An analysis of public policies implemented to address the disproportionate occurrence of asthma among minority youth in Georgia

Lolita D. Gray
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ABSTRACT

POLITICAL SCIENCE

GRAY, LOLITA D. B.P.S. UNIVERSITY OF MEMPHIS, 1999
M.P.A. TROY STATE UNIVERSITY, 2005

AN ANALYSIS OF PUBLIC POLICIES IMPLEMENTED TO ADDRESS
THE DISPROPORTIONATE OCCURRENCE OF ASTHMA AMONG
MINORITY YOUTH IN GEORGIA

Committee Chair: William H. Boone, Ph.D.

Dissertation Dated: December 2012

The creation and implementation of public policy is a crucial
governmental function of the United States, which operate under a centralized
political system with a single government that is capable of implementing
uniform policies throughout the country. Existing within this political system is a
decentralized governmental system that disperses power among its state and local
governments where the power of policy implementation also exists. The intrinsic
value of this U.S. governmental structure allows for policy creation on the federal,
state, and local levels. Pertinent to this research, policies originating from state,
federal, and local governments will be observed.

Studies conducted by environmental scholars have shown that there
exists a positive correlation between persons living in close proximity to toxic
waste facilities and the negative impact of environmental health hazards, one of
which is asthma. Moreover, research supports that there has been an epidemic
increase in asthma among minorities. To research this phenomenon from a public policy viewpoint, this study concentrates upon an analysis of public policies implemented to address asthma disparities and disproportionate occurrences among minority youth residing in the state of Georgia. As a foundational premise, the findings of existing studies that speak to a correlative significance of minority youths’ spatial location to hazardous waste sites will be incorporated and utilized as a paradigm for the policy analyses.
AN ANALYSIS OF PUBLIC POLICIES IMPLEMENTED TO ADDRESS
THE DISPROPORTIONATE OCCURRENCE OF ASTHMA AMONG
MINORITY YOUTH IN GEORGIA

A DISSERTATION
SUBMITTED TO THE FACULTY OF CLARK ATLANTA UNIVERSITY
IN PARTIAL FULLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY

BY
LOLITA D. GRAY

DEPARTMENT OF POLITICAL SCIENCE

ATLANTA, GA
DECEMBER 2012
ACKNOWLEDGEMENTS

To my son, Mr. Willie C. Hooper III, Langston Hughes’ poem “Mother to Son” best describes my gratitude to you in my determination to complete this dissertation.

Well, son, I’ll tell you
Life for me ain’t been no crystal stair.
It's had tacks in it,
And splinters,
And boards torn up,
And places with no carpet on the floor.
Bare.
But all the time
I've been a-climbin' on,
And reachin' landin's,
And turnin' corners,
And sometimes goin' in the dark
Where there ain't been no light...

For empowering me to complete this journey, I give thanks to you, my son. You were the light in those places where there was none. To my father, the late Rev. Jessie L. Gray, I completely thank you for instilling in me those values of determination and perseverance that enabled me to set goals and strive each day to attain them in spite of challenges. I doubt very seriously if I could have completed this project without those values. In conclusion, I extend my humblest gratitude to my dissertation committee, Dr. William H. Boone, Dr. Glenn S. Johnson, and Dr. Lenora S. Waldner. Throughout this process, these individuals raised the bar for the goals I initially set and provided me with the tools and direction to reach them.
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13 Which of the following statements best describe your attitude towards the existence of environmental policies implemented to address the issue of asthma in your community?

14 Do you feel that minorities disproportionately suffer from environmental health hazards?

15 Do you feel that minorities disproportionately suffer from environmental health hazards?

16 Have effective public policies been implemented to address the asthma issue been effective?

17 Attitudes Toward Environmental Policies and Protection.

18 Attitudes Toward Penalties and Fines

19 Scientific versus Alternative Paradigms

20 Non-Scientific Paradigm and Paradigm Shift
LIST OF ABBREVIATIONS

CAA                  Clean Air Act
CBOs                Community-based organizations
CDC                  Center for Disease Control
CEQ                  Council on Environmental Quality
DDT                  Dichloro-diphenyl-trichloroethane
EJRC                 Environmental Justice Resource Center
EJM                  Environmental Justice Movement
ELS                  Environmental Leadership Summit
EPA                  Environment Protection Agency
LULUs                Locally unwanted land uses
MOPPE                Monitoring of Programs and Policies for Effectiveness
NEPA                 National Environmental Policy Act
NIMBY                Not in my backyard
PBBY                 Put in Blacks Backyard
PRTR                 Pollutant Release and Transfer Register
PBBY                 Place in blacks’ backyard
RCRA                 Resource Recovery and Conservation Act
TRI                  Toxic Release Inventory
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CHAPTER I
INTRODUCTION

In the United States, studies conducted by environmental scholars have shown that there is a positive correlation between persons living in close proximity to toxic waste facilities and being negatively affected by health hazards that includes cancer, asthma, and learning disabilities.\(^1\) Moreover, these studies show that people of color\(^2\) are forty-seven percent (47\%) more likely than whites to live near a toxic waste facility, be subjected to minimal policy representation and protection, and experience the health hazards associated with the spatial location to toxic waste facilities.\(^3\)

According to the Center for Disease Control and Prevention’s latest findings, asthma is increasing every year in the United States resulting in too many people having asthma. The number of people with asthma in the U.S. grew by 4.3 million from 2001 to 2009. As reported by the CDC,

- One in twelve people (about twenty-five million, or 8\% of the population) had asthma in 2009, compared with one in fourteen (about twenty million, or 7\%) in 2001.
- About one in ten children (10\%) had asthma and one in twelve adults (8\%) had asthma in 2009.

---


\(^2\)In the United States, the United Church of Christ Commission for Racial Justice, who published a 1987 study deemed as the most widely recognized study of race and the incidence of environmental hazards in the United States, defined “people of color” as the total population less non-Hispanic whites.

\(^3\)Ibid.
• About one in nine (11%) non-Hispanic blacks of all ages and about one in six (17%) of non-Hispanic black children had asthma in 2009, the highest rate among racial/ethnic groups.
• The greatest rise in asthma rates was among black children (almost a 50% increase) from 2001 through 2009.4

In the state of Georgia, the Georgia Department of Community Health’s latest findings indicate,

• Approximately 297,000 (12%) children ages zero to seventeen (0-17) years in Georgia have asthma.
• Approximately 600,000 (9%) adults in Georgia have asthma.
• Blacks were 2.7 time more likely than whites to die from asthma.5

The Center for Disease Control and Prevention has categorized the 2010 asthma data into various age groups that are below the age of eighteen as indicated in Table 1.6

TABLE 1: Child Current Asthma Prevalence Rate (Percent) and Prevalence (Number) in Georgia by Age Group

<table>
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<th>Age Group</th>
<th>Asthma Prevalence (Percent)</th>
<th>Asthma Prevalence (Number)</th>
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<td>0-4</td>
<td>6.9</td>
<td>45,184</td>
</tr>
<tr>
<td>5-9</td>
<td>13.7</td>
<td>99,946</td>
</tr>
<tr>
<td>10-14</td>
<td>6.0</td>
<td>26,349</td>
</tr>
<tr>
<td>15-17</td>
<td>10.9</td>
<td>33,373</td>
</tr>
</tbody>
</table>

Source: Center for Disease Control and Prevention

These data indicates that normative policies have not stimulated a reduction in the disproportionate occurrence of asthma among minority youth, nor have asthma occurrences remained static as a result of the enactment of policies. But, these data do


support that asthma have consistently increased among minority youth as illustrated in Figure 1.

Figure 1. Current asthma prevalence,* by age group,† sex, and race/ethnicity National Health Interview Survey, United States, 2001-2009.

Source: Center for Disease Control and Prevention

To substantiate this study, we will conduct a case study that employs a public policy analysis of five (5) groundbreaking enacted respiratory-related policies. Through this policy analysis, this researcher seeks to determine whether or not these policies have effectively addressed asthma disparities among minority youth in Georgia. In the context of this paper, we do not argue that these policies, in general, have not been effective. The term effective is incorporated to indicate the strength of the policies in addressing asthma disparity. To that end, it is our assertion that data does not support that these policies have been effective in specifically addressing the issue of asthma disparity.

Concomitantly, the research will include existing studies of the relationships of toxic pollutants and asthma to support theory of asthma disparity. The state of Georgia was chosen because it is located within the Environmental Protection Agency’s (EPA) Region IV, it is estimated that 297,000 children in Georgia age seventeen (17) and under have asthma; asthma is the primary diagnosis of children taken to emergency rooms and
is the leading cause of school absenteeism. Moreover, the Asthma and Allergy Foundation of America has listed Augusta, Georgia among the 2011 top ten “asthma capitals” in the United States and metro Atlanta has been named the “Asthma Capital of the Nation” by the Respiratory and Allergy Association.

In addition to these data, exposure to dangerous toxic pollution from industrial facilities threatens communities in Georgia and across the country, according to *Toxic Pollution and Health*, a report released by Environment Georgia. This report uses information from the federal Toxic Release Inventory (TRI) to analyze toxic pollution linked to serious health problems such as cancer, birth defects or neurological damage.

Due to an EPA action restricting the public’s right-to-know; this “Toxic Pollution and Health” report may provide one of the last complete pictures of toxic pollution in Georgia. Georgia ranked 6th in air releases of suspected Respiratory Toxicants in 2004, with over 86,000,000 pounds released overall. The largest source was the Bowen Steam-Electric Generating Plant in Cartersville, which released over 15,000,000 pounds of suspected Respiratory Toxicants to the air. Sixteen other companies around the state

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9 This report was conducted by Environment Georgia and entitled “Toxic Pollution and Health.” For a full reading of this report, please visit: https://www.environmentgeorgia.org/reports/other-issues/other-issues/toxic-pollution-and-health (accessed March 2, 2010).

10 Toxic Release Inventory (TRI) is a database containing data on disposal or other releases of over 650 toxic chemicals from thousands of U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. One of TRI’s primary purposes is to inform communities about toxic chemical releases to the environment. For a full reading of this report, please http://www.epa.gov/tri/ (accessed December 12, 2011).

11 Ibid.
released more than 1,000,000 pounds of suspected Respiratory Toxicants each. Power
plants release the most suspected Respiratory Toxicants, but paper mills also rank high on
the list of polluters in the category. As observed by Jennette Gayer, Policy Advocate
with Environment Georgia, "The Toxic Pollution and Health report confirms that
communities across Georgia are routinely put at risk by toxic pollution linked to serious
health impacts. These toxic pollutants are the worst of the worst and pose tangible threats
to public health that must be addressed."\(^{12}\)

Many studies have documented the racial gap in asthma prevalence, but few have
explained it. Those that come closest identify disparities in income, preventive care,
urban residence, and birth weight as primary explanations for the differences. However,
the findings are mixed. Some studies account completely for the disparities in relevance,
whereas others do not. The most recent studies use data from the middle to late 1990s.
Although this period corresponds to the increase in asthma prevalence since the 1980s, it
indicates little about the continued increase after 2000 and whether racial disparities
remain presently.\(^{13}\) For example, a study entitled, "Race, Socioeconomic Factors, and
Area of Residence are Associated with Asthma Prevalence,"\(^{14}\) was conducted by
Litonjua, Carey, Weiss, and Gold. In this study it states,

\(^{12}\) Environment Georgia, “New Report Links Toxic Pollution with Health Hazards as EPA Acts to
Restrict Pollution Data,” https://www.environmentamerica.org/news-releases/healthy-
communities/healthy-communities/new-report-links-toxic-pollution-and-health-hazards-as-epa-acts-to-

\(^{13}\) M. McDaniel, C. Paxson & J. Waldfogel, 2006, "Racial disparities in Childhood Asthma in the
United States: Evident From the National Health Interview Survey, 1993 to 2003, American Academy of
Pediatrics, http://www.pediatrics.aappublications.org/content/117/5/e868.full.html (accessed on January 4,
2012).

\(^{14}\) A. Litonjua, V. Carey, W. Weiss, et al., "Race, Socioeconomic Factors, and Area of Residence
Asthma prevalence in the United States has been reported to be higher in minority groups such as blacks and Hispanics. Because a disproportionate number of individuals from such minority groups are of low socioeconomic status (SES), it is unclear how much of the racial/ethnic prevalence is related to low SES. Conclusively, a large proportion of the racial/ethnic differences in asthma prevalence is explained by factors related to income, area of residence, and level of education.\(^{15}\)

Still, the U.S. Department of Health and Human Services, Office of Minority Health reports, “Compared to white children, black children have a 260% higher emergency department visit rate, a 250% higher hospitalization rate, and a 500% higher death rate from asthma; children in poor families are more likely to have ever been diagnosed with asthma. Moreover, African Americans were three times more likely to die from asthma related causes than the white population.”\(^{16}\)

Likewise, low-income populations, minorities, and children living in inner cities experience more emergency department visits, hospitalizations, and deaths due to asthma than the general population. Several studies based on metropolitan subdivisions, (i.e. Chicago and New York City), and also by State Economic Areas and postal zip codes, reveal that impoverished, non-white neighborhoods in cities, or urban/inner-city communities, have two- to ten-fold higher rates of hospitalization and death caused by childhood asthma than do adjacent non-disadvantaged neighborhoods or national norms.\(^{17}\)

The Environmental Justice Movement in the United States emerged with agendas that focused on such areas as wilderness and wildlife preservation, resource conservation,

\(^{15}\) Ibid.

pollution abatement, and population control. It was supported primarily by middle- and upper-middle-class whites. Although concern about the environment cuts across racial and class lines, environmental activism has been most pronounced among individuals who have above-average education, greater access to economic resources, and a greater sense of personal efficacy. Numerous political pundits as well as sociologists have put forth several definitions for the phrase “environmental justice.” However, for the purposes of this research, I will juxtapose two definitions coined by the United States Environmental Protection Agency and environment justice scholar, Dr. Robert D. Bullard, Ware Professor of Sociology and former director of the Environmental Justice Resource Center at Clark Atlanta University. As defined by the EPA, “Environmental justice is defined as the fair treatment of people of all races, cultures and income with respect to the development, adoption, implementation and enforcement of environmental laws, policies, and regulations.”19 The definition put forth by Dr. Bullard states, “Environmental justice seeks to answer the questions of who gets what, why, and how much in regards to environmental resources and protection of those resources in the sustainment and wellbeing of human life.”20

From this movement, Sze and London postulate,

The field of environmental justice emerged at a crossroads of social movements, public policy, and academic research, what we call environmental justice praxis. Now, the field finds itself again at a crossroads as it expands to address new populations, problems, and places. As a field that draws from and integrates theory and practice in a mutually informing dialogue, environmental justice can

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20 Ibid.
be understood as a form of social praxis. We therefore view environmental justice to be a field positioned on a crossroads: rising through the convergence of social movements, public policy, and scholarship.  

*Purpose of the Study*

The purpose of this study is to conduct an analysis of public policies that have been enacted to address the disproportionate increase in asthma among minority youth in the state of Georgia and to determine to what degree, if any, these policies have been effective in addressing this particular issue. To note, over fifteen (15) million African Americans, over eight (8) million Hispanics, and about fifty (50) percent of Asian/Pacific Islanders and Native Americans are living in communities with one or more abandoned or uncontrolled toxic waste sites.  

According to the Department of Health & Human Services Office of Minority Health, Atlanta, the capitol of Georgia, has climbed the charts to number one, leaving other big cities in its wake. Although death rates have improved, the rates worsen for ethnic minorities and women. African Americans are three times more likely to be hospitalized and die from asthma.  

The National Association of State Boards of Education (NASBE) performed an analyses of the asthma-related written policies implemented to address issues of toxic hazards and the associated health effects of all fifty (50) states as of February 2005. For the purpose of this research, this writer will concentrate on those policies that specifically address the disproportionate occurrence of asthma in minority youth living in the state of

---


Georgia. This information is collected in NASBE’s online state school health policy database at www.nasbe.org/healthschools.

Asthma-related education policies encompass a broad array of issues. This analyses shows that nearly all states have addressed asthma in at least one major policy area, but that no state has a comprehensive set of written policies. Major findings pertinent to this case study are as follows:

- Nine states have policies requiring or recommending student health examinations or assessments that help schools identify students with asthma.
- Forty states have policies on administration of prescribed medication by school staff.
- Thirty-nine states have policies addressing tobacco use in school buildings or on school property.
- Four states have policies on “tobacco-free environment” that explicitly prohibit use of tobacco by students, staff members, and school visitors on school property, in school transportation vehicles, and at school-sponsored activities.
- Twenty-three states have policies addressing indoor air quality in school buildings.
- Twenty-four state have policies on pesticide use on school grounds.

Treating asthma with medication is just one aspect of successful management of asthma. It is also essential to minimize students’ exposure to the environmental triggers (allergens
and irritants) that can increase airway inflammation and cause an asthma episode.  

**Background of the Problem**

In 1987 the United Church of Christ Commission for Racial Justice published the most widely recognized study of race and the incidence of environmental hazards in the United States. This study found that people of color, defined by the report as the total population less non-Hispanic whites, are currently forty-seven (47%) more likely than are whites to live in areas plagued by toxic pollutants.  

A 1992 study by the National Law Journal, examining government enforcement of environmental laws at 1,177 Superfund toxic waste sites concluded that “penalties under hazardous waste laws at sites having the greatest white population were about 500% higher than penalties at sites with the greatest minority population.” This same study also found that for “all the federal environmental laws aimed at protecting citizens from air, water, and waste pollution, penalties in white communities were 46% higher than in minority communities.” Many other studies focusing on other aspects of environmental regulation resulted in similar findings. According to Dr. Robert Bullard, “It's time to confront the nation's leadership with the devastating health and economic impact of unjust environmental policies. We are demanding immediate action and

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25 Hazardous-waste sites are too close for comfort in many minority communities, concludes a report by the Center for Policy Alternatives in Washington, D.C. The recent update of the well-publicized 1987 study by the United Church of Christ Commission for Racial Justice, Toxic Wastes and Race in the United States, found that the situation has worsened during the past six years. People of color--defined by the report as the total population less non-Hispanic whites--are currently 47 percent more likely than are whites to live near a commercial toxic-waste facility. *Scientific American. Toxic Waste and Race: An Unnatural Association;* December 1994; Scientific American Magazine; by Staff Editor, www.sciamdigital.com (accessed May 2, 2009).
enforcement of Title VI of the Civil Rights Act of 1964 and other equal protection laws."  

As reported by the Center for Disease Control, in 2010, most U.S. children aged 17 years and under had excellent or very good health (82%). However, fourteen percent of children had been diagnosed with asthma. Over 10 million U.S. children aged 17 years and under (14%) have ever been diagnosed with asthma; 7 million children still have asthma (10%). Non-Hispanic black children were more likely to have ever been diagnosed with asthma (21%) or to still have asthma (16%) than Hispanic (13% and 8%) or non-Hispanic white (12% and 8%) children. Children in poor families were more likely to have ever been diagnosed with asthma (17%) or to still have asthma (12%) than children in families that were not poor (12% and 8%).

According to Sayo Awosika-Olumo,

Children today face an array of exposures to potentially toxic environmental hazards. Hazardous substances such as lead, PCBs, solvents, asbestos, radon, pesticides, and air pollution have found their way into the homes, schools, and playgrounds of children. These exposures can have a significant impact on children's health and well-being: all children are at risk of developing learning disabilities, chronic and acute respiratory diseases, cancers, and illnesses caused by damage to the nervous system from hazardous substances. The key to protection is prevention. Recently there has been a dramatic shift in the recognition of children's environmental health issues in the Congress and federal agencies. In 1970, the Clean Air Act was adopted by President Nixon. In November 1996, the U.S. Environmental Protection Agency (EPA) released a

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26 Environmental Justice Resource Center. "The struggle for civil rights is not over!" EPA and local governments charged with failure to provide equal environmental protection to Blacks and other people of color." At a press conference and community briefing held on Thursday, January 13th in the Mayor's Conference Room (441 4th Street, NW) in observance of Dr. Martin Luther King, Jr.'s birthday, some of the nation's foremost experts on environmental justice and victims of environmental contamination from across the country declared a National State of Emergency on Environmental Racism and Economic Injustice, Washington, DC. 2000. www.ejrc.cau.edu (accessed February 20, 2010).

report Environmental Health Threats to Children and announced that for the first time children would be considered in all EPA risk assessment and standard-setting procedures. Adoption of a new child-centered agenda for research and risk assessment is necessary if disease in children of toxic environmental origin is to be identified, understood, controlled, and prevented. In April 1997, President Clinton signed an Executive Order on Children’s Environmental Health and Safety (#13045) requiring federal agencies to include children and their unique susceptibilities in standard-setting procedures and establishing an interagency task force to ensure coordination of regulations and research. These actions provide an important framework for protecting children. Whether they prove effective will depend on how diligently they are implemented. A lot of conferences, symposia and seminars have taken place to increase public awareness. Research has had its place and a lot of research, prevention and the policies focus on key research priority areas in the field of children's environmental health and these include asthma and respiratory diseases; childhood cancer; endocrine disorders and neurodevelopmental effects.28

Statement of the Problem

Society is furthering technology and expanding industries at the cost of creating unhealthy environments that fall disproportionately within low-income and minority communities. According to an article written by James K. Boyce, how humans interact with nature is intimately tied to how we interact with each other. Boyce examines the experiences of the wealthy as they relate to benefits and economic activities that degrade the environment and the associated disproportionate cost that negatively impact the poor and powerless. Too, Boyce poses that there is a correlation between political and economic inequalities and higher levels of environmental harm.29 Consistently, members of the ethnic minority and lower socioeconomic class are targeted with environmental, health, and safety issues.

Another concept of environmental injustice is defined by the theory that


minority communities are hit hardest by pollution and have little power over the polluters, which is postulated to be the new cause of a growing number of reconstituted civil rights and community groups. By the 1980's, researchers began to examine more closely the relationship between race, poverty, and environmental conditions. Their research included the examining of populations living in areas surrounded by toxic pollutants of various kinds and in areas with poor air quality. The data was consistent regardless of where the study was carried out; the people who live the closest to toxic waste sites and areas with a lot of air pollution are ethnic minorities and those who are poor.\textsuperscript{30}

Society is increasingly aware of the profound impact that the environment has on children's health. Not surprisingly, there is increasing public scrutiny about children's exposures to environmental hazards, especially for disadvantaged children. These trends underscore the ethical imperative to develop a framework to protect children from environmental hazards. Such a framework must include regulations to test new chemicals and other potential hazards before they are marketed, a strategy to conduct research necessary to protect children from persistent hazards that are widely dispersed in their environment, stronger regulatory mechanisms to eliminate human exposures to recognized or suspected toxicants, and guidelines about the ethical conduct of research and the role of experimental trials that test the efficacy and safety of interventions to

prevent or ameliorate children’s exposure to persistent toxicants or hazards that are widely dispersed in their environment. For the purposes of this research study, I will concentrate on policies relevant to the occurrences of asthma among minority youth who reside in the state of Georgia.

Asthma is a serious, life-threatening respiratory disease that affects over 20 million Americans. Rates of asthma have risen sharply over the past thirty years, particularly among children ages 5 to 14. Asthma severity remains higher among African American and Hispanic children, resulting in significantly reduced quality of life and potentially early death. Asthma can be aggravated by exposure to pollutant "triggers" such as certain components of vehicle exhaust and industrial emissions, air pollution, toxic pollutants, tobacco smoke, pollen and allergens from animals and insects. Moreover, disproportionate numbers of people of color and people from low income households live in these areas, and thus may be exposed to higher than average levels of toxic pollutants. These exposures may explain why roughly two out of three times as many African Americans as Caucasians die from asthma. Also, studies have shown that five times more children than adults die from asthma each year. For the purposes of this research study, I will concentrate on policies relevant to the occurrences of asthma among minority youth residing in the state of Georgia.


A study entitled, *Toxic Wastes and Race at Twenty 1987-2007*, conducted by Robert Bullard, Paul Mohai (University of Michigan), Robin Saha (University of Montana), and Beverly Wright (Dillard University of Louisiana), posits that all children, regardless of race and social economic status, deserve the basic right to clean air, water, food supply and safe environments to thrive in. According to these individuals, this study unveiled an ugly reality of the disproportionate burden that communities of color have been faced with for decades. Based upon their analysis, “What we now see is that our children have been and continue to carry the heaviest of loads when it comes to environmental injustice.”

As previously stated, the focus of this research will be within the state of Georgia; however, to support the validity of my data, I have also researched other regions as designed by the EPA. In Region II, disparities also exist in the environmental exposures that certain populations face and in the health status of these populations. For example, in New York City, African American, Hispanic, and low-income populations have been found to have hospitalization and death rates from asthma three to five times higher than those for all New York City residents. African-American children have been found to be three times more likely than white children to be hospitalized for asthma and asthma-related conditions and four to six times more likely to die from asthma.

A study entitled, “Prevalence of Childhood Asthma in Urban Communities: The Impact of Ethnicity and Income,” executed to assess the relationship between

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hospitalization rates and childhood asthma prevalence within the urban center of New
York City and to determine the role of sociodemographic factors in precipitating asthma
outcomes was conducted in randomly selected New York City public elementary schools
during the 2002-2003 school year. Approved by the Mount Sinai Institutional Review
Board, the Mount Sinai Health Insurance Portability and Accountability Act Privacy
Office, and the Proposal Review Committee of the New York City Department of
Education’s Division of Assessment and Accountability, this study’s overall response
rate was 76.9%, which was the equality of 5,250 students and it indicated that the overall
prevalence of current asthma was 13.0%. Children living in predominantly low
socioeconomic status communities had a 70% greater risk of current asthma, independent
of their own ethnicity and income level. Additionally, this study indicated that asthma
prevalence within different ethnic and income groups was consistently lower in
neighborhoods of greater socioeconomic status. This study concluded that the prevalence
of current asthma is strongly associated with attending school in a low-income
neighborhood.\textsuperscript{36}

The economic burden of asthma annually (direct and indirect) totaled more than
$16 billion nationwide. Asthma affects people of all ages, sexes, races, and ethnic groups,
but certain subpopulations are disproportionately affected. Blacks and females are more
likely to visit the ER, be hospitalized, and die from asthma than Whites and males.
Children are also disproportionately affected. This disparity is seen mostly in health care
utilization, with ER visit rates and hospitalization rates for children 2 to 3 times higher
than for adults.

\textsuperscript{36} Claudio, L., Stingone, J., Godbold, J., “Prevalence of Childhood Asthma in Urban
Communities: The Impact of Ethnicity and Income,” \textit{Elsevier, Inc.}, (New York: 2006), vol. 16, pp. 332-
340.
Blacks are three times more likely to visit the ER with asthma than Whites (947 vs. 273 per 100,000 population). Females are 1.2 times more likely to visit the ER than males (516 vs. 417 per 100,000 population). Black females have the highest ER visit rate (955 per 100,000 population) among the four major race-sex groups in Georgia. Black females are 3 times more likely to visit the ER than White females. Black males are four times more likely to visit the ER than White males.37

Among children 5 to 17 in Georgia, about 75,000 (48%) children reportedly missed 470,000 days of school due to their asthma. In addition, about 48,000 (23%) of children with asthma reportedly had "moderate" to "a lot" of activity limitation when compared to their friends over a lifetime period. When a person’s asthma is under control daily activity should not be limited.

According to the Center for Disease Control in Atlanta, Ga., more children suffer from asthma than any other chronic disease, and the proportion of children reported to have asthma, to be hospitalized for asthma, or to die of asthma has increased substantially during the last two decades. Statistics on hospitalization and mortality due to asthma demonstrate large racial discrepancies; blacks are two to three times more likely than whites to be hospitalized for or to die of this disease. Additionally, the prevalence of asthma is 26% higher among black children than among white children. The proportion of children with severe asthma is also higher among black children than among white children. Moreover, racial differences in asthma prevalence have been attributed to differences in socioeconomic status. Socioeconomic status is a composite measure of a wide variety of environmental influences, one of which is the differences in exposure

37 Ibid.
At this point, we will present information that supports a "correlation" between the disproportionate percentage of toxic pollutants in minority communities and the increased number of minority youth diagnosed with asthma. This information is used as foundational support to broaden the focus on asthma disparity and the imperativeness for public policies that directly address this disparity. Research studies have shown that some populations are at greater risk from dirty air. According to Dr. Robert D. Bullard, in a 1992 national study conducted by the National Argonne Laboratory, researchers reported that fifty-seven percent (57%) of all whites, sixty-five (65%) of all African Americans, and eighty percent (80%) of all Latinos lived in the four hundred and thirty-seven (437) counties that failed to meet at least one of the Environmental Protection Agency's ambient air quality standards. Bullard also puts forth that a 2000 study by the American Lung Association showed that children of color are disproportionately represented in areas with high ozone levels. To this end, Bullard states that over sixty-one percent (61.3%) of black children, over sixty-two percent (69.2%) of Hispanic children and over sixty-seven percent (67.7%) of Asian-American children live in areas that exceed the ozone standard of .08 parts per million, while only under fifty-one percent (50.8%) of white children live in such areas.

To add to the perennial polemic, Bullard puts forth that ground-level ozone may exacerbate health problems such as asthma, as well as, nasal congestion, throat irritation, and respiratory tract inflammation. Further, Bullard posits, "This may reduce resistance to infection, cause chest pains, lung scarring, loss of lung elasticity, formation of

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lesions within the lungs, premature aging of lung tissues, and changes in cell function.\textsuperscript{39} When considered in terms of 1) the number of children affected, 2) the nature of the impairments, 3) the immediacy of the impact, 4) the strength of the evidence and 5) the disproportionate prevalence among poor and minority children, asthma is one of the most serious environmental health concerns for children.\textsuperscript{40}

\textit{Significance of the Study}

The health of children is threatened by environmental toxic pollutants, and research supports that poor children are most at risk for these environmental hazards. Moreover, all children in every country and every community have the right to be protected against environmental threats to their health.\textsuperscript{41} To this end, many studies have found higher-than-average childhood asthma prevalence in low-income minority communities. However, it is not known what factors are the strongest contributors to the urban asthma epidemic.\textsuperscript{42} Furthermore, according to the article, \textit{Environmental Threats to Children’s Health in Southeast Asia and the Western Pacific}, “There is a critical lack of knowledge about environmental threats to children’s health as well as a critical shortage of researchers and clinicians trained in children’s environmental health.”\textsuperscript{43} This researcher seeks to identify those variables that best explain the higher-than-average


\textsuperscript{40} Environmental Health Watch, “Serious Environmental Health Concerns for Children,” Asthma/Lead Overview, \url{www.ehw.org/Asthma/ASTH-home1.htm}, (accessed June 11, 2009).


\textsuperscript{43} Ibid.
childhood asthma prevalence in low-income minority communities and to what degree environmental toxic pollutants are contributors. Moreover, what level of effectiveness are the current policies in addressing this enigma?

While a great deal of research has been conducted on risk factors associated with asthma, all of this data is not necessary to begin evaluating asthma from an environmental justice perspective. The most basic information needed that is readily available to public health agencies is age, race, location of residence, socio-economic status, and mortality. Therefore, these variables will comprise the core determinants of an evaluation of asthma as an environmental justice problem that disproportionately affect youth living in minority communities and the increase in the prevalence asthma among these youth.44 The EPA has divided the United States into ten regions. Accordingly, I will conduct my research in the contingent United States in the state of Georgia.

Research Questions

RQ (1) In the United States, does there exist a need for public policies that are specifically enacted to address asthma disparities and the disproportionate increase among minorities?

RQ (2) Have the federal government enacted specific public policies to address asthma disparities and disproportionate increase among minority youth in Georgia?

RQ (3) Have the state government enacted specific public policies to address asthma disparities and disproportionate increase among minority youth in Georgia?

RQ (4) Have these policies effectively addressed asthma disparities and disproportionate increase among minority youth in Georgia?

Definition of Terms

Adverse Effects – the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness or death; air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community’s economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons, business, farms, or nonprofit organizations; increased traffic congestion, isolation, exclusion or separation minority or low-income individuals within a given community or from the broader community; and the denial of, reduction in, or significant delay in the receipt of, benefits of programs, policies, or activities.

Disproportionately High and Adverse Effect on Minority and Low-Income Populations means an adverse effect that:

(1) is predominately borne by a minority population and/or a low-income population; or

(2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or nonlow-income population.

Environmental Health Disparities – Environmental health disparities are reflected in epidemiologic findings demonstrating that the morbidity and mortality of certain environmental health conditions are disproportionately found in population groups that live in circumstances of social and economic disadvantage. In the United States, these populations include portions of the African-American community, portions of minority immigrant communities (currently often Hispanic), and portions of the Native-American community.

Environmental Health Hazards - health hazards that can affect people in their natural environment.

Environmental Justice – Environmental justice is defined as the fair treatment of people of all races, cultures and income with respect to the development, adoption, implementation and enforcement of environmental laws, policies, and regulations. Further, it seeks to answer the questions of who gets what, why, and how much in regards to environmental resources and protection of those resources in the sustainment and wellbeing of human life.

Environmental Programs, Policies, and/or Activities – all projects, program, policies, regulations, laws, and activities that affect the environment and human health.
Fair Treatment – no group of people, including racial, ethnic, or socio-economic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

Hazard - A source of potential harm from past, current, or future exposures.

Hazardous waste - potentially harmful substances that have been released or discarded into the environment.

Low-Income - a household income at or below the Department of Health and Human Services poverty guidelines

Low-Income Population – any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons; such as migrant workers or Native Americans, who would be similarly affected by a proposed program, policy, or activity.

Meaningful involvement- means that potentially affected community residents have an appropriate opportunity to participate in decision-making about a proposed activity that will affect their environment and/or health.

Minority Population – any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons; such as, migrant workers or Native Americans, who will be similarly affected by a proposed program, policy, or activity.

Minority Youth – a person under the age of eighteen (18) who is:

(1) Black (having origins in any of the black racial groups of Africa);

(2) Hispanic (Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);

(3) Asian American (having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or

(4) American Indian and Alaskan Native (having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

Region IV – as designated by the EPA, Region IV are the states of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.
**Methodology**

The methodology employed for this research is a case study. In accord with this researcher’s findings, case study research excels at bringing us to an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research. Case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships. Researchers have used the case study research method for many years across a variety of disciplines. Social scientists, in particular, have made wide use of this qualitative research method to examine contemporary real-life situations and provide the basis for the application of ideas and extension of methods. In defining the case study as a research strategy, Robert K. Yin, author of *Case Study Research: Design and Methods*, states,

> The most frequently encountered definitions of case studies have merely repeated the types of topics to which case studies have been applied. For example, in the words of one observer, the essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result.

