s EJ program. Executive Order 12898 and the EPA’s Environmental Justice Implementation strategy have formally recognized EJ as a legitimate public issue and pushed it onto the federal government’s agenda.

The Executive Order focuses federal agencies attention on the environmental and human health conditions in minority and low-income populations with the goal of achieving environmental justice. However, an evaluation report by the Office of Inspector General (OIG) found the EPA has not fully implemented Executive Order 12898 nor consistently integrated environmental justice into its day-to-day operations.

The EPA has not identified minority and low-income, nor identified populations addressed in the Executive Order, and has neither defined nor developed criteria for determining disproportionately impacted communities. Moreover, in 2001, the Agency restated its commitment to environmental justice in a manner that does not emphasize minority and low-income populations, contrary to the intent of the Executive Order.

The EPA responded to the OIG’s report by stating that it does not take into account the inclusion of the minority and low-income population because it is attempting to provide environmental justice for everyone. However, the OIG reminded the EPA that while providing adequate environmental justice to the entire population is commendable, doing so had already been EPA’s mission prior to implementation of the Executive Order and it was not the intent of the Executive Order to simply reiterate that mission.

The OIG further found that although the Agency has been actively involved in implementing

Executive Order 12898 for ten years, it “has not developed a clear vision or a comprehensive strategic plan, and has not established values, goals, expectations, and performance measurements.” In the absence of environmental justice definitions, criteria, or standards from the Agency, many regional and program offices have taken steps, individually, to implement environmental justice policies. This has resulted in inconsistent approaches by the regional offices. Thus, the OIG found that “the implementation of environmental justice actions is dependent not only on minority and income status but on the EPA region in which the person resides.” In fact, the OIG’s comparison of how environmental justice protocols used by three different regions would apply to the same city showed a wide disparity in protected populations.

The OIG concluded that the Agency is bound by the requirements of Executive Order 12898 and does not have the authority to reinterpret the order. The OIG recommended that EPA should affirm that Executive Order 12898 applies specifically to minority and low-income populations that are disproportionately impacted. The OIG found that after ten years, there is an urgent need for the Agency to standardize environmental justice definitions, goals, and measurements for the consistent implementation and integration of environmental justice at EPA.<sup>90</sup>

Despite this spotty policy picture, it’s important to note that simply because groups are vulnerable does not mean they have remained passive or inactive. Several policy actors within civil society pursuing EJ concerns have emerged as significant stakeholders in these heavily contested policy arenas. Against considerable odds these community-based, non-governmental organizations continue to contest state and private actions threatening the environment “in their backyard.” In majority-minority communities such as the U.S./Mexico border and Puerto Rico, grassroots organizations have skillfully utilized identity politics to rack up