In putting forth this definition, Yin notes that “this definition thus cites the topic of decisions as the major focus of case studies. Similarly, other topics have been listed, including organizations, processes, programs, neighborhoods, institutions, and even events.” Further, Yin asserts that “most social science textbooks have failed to consider the case study a formal research strategy at all.” To give support to this assertion, Yin list several flaws in regards to the case study research. First, Yin states, “One common flaw was to consider the case study as the exploratory stage of some other type of research

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46 Ibid.
strategy. Secondly, Yin states, “Another common flaw was to confuse case studies with ethnographies or with participant-observer methods.” However, Yin purports that “None of these approaches has pointed to the technically critical features of the case study strategy, especially those that might distinguish case studies from other strategies. From these particular flaws, Yin proposed that a more technical definition was needed. Thus, Yin puts forth that a case study is an empirical inquiry that:

- Investigates a contemporary phenomenon within its real-life context; when
- The boundaries between phenomenon and context are not clearly evident; and in which
- Multiple sources of evidence are used.\(^\text{47}\)

Critics of the case study method believe that the study of a small number of cases can offer no grounds for establishing reliability or generality of findings. Others feel that the intense exposure to study of the case biases the findings. Some dismiss case study research as useful only as an exploratory tool. Yet researchers continue to use the case study research method with success in carefully planned and crafted studies of real-life situations, issues, and problems. Reports on case studies from many disciplines are widely available in the literature.\(^\text{48}\) To that end, this researcher agrees with this assessment and will determine her findings through case study research.

Triangulation refers to the use of more than one approach to the investigation of a research question in order to enhance confidence in the ensuing findings. Since much


social research is founded on the use of a single research method and as such may suffer from limitations associated with that method or from the specific application of it, triangulation offers the prospect of enhanced confidence. As such, the operative measures within the case study that we will execute will be a triangulation of techniques, which are gathering qualitative and quantitative data, conducting interviews, gathering and analyzing empirical data, execution of survey instruments, and an historical path analysis. Quantitative data will be utilized to support the qualitative data. Specifically, we will collaborate with environmental activists, community-based organizations (CBOs), medical officials, and visit specific communities of color that have been negatively affected by toxic pollutants and have a disproportionate percentage of youth who has asthma. Also, we will gather research from previous studies regarding the correlation between environmental justice and asthma.

This work is a qualitative case study that seeks to illuminate complex political issues on the subject of governmental actions in policy creation. This complexity composes a multidisciplinary framework that engages political, sociological, and economical factors. According to Yin, “The case study research methodology excels at bringing us to an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research.” Analogously, this case study focuses on public policies enacted to address asthma disparities among minority youth in Georgia by means of the exploitation of existing studies that support

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49 Alan Bryman, Professor of Social Research, Department of Social Sciences, Loughborough University, Loughborough, Leicestershire LE11 3T, United Kingdom, A.E.Bryman@lboro.ac.uk. (accessed December 12, 2011).

50 Ibid.
the linkage of exposure of toxic pollutants and asthma. Further, this case study is used to investigate members of society perception of the necessity of asthma-related public policies, the effectiveness of such policies, and governmental roles and actions in regards to policy creation involving asthma disparities. Yin agrees that the utilization of case studies in this manner can be efficient, as indicated by his definition of case studies as “An empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used.”

Discussion and Implications of Findings

Even though comparable studies have been done in the past that support the existence and health problems associated with Environmental Justice, variations exist in these findings. Nevertheless, the ubiquitous facts based upon the findings of the salient data allows for more accurate measurability. In addition, the review of literature sustains that there exists a significant correlation between toxic hazards proximity and numerous occurrences of health hazards. Even though policies that address environmental health hazards exist, data indicates that asthma has epidemically increased over the past several years. Moreover, agencies, such as the Center for Disease Control and Prevention (CDC) and the Environmental Protection Agency (EPA), reports that asthma have higher occurrences in minorities.

Persons living in black and minority neighborhoods and communities are consistently and systematically being exposed to environmental hazardous toxic pollutants, the health problems associated with the exposure to these pollutants, and are

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51 Ibid., Yin
constantly subjected to minimal political representation in environmental policy-making and protection.

A review of data reported to the EPA's Toxics Release Inventory (TRI) demonstrates the degree to which toxic substances with links to serious health problems are released into our communities and highlights which industry sectors and companies are responsible for the bulk of toxic pollution. More importantly, these data demonstrate the need for more and better information about chemical toxicity, the release of toxics into the environment, and the links between toxic chemicals and the development of chronic disease.52

Theoretical Framework

This researcher will employ the Environmental Justice Framework as the fundamental paradigm for this research. This framework incorporates five components:

1) The right of all people to be protected from environmental degradation,

2) Adopts the public health model of prevention (eliminate threat before the harm occurs,

3) Environmental Justice uses the effect test as opposed to the intent test when determining injustice inferring discrimination,

4) Places the burden of proof on the polluters, or those who do harm to low-income victims to ensure fair treatment, and

5) Redresses disproportionate impact through target "actions" and resources.

Also, environmental justice is the right to a safe, healthy, sustainable environment. As part of my research, I would add to this framework a sixth element: Monitoring Of

Programs and Policies for Effectiveness (MOPPE) of these "actions" and resources to ensure their effectively addressing negatively impacted individuals. To embellish this environmental justice theoretical framework, we will utilize research based upon a report submitted by the governments of Canada, Mexico, and the United States of America. As noted in this report entitled, *Children's Health and the Environment in North America*, despite improvements on many fronts, our children remain at risk from environmental threats.

Juxtaposed to the environmental justice framework, a public policy framework will also be included for this case study. As defined by Thomas R. Dye, "Public policy is whatever governments choose to do or not to do." To identify more fully with public policy, we will first discuss political science, the discipline that encompasses public policy. Like other disciplines, political science has developed a number of concepts and models to help describe and explain political life. Each focuses on separate elements of politics, and each helps us understand different things about political life. However, there is a political discourse that raises the question, "Is there a science of Politics?"

Subscribing to that discourse, various scholars have discussed political science in a contextual manner. Aristotle, credited as being the founder of the discipline of politics, called politics the master science, meaning that almost everything happens in a political context. Politics, in the words of Yale's Harold Lasswell, is the study of who gets what.

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53 The full text of this document can be found at: http://www.ccc.org/Page.asp?PageID=30107&ContentID=&SiteNodeID=477&BL_ExpandID=.


Thomas Dye writes that political science is the study of politics, the study of who gets what, when, and how.\textsuperscript{56} Because almost everything is political, political science is considered to be interdisciplinary because it overlaps with all of the other social sciences. Fundamental to political science are three basic concepts: 1) legitimacy, which refers to an attitude in people's minds that government's rule is rightful 2) sovereignty, which refers to national control over the country's territory and authority 3) authority, which is the psychological ability of leaders to get others to obey them.\textsuperscript{57}

Detailing the discourse, it poses "If we cannot pinpoint which factors contribute what weight to politics, how can politics be a science?" It asserts that the original meaning of science, from the French, is simply knowledge. Later, the natural sciences, which rely on measurement and calculation, took over the term. Like natural scientists, some political scientists quantify data and manipulate them statistically to validate hypotheses, e.g. public opinion, election returns, and congressional voting. But, large areas of politics are not quantifiable e.g. how decisions are made or why some members of Congress vote a certain way. To this end, political science is an empirical science that accumulates both quantified and qualitative data. With such data we can find persistent patterns. Gradually, we begin to generalize. When the generalizations become firmer, we call them theories. In a few cases, the theories become so firm that we may


call term laws. In this way, the study of politics accumulates knowledge, the original meaning of science.\textsuperscript{58}

This research will focus on public policy analysis. Stated most simply, public policy is the sum of government activities whether pursued directly or through agents, as those activities have an influence on the lives of citizens. Operating within that definition, we can distinguish three separate levels of policy defined by the degree to which they make real differences in the lives of citizens. At the first level, we have policy choices, which are decisions made by politicians, civil servants, or others granted authority and directed toward using public power to affect the lives of citizens. At the second level, we can speak of policy outputs, which are policy choices being put into actions. Here the government is actually doing things, e.g. spending or promulgating regulations that are designed to affect the economy and society. At the third level, we have policy impacts, which are the effects that policy choices and policy outputs have on citizens, such as, decreasing toxic pollutants.\textsuperscript{59} As an example, ideal public policy levels germane to this study are pictorially indicated in figure 2.


Several aspects of public policy require some explanation. First, although we are focusing on the central government in Washington, we must always remember that the United States is a federal system of government in which a large number of subnational governments also make decisions. Even when they attempt to cooperate, those levels of government often experience conflicts over policy. Second, not all government policies are implemented by government employees. Many are actually implemented by private organizations or by individual citizens. As government has begun to utilize an increasing number of alternative mechanisms, such as contracts, for implementation, these private-sector providers are becoming increasingly important actors in delivering public policy. Third, we are concentrating on the effects of government choices on the lives of individuals within the society. The word policy is commonly used in a number of ways.
In one usage it denotes a stated intent of government, as expressed in a piece of legislation or a presidential speech. Few policy choices are decided and executed by a single organization or even a single level of government. Instead, policies, in terms of their effects on the public, emerge from a large number of programs, legislative intentions, and organizational interactions that affect the daily lives of citizens.⁶⁰

The use of the law is a unique resource of government and one of the governmental instruments of public policy. Laws are used as the means of producing the most important outputs of government: rights, i.e. the passage of the Voting Rights Act of 1965 and The American with Disabilities Act (1990). Second, the United States uses laws to regulate economic and social conditions to a greater extent than do most countries, i.e. lower levels of taxing and spending. Third, laws can be used to created burdens as well as benefits, i.e. environmental laws satisfy conservationists but often impose cost on businesses. Other governmental instruments of public policy include services, money, and taxes; however, law was highlighted due to the research focus of this paper.⁶¹

Several characteristics of the political and socioeconomic environment in the United States influence the nature of policies adopted and the effects of those policies on citizens. Policy is not constructed in a vacuum; it is the result of the interaction of these background factors with the desires and decisions of those who make policies. Neither individual decision makers nor the nature of the system appears capable alone of


⁶¹ Ibid.
explaining policy outcomes. Instead, policy emergences from the interaction of a large number of forces, many of which are beyond the control of decision makers.\textsuperscript{62}

Policy analysis is finding out what governments do, why they do it, and what difference, if any, it makes. Thus, policy analysis involves the description of public policy, which is what government is doing, or not doing. Policy analysis also involves inquiring about the cause, or determinants, of public policies by asking why is public policy what it is? Or, why do governments do what they do? Finally, policy analysis involves inquiring about the consequences, or impacts, of public policy, which is often referred to as policy evaluation. Is this evaluation, we as what difference, if any, does public policy make in people’s lives? \textsuperscript{63}

Defined as a “simplified representation of some aspect of the real world, the models used to study public policies are conceptual models that:

- Simplify and clarify our thinking about politics and public policy
- Identify important aspects of policy problems
- Help us to communicate with each other by focusing on essential features of political life
- Direct our efforts to understand public policy better by suggesting what is important and what is unimportant
- Suggest explanation for public policy and predict its consequences.\textsuperscript{64}


\textsuperscript{64} Ibid at 11.
Although there are several models, this researcher will incorporate the Process, Elite, and Public Choice models as the theoretical underpinnings for the analysis of the public policies germane to the study. As explained by Dye, the Process theory model incorporates a set of policy processes, which usually follow this general outline:

- **Problem Identification.** The identification of policy problems through demands for government action.

- **Agenda Setting.** Focusing the attention of the mass media and public officials on specific public problems to decide what will be decided.

- **Policy Formulation.** The development of policy proposals by interest groups, White House staff, congressional committees, and think tanks.

- **Policy Legitimation.** The selection and enactment of policies through political actions by Congress, the president, and the courts.

- **Policy Implementation.** The implementation of policies through organized bureaucracies, public expenditures, and the activities of executive agencies.

- **Policy Evaluation.** The evaluation of policies by government agencies themselves, outside consultants, the press, and the public.

In short, one can view the policy process as a series of political activities.

The elite theory model, according to Dye, purports that policy may also be viewed as the preferences of a governing elite. This theory further suggests that the people are apathetic and ill informed about public policy, that elites actually shape mass opinion on policy questions more that masses shape elite opinion. The Public Choice theory model is identified as “policy as collective decision making by self-interested individuals.” This particular model challenges the notion that individuals act differently in politics than they
do in the marketplace. It further assumes that all political actors (taxpayers, voters, candidates, legislators, bureaucrats, interest groups, parties, bureaucracies, and governments), seek to maximize their personal benefits in politics as well as in the marketplace. Although several public policies that address asthma directly or indirectly will be discussed in the literature, only specific policies will be examined and are represented in Table 2. The examination of these policies will be based upon the policies' nexus of the linkage between toxic dumps and the occurrence of asthma in minority youth. These policies were chosen based upon information gathered during the fact finding process of this case study. Under these particular paradigms, I will go forward with my research.

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65 Ibid at 8.
In the area of air quality and respiratory health, childhood asthma continues to increase across North America; a level of ozone and particulate matter remains a problem. Moreover, US data suggest that certain minority groups are disproportionately affected.” This report puts forth that indicators play a key role in informing us about this status of an issue, encouraging actions and tracking progress towards stated goals; however, it is much less common that indicators are utilize to inform us about the environmental health challenges facing our children. In this report, these indicators are divided into three thematic areas, asthma being included as one of the crucial areas. My research will include an examination of the problems and policies presented in this report, as they relate to the United States.

According to the report, *Children’s Health and the Environment in North America*, in June 2002, the Council of the Commission for Environmental Cooperation (CEC) of North America adopted, through Resolution 02-06, the *Cooperative Agenda for Children’s Health and the Environment in North America*. This report asserts that in 2003, US children numbered almost 76 million, or nearly 26 percent of the total
population and the US have a high rate of urbanization, with the majority of its population living in cities. Also, the US infant mortality rate was 6.9 deaths per 1000 live births and the primary reason for hospitalization in children was respiratory conditions. Specifically in support of this research, this report puts forth that asthma is a major cause of child hospitalization and is the most common chronic disease of childhood in North America. Over the period 1980 to 1995, the percentage of children with asthma doubled. In 2003, 13 percent of American children had been diagnosed with asthma at some point in their lives. For the inter-correlation of the variables regarding this study, this reports further states that there are 153 chemicals for which the US government requires industrial facilities to report their releases and transfers to the national Pollutant Release and Transfer Register (PRTR) programs over the period of 1998-2002. With the aim of tracking progress in reducing or preventing the release of such chemicals from industrial activities, this PRTR data-based indicator present trends in on-site releases to areas, which include land and underground injection as well as in off-site releases, primarily off-site disposal in landfills.66

Fundamentally, all people, regardless of race, color, national origin, or income; with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies, has a right to fair treatment and meaningful involvement. Based upon that particular strand, the tenets of the Principles of Environmental Leadership coined and adopted by the Environmental Leadership Summit (ELS) will also be employed. Those pertinent to this case study are:

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(1) Environmental justice demands that public policy be based on mutual respect and justice for all peoples, free from any form of discrimination or bias.

(2) Environmental justice calls for universal protection from nuclear testing, extraction, production and disposal of toxic/hazardous wastes and poisons and nuclear testing that threaten the fundamental right to clean air, land, water, and food.

(3) Environmental justice affirms the fundamental right to political, economic, cultural and environmental self-determination of all peoples.

(4) Environmental justice demands the cessation of the production of all toxins, hazardous wastes, and radioactive materials, and that all past and current producers be held strictly accountable to the people for detoxification and the containment at the point of production.

(5) Environmental justice demands the right to participate as equal partners at every level of decision-making including needs assessment, planning, implementation, enforcement and evaluation.


(7) Environmental justice affirms the need for urban and rural ecological policies to clean up and rebuild our cities and rural areas in balance with nature, honoring the cultural integrity of all our communities, and providing fair access for all to the full range of resources.

(8) Environmental justice requires that we, as individuals, make personal and consumer choices to consume as little of Mother Earth's resources and to produce as little waste as possible; and make the conscious decision to challenge and reprioritize our lifestyles to insure the health of the natural world for present and future generations.67

67 These principles were adopted by the Environmental Leadership Summit during The First National People of Color Environmental Leadership Summit, held in 1991 in Washington, DC. This Summit was viewed as probably the single most important event in the environmental justice movement short history. The First Summit galvanized people of color around environmental and economic justice and health issues as basic civil and human rights. and became what is now its Preamble, which states We the people of color, gathered together at this multinational People of Color Environmental Leadership Summit, to begin to build a national and international movement of all peoples of color to fight the destruction and taking of our lands and communities, do hereby re-establish our spiritual interdependence to the sacredness of our Mother Earth; to respect and celebrate each of our cultures, languages and beliefs about the natural world and our roles in healing ourselves; to insure environmental justice; to promote economic alternatives which would contribute to the development of environmentally safe livelihoods; and, to secure our political, economic and cultural liberation that has been denied for over 500 years of colonization and oppression, resulting in the poisoning of our communities and land and the genocide of our peoples, do affirm and adopt these Principles of Environmental Justice, http://www.ejrc.cau.edu/EJSUMMITWelcome.html.
Based upon my review of the literature, minimal research has been conducted to ascertain the effectiveness of current policies implemented to address the disproportionate occurrence of asthma among black, Hispanic, and Native American youth living in communities proximal to toxic dumps. However, the problems presented in my research supports that more research is needed to address this issue. Therefore, these issues will provide the theoretical framework for my research. This researcher hopes to provide an analysis of the effectiveness of the current policies regarding the correlation between toxic dumps and the disproportionate occurrence of asthma among minority youth to put forth recommendations to maintain, change, or eliminate current policies where it necessitates such actions.

Limitations of the study

Many states, especially those with high levels of toxic releases, fail to adequately track cases of cancer, birth defects, asthma and other chronic diseases. Only three states, California, Iowa and Massachusetts possess cancer and birth defects registries that meet the highest standards for quality as well as any system at all for the tracking of asthma cases. As a result, researchers, health officials, and the public cannot adequately determine whether disease rates show patterns reflecting the release of high quantities of chemical linked to those diseases. Likewise, a recent report by the Center for Disease Control recognizes many of these same issues claiming that the measurement of an environmental chemical in a person’s blood or urine does not by itself mean that the chemical causes diseases. For any particular community, understanding the potential

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health threats that could result from toxic releases is a nearly impossible task. Public health officials often lack sufficient understanding of how citizens have been exposed to toxic substances, how those substances work within the body, and how many people have contracted chronic disease.69

Various organizations collect and analyze information about state policies. Summaries from these disparate sources of data do not always match. Upon careful examination, different results can often be attributed to differences of methodology, timeframe, interpretation, or the ambiguities inherent to any discussion of policy and practice.70 Therefore, this researcher posits that the possible occurrences of Type I and Type II errors exist and these type errors can negatively impact the external validity of this study.

Gathering information that accurately reflects the number of minority youth that actually have asthma may not be obtained with any significant level of ease. Individuals may be reluctant to provide the contents of their medical records, medical officials are not legally authorized to disseminate individuals’ medical condition or any information contained in their medical records. Moreover, death records for which asthma was recorded as the underlying cause of death were obtained from the mortality component of NVSS (21). Under ICD-9, which was used during 1979--1998, asthma was coded as 493 (4). Under ICD-10, which has been used since 1999, asthma is coded as J45 and J46 (5). Changes in ICD affected the comparability of data coded according to the different


revisions. The asthma comparability ratio for the entire population was 0.89, which indicated that 11% of the decline in asthma mortality from 1998 to 1999 was a result of the ICD revision (28). In this report, average annual deaths and death rates for the 3-year period 2001--2003 with asthma as the underlying cause are presented for detailed demographic groups. Asthma deaths and death rates are shown for 5-year intervals during 1980--1995 and for single years during 2000--2004.71

Contribution to the Field

A number of studies have researched factors contributing to the existence of Environmental Injustice. Efforts of these studies have supported that this issue is a problem that negatively affects society. Further, studies have provided statistical, empirical, qualitative and quantitative data that support the claim of Environmental Injustices and the associated health hazards. However, minimal research has been done to evaluate the effectiveness of the current policies that have been implemented to obviate the health risks associated with chronic low-level exposures to hazardous substances and asthma, resulting in an inability to evaluate the epidemically high increase in asthma among minority youth residing in communities of color.72 This researcher seeks to evaluate the effectiveness of current environmental policies and practices that are implemented to address such occurrences and to improve the science and political representation regarding increase in asthma among minority youth who reside in the state of Georgia.73 As a result of this case study, we seek to improve the education of targeted demographics regarding the policies and


73 Ibid.
procedures, rules and regulations in regards to the siting of toxic waste dumps in efforts to decrease the percentage of the occurrence of asthma among minority youth who resides in the state of Georgia.

A new framework to protect children from environmental hazards is an ethical imperative. Given the increasing evidence linking children’s exposures to environmental hazards with adverse health consequences, a framework to protect children from environment hazards must include regulations to test new chemicals and other potential hazards before they are marketed. It must include a strategy to conduct research necessary to protect children from persistent hazards that are widely dispersed in their environment. It must provide a regulatory mechanism to implement policy that will eliminate human exposures to recognized and suspected toxicants. Finally, it must contain guidelines about the ethical conduct of research and the role of experimental trials that test the efficacy and safety of interventions to prevent or ameliorate children’s exposure to persistent toxicants. Through this case study, we seek to contribute an in-depth analysis of such policies as a contribution to the field of political science and magnify the need for more policies that effectively address asthma disparities and disproportionate increase among minorities.

Conclusion

Having clarified my hypotheses and research questions, it is my conclusion that the information needed to answer these questions is obtainable. Moreover, having done so, it is now possible to state more precisely the conclusion I seek. Environmental Injustice is defined by the theory that minority communities are hit hardest by pollution and have little power over the polluters, which is postulated to be the new cause of a
growing number of reconstituted civil rights and community groups. Moreover, environmental racism is the quintessence of policies, practices or directives that differentially affects or disadvantages (whether intended or unintended) individuals, groups, or communities based on race or color.\textsuperscript{74}

Persons living in low-income neighborhoods and communities are consistently and systematically subjected to minimal political representation in environmental policy-making, constantly being exposed to environmental hazards, and being the most underrepresented in environmental policy-making. As a consequence, the residents of these communities suffer shorter life spans, epidemically increases in asthma, higher infant and adult mortality, poor health, poverty, diminished economic opportunities, substandard housing, and an overall degraded quality of life.\textsuperscript{75}

Asthma is a chronic, life-threatening respiratory disease that affects over twenty million Americans. Rates of asthma have risen sharply over the past thirty years, particularly among minority youth; even though, asthma-related public policies exist. Notwithstanding, this case study will be conducted in Region IV, state of Georgia; however, this researcher acknowledges that there should be consistent and systemic advocacy for public policies that effectively reduce the disproportionate occurrence of asthma among minority youth in general.

In addition to these measures, the formulation of partnerships with national organizations and federal agencies to implement community-based outreach, education, and health care Initiatives will also be sought. Lastly, we should seek to gain an

\textsuperscript{74} This definition was coined by Robert Bullard, a sociologist who is considered to the leading academic activist on environmental justice issues.

understanding as to how toxic pollutants can affect asthma and how to prevent asthma episodes by reducing and/or eliminating exposure to toxic pollutants for all communities.76

To present cogent arguments as to the efficacy of current policies in addressing the asthma issue investigated in this case study, other variables will be explored: 1) Theories upon which policies were constructed. Namely, this study examines the elite theory, the group theory, and the process theory. 2) The types of power exercised in policy-making decision by the policy makers, i.e. force, manipulation, persuasion, and exchange. 3) The models utilized in policy examination. 4) The issues of underrepresentation of minorities in policy-making decisions, 5) Environmental Justice issues regarding the need for asthma-related policies, and 6) Policy implementation.

Arguments presented in this study suggest that public policies are written ambiguously so that they may be broadly applied to a multiplicity of issues; thus, impacting the efficacy of the policy in addressing distinguishing issues. For instance, asthma is not specifically identified within these policies; however, it can be construed under the broad usage of the terms “environmental health hazards” or respiratory diseases.” Other arguments put forth that descriptive representation is not synonymous with the creation of effective policies for the represented group. Supplementing these arguments, we will paraphrase a statement posited by Dr. Leora Waldner, in her work, “Regional Plans, Local Fates? The Influence of the 1976 and 1985 Atlanta Regional Development Plans on Local Government Policy,” where she asserts, “Where a supportive constituency is absent or weak, where there is no supplemental state or federal

pressure, and where costs are unclear, diffuse, or imposed on parties beyond the local government, local governments do not voluntarily adopt specific policies."77

Organization of the Study

The case study research is composed of six (6) chapters. Chapter 1 outlines the direction and constitution of the study. Moreover, chapter 1 highlights the key elements of the study, which include: 1) An introduction of the study, 2) the stated problem to be researched, 3) the research questions for which answered are sought, 4) the purpose of the study, 5) major concepts and technical terms germane to the study, 6) assumptions formulated by the researcher, 7) the methodology employed, 8) the major variables studied, and 9) the significance and limitations of the study. Chapter 2 is a review of the literature relevant to this case study. This chapter is designed to present previous works that addresses the problem being studied in this study, findings of comparable studies, and subsequent outcomes. As this study deals with public policies, this chapter will also include historical as well as current literature on relative public policies and programs. Chapter 3 is the theoretical framework. This chapter includes the formulated theories by which this research will be examined. Chapter 4 is an analysis of public policies as they relate to the asthma disparities. This section presents the crux of the case study by presenting evidence that support this correlation. Chapter 5 provides an analysis of the data collected, and chapter 6 details the conclusions and summary of the case study. Also, chapter 6 provides recommendations and implications as determined by the research findings of the study.

CHAPTER II

LITERATURE REVIEW

Numerous studies have been conducted that test the myriad of theories regarding the existence and prevalence of environmental injustices, the underrepresentation of minorities in federal and state government environmental policies and protection, and the disproportionate impact on minorities in regards to the associated environmental health hazards. Therefore, we do not seek to add to those perennial arguments. However, we seek to extend those arguments through the conduction of this case study based upon an analysis of public policies enacted to address asthma disparities and disproportionate occurrence among minority youth in the state of Georgia. It is this researcher’s position that although current asthma-related public policies were well-intentioned when initially enacted; these policies do not adequately address the issue of asthma disparities among minorities.

To provide a foundational premise, this literature review incorporates historical and current documents, legislation, books, scholarly journals, and articles that directly support the research questions that guide this study. The geographical focus of this case study is Region IV, state of Georgia; however, data regarding other regions will be presented that extends those demarcations. Throughout this case study, we consulted numerous studies and have carefully selected specific works to be included in this literature review.

According to Thomas R. Dye, public policy is defined as “whatever government
chooses to do or not to do." In his book, *Understanding Public Policy*, Dye puts forth that to analyze policy, one has to be concerned "with what governments do, why they do it, and what difference it makes. Moreover, Dye asserts that understanding policy is also about political science and the ability of this academic discipline to describe, analyze, and explain public policy. First, in describing public policy, we can learn what government is doing and not doing in welfare, defense, education, civil rights, health, the environment, taxation, and so on. Second, we can inquire about the causes, or determinants of public policy. Why is public policy what it is? Why governments do what they do? Third, we can inquire about the consequences or impact of public policy. What difference, if any, does public policy make in people’s lives? As such, answering these questions will serve as the lifeblood of this case study in describing, analyzing, and explaining the effectiveness of current public policies geared towards addressing the disproportionate occurrence of asthma among minority youth residing in Georgia.¹

Dyes’ assessment of public policy is couched from a political perspective. However, this research also includes a social strand in that this research asserts that toxic dumps are disproportionately located in minority neighborhoods, which reaches the consideration of a “social problem.” To that extent, this “social problem” strand will be compartmentalized within research. Thus, environmental sociology involves the exploration of two distinct ideologies: sociology and environment. It is a field of study that seeks to ascertain a better understanding of the interaction experienced between humans and nature. Specifically, environmental sociology focuses on how humans manipulate their environment. Environmental sociologists study the factors that cause

environmental problems, the societal impacts of those problems and actions needed to solve the problems.  

In his work entitled, Social Science and Public Policy, Martin Rein juxtaposes social science and public policy in his statement, “One link between social science and policy being the inherent cognitive and methodological criteria social scientists, as scientists, apply to the conduct of policy-oriented research.” Further, Rein states that most social scientists take for granted the view that knowledge about reality influences the ideals we hold. Also, if one assumes that there is a link between what is truthful (factual) and what is right (desirable), factual analysis must also improve the quality of policy decisions. Governments should therefore invest in policy-oriented research, because such analyses can broaden consensus by expanding the factual bases on which policy is built. In his writing, Rein discusses the handling of policy issues in a skeptical manner. He asserts, “If we are not realistic in regards to policy questions, we are likely to fail, to blind ourselves to consequences, and to rationalize illusions as achievement.”

Too, “Since social priorities reflect the developing and evolving conditions of society, social policy should be continually re-evaluated as these goals and priorities change.

Dr. Glenn S. Johnson speaks to the nexus between social problems and public policies as well. In his article, “Grassroots Activism in Louisiana,” Johnson writes,

The environmental justice paradigm (a framework which incorporates the principle of the right of all individuals to be protected from environmental

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4 Ibid.
degradation) embraces a holistic approach in formulating environmental health policies and regulations, developing risk reduction strategies for multiple, cumulative and synergistic risks, ensuring public health, enhancing of public participation in environmental decision-making, promoting community empowerment, and building infrastructure.5

In their article, “Environmental Problems Require Social Solutions,” Deborah McCarthy and Leslie King put forth that environment sociologists state that “the environment encompasses the most remote regions of the earth as well as all the bits and pieces of our daily lives. Furthermore, sociologists assume first and foremost, that humans are part of the environment and that the environment and society can only be fully understood in relation to each.” McCarthy and King posit that “environmental problems cause social problems” and their research indicates that there is an interconnectedness of ecological problems with social problems.” Like Johnson, these authors identify that there exists a connection between social issues and public policies. To this point, McCarthy and King state, “There is a nexus between social inequality and environmental degradation, the impact of which effects broader social issues such as democracy, inequality, and economics.”6 Extensively, the work of the CDC’s National Center for Environment Health (NCEH) for Toxic Substances and Disease Registry (ATSDR) focuses on the unique relationship between humans and the environment, and ways in which the environment impacts health. The shared mission of NCEH/ATSDR is to serve the public through responsive public health actions to promote healthy and safe environments and prevent harmful exposures. Issues range from identifying and addressing health risks


related to hazardous substances, to developing an understanding of how the design of our communities impacts health.\textsuperscript{7}

James K. Boyce’s writings parallel that of other scholars in regards to environmental policy inequity. Consistently, Boyce states, “There exists inequity in the creation and implementation of environmental policies and this inequity presents a negative effect on the environment.”\textsuperscript{8} As a title for one of his works, he asks the question, “Is Inequality Bad for the Environment?” In this article, he states that “even in cases of environmental harm from which there is no escape, i.e. widely dispersed pollutants, those who are relatively poor and powerless tend to be most vulnerable. Further, he formulates several hypotheses, one of which postulates that “more inequality causes more environmental harm overall.” Boyce composes his observations of these occurrences through the lens of market, power, wealth, and poverty. Inequalities of wealth and power could have two opposing effects. When the beneficiaries from environmentally harmful activities are more powerful than those who bear their costs, greater inequality can be expected to result in more environmental harm. However, Boyce extends this point through his observation, “On the other hand, when those who bear the costs are more powerful than the beneficiaries, we might expect the opposite: greater inequality yields less environmental harm.”\textsuperscript{9}

Research regarding environmental policies and social equality permeates this literature review as we seek to amplify the convergence of public policy and social justice.


\textsuperscript{9} Ibid.
as the crux of this case study. Likewise, Julie Sze and Jonathan K. London, authors of "Environmental Justice at the Crossroads," state that public policy was infused into the emergence of the field of environmental justice. They metaphorically refer to this environmental justice praxis as a "crossroad" of social movements, public policy and academic research. Sze and London put forth, "At the current moment, environmental justice, as an analytic and political term, has come to subsume and absorb both, environmental racism and environmental inequality, as well as broader notions of environmental politics." 10 Further, Sze and London state, "The first generation of environmental justice research was focused on particular social problems and in social movements contexts, and the research was done with an explicit focus on critiquing and changing public policy."11 Moreover, Sze and London assert, "In response to pressure from social movements and informed by research, government agencies have also incorporated environmental justice as a basis for public policy in the federal, state, regional, and even local levels.12 Grassroots have organized, educated, and empowered themselves to improve the way government regulations and environmental policies are administered.13 Peter Bondanella and Mark Musa, in their autobiography of Niccolò Machiavelli states that Machiavelli observed, "If we are determined to make our way into the political realm, as he hopes any noble spirit would be, he warns us to do so armed

11 Ibid. at 1333
12 Ibid. at 1334
with the attributes of ‘the fox and the lion,’ and not as ‘unarmed prophets’ who fail for lack of the power to enforce belief or ideals.”  

Indeed, this study seeks to determine, with a significant level of confidence, whether or not federal and/or state governments have enacted certain environmental policies to effectively address the disproportionate occurrence of asthma among minority youth residing in the state of Georgia. Comparatively, Theodore S. Glickman purports, “To remedy existing or potential environmental inequities, they must first be identified and measured.” Glickman goes on to say, 

While this process goes on, the policies and practices that have permitted or encouraged such problems to develop in the first place must begin to be changed. The concern here, however, is with deciding which case of environmental inequity are the most serious ones and which ones should be given the highest priority. To support these decisions, equity determinations need to be made by evaluating the difference between the risk to the parties of concern and the risk to the rest of the population. Then priorities need to be set by jointly considering the magnitudes of the disparities and the costs of reducing them.

Fundamentally, this research is based on the disparities of toxic dumps being disproportionately placed in minority neighborhoods, the correlative negative impact of asthma on minority youth residing in Georgia; and to a significant degree, determine if current polices effectively address this disparity.

Within the context of environmental health policies, according to the Center for Disease Control and Prevention (CDC), law is a foundational public health tool for disease prevention and health promotion. For many traditional public health problems,


16 Ibid.
both acute and chronic, the role of law has been crucial in attaining public health goals, both framing and complementing the roles of epidemiology and laboratory science. Many of the great successes claimed by public health, such as childhood immunization rates, improved motor vehicle safety, safer workplaces, and reduced tooth decay, have relied heavily on law. Recently, law has played a fundamental role in the control and prevention of emerging health problems such as SARS and the threat of pandemic influenza.

The CDC Director established the Public Health Law Program in 2000, following consultations with CDC programs and extramural partners, to lead the agency’s public health law initiative. The Program’s mission is to advance the public’s health through law. Some of the objectives of the program are to:

1. Develop practical, law-centered tools for practitioners and policy makers in all relevant sectors,

2. Engage practitioners and policy makers in identifying priorities and in developing and applying legal tools, and

3. Establish partnerships linking CDC and all partners active in public health law.

The law-based tools developed by the Public Health Law Program enable CDC programs and front-line public health professionals and policy makers to make such advances as:

1. Identifying promising new tools for prevention of obesity and other chronic diseases, and

2. Mobilizing and focusing new resources on the nation’s public health priorities through collaboration with established partners as well as wit such novel and
unconventional partners as elected state and local officials, the private bar, law enforcement, and the judiciary.

Further, this Public Health Law Program collaborates with a growing number of colleagues in many disciplines. These include public health policy makers as well as researchers and educators.17

On April 25 – 27, 2011, Dillard University University/Deep South Center for Environmental Justice hosted its first Historically Black Colleges and University (HBCU) Environmental Health and Safety Compliance Symposium. As one of several keynote speakers of this Symposium, Dr. Benjamin Chavis, world renowned for his environmental justice struggles dating back to the 1980s, presented his work entitled, “Environmental Justice 2011: Compliance and Empowerment.” Dr. Chavis stated:

Not being well informed concerning environmental compliance laws could cost us our health, wealth, and community. As we embrace the new green economy, African Americans should be involved in the decision making process. We have a stake in how our communities will move forward. In order to be successful, we must achieve both environmental and economic justice. We should determine what the laws are and be involved in defining our own reality.18

Although the purpose of this symposium was to address the needs of New Orleans and the Gulf Cost post the 2005 Hurricane Katrina, we chose to include this information as part of this research because of its external validity in regards to the state of Georgia and support of this case study. In this symposium, the necessity for polices and laws that specifically addresses minority needs in terms of environmental health and the


18Deep South Center for Environmental Justice, Making Environmental Health and Safety Compliance a Priority at HBCUs Symposium, Dillard University, April 25-27, 2011.
disproportionate impact on minority communities was topic of the symposium. More specifically, the overview of the public policy task force magnified the ineffectiveness of current policies in addressing the negative effect of current environmental health polices in addressing the needs of minorities. Accordingly, the outcome of this symposium was “that if policies are not developed to protect vulnerable populations, there will be a permanent and systematic depopulation and displacement of African-Americans, other minorities and the poor in communities of New Orleans and the Gulf Coast. Extraordinary efforts must be taken by leaders and allies to effectively ensure the inclusion of environmental, public health, and social equity in the New Orleans and Gulf Coast restoration process. Comparatively, in Georgia, if policies are not developed to effectively address the epidemic increase in asthma among minorities, these individuals within this demographic may continue to die.19

In a testimony before the Subcommittee on Environment and Hazardous Materials Committee on Energy and Commerce, United States House of Representatives on September 29, 2005, Dr. Beverly Wright, Director and Founder of the Deep South Center for Environmental Justice (DSCEJ) and Co-Chair of the National Black Environmental Justice Network, put forth the term “communiversity” in her explanatory efforts and push for more effective environmental health hazard policies that address the needs of minorities. According to Dr. Wright and her cohorts, this term embraces and signifies a model for community partnership because the “essence of its approach is the acknowledgement that for effective research and policy-making, valuable community life experiences regarding environmental impacts must be integrated with the theoretical

19 Ibid.
knowledge of academics, educators, and researchers. Objectives of the DSCEJ include, conducting research to determine the impact and extent of toxic exposure for minority communities as it affects health and the environment, investigating means of addressing these problems (i.e. brownfields redevelopment, toxics use reduction), and creating linkages between impacted communities, scientific researchers, and government officials to address environmental justice issues as the impact health...20

The definition listed in The New Georgia Encyclopedia in reference to environmental policy is, “Environmental policy is the result of a multitude of actions taken by many institutions and individuals over a period time. It is the interplay between groups representing diverse interests and governmental officials that have molded Georgia’s environmental policy.” It asserts, “Although efforts to protect environmental quality have progressed, the pressures on Georgia’s environment have continued to increase and intensify. In light of the growing complexity of environmental problems and issues, environmental policy in Georgia will have to adapt to be better able to address environmental problems in the future.”

Echoing the organization Avoice: African-American Voices in Congress, “Creating environmental legislation is a crucial indispensability to the Congressional Black Caucus (CBC).”21 Its members have exemplified their dedication by supporting legislation designed to enhance the government’s ability to ensure the environmental health and safety of all citizens. This group of congressmen and women has proposed


specific legislation aimed at promoting and enhancing existing policy related to environmental concerns. For example, during the 105th and 106th Congresses, CBC members, led by Representative John Lewis (D-GA), proposed legislation to promote environmental justice, public health, and pollution reduction efforts. During the 109th Congress, Representative Alcee Hastings (D-FL), with the support of more than twenty other CBC members, fought to ensure that Executive Order 12898 remained in force until changed by law. Most recently, Representative Jessie Jackson, Jr. (D-IL), proposed an amendment to the Constitution of the United States respecting the right to a clean, safe, and sustainable environment. The proposed amendment was introduced on March 3, 2009. The last action taken in regards to this bill was on March 16, 2009. As of this writing, this bill hasn’t had any further action.22

CBC members strongly supported the creation of environmental policy regulations and oversight agencies. During the 93rd Congress, CBC founders, Representatives Parren Mitchell (D-MD), Charles Rangel (D-NY), and Louis Stokes (D-OH), co-sponsored a number of bills aimed at creating a Committee on the Environmental in Congress. During the 94th Congress, Representatives John Conyers (D-MI) proposed legislation to protect individuals against conduct which created potential health hazards. I have included this research in this literature review to magnify past efforts in creating effective environmental legislation regarding asthma disparity. Notwithstanding, these legislative measures do not specifically address the asthma issue; therefore, these measures sustain the research questions presented in this study. In

addition to this plethora of proposed legislation, in 2007 Representative Barbara Lee introduced legislation that called for the evaluation of federal rules and regulations that could have harmful effects on public health. Pointedly, this piece of legislation is essential to this researcher’s questions in that the identification and evaluation of such rules and regulations can support the researcher’s assertion that there exists a need for more effective policies that specifically address asthma disparity.

This research highlights key actions pursued by members of the Congressional Black Caucus in their strong attempts to obviate the existence of environmental policies that ineffectively address negative health hazards disproportionately experienced by minorities to note that even these measures do not specifically address asthma. Experts in the field of environmental justice have documented that asthma disproportionately affects minorities, toxic dumps are consistently located in minority neighborhoods and asthma is one of the resulting health hazards. In Dr. Robert Bullard’s work, Unequal Protection, he formerly sets forth:

The public health community has insufficient information to explain the magnitude of some of the air-pollution-related health problems. However, we do know that persons suffering from asthma are particularly sensitive to the effects of carbon monoxide, sulfur dioxides, particulate matter, ozone, and nitrogen oxides. African Americans, for example, have a significantly higher prevalence of asthma than the general population. Environmental problems are endangering the health of communities all across the United States. Too, the nation’s environmental laws, regulations, and policies are not applied uniformly; as a result, some individuals, neighborhoods, and communities are exposed to elevated health risks.

Based upon the data in Bullard’s Unequal Protection and other works consulted for this study, numerous grassroots organizations, councils, committees, symposiums, and the

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like, have been established in regards to environmental issues; however, we found that environmental scholars have not significantly expounded upon the outcome as to the effectiveness of laws, regulations, and policies that have been implemented to directly address the disproportionate increase in asthma among minority youth residing in Georgia. To that end, we found this enigma to be true not only for Georgia, but also throughout the United States. As various bills have been created to address environmental health hazards, with asthma being listed as one of these hazards; more discreet legislation is needed to effectively address the disproportionate increase in asthma among minorities.

Dr. David Satcher, author of “Ethnic Disparities in Health: The Public's Role in Working for Equality,” agrees that health disparities occur disproportionately in minority populations and puts forth that creating effective policies to address this issues continues to be a need. In this article, as stated by Dr. Satcher, “one of the solutions to be sought includes “policies and interventions that affect people’s health.” Also, Dr. Satcher asserts that the environment is another determinant of health disparities and lists avoidance of toxins as one of the leading health indicators.25

*The Civil Rights Act of 1964, as Amended*

The Civil Rights Act of 1964, as Amended, was an initial piece of legislation that indirectly addressed the environmental justice issue. As such, subsequent legal cases

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used this legislation as the basis for their argument against environmental pollution, e.g. *Warren County vs. State of North Carolina (1981).* Although the litigants in this case did not actually receive the verdict sought, as the Warren County protests did not prevent the county from becoming the site of a hazardous waste landfill, it did create a number of limited successes. The protests succeeded in maintaining a high number of protesters, receiving national media attention, knowing and spreading the science behind hazardous waste disposal, becoming credited with creating today’s environmental justice movement, and providing inspiration to others.\(^{26}\)

According to Dr. Glenn S. Johnson,

Many communities in the United States are not created equal due to the absence of political clout, perceived by the federal government to be invisible, selected by industries to host polluting facilities...The subaltern new environmentalism is grounded in the quest for a better quality of life and the need for their ‘voices’ to be included in the decision-making process of environmental issues...The subaltern actors played a major role in shaping how environmental problems are defined and perceived. Grassroots individuals in marginalized communities are challenging state and federal governments to do the right thing by enforcing the environmental laws on the book.\(^{27}\)

Dr. Johnson further states, “They are demanding that federal agencies like EPA, apply the pressure on corporations to comply with the environmental laws.”\(^{28}\)

Dr. Robert Bullard asserts that environmental justice is a civil rights and a human rights issue. How decisions are made and who makes them can have important health implications. Two decades ago, few academicians, government bureaucrats,


\(^{28}\) Ibid.
environmentalists, or civil rights or human rights leaders understood the racial dynamics involved in environmental decision making. Moreover, Dr. Bullard postulates that health is the main focus of the environmental justice movement in the United States.

Dr. Bullard puts forth that when he started advocating for environmental protection back in 1978, few environmentalists, civil and human rights advocates, or policy makers, understood or were willing to challenge the regressive and uneven impact of this country’s environmental and industrial policies, polices that dispersed benefits while localizing burdens. Dr. Robert Bullard postulates that for communities located on the front lines of the environmental assault, environmental protection is a life-and-death issue. These communities define environmental protection as a basic right.29

Recognizing that the environmental protection apparatus was broken in many communities in which people of color and low-income groups live, and after much prodding from environmental justice leaders, the U.S. Environmental Protection Agency acknowledged its mandate to protect all Americans. In 1992, during the George H.W. Bush administration, the EPA administrator, William Reilly, established the Office of Environmental Equity (under the Clinton administration it was renamed the Office of Environmental Justice) and produced “Environmental Equity: Reducing Risks for All Communities,” one of the first comprehensive government reports to examine environmental hazards and social equity.30

The Environmental Equity: Reducing Risks for All Communities report states that over the past twenty years, the United States has made considerable progress in

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30 Ibid.
protecting and cleaning up the environment. Many forms of air pollution have been significantly reduced, many surface water systems have shown dramatic recovery and hazardous wastes are better managed. To achieve this progress, the nation enacted major laws at the federal, state and local levels, established agencies to administer these laws and expended considerable sums to install and operate control equipment. Too, there is also a growing movement throughout our society to prevent pollution before it is ever created, through changes in production and consumption practices. Further, this report submits that this progress has brought important benefits to many communities throughout the U.S. But many environmental problems remain, and some are regrettably growing. In many locations the air remains too polluted, the water is still too dirty and the land still bears too much uncontrolled waste. There are numerous efforts underway to identify, rank and clean up these problems. All communities have a direct interest in identifying, prioritizing, and addressing environmental problems. This report produced several findings, some of which are:

1. There are clear differences between racial groups in terms of disease and death rates. There are also limited data to explain the environmental contribution to these differences. In fact, there is a general lack of data on environmental health effects by race and income.

2. Racial minority and low-income populations experience higher than average exposures to selected air pollutants, and hazardous waste facilities. High exposures, and the possibility of chronic effects, are nevertheless a clear cause for health concerns.

3. Environmental and health data are not routinely collected and analyzed by income and race. Nor are data routinely collected on health risks posed by multiple industrial facilities, cumulative and synergistic effects, or multiple and different pathways of exposure.

4. Great opportunities exist for EPA and other government agencies to improve communication about environmental problems with members of low-income and racial minority groups.
5. Since they have broad contact with affected communities, EPA's program and regional offices are well suited to address equity concerns. The potential exists for effective action by such offices to address disproportionate risks. A number of EPA regional offices have initiated projects to address high risks in racial minority and low-income communities.31

As a result of recognizing that the environmental protection apparatus was broken and seeking measures to mend this broken apparatus, environmental justice reached the White House when President Bill Clinton signed Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.32

Executive Order 12898

Accordingly, Dr. Bullard states that Executive Order 12898 reinforces Title VI of the four-decades-old Civil Rights Act of 1964, which prohibits discriminatory practices in programs receiving federal funds. It also focuses the spotlight back on the National Environmental Policy Act, a law that set policy goals for the protection, maintenance, and enhancement of the environment. The act's goal is to ensure for all Americans a safe, healthful, productive, and aesthetically and culturally pleasing environment. Too, it requires federal agencies to prepare a detailed statement on the anticipated environmental effects of proposed federal actions that will significantly affect the quality of the environment.33


Cant vs. Less (1989)\textsuperscript{34} earmarks a victory regarding the efficacy of Executive Order 12898; however, as of this writing, Executive Order 12898 has been in force well over a decade. Too, Sandra George O’Neil, author of the article, “Superfund: Evaluating the Impact of Executive Order 12898, states that the “Order specifically demands that agencies, including the EPA, ensure that their policies and programs do not disproportionately affect minorities and the poor.” She O’Neil further states, “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 has it identified populations addressed in the Executive Order, and has neither defined nor developed criteria for determining disproportionately impacted.”\textsuperscript{35}

The Clean Air Act of 1970

The Clean Air Act of 1970 (The Clean Air Act) was enacted by Congress in 1970. As of this writing, the EPA has celebrated the 40th anniversary of The Clean Air Act. The Clean Air Act of 1970 is the law that defines the EPA's responsibilities for protecting and improving the nation's air quality and the stratospheric ozone layer. The last major change in the law, The Clean Air Act Amendments of 1990, was enacted by Congress in 1990. Legislation passed since then has made several minor changes.

\begin{itemize}
  \item In the Cant vs Less (1989) case, Executive Order 12898 was put to the test in rural Northwest Louisiana in 1989. Beginning that year, the Nuclear Regulatory Commission (NRC) had under review a proposal from Louisiana Energy Services (LES) to build the nation's first privately owned uranium enrichment plant. A national search was undertaken by LES to find the "best" site for a plant that would produce 17% of the nation's enriched uranium. LES supposedly used an objective scientific method in designing its site selection process.
\end{itemize}
Like other laws enacted by Congress, The Clean Air Act was incorporated into the United States Code as Title 42, Chapter 85. The House of Representatives maintains a current version of the U.S. Code, which includes The Clean Air Act changes enacted since 1990. Stated under §7470. Congressional Declaration of Purpose,

Included in the enumerated purposes and pertinent to this case study is:

(1) To protect public health and welfare from any actual or potential adverse effect which in the Administrator’s judgment may reasonably be anticipate to occur from air pollution or from exposures to pollutants in other media, which pollutants originate as emissions to the ambient air), notwithstanding attainment and maintenance of all national ambient air quality standards.

Originally, The Clean Air Act was passed in 1963 and primarily focused on controlling air pollution at a national level. However, it was significantly amended in 1970, 1977 and 1990. Comparable to other salient legislation passed to address environmental health hazards, the wording of this Act does not specifically use the term “asthma.” It generalizes its purpose by incorporating phrases such as, “to protect the general public from exposure to airborne contaminants that are known to be hazardous to human health.”

In a testimony before the U.S. Senate Committee on Environment and Public works, Delaware Nurses Association member, Sarah Bucic, MSN, RN, was among the panelists invited to provide remarks to the U.S. Senate Committee on Environment and Public Works. Bucic spoke to lawmakers about the positive impact The Clean Air Act has had on the public health and the ongoing threat environmental pollutants pose to public health. "The bottom line is pollution creates more patients," Bucic testified. "From

a nursing perspective, we are fixed in a state of keeping patients with chronic conditions like asthma and other pulmonary and cardiovascular conditions stabilized, when we all know that prevention is the only real, effective and long-term treatment." According to research from the American Lung Association, 154 million people, more than half the nation, endure pollution levels that make breathing hazardous to their health.37

Recently, however, at least 19 bills have been introduced in both chambers of Congress seeking to prevent the Environmental Protection Agency (EPA) from enforcing The Clean Air Act citing negative impacts on businesses and the economy. Yet, the EPA estimates the economic value of substantial air quality improvements realized by the year 2020 would be almost $2 trillion. Moreover, in 2010 alone, according to EPA, the reductions in fine particle and ozone pollution from the Clean Air Act prevented more than:

- 160,000 premature deaths
- 130,000 heart attacks
- 13 million lost work days; and
- 1.7 million Asthma attacks.38

Conversely, in "Pediatricians: Impact of Clean Air Act Not Universally Felt," authored by Althea Fung, it states "Forty years after the passage of the Clean Air Act, some parts of the nation still fail to meet the Environmental Protection Agency standards, and this poses a great threat to children's health, the American Academy of Pediatrics chairman said before a Senate panel on Wednesday." The article goes on to say that in 1970, Congress passed the Clean Air Act, which authorized EPA to enforce regulations limiting air pollution. While the air quality in some areas has improved, in other areas it


38 Ibid.
has worsened and failed to meet EPA standards for at least one of six criteria, AAP chairman Dr. Jerome Paulson told the Senate Environment and Public Works Committee.

EPA’s *Benefits and Costs of the Clean Air Act from 1990 to 2020* report released in March found the legislation prevented 230 infant deaths, 3.2 million lost school days, 86,000 emergency-room visits, and 1.7 million asthma attacks in 2010. The report also found that complying with the act costs about $65 billion per year but the benefits are projected at $2 trillion a year. “Children are disproportionately vulnerable to all environmental exposures – they breathe faster, spend more time outside, and have proportionately greater skin surface exposed to the environment,” Paulson said. “A given dose of a pollutant will have a greater impact on a child than on an adult, not only due to their smaller size but because of the nature of their growing bodies and mind.” The levels of pollution affect children well before they leave the womb. Air pollution has been linked to sudden infant death syndrome, respiratory deaths, and lower IQ. Children with asthma have been found to have increased respiratory symptoms and need medication more often.39

In a 1990 radio interview with editor, B. Jesse Clarke, Carl Anthony, co-founder of *Race, Poverty & the Environment*, asserted that the Environmental Justice Movement had become a national movement. He states, “It’s now a worldwide movement. Putting the concept of environmental justice on the global radar screen is one big accomplishment. Also, the whole issue of the intersection of public health and the environment and the growing awareness of the public health challenges the way we build

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our cities. Thus, with the convergence of race, poverty and the environment, what were once the concerns of what was referred to as Earth Day 1970 and environmentalism, had evolved into a new movement that included the concerns of racial and social justice and equality. As such, the creation of certain policies and practices became a focal point of this movement.

According to the article, "The Form and Substance of Environmental Justice: The Challenge of Title VI of The Civil Rights Act of 1964 For Environmental Regulation," written by Tseming Yang, the focus of the most recent efforts to overcome these difficulties has been The Environmental Protection Agency's (EPA) guidance on the investigation of administrative complaints alleging disparate discriminatory impacts under its regulations implementing the Civil Rights Act of 1964. These regulations apply to all recipients of EPA financial assistance. Since the vast majority of state and local governments implementing EPA regulatory programs receive some form of federal financial assistance and since many allegations of discrimination have involved permits issued by such state and local government agencies, EPA's Title VI Guidance has held out great promise for change. Yet the Guidance has been severely criticized by environmental justice advocates as being seriously deficient.

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40 Race, Poverty & the Environment: The National Journal for Social and Environmental Justice, Spring 2010. This information was obtained from an article entitled, "Carl Anthony: Earth Day and EJ. Now & Then 1990 – 2010." In this article, Carl Anthony is interview by B. Jessie Clarke at the studios of the National Radio Project in 1990. The full text of the interview can be found at www.urbanhabitat.org/20 years.
The Resource Conservation and Recovery Act of 1976

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." \(^{41}\) This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. In regards to effectively addressing hazardous waste that negatively impact human health, under section 1002 (b), it states:

The Congress finds with respect to the environment and health, that

(1) although land is too valuable a national resource to be needlessly polluted by discarded materials, most solid waste is disposed of on land in open dumps and sanitary landfills;

(2) disposal of solid waste and hazardous waste in or on the land without careful planning and management can present a danger to human health and the environment;

(3) inadequate and environmentally unsound practices for the disposal or use of solid waste have created greater amounts of air and water pollution and other problems for the environment and for health;

(4) open dumping is particularly harmful to health, contaminates drinking water from underground and surface supplies, and pollutes the air and the land;

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\(^{41}\) At its inception, this act was titled, The Solid Waste Disposal Act (42 U.S.C. 6901–6992k), which consists of title II of Public Law 89–272 and the amendments made by subsequent enactments. Later, it was transition to the Resource Conservation and Recovery Act, after the short title of the law that amended the Solid Waste Disposal Act in its entirety in 1976 (P.L. 94–580). The full Act can be found at www.epw.senate.gov/rcra.pdf.
(5) the placement of inadequate controls on hazardous waste management will result in substantial risks to human health and the environment;

(6) certain classes of land disposal facilities are not capable of assuring long-term containment of certain hazardous wastes, and to avoid substantial risk to human health and the environment, reliance on land disposal should be minimized or eliminated, and land disposal, particularly landfill and surface impoundment, should be the least favored method for managing hazardous wastes.\(^\text{42}\)

The Federal Hazardous and Solid Waste Amendments (HSWA)

The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.\(^\text{43}\)

Governmental authority on environmental issues in the United States is highly fragmented. While the EPA is the most comprehensive environmental agency, its authority on these matters is not absolute. Virtually, all of the executive branch's departments have some area of environmental authority. This contributes somewhat to the cost and questionable efficacy of the United States' environmental regulation. The White House Office is the federal agency that has overall policy and agency coordination responsibility in regards to environmental policies. The Council on Environmental Quality's environmental responsibility is environmental policy, agency coordination, and


\(^{43}\) Ibid at 6.
environmental impact statements. The Department of Health and Human Services environmental responsibility is Health. The Environmental Protection Agency environmental responsibility is air and water pollution, solid waste radiation, pesticides, noise and toxic substances. Lastly, the Department of Justice has the responsibility of environmental litigation.44

The EPA is the concern of almost two-thirds of the House of Representatives' standing committees and subcommittees and a similar percentage in the Senate. Some seventy committees and subcommittees control water quality policy, for example. Such fragmentation creates both opportunities and problems. While such a variety of committees provide enormous access for environmentalist and industry groups to lobby, the division of tasks means that no one committee or agency looks at environmental problems as a whole. In the Senate of the legislative branch, the Committee on Environment and Public Works deals with issues regarding air, drinking water, noise, nuclear energy, ocean dumping, outer continental shelf, research and development, solid waste, toxics, and water. The Committee of Labor and Human Resources deal with public health. In the House, the Committee on Energy and Commerce deals with air, drinking water, noise, radiation, solid waste, and toxics.

During the 103d Congress in early 1993, Congressman John Lewis introduced the Environmental Justice Act. The intent of this act was to target the 100 most polluted locations in the United States for federal attention. These areas would be designated as high-impact areas (EIIRAs) and would require assessment of health conditions in communities that have high concentrations of polluting facilities. Collection of

44 Ibid.
environmental data for assessing the cumulative effects of pollutions would cover air, water, and soil in a particular community. Federal and local officials would be required to remedy the adverse effects of pollutions in the EHIAs.  

In Sprawl City: Race, Politics, and Planning in Atlanta, an anthology edited by Robert D. Bullard, Glenn S. Johnson and Angel O. Torres, it is put forth that urban air pollution problems have been with us for some time. Before the federal government stepped in, issues related to air pollution were handled primarily by states and local governments. Because states and local governments did such a poor job, federal government set out to establish national clean air standards. Congress enacted the Clean Air Act (CAA) in 1970 and mandated the EPA to carry out this law. Subsequent amendments (1977 and 1990) were made to the CAA that forms the current federal program. The CAA was a response to states’ unwillingness to protect air quality. Many states used their own lackadaisical enforcement of environmental laws as lures for business and economic development.  

The Atlanta metropolitan region is a nonattainment area for ozone, one of the six criteria pollutants listed under the National Ambient Air Quality Standards (NAAQS). There is a price to be paid for nonattainment. Costs include future federal funding assistance (i.e., transportation dollars are often tied to states conforming with requirements of the Clean Air Act) and public health concerns (rising asthma and other respiratory illnesses). In the Atlanta nonattainment area, motor vehicles account for the

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primary source for both volatile organic compounds (VOCs) and nitrogen oxides (NO\textsubscript{x}). Bullard, Johnson, and Torres assert that asthma is an emerging epidemic in the United States. The annual age-adjusted death rate from asthma increased by 40 percent between 1982 and 1991, from 1.34 to 1.88 per 100,000 population, with the highest rates being consistently reported among blacks ages 15 to 24 years during the period 1980-1993. Poverty and minority status are important risk factors for asthma mortality. The age-adjusted prevalence rate of self-reported asthma increased 42 percent between 1982 and 1992, from 3,470 to 4,940 per 100,000.\textsuperscript{47}

Bullard, Johnson, and Torres also posit that children are at special risk from ozone and represent a considerable share of the asthma burden. Although the overall annual age-adjusted hospital discharge rate for asthma among children under 15 years decreased slightly from 184 to 179 per 100,000 between 1982 and 1992, the decrease was slower compared to other childhood diseases, resulting in a 70 percent increase in the proportion of hospital admissions related to asthma during the 1980s. Inner city children have the highest rates for asthma prevalence, hospitalization, and mortality. In the United States, asthma is the fourth leading cause of disability among children under 17.\textsuperscript{48}

In the article, "Environmental Cost and Consequences of Sprawl," Bullard, Johnson, and Torres examine environmental quality in the five largest counties within the 10-county Atlanta metropolitan region: Fulton, Cobb, DeKalb, Clayton, and Gwinnett. They selected these counties because of their population size and proximity to the city of

\textsuperscript{47} Ibid. 25-26.

\textsuperscript{48} Ibid. 26.
Atlanta. Geographic information system (GIS) analysis was used to map the distribution of polluting facilities by county, as indicated in Figure 3.

Source: Brian Treistad, "Georgia Regional Transportation Authority: A Case Study of an Innovative Regional Planning Institution."

Figure 3: The 10-County Atlanta Metropolitan Region
Toxic time bombs are not randomly scattered across the urban landscape. These facilities are often located in communities that have high percentages of poor, elderly, young, and people of color residents. The nonrandom pattern of waste facility siting is not due to chance or the luck of the draw. Location decisions for polluting industries often involve cooperation between government and industry officials. Clearly, health and environmental risks fall heaviest on poor neighborhoods and their residents who are least able to escape unhealthy physical assaults. African Americans and other people of color are disproportionately represented in the Atlanta region’s “dirtiest” zip codes using EPA’s toxic release inventory data, as illustrated in Figure 4. While people of color comprise 29.8 percent of the population in the five largest counties contiguous to Atlanta (Fulton, DeKalb, Cobb, Gwinnett, and Clayton Counties), they represent the majority of residents in five of the ten “dirtiest” zip codes in these large counties.

- Nearly 83 percent of Atlanta’s African-American population compared to 60 percent of whites live in zip codes that have an uncontrolled hazardous waste site.

- Atlanta metro residents (five most populous counties contiguous to Atlanta) in majority white zip codes are exposed to an average of 38.2 pounds of toxic releases per person annually compared to an average of 208.6 pounds of toxic releases per person in majority people of color zip codes.

- The “dirtiest” zip code (i.e., 30354) in the five-county area is located in Fulton County and receives over 1.55 million pounds of toxic releases annually; people of color make up 69.1 percent of the population in zip code 30354.

- Residents in zip code 30336 are subjected to 873.9 pounds of toxic releases per person annually; zip code 30336 is 98.2% black.
Source: Sprawl City: Race, Politics, and Planning in Atlanta, p. 30

Figure 4: Ten “Dirtiest” Zip Codes and TRI Releases in Pounds.
Criticisms have become more important in light of the Supreme Court’s decision of case, *Alexander v. Sandoval (2001)*, finding that individual plaintiffs have no private right of action to enforce EPA’s disparate impact regulations directly in court. With doctrinal developments that make it more difficult for private citizens to directly enforce EPA’s Title VI disparate impact regulations, those wronged will have to place more reliance on administrative remedies to vindicate their interests. But more significantly, EPA’s Title VI Guidance is one of the few attempts to articulate substantive decision-making criteria for government officials (and industry) interested in acting responsibly with regard to the concerns of the environmental justice movement. To the extent that such substantive criteria fail to advance or protect the very interests of racial minorities, as well as communities raising environmental justice issues more generally, such failings must be taken very seriously.

A 1992 study by the *National Law Journal*, examining government enforcement of environmental laws at 1177 Superfund toxic waste sites concluded that “penalties under hazardous waste laws at sites having the greatest white population were about 500% higher than penalties at sites with the greatest minority population.” The same study also found that for “all the federal environmental laws aimed at protecting citizens from air, water and waste pollution, penalties in white communities were 46% higher

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49 This is a case where Alexander, *Director, Alabama Department Of Public Safety, et al. v. Sandoval*. It was argued January 16, 2001—Decided April 24, 2001. As a recipient of federal financial assistance, the Alabama Department of Public Safety (Department), of which petitioner Alexander is the Director, is subject to *Title VI of the Civil Rights Act of 1964*. Section 601 of that Title prohibits discrimination based on race, color, or national origin in covered programs and activities. Section 602 authorizes federal agencies to effectuate §601 by issuing regulations, and the Department of Justice (DOJ) in an exercise of this authority promulgated a regulation forbidding funding recipients to utilize criteria or administrative methods having the effect of subjecting individuals to discrimination based on the prohibited grounds. (http://bss.sfsu.edu).
than in minority communities.” This same study also found that for “all the federal environmental laws aimed at protecting citizens from air, water and waste pollution, penalties in white communities were 46% higher than in minority communities.” Many other studies focusing on other aspects of environmental regulation resulted in similar findings. According to Dr. Robert Bullard, former director of the Environmental Justice Resource Center at Clark Atlanta University, "It's time to confront the nation's leadership with the devastating health and economic impact of unjust environmental policies. We are demanding immediate action and enforcement of Title VI of the Civil Rights Act of 1964 and other equal protection laws.”

In 1994, former U.S. President William (Bill) J. Clinton issued Executive Order 12898- Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations. Section 1-1 Implementation establishes the Agency Responsibilities to be:

To the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal Agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations, and low-income populations in the United State and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and Commonwealth of the Mariana Islands.

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50 Environmental Justice Resource Center. "The struggle for civil rights is not over!" EPA and local governments charged with failure to provide equal environmental protection to Blacks and other people of color.” At a press conference and community briefing held on Thursday, January 13th in the Mayor's Conference Room (441 4th Street, NW) in observance of Dr. Martin Luther King, Jr.'s birthday, some of the nation's foremost experts on environmental justice and victims of environmental contamination from across the country declared a National State of Emergency on Environmental Racism and Economic Injustice. Washington, DC. 2000. www.ejrc.cau.edu

51 Executive Order 12898 was implemented on February 11, 1994 under the Presidency of William J. Clinton, XLII President of the United States: 1993-2001. For the Full text of this Order, the Reader should research Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations.
The National Environmental Policy Act of 1969

The National Environmental Policy Act of 1969 (NEPA)\(^2\) (42 U.S.C. 4321 et seq.) was signed into law on January 1, 1970. The Act establishes national environmental policy and goals for the protection, maintenance, and enhancement of the environment and provides a process for implementing these goals within the federal agencies. The Act also establishes the Council on Environmental Quality (CEQ). The National Environmental Policy Act (NEPA) requires federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. To meet NEPA requirements federal agencies prepare a detailed statement known as an Environmental Impact Statement (EIS). EPA reviews and comments on EISs prepared by other federal agencies, maintain a national filing system for all EISs, and assure that its own actions comply with NEPA.

In 1978, CEQ promulgated regulations, 40 CFR Parts 1500-15081, implementing NEPA which are binding on all federal agencies. The regulations address the procedural provisions of NEPA and the administration of the NEPA process, including preparation of EISs. To date, the only change in the NEPA regulations occurred on May 27, 1986, when CEQ amended Section 1502.22 of its regulations to clarify how agencies are to carry out their environmental evaluations in situations where information is incomplete or unavailable.\(^3\)

CEQ has also issued guidance on various aspects of the regulations including: an information document on "Forty Most Asked Questions Concerning CEQ's National Environmen..."
Environmental Policy Act," Scoping Guidance, and Guidance Regarding NEPA Regulations. Additionally, most federal agencies have promulgated their own NEPA regulations and guidance which generally follow the CEQ procedures but are tailored for the specific mission and activities of the agency.

The role of a federal agency in the NEPA process depends on the agency's expertise and relationship to the proposed undertaking. The agency carrying out the federal action is responsible for complying with the requirements of NEPA.

**CDC National Asthma Control Program**

The *National Asthma Control Program* has its home in CDC’s National Center for Environmental Health, Division of Environmental Hazards and Health Effects. CDC’s National Center for Health Statistics (NCHS) and Division of Adolescent and School Health (DASH) also partner in the program. CDC collaborates with other federal agencies as well to achieve its asthma control objectives. CDC meets with the Federal Liaison Group on Asthma, which also includes the Environmental Protection Agency (EPA), the National Institutes of Health: National Heart, Lung and Blood Institute and National Institute of Allergy and Infectious Diseases, and others. CDC regularly cooperates with other federal agencies involved in asthma control, including the Centers for Medicare and Medicaid Services, the Health Resources and Services Administration, and the Department of Housing and Urban Development. CDC works closely with EPA to recommend guidance documents and review educational materials for technical accuracy. In addition, CDC funds collections of social, environmental, and medical data
on asthma among 10,000 children by the Bureau of Labor Statistics' National Longitudinal Survey of Youth.  

Like the Healthy People 2010 article's goals, the asthma control program goals seek to reduce the number of deaths, hospitalizations, emergency department visits, school days or workdays missed, and limitations on activity due to asthma.  

*CDC Public Health Law Program*

Law is a foundational public health tool for disease prevention and health promotion. For many traditional public health problems, both acute and chronic, the role of law has been crucial in attaining public health goals, both framing and complementing the roles of epidemiology and laboratory science. Many of the greatest successes claimed by public health, such as high childhood immunization rates, improved motor vehicle safety, safer workplaces, and reduced tooth decay, have relied heavily on law. Recently, law has played a fundamental role in the control and prevention of emerging health problems such as SARS and the threat of pandemic influenza. Moreover, law is an important public health tool that plays a critical role in reducing illness and premature death. Public health law examines the authority of the government at various jurisdictional levels to improve the health of the general population within societal limits and norms.

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55 Healthy People 2010 provides a framework for prevention for the Nation. It is a statement of national health objectives designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats. The full contents of this program can be found at www.healthypeople.gov/about. (accessed May 3, 2011).

56 Ibid.
The CDC Director established the Public Health Law Program in 2000, following consultations with CDC programs and extramural partners, to lead the agency’s public health law initiative. The Public Health Law Program is a component of the Office for State, Tribal, Local and Territorial Support. The Program’s mission is to advance the public’s health through law.