Air of Injustice Report	Executive Order Language
<ul style="list-style-type: none"> <li>• <b>The air in Latino communities violates air quality standards.</b> Hispanics make up 13 percent of the U.S. population, yet in 2002 more than seven out of ten Hispanics (71 percent) lived in counties that violated federal air pollution standards for one or more pollutants. That's compared to 58 percent of the white population.</li> <li>• <b>Nearly every power plant has Latino neighbors.</b> Thirty-nine percent of the Latino population lives within 30 miles of a power plant – the distance within which the maximum effects of SO2 from the smokestack plume are expected to occur.</li> <li>• <b>More than 20 percent of Hispanics (including 30 percent of Latino children) are living in poverty.</b></li> </ul>	<p><b>1-101. Agency Responsibilities.</b> Each Federal agency shall make achieving environmental justice part of its mission by <b>identifying and addressing</b>, as appropriate, <b>disproportionately high and adverse human health or environmental effects</b> of its programs, policies, and activities on <b>minority populations and low-income populations</b> in the United States and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Marian Islands.</p>
<ul style="list-style-type: none"> <li>• <b>Exposure to multiple environmental threats.</b> Occupational exposure to chemicals, indoor air pollution and contaminated drinking water put the Latino community at risk, making Hispanics overall more susceptible to health risks.</li> </ul> <p>The incidence of asthma in children of Latino mothers is two-and-a-half times that of non-Latino white children.</p> <p>In New York City, Latinos and African Americans are more adversely affected by air pollution as measured by the number of persons per day admitted to the hospital when ozone levels were high. The rate of hospitalization for these groups was twice that of whites over the time period studied.</p>	<p><b>1-103. Development of Agency Strategies.</b> (a) Each Federal agency shall develop an agency-wide environmental justice strategy whenever practicable and appropriate, that identifies and addresses disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. [T]hat should be revised to, at a minimum:</p> <p>(1) promote enforcement of all health and environmental statutes in areas with minority populations and low-income populations:</p>
<ul style="list-style-type: none"> <li>• <b>The Hispanic community is essentially excluded from federal research and data collection activities.</b> The methods used to collect the information do not adequately sample Latino subgroups. The methods used to collect the data neither require the identification of different ethnic groups, nor collect enough data on Hispanics so that the information can be broken out into different ethnic subgroups.</li> </ul> <p>According to the General Accounting Office, no existing database currently provides accurate, complete and available information on the entire Latino population, including subgroups, residing in the U.S.</p>	<p><b>Sec. 3 -3. Research, Data Collection, and Analysis</b></p> <p><b>3-301.</b> (a) Environmental human health research... shall include diverse segments of the population in epidemiological and clinical studies, including segments at high risk from environmental hazards, such as minority populations, low-income populations and workers who may be exposed to, substantial environmental hazards.</p> <p><b>3-302.</b> (a) each federal agency, whenever practicable and appropriate, shall collect, maintain, and analyze information assessing and comparing environmental and human health risks borne by populations identified by race, national origin, or income.</p> <p>(b)... each Federal agency, whenever practicable and appropriate, shall collect, maintain and analyze information on the race, national origin, income level, and other readily accessible and appropriate information for areas surrounding facilities or sites expected to have substantial environmental, human health, or economic effect on the surrounding populations, when such facilities or sites become the subject of a substantial Federal environmental administrative or judicial action.</p>
<ul style="list-style-type: none"> <li>• <b>Latino families love to go fishing.</b> 1.3 million Hispanics nationwide actively participate in fishing as a recreational, social, or family activity</li> </ul> <p>In a number of studies it has been shown that Latino sport and commercial anglers catch a variety of sport-fish and consume fish more frequently than white consumers.<sup>93</sup></p>	<p><b>Sec. 4-4. Subsistence Consumption Of Fish And Wildlife.</b></p> <p><b>4-401.</b> Consumption Patterns. Federal agencies, whenever practicable and appropriate, shall collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence.</p>
<p><b>Lack of information.</b> However, much of the Latino community is unaware that invisible toxic chemicals, such as mercury, PCBs and pesticides, might be present in the water that they fish in, or even in the fish that they eat.</p> <p>Also, advisories are usually written in English, which Spanish-speaking anglers may not be able to translate. Thus, Latino anglers and their families may unknowingly consume contaminated fish.</p> <p>Studies have shown that Hispanics and other minorities are less likely than whites to be aware of fish consumption advisories.</p>	<p><b>4-402.</b> Guidance. Federal agencies, whenever practicable and appropriate, shall work in a coordinated manner to publish guidance reflecting the latest scientific information available concerning methods for evaluating the human health risks associated with the consumption of pollutant-bearing fish or wildlife. Agencies shall consider such guidance in developing their policies and rules.</p> <p><b>Sec. 5-5. Public Participation and Access to Information</b></p> <p>(b) Each Federal agency may, whenever practicable and appropriate, translate crucial public documents, notices, and hearings relating to human health or the environment for limited English speaking populations.</p> <p>(c) Each Federal agency shall work to ensure that public documents, notices, and hearings relating to human health or the environment are concise, understandable, and readily accessible to the public.</p>

some victories in recent years. Despite this, the highly technical and scientific nature of environmental issues consistently requires experts to legitimize community action from a scientific standpoint. It is in this light that the participation of multiple coalitions of policy actors such as academics, activists, and environmental policy issue networks becomes pivotal in winning EJ battles. The environmental future of these shifting borders, and the Hispanic/Latino communities that are making these states home, will depend in no small part on the effectiveness of environmental justice programs and policies that can provide healthy environments for these communities.