The Program has three strategic goals:

- To improve the understanding and use of law as a public health tool
- To develop CDC’s capacity to apply law to achievement of its Health Protection Goals
- To develop the legal preparedness of the public health system to address all public health priorities

The Program employs five broad strategies toward those goals:

- Developing practical, law-centered tools for practitioners and policy makers in all relevant sectors
- Engaging practitioners and policy makers in identifying priorities and in developing and applying legal tools
- Addressing all four core elements of public health legal preparedness: laws and legal authorities; competencies; coordination across sectors and jurisdictions; and, scientific and best-practices information
- Providing consultation to CDC programs and partners
- Establishing partnerships linking CDC and all partners active in public health law

Impact on the People’s Health

The law-based tools developed by the Public Health Law Program enable CDC programs and front-line public health professionals and policy makers to make such advances as:

Accelerating and enhancing their response to public health emergencies, including bioterrorism and pandemic influenza
- Identifying promising new tools for prevention of obesity and other chronic diseases
• Upgrading the legal authorities of state, tribal, and local governments to reduce the public’s exposure to tuberculosis
• Improving identification of injuries, injury risk factors, and injury prevention interventions
• Mobilizing and focusing new resources on the nation’s public health priorities through collaboration with established partners as well as with such novel and unconventional partners as elected state and local officials, the private bar, law enforcement, and the judiciary.  

Summary

The compilation of works presented in this literature review provides information that underscores the problems surrounding the disproportionate impact of asthma, specific policies regarding this disparity, the need for such policies, as well as policy analysis. As Dye writes, it is questionable that policy analysis can ever solve America’s problems. However, policy analysis encourages scholars to attack critical policy issues with the tools of systematic inquiry. Understanding public policy is both an art and a craft. It is an art because it requires insight, creativity, and imagination in indentifying societal problems and describing them, in describing public policies that might alleviate them, and then in finding out whether these policies end up making things better or worse. It is a craft because these tasks usually require some knowledge of economics, political science, public administration, sociology, law, and statistics. Policy analysis is really an applied subfield of all these tradition academic disciplines.  

Policies chosen to be examined in this study are enumerated in chapter one of

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57 This information was taken from the Center for Disease Control website under the Public Health Law Program. More in-depth information regarding this program can be found by visiting the site at http://www2a.cdc.gov/phlp/about.asp.

this work. Reiterating, these policies were chosen because of their association with asthma disparity and disproportionate occurrence among minority youth. The policy analysis seeks to answer questions as to the effectiveness of these policies in addressing asthma disparity. Quoting Peters,

Once it has been decided that a certain program is required as a response to a policy problem, that choice must be defended as a legitimate one for government to make. No matter what course of action is decided on, it is almost certain that some citizens will believe themselves disadvantaged by the choice. Because policy choices inevitably benefit some citizens and disadvantage others, the impact of these specific policies will also be addressed in the policy examination.\textsuperscript{59}

Protecting children from environmental hazards is a daunting task. Environmental toxicants, such as lead, methylmercury, tobacco, and other pollutants covertly enter children’s body via placental transfer during fetal growth, inhalation or ingestion of house dust, soil, breast milk, ant other dietary sources during early childhood. Exposures to these toxicants have been linked with the new morbidities of childhood, intellectual impairments, behavioral problems, asthma, and preterm birth. Respiratory toxicants are so commonplace that we accept as inevitable that over four million U.S. children will develop asthma, many through exposure to airborne pollutants. Despite a profound attachment to our own children and intense rhetoric about the value of children, society has been unwilling to invest the resources or develop regulations that are necessary to protect children from environmental hazards. Many other studies focusing on other aspects of environmental regulation resulted in similar findings. For example, Manuel Pastor Jr., Rachel Morello-Frosch, and James L. Sadd, found that there exists a link between toxic pollutants and asthma as they related in the article, “Breathless:

Schools, Air Toxics, and Environmental Justice in California." Comparable to these findings, Paul Mohai, Byoung-Suk Kweon, Sangyun Lee and Kerry Ard, in their examination of the extent of air pollution from industrial sources around public schools in Michigan to find out if this air pollution jeopardized children’s health and academic performance, asserted that exposing children to environmental pollutants during times of physiological development can lead to long-lasting health problems, dysfunction, and disease.

Consistent with the findings of other studies, Phil Brown, Brian Mayer, Stephen Zavestoski, et al., claim that “asthma rates have risen so much in the United States that medical and public health officials invariably speak of asthma as a new epidemic.” In their document entitled, “The Health Politics of Asthma: Environmental Justice and Collective Illness Experience,” these authors state:

The number of individuals with asthma in the United States grew 73.9 percent between 1980 and 1996, with an estimated 14.6 million people reporting suffering from asthma in 1996. This is widely believed to be a real increase, not an artifact of diagnosis. In the same period hospitalizations for asthma rose 20 percent, and by 1995 there were 1.8 million emergency room visits a year. The estimated cost to society from asthma is greater than $11 billion a year. As the number of cases has increased, medical and public health professionals and institutions have expanded their treatment and prevention efforts, environmental and community activists have made asthma a major part of their agenda, and media coverage has grown.

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This study seeks to contribute to the existing body of literature by developing a critical analysis of policies created to address asthma disparities and disproportionate increase among minority youth in Georgia. To legitimate the foundation for this policy analysis, various distinctive studies on the subject of the relationship of toxic pollutant exposure and asthma are included. Accordingly, policies examined will be intricately identifiable with this theme.
CHAPTER III

THEORETICAL FRAMEWORK

The purpose of this chapter is to provide the basic theories upon which this research will be guided. These theories will be presented and explained in conjunction with the presentation of theories presented by other authors. Too, we will present the maxims that impose the incorporation or non-incorporation of the presented theories as truths within this case study.

Paraphrasing Thomas Hobbes,

The final cause, end or design of men is the foresight of their own preservation and a more contented life thereby. The laws of nature, justice, equity, modesty, and mercy, without the terror of some power to cause them to be observed, are contrary to our natural passions that carry us to partiality, pride, revenge, and the like. Notwithstanding the laws of nature, if there be no power erected or not great enough for our security; every man will, and may lawfully rely on his own strength and art, for caution against all other men. Hobbes contends that as men did to protect themselves and their families, cities and kingdoms, which have greater families, will do the same. In order to be defended from invasion of foreigners, injuries of one another and live contentedly, a common power must be constructed wherein all power and strength will be conferred upon one man or upon one assembly of men, the wills of all will be reduced to one will; and in sum, create a real unity of them all.¹

Accordingly, the centrality of effective public policies to the sustainment of society is the paradigm under which this case study is based.

Design of the Study

Research factually supports that minorities are constantly and systematically spatially located in communities that are in close proximity to toxic dumps. Minorities

have been disproportionately and negatively affected by environmental health hazards associated with being consistently exposed to environmental health hazards; one of which is asthma. Over the past five years, the occurrence of asthma has epidemically increased among minority populations. A diagram of this case study is visually depicted in Figure 5.
In seeking a definitive description for the term environment, we encountered several definitions. Relative to this case study, Bullard provides a general definition of
environment as being where we live, work, play, worship, and go to school, as well as the physical and natural world.\(^2\)

*Justice as a concept*

In David Schlosberg’s work, *Defining Environmental Justice: Theories, Movements, and Nature*, he poses several questions, two of which are: 1) What exactly is the ‘justice’ of environmental justice? 2) What do activists and movements mean when they employ the term? According to Schlosberg, justice is about distribution, but is also about individual and community recognition, participation, and functioning. Groups emphasize different notions of justice, on different issues, in various contexts. There is a flexible heterogeneous and plural discourse of justice.\(^3\)

For years, according to Schlosberg, justice studies were defined by, and preceded from, the theories of John Rawls, whose theory of justice envisions a society of free citizens holding equal basic rights cooperating within an egalitarian economic system. These studies focused on the conception of justice defined solely as the distribution of goods in a society and the best principle by which to distribute those goods.\(^4\) In addition to that particular strand, Schlosberg asserts that many social movements also defined justice in terms of what their constituents got, or did not get, in a given society. Many of the defining arguments of the environmental justice movement were all about distributional patterns that were violations of any number of distributive principles of

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justice. Still, other scholars of the discipline argue that while justice must be concerned with classic issues of distribution, it must also address the processes that construct maldistribution. These scholars focus on individual and social recognition as key elements of obtaining justice.5

*Environmental Justice as a Concept*

Environmental justice refers to the “fair treatment and meaningful involvement for all people of all races, ethnicities, cultures, national origins and incomes, regarding the development, implementation, and enforcement of environmental laws, regulations and policies. In other words, fair treatment means that no specific population group should be the brunt of a disproportionate share of environmental problems brought about by industrial facilities, governmental structures and policies. Laws should be enforced equally to ensure the proper siting, cleanup of hazardous wastes, and the effective regulation of industrial pollution, regardless of racial and economic composition of the community.”6

Rachel Carson’s, *Silent Spring*, can serve as the beginning of the environmental justice revolution. In this book, Carson argued that dichloro-diphenyl-trichloroethane (DDT) pesticides were not only destroying insects, but was also destroying humankind.7 After which, Carson’s work was the objectified within various polemics and dialogues regarding her research and postulations. Carson’s work precipitated the works and

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5 Ibid.


movements of others’ concerns over the environment. According to Shirley Rainey-Brown and Glenn S. Johnson, the contemporary environmental movement emerged in the mid-1960s, catalyzed by the appearance of Rachel Carson’s *Silent Spring*, the flowering of the decade’s counterculture, and the proliferation of a variety of other social movements. Conservationism was fused with values stressing communalism over individualism and emphasizing steady-state economics over ever-expanding economic growth, the result was a youth-centered hippie movement that culminated with Earth Day 1970. After Earth Day and the passage of significant environmental legislation, general public concern for the environment increased in the 1970s, as measured in numerous national surveys. The movement became less counter cultural and more mainstream; it was nationalized and institutionalized through the combined efforts of established conservation organizations, such as the Sierra Club and the National Audubon Society, and several organizations, such as the Environment Defense Fund and the National Resource Defense Council.8

Germane to this study, several pundits have concretized environmental justice into definitive forms. One such definition coined by an international group, the Environmental Justice Networking Forum, refers to environmental justice as:

The fair treatment of people of all races, cultures, incomes, and educational levels with respect to the development and enforcement of environmental laws, regulations, and policies. Fair treatment implies that no population should be

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forced to shoulder a disproportionate share of exposure to the negative effects of pollution due to lack of political or economic strength.9

Dorceta E. Taylor suggests that there exist differentiated paths leading to varied views of the environmental justice stating,

Thus, mainstream environmentalists, drawing from their cultural stock, evoke images related to wilderness and wildlife protection to motivate their supporters. Such images, rooted in 19th-century frontier experiences and Romantic/Transcendentalist environmental ideology, are still potent symbols that have a high identity salience for middle-class White environmentalists. However, given the 19th-century experience of people of color (forced relocations, living on reservations, appropriation of land, slavery, and sharecropping, among other things), environmental justice activists do not draw on Romantic/Transcendental images to motivate their supporters. Instead, they evoke images of racism, appropriation of land, and the destruction of communities and cultures. The environmental justice images have their roots in the social justice struggles emanating from the period of conquest and slavery; more recently, the images draw on potent symbols of the civil rights movement and the struggles of other people of color in the 1960s and 1970s.10

Convergence of these views into what Taylor labeled a master frame, Taylor states, “The environmental justice frame has emerged as a master frame used to mobilize activists who want to link racism, injustice, and environmentalism in one frame.”11

As defined by the Environmental Protection Agency (EPA), environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. EPA has this goal for all

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11 Ibid.
communities and persons across this Nation. It will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work. As stated by Dr. Bunyan Bryant of the University of Michigan, "Environmental justice is served when people can realize their highest potential." 

In his book, *Defining Environmental Justice: Theories, Movements, and Nature*, philosopher David Schlosberg analyzes a myriad of definitions of environment justice found within the EJ movement. He argues that the definitions used by environmental justice activists in the U.S. and worldwide incorporate four major ideas: the equitable distribution of environmental risks and benefits; fair and meaningful participation in environmental decision-making; recognition of community ways of life, local knowledge, and cultural difference; and the capability of communities and individuals to function and flourish in society.

As the term environmental justice has been assigned several definitions, it is also intricately woven; and I will now examine various threads that bind the term. A criterion that has gained many adherents in the past two decades is sustainable development. This was defined by the World Commission on Environment and Development in its 1987 manifesto, “Our Common Future,” as development that meets the needs of the present without comprising the ability of future generations to meet their needs. Environmental harm means actions that compromise the ability of future generations to meet their own 

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needs. Environmental improvement refers to actions that enhance the ability of future
generations to meet their needs. Freedom to make value judgments about environmental
change, and rights to a clean and safe environment, are themselves ethical objectives.
This is not only a matter of moral vision, but also of practical politics. The extent to
which people are able to act as citizens depends on how power is structured and
distributed in society.\textsuperscript{14}

Conversely, having environmental and other laws enacted have not secured equal
effort for all communities. Residents who live near Superfund and hazardous
waste sites understand too well that the EPA cannot solve all of the environmental
problems in their communities alone. It will take a team approach in leveling the playing
field. Residents impacted by hazardous waste, working with grassroots leaders,
community based organizations and institutions, and government can form partnerships
to begin addressing environmental problems in a holistic and equitable way.\textsuperscript{15} Since
coalescing in the 1980s, the environmental justice movement has become one of the
many forces influencing public health conditions and environmental health science.
Shared by principles of civil rights, democracy, and opposition to colonialism,
environmental justice advocates echo an older and broader push to consider population
health an issue of social justice, not merely the absence of disease in individuals.\textsuperscript{16} As we

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\textsuperscript{15}Robert D. Bullard, “Region IV Environmental Justice Partnership Project Lessons Learned,” Environmental Justice Resource Center, Clark Atlanta University, (June, 1977),
\url{www.ejrc.edu/finalfor.html}. (accessed August 10, 2010).
\end{quote}

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previously noted, environmental justice is the premise upon which this research is founded.

*Political Science and Public Policy*

"I know no safe depository of the ultimate powers of the society but the people themselves; and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion by education. This is the true corrective of abuses of constitutional power." -- Thomas Jefferson to William C. Jarvis, 1820.

"Whenever the people are well-informed, they can be trusted with their own government;... whenever things get so far wrong as to attract their notice, they may be relied on to set them to rights." -- Thomas Jefferson to Richard Price, 1789.

Numerous authors have emphatically claimed that minorities have been systematically excluded in policy-making decisions. This exclusion is partly to blame as to the outcome of ineffective policies that negatively affect minorities in regards to their being consistently and systematically located in communities with toxic waste sites. But, this research will not utilize that argument in support of building our theory.

Whereas it is agreed that more inclusion of minorities in policy-making decisions is needed, this researcher also believes that policies created from diverse perspectives through individuals with comparable cultural backgrounds and experiences will not ensure the outcome of policies that will effectively address the disproportionate occurrence of asthma among minorities in Georgia. Further, we assert that this convention could only ensure that the policies will be created by a diverse group(s) of

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individuals. To fortify this argument, this researcher adhibits the Supreme Court of the United States (U.S. Supreme Court). The U.S. Supreme Court was legitimated through the U.S. Constitution, the supreme law of the land. In the Constitution, Article III, §1, provides that "[t]he judicial Power of the United States, shall be vested in one supreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish." The Supreme Court of the United States was created in accordance with this provision and by authority of the Judiciary Act of September 24, 1789 (1 Stat. 73). It was organized on February 2, 1790.19

According to the Constitution (Art. III, §2): "The judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States, and Treaties made, or which shall be made, under their Authority; to all Cases affecting Ambassadors, other public Ministers and Consuls; to all Cases of admiralty and maritime Jurisdiction; to Controversies to which the United States shall be a Party; to Controversies between two or more States; between a State and Citizens of another State; between Citizens of different States; between Citizens of the same State claiming Lands under Grants of different States, and between a State, or the Citizens thereof, and foreign States, Citizens or Subjects.

"In all Cases affecting Ambassadors, other public ministers and Consuls, and those in which a State shall be Party, the supreme Court shall have original Jurisdiction. In all the other Cases before mentioned, the supreme Court shall have appellate jurisdiction, both as to Law and Fact, with such Exceptions, and under such Regulations as the Congress shall make."

Appellate jurisdiction has been conferred upon the Supreme Court by various statutes, under the authority given Congress by the Constitution. The basic statute effective at this time in conferring and controlling jurisdiction of the Supreme Court may be found in 28 U. S. C. §1251 et seq., and various special statutes.20

This extensive description of the Supreme Court was included to demonstrate the legitimacy, power, and impact of this Court on policy decisions. Also, the researcher's


20 Ibid.
intent for this inclusion is to reveal that his Court was created during slavery, the time in which blacks were considered to be property. Laying that foundation, we can better exemplify the gravity of the appointment of Justice Thurgood Marshall, as the first black person to be appointed to this Court and how his appointment was seen by blacks as the vehicle that would drive them to equality and descriptive representation. Yes, Justice Marshall’s presence on the Court did provide support favorable decisions when it came to the protection of the equality and rights of blacks. This was needed to support that the notion of descriptive representation is not without merit. As Justice Marshall did champion and advocate for policies that protected the rights of blacks. So that need is present; but, not always positive, i.e. Clarence Thomas, the 2nd black to be appointed – his policies and voting habits totally contrasted those of Thomas and was blatantly opposed to equality of blacks. i.e. his position on affirmative action. Clarence’s actions are not isolated; but it was Thurgood Marshall, working through the courts to eradicate the legacy of slavery and destroying the racist segregation system of Jim Crow, who had an even more profound and lasting effect of race relations than either of King or X.21

It was Marshall who ended legal segregation in the United States. He won Supreme Court victories breaking the color line in housing, transportation and voting, all of which overturned the 'Separate-but-Equal' apartheid of American life in the first half of the century. It was Marshall who won the most important legal case of the century, Brown v. Board of Education, ending the legal separation of black and white children in public schools. The success of the Brown case sparked the 1960s civil rights movement, led to the increased number of black high school and college graduates and the incredible

\[21\] Ibid.
rise of the black middle-class in both numbers and political power in the second half of the century. It was Marshall, as the nation's first African-American Supreme Court justice, who promoted affirmative action -- preferences, set-asides and other race conscious policies -- as the remedy for the damage remaining from the nation's history of slavery and racial bias. Justice Marshall gave a clear signal that while legal discrimination had ended, there was more to be done to advance educational opportunity for people who had been locked out and to bridge the wide canyon of economic inequity between blacks and whites.22

Marshall worked on behalf of black Americans, but built a structure of individual rights that became the cornerstone of protections for all Americans. He succeeded in creating new protections under law for women, children, prisoners, and the homeless. Their greater claim to full citizenship in the republic over the last century can be directly traced to Marshall. Even the American press had Marshall to thank for an expansion of its liberties during the century.23

Clarence Thomas, the 2nd black person appointed to the U.S. Supreme Court, voting records and practices would not put him in a position as one who “supports the black agenda.” As noted by Sherrilyn Ifill regarding the Supreme Court’s long-awaited decision in North Austin Municipal Utility District(NAMUD) v. Holder, the case that challenged the constitutionality of section 5 of the Voting Rights Act, Chief Justice Roberts commandeered a unanimous agreement on a judgment allowing the NAMUD to


23 Ibid at xiv-xvi.
“bail-out” of section 5’s preclearance provisions, which resulted in an 8-1 decision, in which all the justices, save Justice Thomas, declined to overturn the constitutionality of section 5. Further, Ifill asserts that Thomas rationalized this decision by stating that “the extensive pattern of discrimination that led the Court to previously uphold section 5 as enforcing the Fifteenth Amendment no longer exists.”

According to Dahlia Lithwick, a 2008 study by Richard Posner, a federal appeals court judge, and William Landes, a law professor at the University of Chicago, examined the voting records of seventy years of Supreme Court justices in order to rank the forty-three justices who have served on the Court since 1937. They concluded that four of the five most conservative justices to serve on the Supreme Court since 1937 sit on the Supreme Court today. Justice Clarence Thomas ranked first. Thomas’ views on affirmative action were made widely known in his dissent in the University of Michigan’s Law school case, Grutter v. Bollinger (2000). The ruling in this case was 5 to 4. Justice Sandra Day O’Connor wrote the opinion and dissents were filed by Chief Justice William H. Rehnquist and Justice Clarence Thomas. Quoting Thomas in this written dissent,

The majority upholds the law school’s racial discrimination not by interpreting the people’s Constitution, but by responding to a faddish slogan of the cognoscenti. Nevertheless, I concur in part in the Court’s opinion. First, I agree with the Court insofar as its decision, which approves of only one racial classification, confirms that further use of race in admissions remains unlawful. Second, I agree with the Court’s holding that racial discrimination in higher education admissions will be


illegal in 25 years. I respectfully dissent from the remainder of the Court's opinion and the judgment, however, because I believe that the law school's current use of race violates the Equal Protection Clause and that the Constitution means the same thing today as it will in 300 months.\textsuperscript{26}

Towards this end, our argument is that description representation can be beneficial; however, other factors should be considered when selecting those individuals who will be endowed with the power to impact policy decisions. Candidates' views, socialization within society, retrospective voting practices should be strongly considered. Some argue that race is a phenotype; this factor alone should not be the deciding factor. Also, we are cognizant of the normative implication of policy creation, the probability that policy makers will create policies, in part or in totality, based upon their normative values. As such, these views should also be considered.

Critically focusing on diversity in selecting our representatives is comparable to descriptive representation. Jane Mansbridge of Harvard University states, "In descriptive representation, representatives are in their own persons and lives in some sense typical of the larger class of persons whom they represent. Black legislators represent black constituents, women legislators represent women constituents, and so on." Definitively, Manbridge purports that disadvantages groups may want to be represented by descriptive representation, that is, "individuals who in their own backgrounds mirror some of the more frequent experiences and outward manifestations of belonging to the group."\textsuperscript{27} Mansbridge argues,


Disadvantage groups gain advantages from descriptive representation in at least four contexts. In contexts of group mistrust and uncrystallized interests, the better communication and experiential knowledge of descriptive representatives enhances their substantive representation of the group's interests by improving the quality of deliberation. In contexts of historical political subordination and low de facto legitimacy, descriptive representation helps create a social meaning of 'ability to rule' and increases the attachment to the polity of members of the group. When the implementation of descriptive representation involves some costs in other values, paying those costs makes most in the specific historical contexts.\(^{28}\)

In her text, Mansbridge asserts that being one of us is assumed to promote loyalty to our interests. Mansbridge's article quotes Hanna Pitkins's argument against descriptive representation as, "there is simply no room in a descriptive concept of representation for leadership, initiative, or creative action." Some of the quotes of various persons in this article states that descriptive representation is untenable and, "having such a relation of identity or similarity with constituents says nothing about what the representative does."\(^{29}\)

On the other hand, arguments against descriptive representation purport that it is not popular among normative theorists and most normative democratic theorists have rejected descriptive representation relatively summarily, often with some version of Pennock's trenchant comment, "No one would argue that morons should be represented by morons." Specifically, Mansbridge includes in her writing of opponents of description representation, "When nondescriptive representatives have, for various reasons, greater ability to represent the substantive interests of their constituents, that is a major argument against descriptive representation.\(^{30}\)


\(^{29}\) Ibid at 628-657.

\(^{30}\) Ibid.
Inasmuch as diversity is crucial in policy-making decisions, this research asserts that we should transcend diversity and become more informed when exercising our most fundamental privilege in the political process. When we select our lawmakers, we target those who are sensitive of our needs and promote our agendas. We should keep in mind that diverse individuals may function under the same paradigm. Each individual possess their own values and cultural norms and these characteristics surface in their policy-making decisions. Lawmakers are individuals who have been socialized into the mainstream society of the United States. As such, voting for a minority candidate may not result in having an individual who is concerned with the needs of minorities, or who will effect positive change in minority neighborhoods. Case in point, according to a 1986 article written by the University of Maryland’s Clarence N. Stone, blacks hold governmental power in Atlanta, they have a two-to-one majority on the city council, and Andrew Young is in his second term as the city’s second black mayor. Moreover, blacks are a substantial presence in the civic life of Atlanta. They have held the presidency of the Chamber of Commerce, and are to be found among the membership of every important board and commission in the public life of the community. The political incorporation of blacks in Atlanta is now strong enough for Mayor Young to entertain the possibility of city-county consolidation. Even with such a move, blacks presumably would remain at the center of public life in Atlanta. Blacks have thus been part of the governing coalition in Atlanta for forty years, and, in that time, their electoral power has steadily enhanced their role within that coalition. As stated in Stone’s article, electoral mobilization was the key to black incorporation, and incorporation as a voting majority
was central in the ability of the black community to achieve significant policy
responsiveness. 31 Summarily, Stone submits,

The current urban regime seems to be stable but not static. Neighborhood
development and housing improvements occupy no major position on the city’s
policy agenda, and show no signs of gaining such a position. Neighborhood
activism at present is most visible in efforts to veto expressway projects. Benefit
from the city’s supply-side development strategy has accrued to the black middle
class, but there is not much evidence the lower class has gained. 32

In spite of the fact that the gains sought here deals with policies relative to neighborhood
development and housing improvements, our position is that although the type of polices
sought may differ; the ambiance and purpose for which these policies are sought are
comparable. Quoting Dr. William H. Boone and Dr. Keith Jennings of Clark Atlanta
University,

The debate over the best strategic option for black leadership and the African-
American community as we approach the Mayoral election in Atlanta has become
critical based on the fact that for the last 25 years Atlanta has represented the
breakthrough for black political empowerment in the South. It is debatable to
what extent the objective socio-economic and political position of the African-
American community has improved. 33

In the presence of this salient minority political establishment, the Respiratory/Allergy
Association asserts that Fulton County, GA has been named the “Asthma Capital of the
Nation.” According to The American Lung Association, one out of every twelve

(Summer 1986): 618-625.

32 Ibid at 624

33 Jim Galloway, “The Memo That’s About to Shake the Atlanta Mayor’s Race,” Political Insider,
8/27/2009. This article was written in regards to an email sent by Dr. William H. Boone and Dr. Keith
Jennings of Clark Atlanta University, both who are political scientists. The email put forth information
about the then upcoming Mayor’s race in Atlanta, Ga. The full reading of this communication can be
found at: http://blogs.aic.com/political-insider-jim-galloway/2009/08/27/the-memo-about-to-shake-the-
atlanta-mayors-race. (accessed December 12, 2010).
residents of Fulton County, GA suffers from asthma. Every year approximately 17 persons die because of asthma.34

According to Dye, "Political Science is the study of politics—the study of who gets what when and how. Political Science is also the study of public policy—the description and explanation of the causes and consequences of government action."35 Policy analysis is finding out what governments do, why they do it, and what differences, if any, it makes.36 Thus, we will utilize Dye's diagram of policy causes and actions as paradigmatic approach to the study of causes and effects of environmental policies and the power of policy-makers as indicated in Figure 6.

![Diagram]

Society  
Political System  
Public Policy

Linkage A: What are the effects of social and economic conditions on political and governmental institutions, processes, and behaviors?

Linkage B: What are the effects of political and governmental institutions, processes, and behaviors on public policies?

Linkage C: What are the effects of social and economic conditions on public policies?

Linkage D: What are the effects (feedback) of public policies on social and economic conditions?

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36 Ibid at 1.
Linkage E: What are the effects (feedback) of political and governmental institutions, processes, and behaviors on social and economic conditions?

Linkage F: What are the effects (feedback) of public policies on political and governmental institutions, processes, and behaviors?

Source: Thomas R. Dye’s, Understanding Public Policy, p. 6

Figure 6: Studying Public Policy, Its Causes and Consequences

Ellen Grisby, the author of Analyzing Politics: An Introduction to Political Science, has provided a definition of power that we feel is pertinent to this research. In this book, Grisby postulates that power is one of the most important concepts in political science. Further, Grisby states, “At its most fundamental level, power is the ability to influence an event or outcome that allows the agent to achieve an objective and/or to influence another agent to act in a manner in which the second agent, on its own, would not choose to act.” In this manner, we will put forth that individuals who create policies must first have the power to do so; therefore, a definition of power is useful at the outset of even the most miniscule study of public policies.

The various types of power as conveyed by Grisby are:

- **Force** - involve physical means, such as, acts of violence or physical obstruction
- **Persuasion** - the agent exercising the power makes it clear and known to the agent over whom power is exercised
- **Manipulation** - involves using power in which the agent exercising the power conceals the use of power
- **Exchange** - the use of power through incentives

This researcher’s position is that the types of power used to create policies may positively and directly relate to the outcome of policies, i.e. force or manipulation may result in the creation of policies not centered on producing positive outcomes, as the creation of such

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38 Ibid at 1-30.
policies may not have been focused on meeting the needs of the people, but to promote the agenda of the agent perpetuating the force. Therefore, types of power are defined and included in this case study to seek to determine to what degree, if any, power could be a factor in negative policy outcomes. Specifically, the exercising of various types of power to create policies will be infused in this case study to determine to some degree why current policies are not producing positive outcomes in obviating the disproportionate increase in asthma among minority youth in Georgia. Did the policy makers use force to create certain policies, which would involve physical means, such as, acts of violence or physical obstruction? Did the policy makers use persuasion, which would ask the question: Did the agent exercising the power make it clear and known to the agent over whom the power was being exercised? Did the policy makers use manipulation to create policies? Manipulation involves using power in which the agent exercising the power conceals the use of power. Or, were policies created on the basis of exchange, which is the use of power through incentives. How then did the policy makers use their power to create policies? How do we arrive at policies that protect specific demographics? Did the policy makers consider all aspects or impacts on all groups by using a rational comprehensive method? Or, where these policies created based upon the agendas of specific interest groups? These questions will be addressed in this study.

*Conceptual Policy Models*

Historical research supports the findings that environmental toxic hazards are consistently and systematically placed in communities that have high concentrations of minorities. As a result, minorities are disproportionately affected by environmental toxic
hazards and the associated health hazards. This research employs this phenomenon as a foundational premise of this case study and exponentially asserts within the theoretical framework of this case study that public policies have been inadequate in addressing this asthma issue. To sustain this premise, we seek to explore certain independent variables that best explain the outcome of the implementation of ineffective asthma-related policies; one of which is how the policies were actually created. Thus, we will utilize various conceptual policy models constructed by Thomas R. Dye in his study of public policies and incorporate these conceptual policy models into the theoretical framework of this research.

Dye states,

Today people expect government to do a great many things for them. Indeed, there is hardly any personal or societal problem for which some group will not demand a government solution—that is, a public policy designed to alleviate personal discomfort or societal unease. Over the years, as more and more Americans turned to government to resolve society's problems, government grew in size and public policy expanded in scope to encompass just about every sector of American life.

Dye utilizes conceptual models to study policies stating that these are word models that try to:

- Simplify and clarify our thinking about policies and public policy

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41 Based upon Dyes assessment, a model is a simplified representation of some aspect of the real word. It may be an actual physical representation—a model airplane, for example, or the tabletop buildings that planners and architects use to show how things will look when proposed projects are completed. Or, a model may be a diagram, a road map, for example, or a flow chart that political scientists use to show how a bill becomes law.
• Identify important aspects of policy problems
• Help us to communicate with each other by focusing on essential features of political life
• Direct our efforts to understand public policy better by suggesting what is important and what is unimportant
• Suggest explanations for public policy and predict its consequences

B. Guy Peters asserts, “Public policy is the fundamental reason that scholars and citizens should be concerned about government...” In his work, American Public Policy: Promise and Performance, Peters states, “As Harold Lasswell argued almost seventy years ago, politics is about who gets what. Too, the size and complexity of modern government make it necessary to understand what public policies are, how those policies are made and changed, and how to evaluate the effectiveness and morality of policies.”

Environmental justice advocates are not alone in their formulation of theories in regards to public policies. Some scholars hold that the structure of policies is skewed to benefit specific groups. For instance, in 1953, Floyd Hunter, a sociologist and author, conducted a study in the city of Atlanta, Ga. This study claimed that the city of Atlanta was dominated by a handful of elite business owners. This “elite” group was considered to be the “power structure” of Atlanta. To that degree, public policies were created under the auspice of this structure of power. According to Hunter, “Community-wide policy is determined by a handful of men in the larger private corporate groups, who prod a

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smaller handful of public and private bureaucrats from time to time and who are in accord, generally, on what is wanted or needed by corporate powers. Other studies that were conducted on power relationships include Robert Dahl's *Who Governs?* However, Dahl's study actually disagreed with Hunter's findings of a governing elite. According to Dahl, a governing elite did not exist. Subsequently, G. William Domhoff's, *Who Really Ruled America?* refuted Dahl's findings and agreed with Hunter in that there did exist an identifiable elitist group from which policies were espoused. However, C. Wright Mills' study entitled, *The Power Elite,* was conducted prior to either of these studies and Mills found that there existed an identifiable elitist group with strong decision-making power in terms of policy creation. Mills referred to this group as the "the power elite." This elite structure is illustrated in Figure 7.


45 Robert Dahl, *Who Governs?* (CT: Yale University Press, 1961). This book is an influential book in American political science by Robert Dahl. It was published in 1961 by Yale University Press. Dahl's work is a case study of political power and representation in New Haven, Connecticut where he argued against Hunter's findings and concluded there were no specific groups of governing elites.

46 As argued by Domhoff in *Who Rules America?* In his argument, Domhoff agrees with Hunter's depiction of the elite structure and asserts that the owners and top executives of the largest corporations, banks, investment firms, and agri-businesses come together as a corporate community. Their enormous economic resources give them the "structural economic power" that is the basis for dominating the federal government through lobbying, campaign finance, appointments to key government positions, and a policy-planning network made up of foundations, think tanks, and policy-discussion groups.

47 *The Power Elite* is a book written by the sociologist, C. Wright Mills, in 1956. In it Mills calls attention to the interwoven interests of the leaders of the military, corporate, and political elements of society and suggests that the ordinary citizen is a relatively powerless subject of manipulation by those "elites."
The Group theory begins with the proposition that interaction among groups is the central fact of politics. Individuals with common interest band together formally or informally to press their demands on government. Moreover, the group theory purports to describe all meaningful, political activity in terms of group struggle. Policy makers are viewed as constantly responding to group pressures, such as, bargaining, negotiating, and compromising among competing demands of influential groups.\footnote{Thomas R. Dye, *Understanding Public Policy, 11th ed.*, (Upper Saddle River, NJ: Prentice Hall, 2005), pp. 25-47.}

According to the Environmental Justice Movement, policies have been implemented in accord with the agendas of interests groups as well as affluent communities in as much as the placement of hazards follows the “path of least resistance.” The terms Not In My Backyard (NIMBY) and Place in Blacks Backyard (PBBY) were coined due to such actions. For example, in a predominantly African-
American neighborhood in Gainesville, GA, thirteen of Gainesville's fifteen toxic-producing industries are located around the African-American neighborhood called New Town, even closer than its schools. New Town may be the kind of community the U.S. Commission on Civil Rights had in mind when it endorsed an October 17, 2003 report slamming federal agencies for failing to comply with a Clinton-era presidential Order to make environmental justice part of their work and programs. Race is a bigger predictor today of exposure to environmental hazards than geography or income, says studies cited in the 200-page report, "Not in My Backyard (NIMBY)". PIBBY is the acronym for Put In Blacks' Back Yard. This principle indicates that the people with social, racial, and economic privileges object to a development in their own back yards, and if the objectionable item must be built, then it should be built so that its perceived harms disproportionately affect poor, racially disadvantaged people. Robert Doyle Bullard, former director of the Environmental Justice Resource Center at Clark Atlanta University, has argued that official responses to NIMBY phenomena have led to the PIBBY (Put In Blacks' Back Yard) principle. Several controversies have been constructed in regards to group opposition and proponents to certain actions involving policies addressing environmental issues. These acronyms are central to this case study in that they conceptualize the problems and issues identified through various social and political cleavages which amplified the need for environmental protection. Too, they


convey perspectives from the proponents as well as opponents of environmental injustice actions and inactions. In principal, this study is dedicated to the examination of public policies implemented to address the asthma issue and its correlation to toxic dumps. This researcher thinks it to be pragmatic to include a holistic view of policies by the incorporation of various staples that catapulted this environmental justice movement and advocacy for policy protection for all people regardless of race, income, or social status. Moreover, all policies began with an idea, thought, or notion emanating from some need (social cleavages) and then journeys through the political process (political cleavages).

The group theory conveys that interaction among groups is the central fact of politics. Moreover, the group theory’s tenets describe all meaningful, political activity in terms of group struggle. Policymakers are viewed as constantly responding to group pressures: bargaining, negotiating, and compromising among competing demands of influential groups. The group theory is illustrated in Figure 8.

![Group Theory Model of Politics](image)

Source: Thomas R. Dye’s, *Understanding Public Policy*

Figure 8: Group Theory Model of Politics, Thomas R. Dye’s *Understanding Public Policy*

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As this study suggests, specific groups have been impacted by the disproportionate increase in asthma. In the study of public policies, this researcher has found that policies are also created through the actions of formal and/or informal groups. Robert Kreitner and Angelo Kinicki have provided a simple definition of a group as, "Two or more freely interacting people with shared norms and goals and a common identity." "Further, they put forth, "If a group is formed by a manager to help the organization accomplish its goals, then it qualifies as a formal group. An informal group exists when the members' overriding purpose of getting together is friendship or common interest."\(^{52}\) In Richard Stillman III’s *Public Administration: Concepts and Cases*, Stillman talks about governmental policies emerging from iron triangles, which he identified as "Three-way interactions involving elected members of Congress, particularly key committee and subcommittee chairpersons; career bureaucrats, particularly agency heads or senior staffers; and special interest lobbies, particularly powerful lobbies in specialized fields such as health, welfare, education, and defense."\(^{53}\) From those closed triad of interests, so the theory goes, governmental policies emerge by means of members of Congress writing and passing favorable legislation, bureaucrats implementing theses congressional mandates in return for bigger budgets, and special-interest groups backing (with re-election monies and other support) the helpful members.

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of Congress: in all, a tidy and closed relationship.\textsuperscript{54} In his discussion of iron triangles, Stillman employs a quote from Hugh Heclo which states,

The iron triangle concept is not so much wrong as it is disastrously incomplete. And the conventional view is especially inappropriate for understanding changes in politics and administration during recent years. Looking for the closed triangles of control, we tend to miss the fairly open networks of people that increasingly impinge upon government.” \textsuperscript{55}

Stillman summarizes Heclo’s view of issue networks stating, “Note that in Heclo’s view of the issue networks, unlike the iron triangle concept, which assumed a small identifiable circle of participants, the participants are largely shifting, fluid, and anonymous. Whereas, iron triangles are seen as relatively stable groups that coalesce around narrow policy issues, Heclo’s issue networks are dispersed and numerous players move in and out of the transitory networks, without anyone being clearly in control over programs or policies. A current example is the new emerging “Occupy Wallstreet Movement.”\textsuperscript{56}


\textsuperscript{56} Occupy Wall Street is a people-powered movement that began on September 17, 2011 in Liberty Square in Manhattan’s Financial District, and has spread to over 100 cities in the United States and actions in over 1,500 cities globally. \#ows is fighting back against the corrosive power of major banks and multinational corporations over the democratic process, and the role of Wall Street in creating an economic collapse that has caused the greatest recession in generations. The movement is inspired by popular uprisings in Egypt and Tunisia, and aims to expose how the richest 1% of people are writing the rules of an unfair global economy that is foreclosing on our future. The occupations around the world are being organized using a non-binding consensus based collective decision making tool known as a “people’s assembly.” For more in-depth reading regarding this movement can be found at: http://occupywallst.org/about.
Concomitantly, we have chosen to define and provide a distinct comparative analysis of iron triangles and issue networks for the reason that even though they are identified groups, they have varied characteristics as to formulation, cohesiveness, and longevity; but their policy goals have shared commonalities. Thus, in my examination of the group theory, this researcher’s position is that each groups’ characteristics are pertinent to policy outcomes as groups tend to formed what is termed as groupthink. James L. Garnett has defined groupthink as “A mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members’ strivings for unanimity override their motivation to realistically appraise alternative courses of actions.”\(^{57}\) As such, the actions of each group have a direct and proximate impact on the policies for which they advocate for the groups’ objectives for policy goals and outcome of each policy. Stillman includes Hugh Heclo’s essay, “Issue Networks and the Executive Establishment, which puts forth,

Our standard political conceptions of power and control are not very well suited to the loose-jointed play of influence that is emerging in political administration. We tend to look for one group exerting dominance over another, for subgovernments that are strongly insulated from other outside forces in the environment, for policies that get produced by a few makers.” Instead, says Heclo, in ‘looking for the few who are powerful, we tend to overlook the many whose webs of influence provoke and guide the exercise of power. These webs, or what I will call ‘issue networks,’ are particularly relevant to the highly intricate and confusing welfare policies that have been undertaken in recent years.\(^{58}\)

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While the process by which public policies are created and changed is complex and varies significantly from one policy question to the next, there are several general characteristics of the process that can be identified. First, a public policy problem must be identified. There are numerous problems that could be addressed by the public policy process but they have yet to be identified and articulated so they can take their place on the public policy agenda. For example, pollution was a serious problem in the United States for decades before it became a public policy problem that policy makers and the public paid attention to.

After a problem is identified, potential policy solutions are formulated. Elected officials, interest groups and citizens participate in discussions and debates. Alternative solutions are compared and critiqued. Where there is consensus (or at least majority support) for one of the policy alternatives, it is adopted, generally through the passage of legislation. Once a policy is enacted into law, it must be implemented. The Congress delegates the implementation (and many of the details associated with it) to Executive Branch departments and agencies. Almost the minute a policy is in place, people will begin to evaluate it. Is the policy actually fixing the problem? Is it causing additional unintended problems? Because no policy is ever perfect, policy evaluation invariably leads to new problem identification and the process commences again. Figure 9 pictorializes a basic illustrative process.59

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Still, Nassar, Batres, and Nakas state,

In environmental policy making, the objectives are part of the decision-making problem. Policymaking for sustainable development involves problems with lack of clear and definitive problem formulation which are to be solved by various stakeholders who judge the solutions with different values. In addition, risks and uncertainties involving future events and risks and uncertainties associated to the costs, benefits or effectiveness of a given policy add complexity to the decision making. Because of these characteristics, modeling and assessment methods alone are not enough to provide an adequate decision making support. In other words, policy making involves the existence of "wicked problems."  

Source: TransNation.com: The Policy Process

Figure 9: How a Bill Becomes a Law

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Analytical Framework

This study seeks to examine the effectiveness of policies implemented to address asthma disparity and disproportionate occurrence among minority youth in Georgia.

Linkage Approach

In Alain Marcoux’s article, “Population and Environmental Changes: From Linkage to Policy Issues,” Marcoux postulates, “Population dynamics, poverty and environmental change are linked in many ways and through multiple social and economic mechanisms, at various geographic levels. But not all those linkages have relevance for policy formulation in one of the three domains thus interconnected.” His research tries to identify policy issues among the array of conceivable linkages, placing emphasis on environmental policy. It considers both the environmental issues regarding the management of natural resources and those regarding the pollution of humankind's living quarters. These groups, which broadly correspond to the respective concerns of the rural and the urban environment (the "green" and "brown" agendas) differ in nature, and population dynamics plays different roles in them.62

Lothar Brock (1991) describes four types of linkages between peace and the environment. First, the causal relationship looks at natural resources as the object of wars. According to Wolf (2002), scarcity of resources can be a predictor of conflict, “The likelihood of conflict rises as the rate of change within the basin [or other resource] exceeds the institutional capacity to absorb that change.” Brock states, “Militant conflict over natural resources seems so frequent that it can become tempting to regard competing

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demand for resources as the single most important cause of war,” but he also points to
resources being a mere justification for an aggressive state to begin a war. Also, war has a
negative impact on the environment and natural resources, and in some cases, such as the
extreme scenario of “nuclear winter,” the potential environmental devastation may reduce
the threat of war.63

The definitional linkage explores the aggressive nature of environmental
degradation from the polluter upon the victims of pollution. Environmental damage has
been caused intentionally in international political conflicts, such as Iraqi military setting
fire to the oil wells in Kuwait in the Gulf War, or the United States’ use of napalm to
destroy forest cover in Vietnam in the Vietnam War. It has also been used in civil wars,
as seen in the draining of the marshlands in southern Iraq which housed a large
population of Shia Muslims being persecuted by the state of Iraq. Normative linkage of
environmental and peace issues stresses the need to expand policy-making from the
traditional security thinking of controlling the status quo to benefit an individual state, to
a more comprehensive view of security as long-term sustainable global development,
including social, military, economic and environmental issues all at the level of high
politics. Palme describes a common security policy that “defines the security needs of
one party in terms of the security needs of all parties,” thereby linking the notion of
ecological interdependence with security interdependence.64

63 Christina Simokat, “Peace and the Environment: The Effect of Linkages In Policy And
December 11, 2010).

64 Christina Simokat, “Peace and the Environment: The Effect of Linkages In Policy And
December 16, 2010.)
Other theories elucidating the disproportionate impact of hazardous sites on minorities includes the suggestion that placement of the pollution preceded the arrival of the people; therefore, minorities are disproportionately impacted by the proximity of hazardous dumps because they chose to move to these locations. The people moved to the pollution; consequential health hazards as expected. As such, this epidemic increase could be based on individuals’ choice to locate in areas that are high in environmental pollution; therefore, environmental policies can’t be skewed to accommodate these choices to subject oneself to the hazardous environment.

Rubin, Nodvin, et. al recognizes environmental health disparities; however, they have proffered other theories. According to these authors:

Environmental health disparities are reflected in epidemiologic findings demonstrating that the morbidity and mortality of certain environmental health conditions are disproportionately found in population groups that live in circumstances of social and economic disadvantage. In the United States, these populations include portions of the African-American community, portions of minority immigrant communities (currently often Hispanic), and portions of the Native-American community. These population groups have several elements in common.65

Various polemics and didactics suggest other theories utilized to determine policy effectiveness may need periods longer than the course of the case study, ask the question how does one exactly measure effectiveness, issues surrounding causation vs correlation, and that the occurrence of asthma may be convoluted with other issues making it difficult to determine the significance of proximity to toxic hazardous dumps.

Environmental Justice is both a concept and an approach to leverage existing laws to address environmental health disparities. This concept may be used to advocate on

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behalf of people who live in low-income and minority communities that are overburdened with adverse environmental factors and are underserved. Solutions to advance environmental justice have included conceptual, legal, and public policy mechanisms, as well as new strategies, models, and partnerships.⁶⁶

Environmental health disparities suggests that there are groups who live in communities where there is a disproportionate exposure to certain environmental factors that can adversely affect the health and well-being of that group and that society at large has the responsibility to recognize the impact of these environmental factors and advocate on behalf of the children to promote more secure and healthier environments and thus effectively reduce health disparities. For the purpose of this case study, this researcher will operationalize the disproportionate exposure to environmental factors to be the disproportionate exposure to toxic dumps; and the environmental health disparity to be the disproportionate occurrence of asthma among minority youth in Georgia.⁶⁷

Likewise, pundits in the medical field acknowledge the existence of disparities in environmental health in relation to toxic pollutants and minority youth. In exposition, the article, “Environmental Health Disparities: Environmental and Social Impact of Industrial Pollution in a Community—the Model of Anniston, AL,” wherein which medical officials pervaded the authorship, postulates, "Pediatric environmental health suggests that the pathologic agent is to be found in the environment and that the community, which includes pediatricians, public health practitioners and other


⁶⁷ Ibid.
responsible parties, must treat the child and must also seek to remove the offending agent from the environment to avoid further effects on the child in question or on other vulnerable children."68

Within the context of the *New Georgia Encyclopedia: Environmental History of Georgia*: "Environmental History of Georgia: Overview," Environmental history is defined here as the history of human impact on the landscape. It is a relatively new area of inquiry, but one that has much to teach us. It provides a landscape record for scientists who seek to understand present ecological systems by learning about past environment. From a sociohistorical perspective, environmental history presents a record of human activities and the effects of those activities on the landscape.69

In 1960, very few air or water pollution controls existed. Industries released more than four hundred (400) toxic chemicals into the air, drinking-water quality was not regulated, and seventy percent (70%) of the municipal sewage in Georgia entered rivers untreated. Rubin noted that the National Institute of Environmental Health Sciences and other supporters of partnerships between researchers and community-based organizations encourage evaluation of policy impacts because evidence of efficacy is considered to be


critical to future support and rational allocation of funding. These policy impacts are beginning to be assessed.\footnote{Rubin, I. MD, Nodvin, J. T. et al., “Environmental Health Disparities: Environmental and Social Impact of Industrial Pollution in a Community—Anniston, AL, Elsevier Saunders, Pediatric Clinics of north America, pp. 375-398.}

Echoing John Locke’s Social Contract Theory, “Men have the perfect freedom to do as they choose as long as their actions do not cause harm to others. Exponentially, Locke’s guiding tenets are preserving freedom and protecting property. To achieve this, Locke projected the necessity to form a civil society. Based on Locke’s assessment of a civil society, members are free to choose their governing body and agree to abide by its laws for which they are the creators. This “social contract” allows for the protection of their rights and property within the civil society. In the event that someone acts contrary to those laws, they risk being punished. Therefore, this society protects its members and the members agree to abide by the laws.” At the origin of civil society, Locke envisioned the critical element of creating laws and adhering to those laws to protect society. Too, Locke also determined that mandates should be put in place to punish those who violate those laws. This historical data supports the centrality of the relationship between society and the government in its reference “social contract.” Moreover, it endorses the notion that during the time of the most infinitesimal structure of civil society, there existed the right of society’s participation in the creation of laws intended for its protection. Extending this point, it elucidate this primitive epoch addressed the government’s duty to enact laws to protect society and society being components in the creation of these laws. Applicable to this is an organism in the policy process including the agreement to be subjective to punishment. In this arena, Locke captures the essence of laws to
punishment, need to protect society in his social contract, meant for all society.\textsuperscript{71}

Research has shown that there exists an epidemic increase in asthma among minority youth. Medical officials have found this to be an anomaly whose causation they have yet to identify. This increase, however, disproportionately affects minority youth. Therefore, the theory that guides this research is that current policies implemented to address this occurrence have been ineffective in obviating this issue among minority youth. The focus of the case study is the state of Georgia.

Through directed research, we have found that there exist minimal policies that specifically address the disproportionate increase in asthma among minority youth. Policies exist that address environmental health hazards and identify asthma as one of several environmental health hazards; but not asthma exclusively. Given that asthma has epidemically increased over the past five years, with minorities having been disproportionately affected, and the ineffectiveness of current policies implemented to address this issue, we seek to conduct this case study to bring to fruition the gravity of this problem and the necessity to improve current policies and/or create new policies. To this end, the Georgia Code only has legislation that deals with the medical self-administration of asthma in schools.

In the state of Georgia, there were approximately 47,000 Emergency Room (ER) visits in 2000 with asthma as the primary diagnosis. The overall rate of ER visits due to asthma was 519 per 100,000 population. Asthma ER charges were approximately $35 million. Blacks are three times more likely to visit the ER with asthma than Whites (947 vs. 273 per 100,000 population). Children aged 0-4 had the highest ER visit rate, 1,397

\textsuperscript{71} John Locke, \textit{Two Treatises on Civil Government}, "The Second Treatise of Civil Government," (General Books LLC), 1690.
per 100,000 population. Approximately 56,000 (15% of middle school students and approximately 70,000 (16%) high school students report they currently have asthma. Thirty of Georgia’s one hundred and fifty-nine counties had significantly higher ER visit rates than the state rate in 2004.\textsuperscript{72}

In 2004, there were more than 11,000 hospitalizations (133 per 100,000 population) in Georgia with asthma as the primary diagnosis. Hospital charges total more than $107 million dollars annually. Hospitalization rates in Georgia are 66 time higher than death rates. Blacks are twice as likely to be hospitalized as Whites (237 vs. 118 per 100,000 population). Hospitalization rates are the highest among the young and elderly. Rates were two to four times higher for the 0 to four years old and the sixty-five and over age group than other age groups. Forty-three of Georgia’s one hundred and fifty-nine counties had significantly higher hospitalization rates than the state rate (133 hospitalization per 100,000 per year) in 2004. Nine of Georgia’s eighteen Public Health Districts had significantly higher hospitalization rates than the state rate in 2004.\textsuperscript{73}

On average, from 2000-2004 there were 117 asthma deaths per year (1.6 per 100,000). Asthma deaths affect all races and sexes but death rates disproportionately affect minority populations in the U.S. and Georgia. In Georgia, blacks are more than twice as likely to die from asthma than whites (2.9 per 100,000 vs. 1.1 per 100,000).\textsuperscript{74}

\textsuperscript{72} Department of Public Health is the lead division entrusted by the people of the state of Georgia with the ultimate responsibility for the health of communities and the entire population. At the state level, DPH is divided into numerous branches, sections, programs and offices, and at the local level, DPH functions via 18 health districts and 159 county health departments.

\textsuperscript{73} Ibid.

\textsuperscript{74} Kanny A. Blackwell, “Georgia Asthma Surveillance Report,” Georgia Department of Human Resources, Division of Public Health, Chronic Disease, Injury, and Environmental Epidemiology Section, (February 2007), Publication Number: DPH07/049HW.
This is where the environmental justice framework can be indelibly applied. Its components enlist the affect vs intent mandate. Boyce argues that there exists a positive correlation between the state of wealth and the exposure to positive environmental impacts and the state of poverty and the exposure to negative environmental impacts. Boyce conceptualizes his arguments in terms of the market economy, 

In the market economy, people vote on what to produce in proportion to the money they spend. Economists call this effective demand. This differs from simple desire or need. A person can be hungry, and in that sense have demand for food, but she does not have effective demand — the ability to vote in the market place — unless hunger in her stomach is backed up by money in her pocket. The distribution of purchasing power determines how much of society’s resources will be devoted to producing rice and beans, and how much to producing champagne and luxury automobiles.75

In Mary M. Timney’s essay, “Environmental Injustices,” she states, “Environmental injustice describes the results of political and economic decisions that have disproportionate impacts on poor and minority populations.” Further, she states that the E.P.A. defines environmental justice as “the fair treatment of people of all races, cultures, and income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. In her treatment of the term environmental injustice, she says this “occurs when polluting facilities are disproportionately sited in neighborhoods or communities with a population of people of color or a: an economic disadvantage that also has little political power to influence the citing decisions.”76

In Timney’s essay, she postulates that the term environmental racism is misleading because it limits those affects to people of color. Her expository defense of this statement is the


fact that in Ohio, a high percentage of poor is white Appalachians or blue-collar ethnics who live in the most polluted areas along with Blacks and minorities and is not conducive to her aforementioned definition of environmental injustice. In addition to this contrasting definition, in Henry L. White’s article, “Race, Class, and Environmental Hazards,” White quotes former President Bill Clinton’s statement regarding environmental justice:

When we talk about environmental justice, we mean calling a halt to the poisoning of our poorest communities, from our rural areas to our inner cities. We don’t have a person to waste and pollution clearly wastes human lives and natural resources. When our children’s lives are no longer damaged by lead poisoning, we will stop wasting the energy and intelligence that could build a stronger and more prosperous America.\(^77\)

As a structural approach to policy analysis, Eugene Bardach created an eight-fold path:

- Define the Problem
- Assemble Some Evidence
- Construct the Alternatives
- Select the Criteria
- Project the Outcomes
- Confront the Trade-Offs
- Decide
- Tell Your Story

Beyond this structural approach, Bardach asserts that policy analysis is a social and political activity that emanates from personal moral and intellectual responsibility.

Policy problems appear as a confusing welter of details: personalities, interest groups, rhetorical demands, budget figures, legal rules and interpretations, bureaucratic routines, citizen attitudes, and so on. Therefore, the primary utility of a structured approach is a necessity.\(^78\)


According to Thomas Dye, public policy may be viewed as the preferences and values of a governing elite, even though it is often asserted that public policy reflects the demands of the people. Based upon Dye’s assertion, public policy reflecting the demands of the people is a myth. In support of this assertion, Dye states that the Elite Theory suggest that people are apathetic and ill informed about public policy, that elites actually shape mass opinion on policy questions more than masses shape elite opinion, which results in an outcome of public policy actually reflecting the preference of the elites.79

Elucidating, Dye proffered various tenets of his definition of the elite theory. However, for the purposes of this research, I will only list those I deem most germane to this case study:

- Society is divided into the few who have power and the many who do not. Only a small number of persons allocate values for society; the masses do not decide public policy.
- The few who govern are not typical of the masses who are governed. Elites are drawn disproportionately from the upper socioeconomic
- Public policy does not reflect the demands of masses but rather the prevailing values of the elite.
- Active elites are subject to relatively little direct influence from apathetic masses. elites influence masses more than masses influence elites.80

Within this theoretical framework, I will now discuss various theories upon which this study can be driven. Politically, the United States function as a pluralistic society, meaning that groups are relatively free to compete with one another to influence policy. Definitively, pluralism views politics as a conflict among interest groups. Political


80 Ibid.
decision making is characterized by bargaining and compromise. Moreover, the pluralism theory connects to this study in that to seek the enacting of effective public policies to address the asthma issue, various interest groups, i.e. environmental justice advocates, may find themselves in a bargaining and/or compromising position. Accentuating this pluralistic view, this researcher feels that it is pragmatic to briefly discuss majoritarianism, which holds that in a democracy, the government ought to do what the majority of the people want.  

This research can be guided by the group theory, as certain groups are requesting the government to commit certain actions in their favor, or in alignment with their agenda. It intersects the pluralistic paradigm in that it also deals with groups within society. However, the elite theory asserts that certain groups, those who have power and money, have the greatest impact on political decision making. The regime theory can be employed within this study. As put forth by Gerry Stoker in, “Regime Theory and Urban Politics,” the regime theory takes as a given a set of government institutions subject to some degree of popular control and an economy guided mainly, but not exclusively, by privately controlled investment decisions. Additionally, regime theorists argue that politics matter and that the organization of politics leads to very inadequate forms of popular control and makes government less responsive to socioeconomically disadvantaged groups. Here, we conceptualize the commonalities that exist within the

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theories of pluralism, majoritarianism, regime, and elitism. Paralleling each of these theories, we find that all operate based upon group action and social movement. But, what is not found within all of theories is the existence of power resulting from economic wealth. As posited in Alan Harding’s “Elite Theory and Growth Machines,”

To speak of an elite is to have a mental picture of the way power is distributed. Whether we live in democratic or authoritarian societies, with market or command economics, common sense generally tells us that control over crucial resources like property, money, the legitimate use of violence, political influence, scientific knowledge and so on is concentrated in the hands of a few. Social structures resemble pyramids, with a relatively small number of very powerful people at the top gradually giving way to a large mass of unpowerful individuals at the bottom. Elite theory is based on this hierarchical conception of society and concerns itself with relations between the rulers and the ruled, the powerful and the powerless.\(^\text{83}\)

In Floyd Hunter’s study of Atlanta, Ga, Hunter’s findings coincides with that of Harding’s. Quoting Hunter,

The continuity of which I speak here means simply that although changes in personnel are apparent in the Atlanta power scene and in the observable new structures such as those concerned with downtown renewal, the basic pattern of circular, self-selected leadership remains. Community-wide policy is determined by a handful of men in the larger private corporate groups, who prod a smaller handful of public and private bureaucrats from time to time and who are in accord, generally, on what is wanted or needed by corporate powers.\(^\text{84}\)

Harding discusses the elite theory and how it is applicable to the distribution of power. Hunter amplifies the role of corporate powers in policy decisions when he states that community-wide policy is determined by a handful of men in the larger private corporate groups. Research widely supports that corporations are the largest polluters in the United


States. Environmental health hazards; such as asthma, has been evidenced to be one of the results of such toxic pollution. These emphases are made in support of the researcher’s utility of the elite theory as the overarching theory of this study.

Interestingly, in Charles Lindblom’s article, “The Science of Muddling Through,” Lindblom presented two possible methods of policy formulation: 1) the Rational-Comprehensive Theory (Root) and 2) the Successive Limited Comparison Theory (Branch). Within these formulas, Lindblom included several valuable tenets by juxtaposing each.

*Rational-Comprehensive Theory (Root)*

1) Clarification of values or objectives distinct from and usually prerequisite to empirical analysis of alternatives policies.
2) Policy-formulation is therefore approached through means-end analysis: First the ends are isolated, then the means to achieve them are sought.
3) The test of a good policy is that it can be shown to be the most appropriate means to desired ends.
4) Analysis is comprehensive; every important relevant factor is taken into account.
5) Theory is often heavily relied upon.

*Successive Limited Comparisons (Branch) also referred to as Incrementalism*

1) Selection of value goals and empirical analysis of the needed action are not distinct from one another but are closely intertwined.
2) Since means and ends are not distinct, means-end analysis is often inappropriate or limited.
3) The test of a good policy is typically that various analysts find themselves directly agreeing on a policy (without their agreeing that it is the most appropriate means to an agreed objective).
4) Analysis is drastically limited:
   a. Important possible outcomes are neglected.
   b. Important alternative potential policies are neglected.
   c. Important affected values are neglected.
5) A succession of comparisons greatly reduces or eliminates reliance on theory.
Theoretically, these methodologies present a framework of policy formulation up and to their strengths and weaknesses.\textsuperscript{85} For the purposes of this study, this researcher thought it wise to include these theories as their tenets are germane to this study. However, the rational-comprehensive theory may not be effective in that it mandates that all possible alternatives are considered and all policy makers are in agreement. This process could be very time consuming and a barrier when constructing policies dealing with individuals' health. The successive limited comparisons theory could be more effective in that it does not mandate that all alternatives are considered, nor does it mandate that all policy makers are in agreement. Additionally, this theory builds upon policies or alternatives already in existence. This could prove to be less time consuming and allow for more agreement among policy makers; both of which are crucial factors to be considered.

Lindblom admits that the first two components of each of these theories would be impossible when dealing with complex problems. He states,

\begin{quote}
Although such an approach can be described, it cannot be practiced except for relatively simple problems and even then only in a somewhat modified form. It assumes intellectual capacities and sources of information that men simply do not possess, and it is even more absurd as an approach to policy when the time and money that can be allocated to a policy problem is limited.\textsuperscript{86}
\end{quote}

In the quest for increased advocacy for the enactment of effective public policies to address the asthma issue discussed in this research study, the regime theory can also be considered as a lens through which this study can be viewed. As Dahl argued in his work, \textit{Who Governs?}, "In general, man tends to maximize his utility, i.e. he directs his


\textsuperscript{86} Ibid at 80.
energy, resources, and time to satisfy his needs and avoid pain. Man, whether political or not, will use his resources to best meet his ends. However, the work goes to observe that Dahl found a duality in this nature. Thus, the terms Homo Civicus and Homo Politicus are incorporated. Definitively, Homo Civicus denotes that man uses his strategies and resources to meet personal ends. Homo Politicus denotes that man uses his strategies and resources to meet political ends. As such, Dahl argues that resources are limited.

Political man, however, uses his time and labor to devise strategies that allow him to maximize his resources while eliciting the use of the resources of others. Pyramiding, or the stacking of several sources of small resources into a sizeable political holding, Dahl states, is an effective way of building support and/or power. At this point, we put forth that Dahl’s arguments allows for the regime theory to be imbued within this research study. As described by Stoker,

The regime theory directs attention away from a narrow focus on power as an issue of social control towards an understanding of power expressed through social production. In a complex, fragmented urban world the paradigmatic form of power is that which enables certain interests to blend their capacities to achieve common purposes.

In contrast to the term Homo Civicus and parallel to the term Homo Politicus, Stoker states, “Regime analysis directs attention to the conditions under which such effective long-term coalitions emerge in order to accomplish public purpose.” This type of actions are manifested in grassroot organizations as well as individuals who lobby our

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87 Ibid at 35


89 Ibid.
government for the creation of public policies that specifically address the asthma issue studied in this case study.

In spite of the fact that each theory discussed in this theoretical framework is relevant and applicable to this research study, to maintain specificity and clarity in staying on message, we maintain that the elite theory would be best applied. This work is a political science work that focuses on policy analysis. Paraphrasing Roskin, et al, “Political science often uses the findings of other social sciences, but one feature distinguishes it from the others is its focus on power. Niccolò Machiavelli, a founding father of the field of political science, emphasized the role of power in politics. You can take all the factors and approaches of the social sciences, but if you are not using them to study power, you are probably not doing political science. Moreover, Machiavelli asserts that if one is to go into politics, they you become like the fox and the lion, not the. Even if all democratic criteria are met, political power will still not be evenly distributed; few will have a log, and many will have little. Elites make the actual decisions, and ordinary citizens, the masses, generally go along with these decisions. The key dispute is how much elites are accountable to masses. Italian political scientists, Gaetano Mosca, argued that government always falls into the hands of a few. In all societies, from societies that are very undeveloped and have largely attained the dawning of civilization, down to the most advanced and powerful societies, two classes of people appear, a class that rules and a class that is ruled. The first class, always the less numerous, performs all of the political functions, monopolizes power, and enjoys the advantages that power brings,

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whereas the second, the more numerous class, is directed and controlled by the first, in a manner that is now more or less legal, now more or less arbitrary and violent. The German thinker Robert Michels argued that any organization, no matter how democratic its intent, ends up run by a small elite; he called this the "Iron Law of Oligarchy." More recently, Yale political scientist Robert Dahl held that participatory democracy is not possible in large modern societies; government is too big and the issues are too complex. The key political, economic, and social decisions are made by tiny minorities. It is difficult to see how it could be otherwise in large political systems. These three agree on the inevitability of elites, but Mosca and Michels, elite theorists, see elites as unaccountable whereas Dahl, a pluralist, sees them as accountable. Contrary to what one might suppose, modern elite theorists are generally not conservatives but radicals; they decry rule by elites as unfair and undemocratic; such as done by C. Wright Mills who denounced the power elite. As such, we argue that the dispersion of power characteristic of the elite theory can be attributed to the policy decisions that determine asthma-related policies. Like so, these decisions impact policy outcomes.

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91 Ibid. 78.

CHAPTER IV

ASTHMA DISPARITIES AND ANALYSIS OF PUBLIC POLICIES

Remarkably, *Executive Order 12898*, discussed later in the chapter, was one of the most prominent policies that emerged from the Environmental Justice Movement (EJM). However, as put forth by the Environmental Justice Resource Center (EJRC) at Clark Atlanta University, this Order was a reinforcement of what had been law for at least three decades, the passage of the Civil Rights Act of 1964 prohibiting discriminatory practices in programs receiving federal funds. Also, the EJRC asserts that the Order focused the spotlight back on the 1969 National Environmental Policy Act (NEPA), a twenty-five year old law that set policy goals for the protection, maintenance, and enhancement of the environment as well as ensure for all Americans a safe, healthful, productive, and aesthetically and culturally pleasing environment. However, the EJM saw the need for a paradigm shift in asthma-related environmental laws. Through grassroots activism, emphasis on pollution and disease, and research documenting disparities, the EJM successfully laid the foundation for the creation of the Executive Order 12898, instituting the paradigm shift sought by the movement.¹ Comparably, we seek to provide information that may result in the paradigmatic shift of current asthma-related public policies by moving beyond advocating for asthma-related environmental policies and seeking national environmental laws that strictly deal with asthma and its disparate

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impact on minority communities. Explicitly, this shift would include building strong relationships with the scientific field in advocating for the creation of asthma-specific environmental laws, utilizing different measurements in identifying environmental hazards that can potentially lead to asthma disparity, monitoring success of laws created to address asthma disparities, and mandating consistent reporting of asthma by health departments and other agencies. More importantly, this shift would mandate the categorization of asthma as a reportable disease as determined by state health agencies; currently, it is not. With this shift, we also seek the creation of a clear and uniform National Asthma-specific environmental law to supplement the patchwork of differing rules and regulations based on individual states in regards to the relationship of asthma and toxic pollutants.

This researcher’s suggestion for a paradigm shift is supported by previous scientific studies. In an article entitled, “Not So Black and White: Environmental Justice and Cumulative Impact Assessments,” authors Krieg and Fabar states, “A growing number of scientific studies in recent years have investigated disparate exposure to ecological hazards in American society.” These authors champion the incorporation of the Human Health Impact Analysis (HHIA) to identify and document the effects of hazards on human health. In this approach, demonstration of risk is based on statistical probability of associations between hazards and health impacts. HHIAAs are often critiqued on the basis of shortcomings in causal reasoning. To scientifically demonstrate that environmental hazards cause measurable declines in human health requires meeting three criteria: (1) that the hazard precedes the health impact, (2) that the health impact is not the result of other causes, and (3) that the health impact occurs “often enough” to
warrant statistical association and statistical significance. This process can be employed as a new measurement tool in this researcher's suggested paradigm shift. Krieg and Fabar further puts forth that understanding the various dimensions of environmental justice is in the interest of general scientific inquiry. Moreover, it is in the interest of all citizens and communities to move environmental and health politics toward a more inclusive and effective agenda that can more successfully improve overall public health by reducing risks for all communities.

Going forward, this chapter examines specific asthma-related public policies. Coupled with this policy analysis, several studies that document asthma disparities and meet the three criteria to scientifically demonstrate that environmental hazards cause measurable declines in human health, as asserted by Krieg and Fabar, have been included.

During this study, we administered a survey instrument designed to gauge the perceptions of key stakeholders, namely, environmental justice advocates, governmental officials, and community members, in regards to the linkage of asthma and toxic hazards as well as their perception regarding public policies enacted to address this problem. The importance of this action is to compare the findings of the study to the perceptions of the key stakeholders and to appropriately respond to the research questions.