## Air Pollution, Hispanics and Executive Order 12898

As illustrated opposite, the findings in this report should trigger an investigation by the EPA as mandated by E.O. 12898, as the language in E.O. 12898 clearly mandates the EPA take action to achieve environmental justice for low-income and minority populations.

## Recommendations

Together, we in the Latino community should challenge our policymakers, media in both Spanish and English, and elected officials that serve us to recognize the significance of air pollution from power plants and other sources, the harm it is having on the health of our families, and to stand up and demand action to reduce air pollution.

This report demonstrates that, as a community, we must call upon our leaders to do the following:

- Strict implementation of clean air laws. Aggressive enforcement is essential to protect our communities. Power plants and other pollution sources must be required to reduce their



smog- and soot-forming pollution to enable communities to meet national air quality standards as quickly as possible. In addition, EPA must require all power plants to reduce their mercury emissions to the maximum extent possible using the latest technology by 2008 as required by current law.

- Close the Clean Air Act's 30 year-old loophole for old, dirty power plants and require all coal-fired power plants, both new and old, to comply with modern emission control standards.
- For the future economic and public health of our community, the government must take steps to address the threat of global warming by requiring power plants to reduce their carbon dioxide pollution.
- Hispanics must be included in health research that provides the basis for critical national data systems.
- The EPA must develop a comprehensive strategic plan, ensure appropriate training is provided, clearly define the mission of the Office of Environmental Justice, determine if adequate resources are being applied to environmental justice, and develop a systematic approach to gathering information related to environmental justice.

## ENDNOTES

1. The terms Latino and Hispanic are used interchangeably throughout this report. As defined by the U.S. Census, origin can be viewed as the heritage, nationality group, lineage, or country of birth of a person or a person's parents or ancestors before their arrival to the United States. People who identify their origin as Spanish, Hispanic, or Latino may be of any race.
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## LULAC – A Proud History

Founded in 1928, LULAC is the oldest Latino civil rights organization. Over the last 70 years, LULAC has continued to grow and work hard to bring about many of the positive social, economic and political changes that Hispanic Americans enjoy today. No other Hispanic civil rights organization, with an all volunteer membership base can match LULAC's record of achievements and services to Hispanic Americans.

Today, LULAC represents not only Mexicans Americans from the Southwest, it also represents Hispanics in most of the United States, including Puerto Rico and Guam. Membership has expanded to include all men and women of Hispanic origin.

LULAC is the cornerstone of some of the most successful Hispanic national organizations. LULAC formed The American GI Forum (AGIF) to address the rights of Hispanic veterans. The Mexican American Legal Defense and Education Fund (MALDEF) as the legal arm of the Hispanic community. SER - Jobs for Progress, Inc., has trained, and retrained, and found jobs for thousands of Hispanic Americans. In addition, LULAC has developed thousands of low income housing units through the Southwest.

LULAC has become an important influence in national policy making with a permanent national office in Washington, D. C. While the many successes of LULAC should be celebrated, its work is far from over.

LULAC continues to work for the betterment of Hispanic Americans. It continues to fight discrimination, poverty, educational inequalities, disparities in political representation, the Hispanic student high dropout rate, immigration issues, language issues, Hispanic health issues, etc. LULAC will forever address those issues that impact the lives and future of all Hispanic Americans. It will continue to work to assure that future Hispanic American generations receive all the constitutional rights inherit by them as citizens of the United States of North America.

LULAC has fought for voting rights and full access to the political process, and equal educational opportunity for Hispanic children. The struggle has been long and difficult, but LULAC's record of activism continues to this day. LULAC councils across the nation continue to hold voter registration drives and citizenship awareness sessions, sponsor health fairs and tutorial programs, and raise scholarship money for the LULAC National Scholarship Fund. This fund, in conjunction with the LNES (LULAC National Educational Service Centers), has assisted almost 10 percent of the 2.1 million students who have gone to college.