This researcher acknowledges the difficulty in establishing that there exists a causal linkage between toxic dumps and the occurrence of asthma in minorities living in close proximity to toxic dumps; therefore, our focus will be on policy analysis. Additionally, this researcher acknowledges other factors, i.e. income and indoor

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3 Ibid.
pollutants that challenge causal linkages of pollutants and health and diseases. As observed by Krieg and Faber,

Given the kinds of data available to researchers, demonstrating causal associations of environmental indicators with human health indicators is extremely difficult, i.e. multiple causes, multiple effects, lag times, interactive effects, individual outcomes, and individual susceptibilities can be obstacles to drawing causal associations in HHIAs.4

A recent report by the Center for Disease Control recognizes many of these same issues claiming that the measurement of an environmental chemical in a person’s blood or urine does not by itself mean that the chemical causes diseases. For any particular community, understanding the potential health threats that could result from toxic releases is a nearly impossible task. Public health officials often lack sufficient understanding of how citizens have been exposed to toxic substances, how those substances work within the body, and how many people have contracted chronic diseases. A second approach that Environmental Impact Assessments (EIAs) can take is to focus on potential health threats and risks. This approach is more characteristic of social science and is typically grounded in risk assessment and cost–benefit analysis. Much of the current literature on environmental justice (EJ) is based on comparisons of exposure and risk between different populations, rather than on the toxicological and biological impacts of those exposures. These analyses often describe patterns of unequal exposure to risks between communities, but do not always attempt to prove associations between environmental


Dr. Paul Mohai, et al. conducted a study, "Air Pollution Around Schools Is Linked To Poorer Student Health and Academic Performance," the researchers examined the extent of air pollution from industrial sources around public schools in Michigan to find out whether air pollution jeopardizes children's health and academic performance. They put forth that exposing children to environmental pollutants during times of physiological development can lead to long-lasting health problems, dysfunction, and disease.\footnote{Paul Mohai, Byoung-Suk Kweon, Sangyun Lee and Kerry Ard, "Air Pollution Around Schools Is Linked To Poorer Student Health an Academic Performance," \textit{Health Affairs}, vol. 30, (2011): 852-862.} Comparable to this research, Mohai's study also acknowledges limitations in proving causation linkages through its statement:

> Are air pollution burdens around schools linked to student health and performance? Although we cannot conclusively establish cause and effect linkages from our macro level analysis, we can nevertheless examine associations and rule out obvious confounding variables, such as school demographics, school expenditures, and locations (suburban versus urban or rural) of schools. And we can determine how robust the associations are, and whether they warrant concern.\footnote{Ibid at 855.}

Mohai's study does not specifically address asthma; however, it supports the linkage between air pollutants and children's health. Supporting the advocacy for effective policies regarding the issue of asthma disparity, as put forth in this case study, Mohai's article states:

> Our findings underscore the need to expand the concept of environmental justice to include children as a vulnerable population. They are required to attend school
and have little or no say in where they live or go to school, which makes them particularly dependent on governmental policies to protect them from harm. Moreover, as our findings show, children of color are disproportionately at risk. There is a need for proactive school policies that will protect children from exposure to unhealthy levels of air pollution and other environmental hazards. To achieve that goal, we make four policy recommendations: site analysis, minimum distance requirements, environmental mitigation, and multilevel cooperation.8

In addition, Mohai’s study magnifies medical reasons exemplifying children’s vulnerability as well as the necessity to protect children from air pollutants, which lends further supports to the need for effective policies directly addressing air pollutants resulting in respiratory illnesses. According to Mohai,

Children’s lung functioning is not yet fully developed. Compared to adults, they breathe in greater levels of polluted air relative to their weight and spend more time outside when air pollution levels are the highest. And because of differences in metabolism, mouthing behavior—such as the tendency to put their hands and objects in their mouths—and respiratory rates, children are often exposed to higher levels of lead, arsenic, pesticides, and other pollutants. Moreover, children have little or no choice about where they live or go to school.9

Comparably, Mohai’s article asserts that school siting policies should protect children from their vulnerability to environmental pollution. However, many states do not have any school siting policies.10 These findings directly correlates to this case study in that this researcher puts forth that toxic waste siting policies should protect children from their vulnerability to environmental pollution. However, many states do not have effective toxic waste siting policies, including the state of Georgia. This exigency renders children more susceptible to contracting asthma.

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9 Ibid at 852.

10 Ibid at 853.
Still, other studies have been conducted that agree that there has been an increase in asthma over the past several years and in the existence of the toxic pollutant linkage to this phenomenon. In their article entitled, “Breathless: Schools, Air Toxics, and Environmental Justice in California,” Pastor, Morello-Frosch, and Sadd, postulates,

In recent years, the intersection between environmental justice, children's health, and schools has attracted the interest of many researchers and activists. Part of the concern is caused by a growing body of scientific evidence that indicates that children are more susceptible than adults to the adverse effects of environmental pollution. The problems may even begin before birth: Studies have linked air pollution exposures to adverse health effects including preterm birth, low birth weight, and birth defects and a recent study by Chay and Greenstone (2003) found that air pollution had a significant impact on infant mortality. There have also been concerns about disparities in exposures by race, partly because some diseases that appear later in childhood and are potentially related to air pollution (e.g. respiratory illnesses such as asthma) also seem to be particularly on the rise in minority populations. A landmark multidisciplinary study tracked nearly 1,800 children over eight years in Southern California communities and found that air pollution can adversely impact lung function and development. More detailed work in the heavily Latino Huntington Park area of Southern California showed significant negative effects from pollution on the asthma symptoms for children aged 10-16 years.\(^{11}\)

Moreover, Pastor, Morello-Frosch, and Sadd assert that they also examined the association between the respiratory hazard data and asthma hospitalizations for the period 1998 to 2000. Accordingly, these authors state that their theory, based on the epidemiological literature, is that higher respiratory hazards caused by poor air quality is linked to asthma.\(^{12}\)

In her article, “Asthma and Air Pollution in the Bronx: Methodological and Data Considerations in Using GIS for Environmental Justice and Health Research,” which examines methods of environmental justice assessment with Geographic


\(^{12}\) Ibid at 340.
Information Systems using research on the spatial correspondence between asthma and air pollution in the Bronx, New York City as a case study, Juliana Maantay states:

Issues of spatial extent and resolution, the selection of environmental burdens to analyze, data and methodological limitations, and different approaches to delineating exposure are discussed in the context of the asthma study, which, through proximity analysis, found that people living near (within specified distance buffers) noxious land uses were up to 66 percent more likely to be hospitalized for asthma, and were 30 percent more likely to be poor and 13 percent more likely to be a minority than those outside the buffers.13

According to Maantay, many researchers have investigated the link between outdoor air pollution and asthma in other cities and have demonstrated that exposure to major air pollutants including ozone, sulfur dioxide, nitrogen dioxide, and suspended particulate matter, is related to asthma prevalence or hospitalizations, i.e. English et al., 1997; Friedman et al., 2001; and Neutra, 1999; Romieu et al., 1995.14

In their report, “Asthma Facts in Black and White and Green: The Truth About African American Health and Pollution,” the National Black Environmental Justice Network asserts that government agencies and industries overwhelmingly locate polluting facilities in communities of color and engage in hazardous and unsustainable development, over the protests of residents and in disregard of safer and more environmentally protective alternatives. The people who live in these communities are inundated with significant environmental and health hazards related to toxic waste sites, mining operations, incinerators, oil exploration, and other harmful developments. In the

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14 Ibid at 33.
United States, approximately 60% of African Americans live in communities with uncontrolled toxic waste sites. Three (3) out of five (5) of the largest hazardous waste landfills in the United States are located in predominantly African-American or Latino communities. As a consequence, people of color have a higher incidence of cancer, lead poisoning, respiratory illnesses and a host of other serious and fatal environmentally-related health problems. Unfortunately, the medical establishment and the existing public health paradigm do not emphasize the association of pollution.¹⁵

Even so, studies continue to support the findings of linkages between toxic pollutants and asthma, while acknowledging the difficulty is showing a causal relationship between toxic pollutants and asthma, as demonstrated by a report submitted by the University of Minnesota. As observed in this report,

Although, it is clear that air pollutants can trigger asthma symptoms, there is still considerable debate about whether air pollution is a cause of asthma. Of note, studies of causality of asthma by air pollution are difficult to do; methodology to precisely quantify personal exposure to air pollutants is lacking. Further, it is difficult to pinpoint which air pollutant in the mix of chemicals in ambient air may be responsible. That said, it seems like somewhat of a paradox that air quality has improved over the past two decades in the United States coinciding with an increase in asthma prevalence. However, despite improvements in air quality related to reduction in lead and the burning of fossil fuels, some pollutants such as nitrogen dioxide have increased. Further investigation is needed to look at specific pollutants and their link to the onset of asthma. What is clear is that air pollution has effects on asthma morbidity and mortality. Numerous epidemiological studies have demonstrated that hospital admissions, emergency department visits, and decreases in lung function in asthmatic children are correlated with levels of outdoor air pollutants.¹⁶


Children’s environments have changed profoundly in the past century. Children today are at risk of exposure of more than 80,000 synthetic chemicals. Most of these chemicals are newly invented, and nearly all of them did not exist fifty (50) years ago. Moreover, children are now understood to be fundamentally more vulnerable than adults to toxic chemicals in the environment. Quoting Landrigan, Rauh, and Galvez, “Evidence has been building for 100 years that toxic exposures in the environment can cause and aggravate disease in children.”

Science should play a critical role in the formulation of public health policy. For a complex and newly developing subject such as environmental justice, however, science often cannot provide policymakers with research data pointing conclusively to a particular solution. Studies consistently support that minorities are disproportionately impacted by asthma; however, these studies do not attempt to prove causation to these effects. Furthermore, questions as to other causal factors have been raised. In their article, “Respiratory Disease in Relation to Patient Residence Near to Hazardous Waste Sites,” Kudyakov, et al., stated,

We have examined rates of hospitalization for respiratory disease in relation to residences in zip codes with hazardous wastes sites, as well as socio-economic status. Chronic bronchitis and chronic airway obstruction were elevated in persons who live in zip codes containing persistent organic pollutants (POPs) (PCBs and persistent pesticides) as compared to clean zip codes without hazardous waste sites or zip codes with hazardous waste sites containing other kinds of wastes, but the differences could be due to socio-economic status and


behavioral risk factors since these are also important risk factors for respiratory diseases.\textsuperscript{19}

The goal of the investigations was to determine whether various forms of respiratory disease are more frequent among individuals living near hazardous waste sites and, if so, to attempt to determine whether this is secondary to exposure to contaminants and consequent alteration immune function or to socio-economic factors. The evidence of the investigation provided support for the conclusion that socio-economic status and rates of smoking, exercise, and diet do not explain the elevated incidence of infectious respiratory diseases in POPs-contaminated zip codes. The results obtained in this investigation showed patterns of disease that implicate socio-economic status as a major predictor of respiratory ill health, but are also consistent with the hypothesis that simply living near a POP-contaminated site poses an elevated risk of exposure, a reduction in immune competence and an increased incidence of respiratory disease.\textsuperscript{20}

Carpenter, Ma, and Lessner conducted a comparable study in which the hypothesis stated that simply living near hazardous waste site increases risk of exposure to chemicals was tested. The results of this study also showed greater elevation in rates of respiratory infectious diseases among residents of zip codes with waste sites that did not contain POPs. Again, this study provided evidence that is consistent with the


hypothesis that exposure to environmental contaminants are factors that increase risk of respiratory infections, including asthma.\textsuperscript{21}

Historically, much research has been conducted that focuses on the environment, environmental justice/injustice and environmental health hazards. In addition to this body of research, historical research also strongly supports that chronic illnesses, such as asthma, have resulted from residing in close proximity to environmental health hazards, such as toxic dumps. As such, this case study seeks to singularize and analyze specific public policies that confront address asthma disparity and disproportionate increase among minority youth in the state of Georgia. This researcher postulates that the policies implemented to address this asthma issue have not been significantly effective in this area. This postulation is based on the fact that there has been a disproportionate increase in asthma among minorities over the last ten years. In the state of Georgia, asthma was confirmed as a major public health problem and the first report to describe some of the burdens of asthma, "Asthma in Georgia 2000," was created by the Georgia Department of Human Resources and the American Lung Association. In this report, it states, "For reasons unknown, asthma became more common during the 1980s and early 1990s."\textsuperscript{22}


\textsuperscript{22} "Asthma in Georgia 2000 Report." This report describes the burden of asthma in Georgia, mainly focusing on children asthma. It contains information from three sources; 1) a survey of asthma among Georgia children conducted in 2000, 2) Georgia hospital discharge data for 1998-1999, and 3) Georgia mortality data from 1982-1998. It was produced by the Georgia Department of Human Resources and the American Lung Association. For a full reading of the report, please visit: http://www.health.state.ga.us/epi/cdje/asthma.asp. (accessed June 1-30, 2009).
In conducting this research, we found that more research is needed that focuses on the epidemic increase in asthma among minorities. Moreover, there exist no national policies that specifically focus on asthma as an environmental justice health issue and very few policies have been created on a state level that specifically address the asthma issue.

Public health officials argue that it is very difficult to pin health outcomes on single environmental justice factors. It also takes many years for the health impact to manifest making it even more difficult to state causations. i.e. factories causing health problems may take years for health problem to manifest in individuals, or years to find the pattern of issues manifesting. The researcher further acknowledges this.

This researcher sought to find policies that specifically address asthma as an environmental justice issue. In spite of that, my findings were that most sources refer to the prevention of asthma attacks and asthma education. However, all suggest that minorities disproportionately suffer from this disease. For example, in a report generated by the United States Department of Housing and Urban Development, it states that children, particularly those living in urban areas and crowded or unclean conditions are especially at risk for developing asthma. African-American children living in low-income families tend to have more severe asthma and are at greater risk of death.23

Asthma in Children

In 2000, approximately 11% (210,000) of Georgia’s children 0-17 years of age have asthma as shown in Figure 10.

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Figure 10: Percent of Children (0-17) with Asthma, Georgia 2000

Table 3 provides more information on asthma among children in the state of Georgia.

TABLE 3: 2000 Asthma Statistics of Children in Georgia

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households with children who have</td>
<td>16</td>
</tr>
<tr>
<td>Children who have had asthma attacks</td>
<td>65</td>
</tr>
<tr>
<td>Children who have visited an emergency room</td>
<td>30</td>
</tr>
<tr>
<td>Children who have missed school or work</td>
<td>54</td>
</tr>
</tbody>
</table>

Death rate among children with asthma

Source: Asthma in Georgia 2000

Asthma Hospitalization and Deaths, All Ages

More than 9,000 Georgians are hospitalized each year with asthma as the primary diagnosis (122 hospitalizations per 100,000 population). Georgians older than 65 and younger than 20 are more likely to be hospitalized with asthma. Black Georgians are more likely to be hospitalized with asthma than white Georgians. Approximately 2 per 100,000 Georgians die from asthma each year. Older Georgians are more likely to die
from asthma than younger Georgians. Black Georgians are more likely to die from asthma than white Georgians.24

*Asthma Hospitalization Rates in Children*

Among children, those 0-4 years old, are the most likely to be hospitalized with asthma. Their hospitalization rate is more than twice as high as any other age group as shown in Figure 11.

![Figure 11: Asthma Hospitalization Rates in Those children who are under 20 years of age, Georgia, 1998-99](image)

*Source: Asthma in Georgia 2000*

Figure 11: Asthma Hospitalization Rates in Those children who are under 20 years of age, Georgia, 1998-99.

Among Georgia children, asthma is slightly more common among boys than girls, and among blacks than whites as indicated in Figure 12.

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For reasons unknown, asthma became more common during the 1980s and early 1990s. Few numbers are available about the prevalence and burden of asthma in Georgia, because asthma is not contagious and not often fatal. We do know, however, that asthma has taken and continues to take an enormous toll on Georgia citizens in terms of lost productivity, medical costs, family difficulties, and sometimes disability and death.²⁵

In 2003, over thirteen percent (13.1%) of public middle school students had asthma. Over ten percent (10.7%) of public high school students had asthma. Over six percent (6.7%) of adults aged 18 years and older have asthma. Asthma causes approximately 9,400 hospitalizations every year. Hospital charges total approximately $59 million annually. Every year approximately one hundred and twenty (120) persons die because of asthma. Blacks and women are more likely than whites and men to be hospitalized or die because of asthma. According to the report, “The Burden of Asthma in

Georgia 2003,” estimates from the 1998 National Health Interview Survey suggest that 26 million Americans had been diagnosed with asthma at some point in their life and nearly 11 million currently have asthma. Annually, asthma is responsible for more than 500,000 hospitalizations and 5,000 deaths nationwide. Georgia accounts for approximately 9,400 of the hospitalizations and 120 of the deaths. Asthma costs our nation approximately $11 billion a year.  

Asthma deaths affect all races and sexes but death rates disproportionately affect minority populations in the U.S. and Georgia. In Georgia, blacks are three times more likely to die from asthma than whites (3.6 per 100,000 vs. 1.2 per 100,000 population).  

According to the Georgia Human Resources 2005 Data Summary on Asthma, the estimated number of children under the age of seventeen who had asthma was at 10%, (212,000). However, this reports states, “The prevalence of asthma among non-Hispanic black children (12%) is not significantly different from the prevalence among non-Hispanic white children (9%) or other races/ethnicities (8%). The number remained constant for 2006, which was also (10%), 212,000.  

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Notably, in its 2007 Georgia Data Summary, the Georgia Department of Human Resources narrowed the age of children in their report from those under 17 years of age to those under 10 years of age. Still, the summary report on asthma states that the number of children 10 years of age and under who had asthma was 10% (137,000).\(^{30}\) The percentage (10%) remained constant as shown in Figure 13.

![Percentage of children and adults who have asthma, Georgia, 2007](image)

Source: 2008 Georgia Data Summary, Asthma

Figure 13: Percentage of Children and Adults who have asthma, 2007.

According to the 2008 Georgia Data Summary, approximately 230,000 (10%) children in Georgia have asthma. On average, from 2001 to 2006 there were 116 asthma deaths per year.\(^{31}\) In the state of Georgia, several programs have been implemented to serve individuals with asthma. However, these programs are not policies that mandate responsible actions of polluters in minority neighbors. For instance, the Georgia

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Department of Human Resources (DHR) established the Georgia Addressing Asthma from a State Perspective (GAASP) program with a grant from the Centers for Disease Control and Prevention (CDC) in 2001.32

In 2010, an estimated 12% (297,000) of children ages 0-17 years had asthma in Georgia. More than 10,000 hospitalizations for asthma occurred in Georgia in 2007. Asthma hospitalization rates were highest among young children and older adults. Hospitalization charges related to asthma totaled more than $132 million in 2007. On average, from 2001 to 2007 there were 113 asthma deaths per year. Among children with asthma, hospitalization rates are highest for those ages four and under. More than 54,000 emergency room visits for asthma occurred in Georgia in 2007. The overall age-adjusted rate of emergency visits due to asthma was 560 per 100,000 persons in 2007. Children ages 0 to 4 had the highest rate for asthma-related ER visit 1,428 per 100,000 persons.33

Examination of Applicable Asthma-Related Public Policies

The researcher will provide an examination of specific polices enacted to address the asthma issue by providing an event history of these policies, the purpose for the enactment of the policy, the accomplishment of the policy as well as asthma statistical data in the state of Georgia from 2000 to present. Also, asthma statistical data for the U.S. will be utilized to present a comparative analysis of the occurrence of asthma in


Georgia relative to that in the United States. These variables will be juxtaposed within the policy analyses.

*Title VI of the Civil Rights Act*

Declaring that the struggle for civil rights is not over, some of the nation’s most foremost experts on environmental justice declared, “We are demanding immediate action and enforcement of *Title VI of the Civil Rights Act of 1964* and other equal protection laws,” during a press conference held in Washington, D.C. This legislation Declares it to be the policy of the United States that discrimination on the ground of race, color, or national origin shall not occur in connection with programs and activities receiving federal financial assistance, and authorizes and directs the involved federal departments and agencies to take action to carry out this policy. *Title VI* prohibits discrimination whether intentional or where the unintended effect is unduly burdensome.

Examination of the *Title VI of Civil Rights Act of 1964*

In July 1964 Congress passed the Civil Rights Act of 1964. *Title VI* of the Civil Rights Act states that "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

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34 Environmental Justice Resource Center. *“The struggle for civil rights is not over!” EPA and local governments charged with failure to provide equal environmental protection to Blacks and other people of color.”* At a press conference and community briefing held on Thursday, January 13th in the Mayor’s Conference Room (441 4th Street, NW) in observance of Dr. Martin Luther King, Jr.’s birthday, some of the nation’s foremost experts on environmental justice and victims of environmental contamination from across the country declared a National State of Emergency on Environmental Racism and Economic Injustice. Washington, DC. 2000. [www.ejrc.cau.edu](http://www.ejrc.cau.edu) (accessed March 11, 2009).

The goal of Title VI of the Civil Rights Act of 1964 is to prohibit discrimination on the basis of race, color, or national origin in programs and activities receiving Federal financial assistance. Specifically, Title VI provides that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." In a ground-breaking action, Attorney Linda McKeever Bullard, on behalf of the residents of Houston's Northwood Manor, brought the nation's first lawsuit that challenged the siting of a waste facility based on violations of the civil rights laws. In moving for a preliminary injunction, Ms. Bullard argued that locating a garbage dump in the plaintiffs' mostly African-American community was an act of racial discrimination in violation of Section 1983 of the Civil Rights Act of 1871. This lawsuit served as a catalyst for the legal arm of the environmental justice movement.

Notably, this law does not directly address asthma. When used as a basis for legal action in environmental justice cases, application was based upon equity issues and to address perceived discriminatory matters. As stated by Julia B. Latham Worsham in her article, "Disparate Impact Lawsuits Under Title VI, Section 602: Can A Legal Tool Build Environmental Justice?" "The same parallels between traditional civil rights challenges and environmental justice challenges that make equal protection claims appealing for

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plaintiffs also make other civil rights causes of action compelling.” Most intriguingly, Worsham puts forth that plaintiffs proceeding under the statutory provisions of various civil rights Acts may be relieved of the heavy burden of proving intent to discriminate. To that end, Title VI began to emerge as a possible tool for environmental justice challenges in the early to mid-1990s. At that time, leading environmental justice commentators observed that Title VI had “promise” and a “potentially great” reach. However, it was only within the past two years that several judicial and administrative decisions interpreted Title VI specifically as it applies to discriminatory siting decisions. These developments may threaten the efficacy of Title VI in environmental justice suits because they could be interpreted to limit significantly the meaning of “disparate impact” and the very legitimacy of a private cause of action for such claims. The remainder of this article focuses upon those decisions and assesses Title VI’s potential as a tool for environmental justice.  

The question of who has standing to sue under Title VI is actually an issue of discerning the “breadth of the statute’s prohibition on discrimination.” How courts determine this parameter, however, is not settled. Courts have applied four different standards in deciding whether a plaintiff may bring a private action under Title VI: (1) whether the plaintiff is the “intended beneficiary” of the federal funds in question; (2) whether the discrimination inflicted on the plaintiff will harm the intended beneficiaries of the statute; (3) “whether the plaintiff can show actual harm attributed to an allegedly illegal act committed by the administrators of a federally-funded program which could be

remedied by a federal court"; and (4) whether the plaintiff's interests fall within the zone of interests that Title VI is designed to protect, i.e., a person being discriminated in the administration of a federally funded program. Additionally, to have standing to request injunctive relief (but not monetary damages), community organizations representing impacted residents must show that they meet three requirements: (1) the members would have standing to bring suit individually; (2) the interests that the group acts to protect are germane to the purpose of the group; and (3) the claim asserted or the relief requested necessitates the involvement of individual group members in the suit.39

The first environmental justice cases were brought in 1979 in Texas and in 1982 in North Carolina. In 1979, residents of Northwood Manor in East Houston alleged that the decision to place a garbage dump in their neighborhood was racially motivated in violation of their civil rights under § 1983 of the Civil Rights Act. The district court in Bean v. Southwestern Waste Management Corporation40 found that the placement of the dump would irreparably harm the community. The court specifically found that the landfill would “affect the entire nature of the community, its land values, its tax base, its aesthetics, the health and safety of its inhabitants, and the operation of Smiley High School, located only 1700 feet from the site.” Unable to establish intentional discrimination with sufficiently particularized statistical data showing a pattern or practice of placing waste facilities in communities of color, and unable to provide the


40 For a full reading of this case, see Bean v. Southwestern Waste Mgmt. Corp., 482 F. Supp. 673 (S.D. Tex. 1979), aff'd, 782 F.2d 1038 (5th Cir. 1986).
court sufficiently detailed factual information on the siting decision, the residents were not granted relief and the plant was built. The case, however, launched the use of the courts as a tool for the new movement and highlighted the need for data collection and access to information by communities challenging environmental decisions.  

The focus of the most recent efforts to overcome difficulties of environmental racism in relation to toxic waste dumps has been the Environmental Protection Agency’s (EPA) guidance on the investigation of administrative complaints alleging disparate discriminatory impacts under its regulations implementing the Civil Rights Act of 1964. These regulations apply to all recipients of EPA financial assistance. Since the vast majority of state and local governments implementing EPA regulatory programs receive some form of federal financial assistance and since many allegations of discrimination have involved permits issued by such state and local government agencies, EPA’s Title VI Guidance has held out great promise for change. Yet the Guidance has been severely criticized by environmental justice advocates as being seriously deficient.

Such criticisms became more important in light of the Supreme Court’s decision in *Alexander v. Sandoval*, finding that individual plaintiffs had no private right of action to enforce EPA’s disparate impact regulations directly in court. With doctrinal developments that make it more difficult for private citizens to directly enforce EPA’s Title VI disparate impact regulations, those wronged will have to place more reliance on

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42 Ibid.
administrative remedies to vindicate their interests. Attention to this weakness was emphasized by environmental justice advocates in their letter to members of Congress in which they asked Congress to “Provide a Legislative Fix for Title VI of the Civil Rights Act of 1964 that was gutted by the 2001 *Alexander v. Sandoval* U.S. Supreme Court decision that requires intent, rather than disparate impact, to prove discrimination.”

Nonetheless, EPA’s Title VI Guidance is one of the few attempts to articulate substantive decision-making criteria for government officials (and industry) interested in acting responsibly with regard to the concerns of the environmental justice movement. In a letter of transmittal to the President, the President of the Senate, and the Speaker of the House of Representatives submitted by Mary Frances Berry, chairperson

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44This is a case where *Alexander, et al. v. Sandoval*. It was argued January 16, 2001--Decided April 24, 2001 As a recipient of federal financial assistance, the Alabama Department of Public Safety (Department), of which petitioner Alexander is the Director, is subject to Title VI of the Civil Rights Act of 1964. Section 601 of that Title prohibits discrimination based on race, color, or national origin in covered programs and activities. Section 602 authorizes federal agencies to effectuate §601 by issuing regulations, and the Department of Justice (DOJ) in an exercise of this authority promulgated a regulation forbidding funding recipients to utilize criteria or administrative methods having the effect of subjecting individuals to discrimination based on the prohibited grounds. Respondent Sandoval brought this class action to enjoin the Department's decision to administer state driver’s license examinations only in English, arguing that it violated the DOJ regulation because it had the effect of subjecting non-English speakers to discrimination based on their national origin. Agreeing, the District Court enjoined the policy and ordered the Department to accommodate non-English speakers. The Eleventh Circuit affirmed. Both courts rejected petitioners' argument that Title VI did not provide respondents a cause of action to enforce the regulation. (http://bss.sfsu.edu).

of the United States Commission on Civil Rights, the United States Commission on Civil Rights transmits the report, "Not in My Backyard: Executive Order 12898 and Title VI as Tools for Achieving Environmental Justice," pursuant to Public Law 103-419. This report examined how well four federal agencies, the Environmental Protection Agency, the U.S. Department of the Interior, the U.S. Department of Housing and Urban Development, and the U.S. Department of Transportation, implemented Executive Order 12898 and Title VI. According to this report, poor communities and communities of color are becoming more skilled at using Title VI administrative processes to seek recourse and remedies; in spite of this, agencies seldom, if ever, revoke a permit or withhold money from the recipients of federal funding for violating Title VI. Strong administrative enforcement of Title VI is required in light of court decisions limiting access to judicial recourse and remedies under Title VI. Uncertainty about the use and effectiveness of Title VI in protecting the poor and communities of color is created by the absence of final investigative and recipient guidance by EPA. The agency was moving toward finalizing its Title VI guidance at the time the Commission report was drafted, and we look forward to its release. The other agencies, unlike EPA, lacked any comprehensive Title VI investigation and recipient guidance.\textsuperscript{46}

As a result, the Commission’s report made several recommendations, some directed toward federal agencies while others required congressional action. For example, the Commission recommended that federal agencies coordinate and promulgate clear regulations, guidelines, and procedures for investigating, reviewing, and deciding without

unnecessary delay Title VI claims, and that federal agencies implement formal Title VI compliance review programs to ensure nondiscrimination in programs and activities receiving federal funding. In addition, Congress should pass a Civil Rights Restoration Act to provide for a private right of action for disparate impact claims under Title VI, as well as § 1983.47

**Executive Order 12898**

In 1994, former U.S. President William J. Clinton (Bill) issued *Executive Order 12898- Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*. Section 1-1 Implementation establishes the Agency Responsibilities to be:

To the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations, and low-income populations in the United State and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and Commonwealth of the Mariana Islands.48

**Examination of Executive Order 12898**

Essentially, *Executive Order 12898* was created to address disproportionate impacts in minority and low-income communities. This legislation was viewed by the Environmental Justice Movement (EJM) as a milestone in their mission to achieve

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48 Executive Order 12898 was implemented on February 11, 1994 under the Presidency of William J. Clinton, XLII President of the United States: 1993-2001. For the Full text of this Order, the Reader should research *Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*. 
environmental justice and equal environmental policy protection in low-income and minority communities.

In my examination of this policy, I found neither the term "asthma," nor the term "toxic dumps/pollutants" mentioned in this Order. One would wonder why this particular legislation was received so favorably by members of the EJ as crucial and progressive to their movement. As written, the Order generally refers to addressing inequities in minority communities in Section 1-102(b) stating, "The Working Group shall: (1) provide guidance to Federal agencies on criteria for identifying disproportionately high and adverse human health or environmental effects on minority populations and low-income populations."

In 1994, President Clinton signed Executive Order 12898, which charged all federal agencies with making the achievement of environmental justice part of its mission by "identifying and addressing as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low income populations." The EO established the Interagency Working Group (IWG) on environmental justice, which is made up of twelve (12) federal agencies and chaired by the EPA.

In Sandra George O'Neil's "Superfund: Evaluating the Impact of Executive Order 12898," she advises, The U.S. Environmental Protection Agency (EPA) addresses

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49 Ibid.

50 Executive Order 12898 was implemented on February 11, 1994 under the Presidency of William J. Clinton, XLII President of the United States: 1993-2001. For the Full text of this Order, the Reader should research Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations.
uncontrolled and abandoned hazardous waste sites throughout the country. Sites that are perceived to be a significant threat to both surrounding populations and the environment can be placed on the U.S. EPA Superfund list and qualify for federal cleanup funds. The equitability of the Superfund program has been questioned; the representation of minority and low-income populations in this cleanup program is lower than would be expected. Thus, minorities and low-income populations may not be benefiting proportionately from this environmental cleanup program. In 1994 President Clinton signed Executive Order 12898 requiring that the U.S. EPA and other federal agencies implement environmental justice policies. These policies were to specifically address the disproportionate environmental effects of federal programs and policies on minority and low-income populations.51

Relative to environmental health issues, O'Neil further states, "Although the specific ways in which toxins in the ground, water, or air produce adverse health effects in humans are still disputed, the toxicity of such sites and potential risks posed to human populations and the environment certainly warrant attention." According to O'Neil, The Order specifically demands that agencies, including the U.S. EPA, ensure that their policies and programs do not disproportionately affect minorities and poor. However, whether the agency has complied with this order and to what degree has been questioned. Her reasoning for this observation is that the EPA is essentially relying on state and local governments to deal with the environmental justice concerns...even though the executive order does not apply to state or local governments, and, absent specific state or local law,

they have no obligation to consider environmental justice... Further, EPA has not fully implemented Executive Order 12898 nor consistently integrated environmental justice into its day-to-day operations. EPA has not identified minority and low income, or identified populations addressed in the Executive Order, and has neither defined nor developed criteria for determining disproportionately impacted.52

Although O’Neil’s article primarily focuses on evaluating Executive Order 12898 in the context of superfund cleanup, the theoretical premise of the article can be applicable to obviating environmental health hazards among minorities in the state of Georgia through effective public policies. The Order expressly notes that,

Each Federal agency shall conduct its programs, policies and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such, programs, policies, and activities because of their race, Color or national origin.53

Further, the Order requires that “Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations, and low-income populations.54

Hence, asthma falls under the umbrella “disproportionately high and adverse human health.”


53 Ibid.

54 Ibid.
According to the United States Commission on Civil Rights (USCCR), Executive Order 12898 was intended to ensure that federal agencies incorporate the principles of environmental justice into their missions. To do so, the USCCR asserts that agencies must integrate environmental justice into the core design of their programs, and rigorously evaluate the success of these programs in meeting their aims. Too, agencies must develop accountability standards and evaluation criteria that would measure the success, or lack thereof, their programs have in implementing the goals of the Executive Order.55

A major focus of the USCCR’s investigation is to determine, for each agency being reviewed, to what extent environmental justice issues are being treated as a central element of that agency’s mission. In order to do so, the USCCR examined (1) the extent to which the agency has proposed and undertaken environmental justice initiatives and programs; and (2) the extent to which the agency has drawn up and implemented outcome expectations, goals, and accountability measures surrounding those initiatives and programs.

According to the USCCR, while each agency developed and implemented its own policies and programs, critically, none of these agencies reported any current agency wide, comprehensive assessments or accountability measures for their environmental justice activities. Without assessments, it is difficult to determine how well agencies are incorporating the Executive Order into their missions. As such, meaningful evaluation criteria need to be implemented for agencies to assess their efforts, and more specifically,

for agencies to measure if their environmental justice initiatives are linked to success in reducing health and environmental concerns for affected communities. Moreover, the USCCR asserts, "Without accountability measures, it is difficult to track or review positive steps in environmental justice program implementation."\textsuperscript{56} O'Neil's article and the USCCR's report congruously assert the ineffectiveness of the Executive Order 12898 in obtaining the goals for which it was created. EPA's Office of Environmental Justice works to ensure that EPA's actions are in compliance with the Executive Order.\textsuperscript{57}

The researcher acknowledges that federal laws may be written in broad terms so that the law could cover a barrage of comparable issues. As such, the identification of the linkage of toxic dumps and the disproportionate occurrence of asthma within minority youth was not specifically expressed by the verbiage of the law. However, interpretation of this issue can fall under the wording of Section 1-103: Development of Agency Strategies,

Each Federal agency shall develop an agency-wide environmental justice strategy, as set forth in subsections (b)-(e) of this section 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. The environmental justice strategy shall list programs, policies, planning and public participation processes, enforcement and/or rule makings related to human health or the environment that should be revised to, at a minimum: (1) promote enforcement of all health and environmental statutes in areas with minority populations and low-income populations; (2) ensure greater public participation; (3) improve research and data collection relating to the health of and environment of minority populations and low-income populations; and (4)


identify differential patterns of consumption of natural resources among minority populations and low-income populations. In addition, the environmental justice strategy shall include, where appropriate, a timetable for undertaking identified revisions and consideration of economic and social implications of the revisions.58

In addition to this section, Section 2-2: Federal Agency Responsibilities for Federal Programs provides,

Each Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin.59

This researcher puts forth that the intent for which this law was enacted suggest that it includes addressing the linkage of toxic dumps and the disproportionate occurrence of asthma among minority youth in the state of Georgia.

Even though the spirit of this law is on point, the law is not without weaknesses. For instance, during the era under William K. Reilly’s reign as EPA Administrator (February 8, 1989 – December 31, 1992), the wording of the Order was changed from its original version of “minority and low-income communities” to “all communities.” Thus, it mitigates the responsibility of targeting minority and low-income communities.” Also, under the “Judicial Review” section, it states

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58 Executive Order 12898 was implemented on February 11, 1994 under the Presidency of William J. Clinton, XLII President of the United States: 1993-2001. For the Full text of this Order, the Reader should research Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations.

59 Ibid.

This order is intended only to improve the internal management of the executive branch and is not intended to, nor does it create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity by a party against the United States, its agencies, its officers, or any person. This order shall not be construed to create any right to judicial review involving the compliance or non-compliance of the United States, its agencies, its officers, or any other person with this order.

This can be interpreted as removing the United States, its agencies, officers, or other person with this Order, essentially no one associated with this Order, from any responsibility in the event that the Order is not enforced or applied and no party can bring suit under this Order. This verbiage renders challenges for the enforcement of this law more obdurate and intractable. This weakness is underscored in “An Open Letter to the Members of Congress: Toxic Wastes and Race at Twenty, 1987-2007: Grassroots Struggles to Dismantle Environmental Racism in the United States.” In this letter, original advocates of the environmental justice movement whose seminal work, “Toxic Wastes and Race in the United States” fueled the environmental justice movement and played an integral role that served as an impetus for the creation of Executive Order 12898, appeared twenty years later asking members of Congress to pass a National Environmental Justice Act codifying the Environmental Justice Executive Order 12898.

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61 Ibid, Executive Order 12898.

62 Twenty years ago, the United Church of Christ Commission for Racial Justice (CRJ) published a decisive report exposing the gross disregard for people of color as toxic waste landfills were sited in their communities throughout the nation. Toxic Wastes and Race in the United States proved to be a critical foundation for the environmental justice movement that continues today. http://www.ucc.org/assets/pdfs/toxic20.pdf. (accessed January 21, 2012).

As reported by the USCCR, Executive Order 12898 requires federal agencies to collect data on the health and environmental impact of their activities on communities of color and low-income populations, and develop policies incorporating the principles of environmental justice into their programs and activities. In the report, the Commission assessed the efforts of these agencies to adopt, promote, and execute policies ensuring that environmental justice is incorporated into their core missions, whether affected communities are provided meaningful participation in environmental decision-making processes, and to what extent these communities have access to scientific data and effective Title VI enforcement procedures.\(^\text{64}\)

This report, based on Commission hearings, interviews, research, and a review of relevant literature, revealed that while there has been some limited success in implementing Executive Order 12898, significant problems and shortcomings remain. Namely, communities are not yet full participants in environmental decision-making and there is still inadequate scientific and technical literature on the relationship between environmental pollutants and human health status. Although Executive Order 12898 realizes the importance of gathering scientific and technical data, there is inadequate literature on the relationship between environmental pollutants and human health. As such, the Commission report recommended that federal agencies conduct and fund more research on human health and the environment and make data more readily available to affected communities. Additionally, federal agencies conducting or funding research on human health and the environment should consider race, ethnicity, national origin, age, and income.

gender, and income when examining the environmental and human health effects of
environmental decisions.\textsuperscript{65}

The report found that the input of communities of color and low-income
communities is integral to decision-making, planning, monitoring, problem-solving, and
implementation and evaluation of environmental policies and practices. Low-income and
minority communities, however, still did not fully participate in the process because of
language and cultural barriers and lack of access to information. To this end, it asserted
that federal agencies must make early and meaningful public participation in siting and
permitting decisions a reality for overburdened communities of color and poor
communities.\textsuperscript{66}

Questions from community members have also been raised regarding the
effectiveness of this Order, as in the case in Burke County, Ga. Bruce Dixon, Co-founder
of the Black Agenda Report, wrote an article entitled, "Siting Nukes in a Poor Black
Town—If A Black President Does It, Is it Still Environmental Racism?" In this article,
Dixon describes protests and questions raised by members of a poor, black community in
Burke County, Ga, regarding the siting of placing nukes on a river that's already the 4\textsuperscript{th}
most toxic waterway in the nation, on a site just across from the contaminated Savannah

\textsuperscript{65} Ibid.

\textsuperscript{66} Mary F. Berry, "Not in My Backyard: Executive Order 12898 and Title VI as Tools for
(accessed January 20, 2010.)
River nuclear weapons installation\textsuperscript{67} Of the health factors and outcomes reported by the Burke County, East Central Health District, asthma was not listed.\textsuperscript{68}

As of this writing, this Order has been in effect well over a decade; however, based upon the findings of this research, this legislation has not effectively addressed the disproportionate increase in asthma among minority youth. Through this case study, we seek to test to what degree of certainty, if any, is the validity of this hypothesis in regards to its impact on the EPA's Region IV, state of Georgia, as a result of the implementation of this specific piece of legislation.

\textit{The Clean Air Act of 1970}

The Clean Air Act of 1970 (CAA) is the law that defines EPA's responsibilities for protecting and improving the nation's air quality and the stratospheric ozone layer. As of this writing, the EPA has celebrated the 40th anniversary of the Clean Air Act. The last major change in the law, \textit{The Clean Air Act Amendments of 1990}, was enacted by Congress in 1990. During the study, this law was referred to several times in interviews as well as responses to in the survey instrument.

The Clean Air Act, like other laws enacted by Congress, was incorporated into the United States Code as Title 42, Chapter 85. The House of Representatives maintains a current version of the U.S. Code, which includes Clean Air Act changes enacted since 1990. As discussed in chapter 2, under §7470, Congressional Declaration of Purpose, the

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\textsuperscript{68} This information was obtained from the Burke County Health Department website. For more in-depth information, please visit: \url{http://www.ecphd.com/common/content.asp?PAGE=334} (accessed February 10, 2012).
\end{footnotesize}
purposes of this law is to 1) to protect public health and welfare from any actual or potential adverse effect which in the Administrator's judgment may reasonably be anticipate to occur from air pollution or from exposures to pollutants in other media, which pollutants originate as emissions to the ambient air), notwithstanding attainment and maintenance of all national ambient air quality standards, 2) to preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value, 3) to insure that economic growth will occur in a manner consistent with the preservation of existing clean air resources, 4) to assure that emissions from any source in any State will not interfere with any portion of the applicable implementation plan to prevent significant deterioration of air quality for any other State, and 5) to assure that any decision to permit increased air pollution in any area to which this section applies is made only after careful evaluation of all the consequences of such a decision and after adequate procedural opportunities for informed public participation in the decision-making process.69

Examination of the Clean Air Act

Although cited from various participants of this study, the Clean Air Act does not specifically address toxic dumps and the occurrence of asthma; its focus is air pollution prevention and control. Asthma is not mentioned in this Act; however, insofar as air pollutants and ambient air quality, asthma occurrences can be inferred. According to the EPA, The Clean Air Act (CAA) is the comprehensive federal law that regulates air

emissions from stationary and mobile sources. Among other things, the law authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants.

One of the goals of the Act was to set and achieve NAAQS in every state by 1975 in order to address the public health and welfare risks posed by certain widespread air pollutants. The setting of these pollutant standards was coupled with directing the states to develop state implementation plans (SIPs), applicable to appropriate industrial sources in the state, in order to achieve these standards. The Act was amended in 1977 and 1990, primarily to set new goals (dates) for achieving attainment of NAAQS since many areas of the country had failed to meet the deadlines.\(^7^0\)

Section 112 of the Clean Air Act addresses emissions of hazardous air pollutants. Prior to 1990, CAA established a risk-based program under which only a few standards were developed. The 1990 Clean Air Act Amendments revised Section 112 to first require issuance of technology-based standards for major sources and certain area sources. "Major sources" are defined as a stationary source or group of stationary sources that emit or have the potential to emit 10 tons per year or more of a hazardous air pollutant or 25 tons per year or more of a combination of hazardous air pollutants. An "area source" is any stationary source that is not a major source.\(^7^1\)

In the state of Georgia, several measures have been implemented to enforce the Clean Air Act. However, these measures deal with vehicle emissions, smoking, and

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\(^{71}\) Ibid.
asbestos. In 1996, Georgia created the Georgia Clean Air Force, an agency empowered to implement environmental protection measures in the state and follow the air quality standards set by the EPA and Georgia's Environmental Protection Division. In conjunction with the Georgia Environmental Protection Division, Georgia Clean Air Force formed the state's first enhanced vehicle emission inspection and maintenance program, which is designed to help reduce air pollutants from vehicles and help car owners fix vehicles that emit heavy pollutants.\textsuperscript{72}

In 2009, the U.S. Environmental Protection Agency announced that it had assumed the responsibility for implementation of provisions of the Clean Air Act Asbestos Program in Georgia. Because of budget constraints, Georgia discontinued asbestos inspections, complaint follow-up, and enforcement. By a mutual agreement between Georgia and the EPA, the State will continue to process notifications for asbestos renovation, encapsulation and/or demolition, issue asbestos contractor licenses, and approve asbestos supervisor training courses. However, the EPA will conduct inspections and enforcement of asbestos abatement renovation, disposal, and demolition projects for commercial, public, industrial and certain types of multi-family residential structures. Also, the EPA established programs to collect information related to the asbestos violations. When necessary, the EPA will pursue federal enforcement in cases

\textsuperscript{72} Jessica Jewell, Georgia and the Clean Air Act, \url{http://www.ehow.com/about_6390071_georgia-clean-air-act.html} (accessed January 2, 2012).
where violations are found. The law allows for fines up to $37,500 per day, for each violation.\textsuperscript{73}

Georgia also has the Georgia Smoke Free Act of 2005. The purpose of the Georgia Smokefree Air Act of 2005 is to preserve and improve the health, comfort and environment of the people of this State, including children, adults, and employees, by limiting exposure to tobacco smoke. Individuals found in violation of the Act shall be guilty of a misdemeanor and, if convicted, shall be punished by a fine not less than $100.00 and not more than $500.00.\textsuperscript{74}

In spite of the fact that “asthma” is not mentioned in the text of the Act, a big part of controlling asthma means cleaning up the air.\textsuperscript{75} Therefore, it is conceivable why participants would include this policy when asked about public policies enacted to address the asthma issue. The Clean Air Act addresses the increase in asthma among; however, the lens through which it addresses this increase focuses on air toxics. Comparably, we assert that a national law that addresses the increase in among should be that views this increase with a focus on toxic dumps should be enacted. This appeal was made by Bullard, Mohai, et al in their report, “Toxic Waste and Race at Twenty: 1987-2007 Grassroots Struggles to Dismantle Environmental Racism in the United States.”


this report, advocates sought to establish an unequivocal legal mandate and impose federal responsibility by asking Congress to codify Executive Order 12898.\textsuperscript{76}

\textit{The National Environmental Policy Act of 1969}

The National Environmental Policy Act (NEPA) [42 U.S.C. 4321 et seq.] was signed into law on January 1, 1970. The Act establishes national environmental policy and goals for the protection, maintenance, and enhancement of the environment and provides a process for implementing these goals within the federal agencies. The Act also establishes the Council on Environmental Quality (CEQ). The National Environmental Policy Act (NEPA) requires federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. To meet NEPA requirements federal agencies prepare a detailed statement known as an Environmental Impact Statement (EIS). EPA reviews and comments on EISs prepared by other federal agencies, maintains a national filing system for all EISs, and ensures that its own actions comply with NEPA.\textsuperscript{77} Further, the NEPA established a foundation for environmental policy in the United States and required that any major federal action significantly affecting the quality of the human environment must undergo an evaluation and public disclosure of its environmental effects. For four decades NEPA has been a powerful and influential tool for environmental protection. At least nineteen (19) states or territories


\textsuperscript{77} The complete text of the law is available for review at NEPAnet., http://www.epa.gov/compliance/nepa/ (accessed September 22, 2009).
have now enacted statutes requiring some form of Environmental Impact Statements (EIA). Projects, policies, and programs subject to EIA influence not only environmental quality, but also industry and employment patterns, regional economies, the built environment, social organization, and culture, all important determinants of health and well-being.78

Examination of the National Environmental Policy Act of 1969

The purposes of the National Environmental Policy Act of 1969 are 1) to declare a national policy which will encourage productive and enjoyable harmony between man and his environment, 2) to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man, 3) to enrich the understanding of the ecological systems and natural resources important to the Nation, and 4) to establish a Council on Environmental Quality.79 Comparable to the Civil Rights Act, the Clean Air Act and the Executive Order 12898, this Act also does not specifically mention asthma or toxic dumps. Consistently, the asthma issue can be inferred under broad, general terms.

Relative to this case study, the Act states,

The Congress, recognizing the profound impact of man’s activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high-density urbanization, industrial expansion, resource exploitation, and new and expanding technological advances and recognizing further the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man, declares


that it is the continuing policy of the Federal Government, in cooperation with
State and local governments, and other concerned public and private
organizations, to use all practicable means and measures, including financial and
technical assistance, in a manner calculated to foster and promote the general
welfare, to create and maintain conditions under which man and nature can exist
in productive harmony, and fulfill the social, economic, and other requirements of
present and future generations of Americans.80

As stated in the Act, “In order to carry out the policy set forth in this Act,” one of its
objectives as it relates to this study is to, “Attain the widest range of beneficial uses of the
environment without degradation, risk to health or safety, or other undesirable and
unintended consequences.”81

As maintained by the EPA, federal agencies must consider environmental justice
in their activities under NEPA. In light of Executive Order 12898, the Council on
Environmental Quality (CEQ) issued “Environmental Justice: Guidance Under the
National Environmental Policy Act.” This guidance includes six principles for
environmental justice analyses to determine any disproportionately high and adverse
human health or environmental effects to low-income, minority, and tribal populations.
The principles are: 1) consider the composition of the affected area to determine whether
low-income, minority or Tribal populations are present and whether there may be
disproportionately high and adverse human health or environmental effects on these
populations, 2) consider relevant public health and industry data concerning the potential
for multiple exposures or cumulative exposure to human health or environmental hazards
in the affected population, as well as historical patterns of exposure to environmental
hazards, 3) recognize “the interrelated cultural, social, occupational, historical, or

80The National Environmental Policy Act of 1969, as amended, Section 101(a)
81Ibid.
economic factors that may amplify the natural and physical environmental effects of the proposed action, 4) develop effective public participation strategies, 5) assure meaningful community representation in the process, beginning at the earliest possible time, and 6) seek Tribal representation in the process.\(^\text{82}\)

The public has an important role in the NEPA process, particularly during scoping, in providing input on what issues should be addressed in an EIS and in commenting on the findings in an agency’s NEPA documents. The public can participate in the NEPA process by attending NEPA-related hearings or public meetings and by submitting comments directly to the lead agency. The lead agency must take into consideration all comments received from the public and other parties on NEPA documents during the comment period.\(^\text{83}\)

In 1978, CEQ promulgated regulations [40 CFR Parts 1500-15081] implementing NEPA which are binding on all federal agencies. The regulations address the procedural provisions of NEPA and the administration of the NEPA process, including preparation of EISs. To date, the only change in the NEPA regulations occurred on May 27, 1986, when CEQ amended Section 1502.22 of its regulations to clarify how agencies are to carry out their environmental evaluations in situations where information is incomplete or unavailable.

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CEQ has also issued guidance on various aspects of the regulations including: an information document on "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act," Scoping Guidance, and Guidance Regarding NEPA Regulations. Additionally, most federal agencies have promulgated their own NEPA regulations and guidance which generally follow the CEQ procedures but are tailored for the specific mission and activities of the agency. The role of a federal agency in the NEPA process depends on the agency's expertise and relationship to the proposed undertaking. The agency carrying out the federal action is responsible for complying with the requirements of NEPA.\textsuperscript{84}

Comparable to the National Environmental Policy Act, the state of Georgia implemented the Georgia Environmental Policy Act (GEPA) in 1991. Principally, this act provides for the disclosure of the environmental effects of proposed state projects.\textsuperscript{85}

*The Georgia Asthma Law*

The Official Code of Georgia Annotated, Section 20-2-774, enacted in 2008 and referred to as the *Georgia Asthma Law*, deals strictly with the self-administration of asthma medication. The researcher's purpose for including this law in this examination section is attributable to its being referenced as "The Georgia Asthma Law."\textsuperscript{86} Pertinent to this case study, this law does not address, directly or indirectly, the linkage of toxic

\textsuperscript{84}Ibid.


\textsuperscript{86}This reference is listed in the Official Code of Georgia Annotated. For a full reading of this law, please visit: http://www.aanma.org/pdf/GeorgiaAsthmaLaw.pdf. (accessed December 15, 2010).
dumps and the occurrence of asthma among minorities. It limits itself to the self-
administration of asthma medication in schools. However, this policy supports the
researcher’s research questions in regards to asthma-related public policies. As written,
the goal of this law provides:

   Each local board of education shall adopt a policy authorizing the self-
   administration of asthma medication by a student who has asthma, provided that
   any student who is authorized for self-administration of asthma medication under
   such policy may possess and use his or her asthma medication: 1) While in
   school, 2) At a school sponsored activity, 3) While under the supervision of
   school personnel, or 4) While in before-school or after-school care on school
   operated property.\textsuperscript{87}

\textit{Other Asthma-Related Policies}

As advised in chapter one of this case study, we performed an examination of
specific asthma-related polices that were consistently mentioned during the fact-gathering
process of this research. Further, we advised that other asthma-related policies would be
discussed; but not examined. \textit{The Resource Conservation and Recovery Act (RCRA)}\textsuperscript{88}
gives EPA the authority to control hazardous waste from the "cradle-to-grave." This
includes the generation, transportation, treatment, storage, and disposal of hazardous
waste. RCRA also set forth a framework for the management of non-hazardous solid
wastes. The 1986 amendments to RCRA enabled EPA to address environmental
problems that could result from underground tanks storing petroleum and other hazardous

\textsuperscript{87} Ibid.

\textsuperscript{88} The Solid Waste Disposal Act (42 U.S.C. 6901–6992k) consists of title II of Public Law 89–
272 and the amendments made by subsequent enactments. This Act is popularly referred to as
the Resource Conservation and Recovery Act, after the short title of the law that amended the
Solid Waste Disposal Act in its entirety in 1976 (P.L. 94–580). The full Act can be found at
substances. In regards to effectively addressing hazardous waste that negatively impact human health, under section 1002 (b), it states:

The Congress finds with respect to the environment and health, that

(1) although land is too valuable a national resource to be needlessly polluted by discarded materials, most solid waste is disposed of on land in open dumps and sanitary landfills;

(2) disposal of solid waste and hazardous waste in or on the land without careful planning and management can present a danger to human health and the environment;

(3) as a result of the Clean Air Act, the Water Pollution Control Act, and other Federal and State laws respecting public health and the environment, greater amounts of solid waste (in the form of sludge and other pollution treatment residues) have been created. Similarly, inadequate and environmentally unsound practices for the disposal or use of solid waste have created greater amounts of air and water pollution and other problems for the environment and for health;

(4) open dumping is particularly harmful to health, contaminates drinking water from underground and surface supplies, and pollutes the air and the land;

(5) the placement of inadequate controls on hazardous waste management will result in substantial risks to human health and the environment;

(6) certain classes of land disposal facilities are not capable of assuring long-term containment of certain hazardous wastes, and to avoid substantial risk to human health and the environment, reliance on land disposal should be minimized or eliminated, and
land disposal, particularly landfill and surface impoundment, should be the least favored method for managing hazardous wastes.⁸⁹

The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.⁹⁰

The National Asthma Control Program has its home in CDC’s National Center for Environmental Health, Division of Environmental Hazards and Health Effects. CDC’s National Center for Health Statistics (NCHS) and Division of Adolescent and School Health (DASH) also partner in the program. CDC collaborates with other federal agencies as well to achieve its asthma control objectives. CDC meets with the Federal Liaison Group on Asthma, which also includes the Environmental Protection Agency (EPA), the National Institutes of Health: National Heart, Lung and Blood Institute and National Institute of Allergy and Infectious Diseases, and others. CDC regularly cooperates with other federal agencies involved in asthma control, including the Centers for Medicare and Medicaid Services, the Health Resources and Services Administration, and the Department of Housing and Urban Development. CDC works closely with EPA to recommend guidance documents and review educational materials for technical accuracy. In addition, CDC funds collection of social, environmental, and medical data

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⁹⁰ Ibid at 6.
on asthma among 10,000 children by the Bureau of Labor Statistics' National Longitudinal Survey of Youth.  

Like the Healthy People 2010 goals, the asthma control program goals seek to reduce the number of deaths, hospitalizations, emergency department visits, school days or workdays missed, and limitations on activity due to asthma.

Law is a foundational public health tool for disease prevention and health promotion. For many traditional public health problems, both acute and chronic, the role of law has been crucial in attaining public health goals, both framing and complementing the roles of epidemiology and laboratory science. Many of the greatest successes claimed by public health, such as high childhood immunization rates, improved motor vehicle safety, safer workplaces, and reduced tooth decay, have relied heavily on law. Recently, law has played a fundamental role in the control and prevention of emerging health problems such as SARS and the threat of pandemic influenza. Moreover, law is an important public health tool that plays a critical role in reducing illness and premature death. Public health law examines the authority of the government at various jurisdictional levels to improve the health of the general population within societal limits and norms.

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92 Healthy People 2010 provides a framework for prevention for the Nation. It is a statement of national health objectives designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats. The full contents of this program can be found at www.healthypeople.gov/about. (accessed July 30, 2011).

93 Ibid.
The CDC Director established the Public Health Law Program in 2000, following consultations with CDC programs and extramural partners, to lead the agency’s public health law initiative. The Public Health Law Program is a component of the Office for State, Tribal, Local and Territorial Support. The Program’s mission is to advance the public’s health through law.

The Program has three strategic goals:

- To improve the understanding and use of law as a public health tool
- To develop CDC’s capacity to apply law to achievement of its Health Protection Goals
- To develop the legal preparedness of the public health system to address all public health priorities

The Program employs broad strategies toward those goals. These include:

- Engaging practitioners and policy makers in identifying priorities and in developing and applying legal tools
- Addressing all four core elements of public health legal preparedness: laws and legal authorities; competencies; coordination across sectors and jurisdictions; and, scientific and best-practices information
- Providing consultation to CDC programs and partners
- Establishing partnerships linking CDC and all partners active in public health law

Impact on the People’s Health

The law-based tools developed by the Public Health Law Program enable CDC programs and front-line public health professionals and policy makers to make such advances as:

- Accelerating and enhancing their response to public health emergencies
- Identifying promising new tools for prevention of chronic diseases
- Mobilizing and focusing new resources on the nation’s public health priorities through collaboration with established partners as well as with such novel and
unconventional partners as elected state and local officials, the private bar, law enforcement, and the judiciary.94

The Environmental Protection Agency (EPA), like other federal agencies, prepares and reviews NEPA documents. However, EPA has a unique responsibility in the NEPA review process. Under Section 309 of the Clean Air Act, EPA is required to review and publicly comment on the environmental impacts of major federal actions, including actions which are the subject of EISs. If EPA determines that the action is environmentally unsatisfactory, it is required by Section 309 to refer the matter to CEQ.

Section 511(c) of the CWA exempts other EPA actions under the CWA from the requirements of NEPA. Section 7(c) of the Energy Supply and Environmental Coordination Act of 1974 (15 U.S.C. 793(c)(1)) exempts actions under the Clean Air Act from the requirements of NEPA. EPA is also exempted from the procedural requirements of environmental laws, including NEPA, for comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) response actions. Courts also consistently have recognized that EPA procedures or environmental reviews under enabling legislation are functionally equivalent to the NEPA process and thus exempt from the procedural requirements in NEPA.

The preamble reads:

To declare national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation...

94 This information was taken from the Center for Disease Control website under the Public Health Law Program. More in-depth information regarding this program can be found by visiting the site at http://www2a.cdc.gov/phlp/about.asp. (accessed January 2, 2011).
NEPA contains three important sections: (1) The declaration of national environmental policies and goals, (2) The establishment of action-forcing provisions for federal agencies to enforce those policies and goals, and (3) The establishment of a Council on Environmental Quality (CEQ) in the Executive Office of the President. The essential purpose of NEPA is to ensure that environmental factors are weighted equally when compared to other factors in the decision making process undertaken by federal agencies. The act establishes the national environmental policy, including a multidisciplinary approach to considering environmental effects in federal government agency decision making. The act also established the President's Council on Environmental Quality (CEQ). The CEQ was established to advise the President in the preparation of an annual environmental quality report addressing the state of federal agencies in implementing the act, on national policies nurture and promote the improvement of the environments quality and on the state of the environment. The effectiveness of NEPA originates in its requirement of federal agencies to prepare an environmental statement to accompany reports and recommendations for funding from Congress. This document is called an Environmental Impact Statement (EIS). NEPA is an action-forcing piece of legislation, meaning that the act itself does not carry any criminal or civil sanctions. All enforcement of NEPA was to be obtained through the process of the court system.

A major federal action has been expanded to include most things that a federal agency could prohibit or regulate. In practice, a project is required to meet NEPA guidelines when a federal agency provides any portion of the financing for the project. Sometimes, however, review of a project by a federal employee can be viewed as a federal action and would then, therefore, require NEPA-compliant analysis be performed.
NEPA covers a vast array of federal agency actions, but not all actions are necessarily covered under NEPA. The act does not apply to purely private or purely public state action. This means that there is a complete absence of government influence or funding concerning that specific action. Exemptions and exclusions are also present within NEPA's guidelines. Exemptions from NEPA include specific federal projects detailed in legislation, EPA exemptions and functional equivalent exemptions. Functional Equivalent exemptions apply where compliance with other environmental laws requires environmental analysis similar to NEPA. These other environmental laws can include but are not limited to the Clean Air Act, Resource Conservation and Recovery Act, Safe Drinking Water Act, and the Federal Insecticide, Fungicide, and Rodenticide Act.95

Ostensibly, having environmental and other laws on the books has not guaranteed equal enforcement for all communities. Government has been slow to address equity questions of who gets help and who does not, who can afford help and who cannot, why some contaminated communities get cleaned up or studied while others get left off the research agenda, why industry contaminates some communities and not others, why some contaminated communities are studies while others are not, why some communities are protected and others are not protected and why unfair policies and practices are allowed to go unpunished.96

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95 The National Environmental Policy Act (NEPA) requires federal agencies to integrate environmental values into their decision making processes. For more in-depth information regarding this Act, please visit the Environmental Protection Agencies' website at: http://www.epa.gov/compliance/nepa/index.html (accessed March 10, 2011).

In Pellow’s and Brulle’s book, *Power Justice and the Environment: A Critical Appraisal of the Environmental Justice Movement*, the authors put forth critics’ regard of the Environmental Justice Movement. As stated by the authors:

Man’s attitude towards nature is today critically important simply because we have now acquired a fateful power to alter and destroy nature. But man is a part of nature and his war against nature is inevitably a war against himself. Now I truly believe that we in this generation must come to terms with nature, and I think we’re our mastery, not of nature, but of ourselves.  

Evidence supports the existence of linkages between asthma and toxic dumps. In that manner, my research can contribute to creating, implementing, and evaluating current policies in order to obviate this issue. To this end, Pellow and Brulle states, “Where one can afford to live have a major effect on the extent of one’s exposure to toxic pollutants. Within this dynamic, elites can move from industrial areas to less polluted suburban neighborhoods. The poor and powerless cannot.”

**Discussion**

The researcher has performed an in-depth examination of five salient asthma-related policies, both federal and state. These policies were selected as a result of their consistent reference by participants when asked about asthma-related policies. During these examinations, we found that neither of these policies focuses on the linkage of toxic dumps and the disproportionate occurrence of asthma in minority youth. More

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98 Ibid.
importantly, neither of these policies mentioned asthma or toxic dumps in their wording. In each of these policies, this specific asthma issue is referenced in broad, general contexts which can lend to various interpretations of the laws. Remarkably, after much debate, ground-breaking legislation, numerous studies and formidable advocacy, the existence of public policies implemented to address asthma disparity and disproportionate of asthma among minority youth in Georgia have not reduced this occurrence since its early detection in the 1980s.

Environmental policies in Georgia are in flux. Until recently, protecting environmental quality has been accomplished mainly through regulatory policies. These policies, which have been directed at major sources of pollution, have been effective in achieving improved air and water quality in spite of rapid population growth coupled with industrial and commercial expansion. Much of the environmental improvement that has been achieved thus far is based on improved technology. Now, however, the focus has shifted to smaller, dispersed pollution sources, which, collectively, have a significant effect on the environment. Such nonpoint pollution cannot be resolved solely through regulation of major pollution sources. New and innovative methods are necessary to address the complex environmental problems of the twenty-first century and beyond.

Such environmental policy changes should include:

(1) taking a longer-term perspective regarding the environmental impact of individual actions;
(2) placing a greater emphasis on research to identify options that can minimize environmental impacts; and
(3) increasing efforts toward pollution prevention and source reduction.99

CHAPTER V
DATA ANALYSIS

The purpose of this chapter is to reveal the findings of this case study and detail the techniques utilized in this investigation. The primary geographical focus of this research is the state of Georgia. However, in support of the component of this research that deals with federal governmental actions, data regarding regions outside of the State of Georgia were also incorporated into this study. While all participants in this study were considered to have some direct and/or indirect knowledge of toxic waste sites, environmental health hazards and environmental health policies; participants who were considered knowledgeable of public policy advocacy and creation for effectively addressing asthma resulting from environmental health hazards were actively targeted. Surveys questionnaires and interviews were administered to environmental justice advocates, governmental officials, and community members. The surveys were constructed according to the three group types; therefore, three variant survey instruments were administered. Statistical data regarding asthma were taken from primary sources that include the Environmental Protection Agency (EPA), the Center for Disease Control (CDC), the Georgia Department of Public Health, the Georgia Environmental Protection Division, the National Association of Local Boards of Health, as well as, other sources engaged in environmental health issues and policies.

Contact information for the leaders of each state within Region 4 was gathered from an article entitled, *Contaminated Communities Put Spotlight on EPA Region 4:*
Environmental Leaders from Six States Tell EPA to Address Legacy of Dumping in Dixie.

This article was written regarding an EPA Region 4 accountability meeting and Press Briefing Schedule dated for Tuesday, October 27, 2009, at 61 Forsyth St., Atlanta, GA.

In review of this literature, we obtained names and contact information for the various Region 4 state leaders and contacted them regarding the various environmental legislation, programs, and/or policies within their perspective states. These individuals were also interviewed, the result of which will be expounded upon in a later section of this study. The language is this legislation does not specifically address asthma; however, health hazards are mentioned from a broad perspective.

Participant Criteria for Survey Inclusion

Community members, governmental officials, and environmental advocates were chosen for this case study research. Participants invited to participate based upon their knowledge of the occurrence of asthma among minority youth in Georgia, environmental justice issues and associated environmental health hazards, and environmental justice policies and programs. Participants categorized as Community Members were also invited to participate based upon the community in which they reside.

Policies/Programs and the Occurrence of Asthma in Minority Youth in Georgia Examined

The policies and programs examined in this research were selected based upon the logic of inference in regards to the stated hypothesis and expert choice selection. The researcher meticulously and intentionally included various federal and state legislation that both directly and indirectly addressed asthma, recognizing the possible presumption
of equifinality, defined as many alternative causal paths to the same outcome. This term is included to acknowledge the researcher’s awareness of other causal theories for the disproportionate occurrence of asthma among minority youth; for example, cigarette smoke and air pollution; however, our research focuses on the linkage between toxic hazardous dumps and the occurrence of asthma. For the purpose of this research and examination of relative policies, we also incorporated a historical sequence of policies implemented to address a broad spectrum of discriminatory practices under which the systematic and consistent siting of toxic dumps in minority communities occur.

Methodology Approach

This approach was selected to provide a more robust study of minorities’ epidemic increase in asthma, the linkage of toxic waste sites and asthma, and the ineffectiveness of public policies in eradicating these occurrences. Survey questionnaires were designed specifically for each category of individuals. Therefore, each instrument included identical general questions; however, other questions were constructed with more specificity based upon the category to which they were administered. An analysis of the data collected was put to use to answer the research questions and provide an in-depth evaluation of the research hypothesis.

The most frequent research technique employed were interviews with environmental justice advocates, governmental officials, and community members. In part, the research instrument was structured to garner participant’s perception of the degree of impact that environmental hazardous sites have on minority youth and their

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contracting asthma. Also, the research instrument was utilized to measure key stakeholders' perception concerning the need for government to enact policies that specifically and effectively address the siting of toxic dumps and the disproportionate increase in asthma in minority communities. As such, this socio-political structure is a major factor of this research.

In conducting this case study, fifty (50) telephone and face-to-face interviews were administered using open and closed-ended questions. Although this mixed-method approach employed quantitative data regarding the occurrences of asthma, participants were also requested to present their empirical data as it related to asthma occurrences in their neighborhoods or regions of employment. For those particular questions; however, participants were re-advised that their responses were strictly voluntary and confidential. Conjointly, several participants chose to be interviewed in conjunction with the receipt of survey instrument.

Seventy-five (75) survey instruments, divided into three categories, were administered. The first category, Community Members, is comprised of ten (10) questions; three (3) in tripartite format (when no answer indicated it was calculated as “N/A”); four (4) multivariate questions; and three (3) questions based on empirical knowledge of participant. The second category, Government Officials, is comprised of thirteen questions; four in tripartite format; four (4) multivariate questions; four (4) requiring a response based on participant’s empirical knowledge; and one (1) requesting participant’s job title. The third category, Environmental Justice Advocates, is comprised of sixteen questions; two (2) in tripartite format; four (4) multivariate questions; four (4) requiring a response based on participant’s empirical knowledge; and six (6) that are
group specific. To quantify the results of the surveys, we will group and calculate
questions submitted to all categories and will then calculate questions specific to each
individual category. Due to the nature of this study, the majority of the participants
preferred confidentiality.

**Results of Survey**

Within the state of Georgia, the survey instruments were sent to zip codes:
31523, 31521, 31520, 31525, 31420, 31406, 31416, 30354, 30336, 30260, and 30336.
These zip codes were chosen because they represent areas that have been most impacted
by toxic dump sites in the state of Georgia. The interviews yielded one hundred percent
(100%) participation; however, of the seventy-five (75) surveys that were submitted,
sixty-two (62) were completed and returned, which yielded a response rate of eighty-
three percent (83%). Of the number returned, some questions were without responses
and were denoted as "N/A." As indicated by Table 4, each of the participants had positive
responses when asked of their knowledge of hazardous waste dumps and their
communities and/or regions of employment.

**TABLE 4**: Are you aware of any hazardous waste dumps located in your community or
region of employment.

<table>
<thead>
<tr>
<th>Category</th>
<th>+N</th>
<th>Yes</th>
<th>No</th>
<th>*N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Justice Advocates</td>
<td>22</td>
<td>22</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Governmental Officials</td>
<td>25</td>
<td>25</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Community Members</td>
<td>15</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

+\(N=\) Number of Surveys
*N/A= The participants chose not to answer the question.
In Table 5, participants were questioned in regards to their knowledge of the racial makeup of their communities. The question was structured to include region of employment acknowledging that all advocates and government officials work and reside in different communities. In Table 6, the question of poverty is addressed.

Table 5: Are the residents of your community and/or region of employment predominately minorities?

<table>
<thead>
<tr>
<th>Category</th>
<th>+N</th>
<th>Yes</th>
<th>No</th>
<th>*N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Justice Advocates</td>
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<td>17</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Governmental Officials</td>
<td>25</td>
<td>13</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>Community Members</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>0</td>
</tr>
</tbody>
</table>

+N=Number of Surveys  
*N/A= The participants chose not to answer the question.
Table 6: In the region, district, etc. where hazardous waste sites exist, or where you live, are the residents predominately above the poverty line?  

<table>
<thead>
<tr>
<th>Category</th>
<th>+N</th>
<th>Yes</th>
<th>No</th>
<th>*N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Justice Advocates</td>
<td>22</td>
<td>10</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Governmental Officials</td>
<td>25</td>
<td>21</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Community Members</td>
<td>15</td>
<td>11</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

+N=Number of Surveys  
*N/A= The participants chose not to answer the question.

Interestingly, eight (8) of the participants in the Environmental Justice Advocates chose not to answer the question regarding poverty. Table 7 addressed the issue of five (5) types of illnesses. Again, all of the responses were positive and, as indicated, all participants provided responses to this question.

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2 Poverty status is determined by comparing annual income to a set of dollar values called poverty thresholds that vary by family size, number of children, and age of householder. If a family’s before tax money income is less than the dollar value of their threshold, then that family and every individual in it are considered to be in poverty. For people not living in families, poverty status is determined by comparing the individual’s income to his or her poverty threshold. Poverty estimates represent an important indicator of economic well being. This report, using income and household relationship data from the 1-year 2009 and 2010 American Community Surveys (ACS), compares poverty rates for the nation, states, and large metropolitan statistical areas. The report also summarizes the distributions of income-to-poverty ratios for states and the District of Columbia. This information was taken from the 2011 United States Census Bureau, [http://www.census.gov/prod/2011pubs/acsbr10-01.pdf](http://www.census.gov/prod/2011pubs/acsbr10-01.pdf). (accessed December 17, 2011).
Table 7: Do you have and/or are you aware of anyone in your family and/or community having either of five (5) types of illnesses.**

<table>
<thead>
<tr>
<th>Category</th>
<th>+N</th>
<th>Yes</th>
<th>No</th>
<th>*N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Justice Advocates</td>
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<td>22</td>
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<td>0</td>
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<tr>
<td>Governmental Officials</td>
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<td>0</td>
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<tr>
<td>Community Members</td>
<td>15</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

+N=Number of Surveys
*N/A= The participants chose not to answer the question.
**Participants were provided five (5) types of illnesses from which to choose: asthma, respiratory problems, lead poisoning, cancer, and kidney disease.

Table 8 addressed the issue of public policies, the response of which exemplified wide ranges. For example, the responses from the Environmental Justice Advocates were all positive; however, responses from the Governmental Officials and Community Members showed greater negative responses. Table 9 addresses the penalties incurred for violations of public policies.
Table 8: Are you aware of any Public Policies created to address the issue of asthma?

<table>
<thead>
<tr>
<th>Category</th>
<th>+N</th>
<th>Yes</th>
<th>No</th>
<th>*N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Justice Advocates</td>
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<td>22</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Governmental Officials</td>
<td>25</td>
<td>8</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>Community Members</td>
<td>15</td>
<td>2</td>
<td>13</td>
<td>0</td>
</tr>
</tbody>
</table>

+N=Number of Surveys  
*N/A= The participants chose not to answer the question.

Table 9: Are you aware of any penalties for violations of environmental policies?

<table>
<thead>
<tr>
<th>Category</th>
<th>+N</th>
<th>Yes</th>
<th>No</th>
<th>*N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Justice Advocates</td>
<td>22</td>
<td>22</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Governmental Officials</td>
<td>25</td>
<td>25</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Community Members</td>
<td>15</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

+N=Number of Surveys  
*N/A= The participants chose not to answer the question.

Table 10 reflects responses to a question asked of community members and environmental justice advocates only.
Table 10: Of the following, please identify which individual or group you feel has the most decision-making power in creating public policies. **Names of Individuals and Groups

<table>
<thead>
<tr>
<th>Category</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>*N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Justice Advocates</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Community Members</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

+N=Number of Surveys
*N/A= The participants chose not to answer the question.
**
A. The Federal Government
B. The Governor
C. The Mayor
D. Chief Executive Officer (CEO)
E. Board of Commissioners
F. State Legislature
G. Other _____________________

Each of the participants indicated their belief that the federal government possessed the most power to create public policies. Responses to this question indicate the existence of a significant level of belief in the system of federalism under which the United States government operates. Also, it exemplifies the belief in the sovereignty of the United States government within our pluralistic convention, as all responses indicated that the Federal Government had the most decision-making power in creating public policies. When asked this question during interviews, the responses were comparable to the responses in the surveys. Community members were also asked if they felt that the individual or group they indicated as having the most power to create effective public policies had indeed been effective in creating public policies that addressed the issue of asthma. The choices provided to them were comparable those represented in Table 10. Overall, their responses reflected their discontent and disbelief in their selected group
actually having created any public policies that effectively address the issue of asthma as an environmental concern.

Essentially, governmental officials are considered to have some impact in the political decision-making processes; therefore, a variant of the question in Table 10 was presented to them and the results are shown in Table 11.

Table 11: Based upon your job description, do you feel you have sufficient power to affect positive outcome of public policies?

<table>
<thead>
<tr>
<th>Category</th>
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<th>Yes</th>
<th>No</th>
<th>*N/A</th>
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</thead>
<tbody>
<tr>
<td>Governmental Officials</td>
<td>22</td>
<td>22</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

+N=Number of Surveys
*Participants chose not to answer the question.

Table 12 and Table 13 asked questions concerning issues regarding environmental justice policies implemented to address the asthma. The question was structured to include areas for essay type response. These issues included, the right for children to administer the medications in schools, mandated stipulation on toxic dumps sitings, cleaning up areas were toxic hazards are located, providing affordable healthcare for asthmatics. Notably, one response indicated the desire to have school nurses to be certified in asthma care.
Table 12: Are there any issues regarding environmental policies implemented to address the issue of asthma that they would like to see addressed?

<table>
<thead>
<tr>
<th>Category</th>
<th>+N</th>
<th>Yes</th>
<th>No</th>
<th>*N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Justice Advocates</td>
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<td>Governmental Officials</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Community Members</td>
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<td>15</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

+N=Number of Surveys  
*N/A= The participants chose not to answer the question.

Table 13: Which of the following statements best describe your attitude towards the existence of environmental policies implemented to address the issue of asthma in your community?**

<table>
<thead>
<tr>
<th>Category</th>
<th>+N</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<td>Governmental Officials</td>
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<td>0</td>
<td>23</td>
<td>2</td>
</tr>
<tr>
<td>Community Members</td>
<td>15</td>
<td>0</td>
<td>11</td>
<td>4</td>
</tr>
</tbody>
</table>

+N=Number of Surveys  
*N/A= The participants chose not to answer the question.  
**1. I believe current environmental policies effectively address the issue of asthma.  
2. I do not believe current environmental policies effectively address the issue of asthma.  
3. I prefer to examine evidence of the outcome of environmental policies more closely before I submit an opinion regarding the issue of asthma.

Interestingly, the majority of participants responded in regards to policies that dealt with asthma education, managed care, or preventing asthma attacks. Some participants referenced the Georgia Asthma Law; however, they further advised that particular law focused on accountability of public schools in regards to allowing students to self-administer their asthma medications. Additionally, participants asserted that
policies specifically addressing asthma and its linkage to toxic hazards where either non-existent, or needed much improvement. When the question was posed to a government employee of the Georgia Asthma Program, I was advised, “Many of the existing and policies under consideration are directly related to the asthma condition and its management. They are not tied to toxic dumps.” This type response was consistent throughout this case study research.

The question, “Are there any issues regarding asthma environmental policies that you would like to address?” was structured to allow the participants to present their responses in sentence structure based strictly on their knowledge and perceptions. Therefore, answer choices were not provided. Overall, participants indicated that policies enacted to address asthma occurrence resulting from toxic exposure are very few; however, very much needed. Various anecdotes were provided from participants who stated they have known individuals who had experienced asthma symptoms while residing in communities where toxic hazards were located; upon relocation; these individuals stated they did not continue to experience these symptoms.

Questions Specifically Addressed to Environmental Justice Advocates

This category was asked more in-depth questions regarding asthma and public policies. This category was asked to identify their affiliated group. The groups identified were based in the state of Georgia. They include: The Sierra Club, The Asthma Action Network, The Asthma Community Network Organization, The Asthma Education Consultants of Georgia, LLC, Children’s Healthcare of Atlanta, North Central Health District, (Macon, GA), Accountable Communities: Healthy Together - Asthma, Central Georgia Asthma Education Initiative, (Sparta, GA), FlowBrush Asthma Surveillance
Telemedicine (F.A.S.T), (Columbus, GA), Georgia Addressing Asthma From a State Perspective, American Lung Association in Georgia, Georgia Childhood Asthma Management Program, School Health Project (NACDD), Think Kids 2010" Alliance Green, (Sharpsburg, GA), Inspire Savannah!, (Savannah, GA), Wellcare of Georgia, Inc., (Augusta, GA), Asthma Consortium, Inc., Georgia Association for Primary Healthcare, Inc., (Decatur, GA), Central Savannah River Area (CSRA) Asthma Coalition, (Martinez, GA), CDC Dash, The CDC Asthma Program, Asthma Management Education Program.

Indicated in the following Tables 14-16, Environmental Justice Advocates were the only group to which these specific questions were directed. The caveat is that the researcher perceives this group to be the most knowledge to provide informative responses to these set of questions.

Table 14: Do you feel that minorities disproportionately suffer from environmental health hazards?

<table>
<thead>
<tr>
<th>Category</th>
<th>+N</th>
<th>Yes</th>
<th>No</th>
<th>*N/A</th>
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<tr>
<td>Environmental Justice Advocates</td>
<td>22</td>
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<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

+ N = Number of Surveys
*N/A = The participants chose not to answer the question.

Table 15: Do you feel that minorities disproportionately suffer from environmental health hazards?

<table>
<thead>
<tr>
<th>Category</th>
<th>+N</th>
<th>Yes</th>
<th>No</th>
<th>*N/A</th>
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</thead>
<tbody>
<tr>
<td>Environmental Justice Advocates</td>
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<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

+ N = Number of Surveys
*N/A = The participants chose not to answer the question.
Table 16: Have effective public policies been implemented to address the asthma issue been effective?

<table>
<thead>
<tr>
<th>Category</th>
<th>+N</th>
<th>Yes</th>
<th>No</th>
<th>*N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Justice Advocates</td>
<td>22</td>
<td>0</td>
<td>22</td>
<td>0</td>
</tr>
</tbody>
</table>

+N=Number of Surveys
*N/A= The participants chose not to answer the question.

When asked if there were any specific policies they would like to see created or updated to address the issue of asthma; the majority of the responded that they would like to The Clean Air Act updated to include toxic dumps and more stringent penalties applied to those who violate the spirit of Executive Order 12898 to target those who pollute within minority communities. Some stated they would like to have committees who serve as advisory boards or “watchdogs” in regards to corporations being allowed to pollute. Some even indicated that they would like to see legislation put into place that called for polluting corporations to have funds that are immediately accessible to persons in their neighborhoods who have contracted asthma as a result of their polluting actions. When prompted as to how they will determine if the corporation’s actions are those that solely caused the asthma, the responses were overwhelmingly “that should not have to be proven, only that the toxins of the corporations could, in fact, cause asthma.

When asked where does asthma rank in their group activities, all responded that the asthma issue was very important and should be given more attention. When asked about activities engaged in to address the asthma issue, most responses included actions taken to educate the public; such as, asthma awareness week were community groups, health officials, etc. visit, schools, meetings and conferences, have walk-a-thons,
webinars, websites where various individuals and groups can become members and share information.

When asked if their affiliated agency had been lobbied by individuals or groups in regards to the issue of asthma, several participants; namely, The Sierra Club, The Asthma Action Network, and Children’s Healthcare of Atlanta, responded that they had been. For this reason, they have been advocating for federal legislation mandating stronger rules on the reporting of asthma case. For example, the members of the board of human services of the state of Georgia asserts that health departments should be made to regularly report asthma cases according to set rules and regulations; not based upon their own methods of reporting.

*Questions Submitted to Environmental Justice Advocates and Government Officials*

Tables 17 and 18 were submitted to environmental justice advocates and governmental officials only. Only two questions were addressed using this survey methodology; therefore, this Likert Scale employs a nominal scale of measurement with categorical variables.

Table 17: Attitudes Toward Environmental Policies and Protection

Research and statistics support assertions that inequalities exist in environmental policies and protection that have a greater impact on blacks and other minorities than on non-minorities. What is your reaction regarding this statement? Please check one of the following:

<table>
<thead>
<tr>
<th>Category</th>
<th>+N</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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<tr>
<td>Governmental Officials</td>
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<td>6</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

+N=Number of Surveys
*N/A= The participants chose not to answer the question.
Table 18: Attitudes Toward Penalties and Fines

Research and statistics support assertions that the policies regarding penalties and/or fines that were placed on violators who targeted predominately white neighborhoods as compared to those placed on violators who targeted predominately black neighborhoods were greater. What is your opinion regarding this statement? Please check one of the following:

<table>
<thead>
<tr>
<th>Category</th>
<th>+N</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>*N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Justice Advocates</td>
<td>22</td>
<td>3</td>
<td>19</td>
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<tr>
<td>Governmental Officials</td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

+N=Number of Surveys
*N/A= The participants chose not to answer the question.

When government officials were asked if their agency had a formal process whereby which to receive complaints regarding five (5) particular illnesses: Asthma, Respiratory Problems, Lead Poisoning, Cancer, and Kidney Disease. The majority of the officials advised there is a process; however, the processes may not be deemed “formal.” Most stated that usually community members will call; and based upon the districts in which they reside, they would be directed accordingly. All complaints would be registered and kept within logged systems and investigated. During investigations, designated employees would contact the caller and handle the complaint based upon need. When numerous complaints are received regarding the same type of or comparable issues, more stringent actions are taken.

Initial Findings

There exists a significant correlation between living in close proximity to toxic dumps and the disproportionate increase in asthma among minority youth in Georgia.
This case study further establishes the strong existence of significant linkages between toxic hazards and asthma; and several studies have been conducted that supports this researcher’s position that Federal and state enacted policies do not effectively address this asthma disparity. Moreover, several studies have been conducted to increase the research conducted on the linkage between asthma and toxic hazards noting the difficulty to prove causation; however, this researcher asserts that is not reason enough to dismiss the hypothesis but grounds to conduct more vigorous research as the findings suggest there is definitely a connection and need for better policies.

When asked about specific policies that were implemented to address the disproportionate increase in asthma among minority youth in Georgia, an Environmental Protection Agency representative responded, “The Clean Air Act and the Smoking Tobacco Quality Act.” The representative was asked if they were aware of any hazardous waste sites located in the region/district of their place of residence or employment; the EPA representative indicated “Yes.” Further, when the representative was asked whether or not the people that lived within that particular region/district were predominately of people of color; the represented indicated that they were. After ascertaining this information, the representative was then asked whether or not these individuals lived above the poverty line. The representative responded that they did not think that the individuals lived above the poverty line.3 Based upon interviews with various

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3Poverty status is determined by comparing annual income to a set of dollar values called poverty thresholds that vary by family size, number of children, and age of household. If a family’s before tax money income is less than the dollar value of their threshold, then that family and every individual in it are considered to be in poverty. For people not living in families, poverty status is determined by comparing the individual’s income to his or her poverty threshold. Poverty estimates represent an important indicator of economic well being. This report, using income and household relationship data from the 1-year 2009 and 2010 American Community Surveys (ACS), compares poverty rates for the nation, states, and large
governmental officials within the state of Georgia, their responses were comparable when asked those specific questions. The policies most referenced were those examined in chapter four of this study.

The outcome of the evidence of this study has uncovered that the existence of policies specifically enacted to address the correlation between living in close proximity to toxic dumps and the disproportionate occurrence in asthma among minority youth are minimal to non-existent. The existing policies may indirectly address this asthma issue; however, these policies do not contain asthma or toxic dumps in their wording. As structured, these policies deal with this asthma issue under broad terms; whereas, specificity in regards to asthma disparities relating to environmental hazards may be construed based upon interpretation of these laws. Information gathered from this research allows the researcher to more definitively answer the research questions posed in this case study.

RQ (1) In the United States, does there exist a need for public policies that are specifically enacted to address asthma disparities and the disproportionate increase among minorities?

Revelations gleaned from the findings of the literature review, policy analysis and survey instrument, firmly suggest the need for public policies that are specifically enacted to address asthma disparity and disproportionate increase among minorities. As found in the works contributed by other scholar on this subject, this disparity is a veritable matter of contention that demands the enactment of a set of policies that confronts this specific metropolitan statistical areas. The report also summarizes the distributions of income-to-poverty ratios for states and the District of Columbia. This information was taken from the 2011 United States Census Bureau, http://www.census.gov/prod/2011pubs/acsbr10-01.pdf. (Accessed 12/17/2011).
issue. The policies examined were found to be overly broad in the interpretation of their application to reduce asthma disparities and disproportionate increase among minorities.

RQ (2) Have the federal governments enacted specific public policies to address asthma disparity and disproportionate increase among minority youth in Georgia?

Based upon the findings gleaned from this case study, the policies enacted by the federal government that can be considered as a foundation for a cause of action that deals with asthma disparity and disproportionate increase among minorities, do not specifically address this issue. Under broad terms the asthma issue can be applied; however, difficulty exists in the enforcement of these laws in addressing this asthma issue. For example, Executive Order 12898 does not allow for any individual associated with the creation of this policy to be sued on the basis of this policy. Additionally, as of this writing, the environmental justice movement members, who dedicated much time and effort for the creation of this Order, have found themselves asking, almost two decades since its implementation, for the enforcement of this Order as conditions for which they fought to improve remains comparable to those that existed prior to the creation of this Order. They are also asking that this Order be codified; therefore, making it a mandate as opposed to an order.

RQ (3) Have the state governments enacted specific public policies to address asthma disparity and disproportionate increase among minority youth in Georgia?

As in RQ (2), the researcher’s response for RQ (3) concurs. Policy actions of the state government are more minimal than that of the federal government in regards to enacting policies that address the asthma issue of this case study. The state of Georgia has no policies that directly or indirectly address this asthma issue. In addition, state
health departments have no mandates in regards to how they report asthma. In communication with a state department of health representative, I was advised that asthma has been classified as a non-reportable disease. Consequently, the state health departments' reporting of asthma occurrences it is left up to the state health departments. Moreover, the research revealed that state policies that relate to asthma are concerned with asthma management, asthma education, and prevention of asthma attacks. Further, the law referred to as the Georgia Asthma Law strictly deals with the self-administration of asthma medication in public schools. Essentially, Georgia residents would have to rely upon the federal asthma-related policies as recourse regarding the correlation of exposure to toxic dumps and the disproportionate occurrence of asthma.

Goals of the environmental health component of a state asthma plan should include identification of environmental factors that are important contributors to asthma prevalence and morbidity and reduction of eliminating exposure to these factors; as such, the researcher included the linkage of toxic dumps and the occurrence of asthma as the focus of this research. To attain these goals, government asthma programs should include education and outreach activities, direct interventions, policy initiatives, monitoring, and research, at least in the broad sense of keeping abreast of the most current state of knowledge related to asthma causation and exposure reduction.4

RQ (4) Have these policies effectively addressed asthma disparities and disproportionate increase among minority youth in Georgia?

Summarily, RQ (4) identifies with RQ (1), RQ (2), and RQ (3). The findings of this case study undergird the argument that the policies examined cannot serve as a

fulcrum for the reduction of asthma among minority youth in Georgia. Speaking to this question, the researcher does not support the elimination of existing asthma-related policies. The researcher does; however, assert that these policies should be altered so that they would reflect mandates that purposely target the correlation of exposure to toxic dumps and the disproportionate occurrence of asthma in minority youth. The ability to enforce these policies as they relate to the asthma issue addressed in this study could increase the effectiveness of these policies in dealing with this issue and the barometer of progress could be measured more closely. In chapter four of this study, a study where environmental justice pioneers strongly advocated that Congress should pass a Civil Rights Restoration Act to provide for a private right of action for disparate impact claims under Title VI, as well as § 1983 was included. These actions support the researcher’s conclusion of the inability of this law to effectively address the asthma issue addressed in this study. As we suggested in chapter one of this study, the researcher’s proposed model (MOPPE) should be consistently applied to these policies to gage their performance so that informative recommendations concerning these policies can be employed.

The findings of this case study reveal that medical officials have not identified the cause of the epidemic increase in asthma. The purpose for conducting this study is to perform an analysis of public policies that have been implemented to address asthma disparities. Thus, supporting the argument that more research is needed and more studies should be conducted that specifically deal with the issue of asthma disparity and policies designed to address this issue.

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CHAPTER VI

SUMMARY AND CONCLUSION

This research study focuses on political, social, and economic issues in regards to policies designed to effectively address the disparities in the impact of asthma among minority youth. The foundation of this research stems from the environmental justice movement, which began when communities all across the United States came to realize that the environmental protection apparatus was broken and needed to be fixed. At that time, many of those communities were engaged in life-and-death struggles and came to realize that they could not wait for the federal Environmental Protection Agency or some other governmental agency to develop a new environmental protection arrangement. Consequently, environmental justice activists targeted disparate enforcement, compliance, and policy formulation as they affected public health decision-making. These acts resulted in several events which brought environmental justice concerns into the national public policy debate, for example, The Environmental Justice Act of 1992.\(^1\)

In 1987, the United Church of Christ Commission for Racial Justice published the most widely recognized study of race and the incidence of environmental hazards in the


\(^2\) The Environmental Justice Act of 1992 (H.R. 2105, 103\(^{rd}\) Congress 1993-1994) was introduced into Congress by Congressman John Lewis and Senator Albert Gore; the act was redrafted and reintroduced in 1993 by Congressman Lewis and Senator Max Baucus. The purpose of the bill was to establish a program to assure nondiscriminatory compliance with all environmental, health, and safety laws to assure equal protection of the public health. This bill never became law. For a full reading, please visit: http://www.govtrack.us/congress/bill.xpd?bill=h103-2105 (accessed March 11, 2009).
United States. In this study, it found that based upon a report by the Center for Policy Alternatives in Washington, D.C., hazardous-waste sites were too close for comfort in many minority communities. The update of the well-publicized 1987 study by the United Church of Christ Commission for Racial Justice, “Toxic Wastes and Race in the United States,” found that the situation had worsened. People of color, defined by the report as the total population less non-Hispanic whites, are currently forty-seven percent more likely than are whites to live near a commercial toxic-waste facility, suffer from environmental health hazards and to be underrepresented in policy representation and protection. From these set of facts, we chose to conduct a case study that stems from that premise and moves forward by asking has the federal and/or state government enacted certain policies that address a specific environmental health hazard outcome, the disproportionate occurrence of asthma. To that end, the focal point of this study centers on public policies created to address the issue of asthma disparities and disproportionate occurrences among minority youth in Georgia and

*Environmental Injustice, Health Disparities, and Asthma in Minority Youth*

The concept of environmental injustice was first developed in the 1980s in studies of hazardous waste sites in the Southeastern United States. These studies found that waste sites in the Southeast are located disproportionately in poor counties inhabited largely by African Americans, Native Americans, and other marginalized populations. Environmental injustice is the inequitable and disproportionately heavy exposure of poor, minority, and disenfranchised populations to toxic chemicals and other environmental

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hazards. Environmental injustice contributes to disparities in health status across populations of differing ethnicity, race, and socioeconomic status. Infants and children, because of their vulnerabilities and age-related patterns of exposure, are especially vulnerable to the health impacts of environmental injustice. These impacts are illustrated by sharp disparities across children of different racial and ethnic backgrounds in the prevalence of three (3) common diseases caused in part by environmental factors: asthma, lead poisoning, and obesity.\(^4\)

Documentation of linkages between health disparities and environmental injustice is an important step toward achieving justice. Currently, in the aftermath of the epidemiological revolution, the principal diseases of American children are a group of chronic diseases termed the new pediatric morbidity; asthma is included in this group. Moreover, asthma has more than doubled in frequency since 1980 and rates have risen especially rapidly among poor children of color residing in inner-city communities. Children’s environments have profoundly changed in the past century.\(^5\)

**Findings**

Environmental justice provides a framework for public policy debates on the challenging questions of whether disparities in exposure to environmental pollution and health hazards have played a causal role in the persistent patterns of disparate health status among minority and low-income populations in the United States. Whereas environmental justice analysis has focused primarily on assessing racial/ethnic or


socioeconomic inequities in the distribution of environmental hazards among the general population, recent studies have begun to examine the burdens of exposure borne by particularly vulnerable groups, such as young children. A substantial amount of scientific evidence indicates that children are more susceptible to the effects of environmental pollution than adults. As such, the intersection of environmental justice and children’s health has emerged as a critically important area of academic inquiry and policy making in the United States. However, among the limitations for such studies is the use of proximity as a measure of exposure potential.6

Asthma is as highly prevalent health problem with significant impact in the United States. It ranks among the most common chronic conditions in this country, affecting an increasing number of Americans, an estimated 20.3 million persons of all ages and races in 2001. It is significantly higher among children than adults and among African Americans than among persons of other races. In 1998, in the United States, asthma accounted for over 2 million emergency department visits, an estimated 423,000 hospitalizations, and 5,438 deaths.7

In 1997-98, 5.4 percent of all children in the U.S. had asthma, according to EPA's America's Children and the Environment. The highest rates of asthma, 8.3 percent, were found in non-Hispanic black children living in families with incomes below the poverty

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7 J. Madden, L. Boss, M. Kownaki, et al, n.d., “Guide for State Health Agencies in the Development of Asthma Programs,” Center for Disease Control, National Center for Chronic Disease Prevention and Health Promotion. This guide was developed to assist asthma program staff of state health departments develop and implement asthma control programs. For a full reading of this program, please visit: http://www.cdc.gov (accessed March 12, 2011).
level. The rate for Hispanic and white non-Hispanic children was approximately five (5) percent. Overall, children living below the poverty level had higher rates of asthma than did those children living at or above the poverty level, with rates of 6.2 percent and 5.3 percent, respectively.\(^8\)

According to Corso and Fertig, the prevalence rates of asthma have been steady for a decade in the US; however, there was a period between 1980 and 1996 that saw large increases in asthma rates, particularly among children age 0 to 4 years. More than half of all cases of persistent asthma start before age three (3) and 80 percent begin before age six (6). Thus, this disease affects very young children.\(^9\)

Corso and Fertig’s report, as asserted by numerous scholars’ reports, posits that asthma disproportionately affects minority and low-income populations. Currently, asthma prevalence is higher among blacks (9.2%) compared with whites. It is also more prevalent among those below the federal poverty threshold (10.3%) compared to those living above poverty (6.4% to 7.9%). As a result, this disease contributes to the disparities in health and income that persist in the US.\(^10\) During 2006–2008, an estimated 7.8% of the U.S. population had current asthma. Current asthma prevalence was higher among the

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multiracial (14.8%), Puerto Rican Hispanics (14.2%), and non-Hispanic blacks (9.5%) than among non-Hispanic whites (7.8%). Current asthma prevalence also was higher among children (9.3%) than among adults (7.3%), among females (8.6%) than among males (6.9%), and among the poor (11.2%) than among the near-poor (8.4%) and nonpoor (7.0%).

According to the Georgia Department of Human Services, approximate 11% (210,000) of Georgia’s children 0-17 years of age had asthma in 2000. Black Georgians were more likely to die from asthma than white Georgians. By 2010 the percentage had increased to 12% (297,000). From 2001-2007, there were 113 deaths per year in the state of Georgia and blacks were 2.7 times more likely than whites to die from asthma.

Public health officials are puzzled by the differing rates among racial groups and are particularly troubled by the high mortality due to asthma among African-American children. For example, in 1993, among children under age 5, African-American children were six times more likely to die from asthma than white children. One recent report has implicated poverty, not race, as the key factor in the higher prevalence rates.

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One of many impediments to developing a coherent national asthma strategy is the highly-decentralized nature of the nation’s public health system. The loci of most of the nation’s public health activity related to asthma and many other major diseases are state and local (primarily county) governments. As might be expected, given such a large element of state and local control, the capacity of the public health system to confront a challenge like the asthma epidemic is extremely uneven. Local health departments vary from storefront operations with a staff of only a few professionals in rural areas to large, complex bureaucracies like those in New York and Los Angeles. A related problem is that surveillance is largely a matter of state volition. Because epidemics like asthma are no respecters of state boundaries, this yields a public health dilemma—states with aggressive surveillance systems for asthma and other diseases may find the effectiveness of their efforts compromised by neighboring states that choose not to engage in surveillance. This problem is especially likely to affect multistate metropolitan areas.\(^{15}\)

In this article, “The Asthma Epidemic: Prospects for Controlling an Escalating Health Crisis,” the we also noted that in a front-page article in the *New York Times* last fall, a reporter observed, “The rapid rise in asthma, in this country and in developed nations around the world, is one of the biggest mysteries in modern medicine.”\(^{16}\) In an article entitled, “The Mysterious Increase in Asthma,” author Ben Lieberman asserted, Asthma is on the rise, and the experts are not sure why. Outdoor air pollution is the most


politically popular culprit but is unlikely to be the cause, while more plausible explanations have thus far received scant attention. The latest study from the Public Health Policy Advisory Board (PHPAB), a not-for-profit public health advocacy group, underscores the many uncertainties regarding this increasingly common disease.\(^\text{17}\)

Asthma incidence and mortality have sharply increased in the past two decades, particularly among children. Statistics show a doubling of asthma cases from 6.8 million in 1980 to 14.6 million in 1996, and a further increase to 17.3 million in 1999. There is some question about changing definitions of asthma and doctors' heightened awareness of the condition affecting the diagnosis rate, but there is little doubt that the increase is real. Tragically, asthma deaths have tripled from 1,674 in 1977 to 5,438 in 1998, making it the leading cause of death in young children. Without question, genetics plays a role. Asthma runs in families, and medical statistics show racial and ethnic differences not attributable to income levels. For example, asthma is considerably more common in African-American children than whites, but is less common among Hispanics. However, genetics cannot explain the increase, unless there is some genetic predisposition to asthma that needs an environmental trigger to manifest itself. That leads to the next question: What has changed about the environment in which children live that has made asthma so much more prevalent?\(^\text{18}\) Perhaps this question can be answered through my case study research regarding the linkages of asthma and toxic dumps.


\(^{18}\)Ibid.
In seeking environmental justice under federal and state environmental statutes, the research indicates that there exist significant drawbacks. First, because discharge of pollutants is permissible if done in compliance with a valid, properly issued permit, challenges to enforce discharge limits under such permits will not create a balanced distribution of environmental hazards where facilities are already concentrated in minority communities. Second, some of the major environmental statutes, such as the National Environmental Policy Act (NEPA) and its state counterparts, are procedural in nature and do not have substantive standards regarding the siting and concomitant concentration of environmentally hazardous facilities. As a result, a delay in the siting process or the documentation of potential impacts (e.g., another environmental assessment or environmental impact statement) may be the plaintiff’s only victory, providing a “reprieve rather than a remedy.”

Plaintiff groups have successfully asserted their common law tort rights, such as public or private nuisance or personal injury, against industrial or hazardous waste facilities in addition to challenging siting permits under traditional environmental laws. Such suits; however, may present significant barriers to minority communities as plaintiffs. First, because the plaintiff must prove intentional or unreasonable conduct by the defendant when bringing a public nuisance claim, liability may be hard to establish where the facility is operating in compliance with validly issued environmental permits. Second, because the plaintiff must have a property interest to bring a private nuisance

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action, many environmental justice plaintiffs may not have standing for this cause of action. Third, causation in personal injury claims may present a difficult hurdle for plaintiffs due to a lack of information concerning the health effects of toxins. Lastly, because common law tort claims are typically geared towards the complaints of individual plaintiffs, with the exception of public nuisance, minority communities may find such suits frustrating and divisive.20

In addition to applying environmental and tort law, environmental justice lawyers also have attempted to establish environmental inequity in the siting of facilities as a violation of the United States Constitution. In 1994, Luke Cole commented: “[s]o far, almost every environmental justice civil rights case brought has alleged only a violation of the Equal Protection Clause of the Constitution.” In the four published decisions that addressed equal protection challenges to local government siting decisions, all four courts held that the minority plaintiffs failed to prove an intent to discriminate, even where disparities in environmental impacts were clearly connected to race. This poor success rate can be attributed to the high threshold for proving intentional discrimination in equal protection challenges; the plaintiff must prove that the government purposefully meant to discriminate against minorities in the siting process. This is a very difficult standard to meet because it ultimately requires the plaintiff to prove that the discriminatory decision was made because of its adverse effects on the minority community, not in spite of those effects. Although discriminatory intent may be established circumstantially, the bar set by courts for such evidence is quite high and has yet to be met in any environmental justice

challenge. Because of the poor success rate of such claims, Cole has suggested that they be brought mainly for "political value" in conjunction with another type of challenge that has a greater success rate. The power of alleging that a government-funded entity is practicing racism by depriving minorities of the core constitutional right of equal protection may have unique force in raising community awareness and outrage for environmental justice advocates. Nonetheless, with the passages and continued implementation of the public policies enacted to address the issues of asthma, asthma has continued to increase and disproportionately impact minorities in Georgia, as well as, the United States as a whole.

Evidence strongly supports that human exposure to toxic pollutants constitutes a significant threat to health and leads to increased risk of many different diseases. In a study conducted by Kudyakov, Baibergenova, Sdeb, and Carpenter, the hypothesis tested there was that living in a zip code containing or abutting a Persistent Organic Pollutant (POP)-contaminant zip code poses a risk of exposure, and that such exposure increase the risk of hospitalization for both acute and chronic respiratory diseases of an infectious origin. The most serious limitations to their study was said to be exposure assessment. Nonetheless, this reports states that their hypothesis is not without support from other studies. Their hypothesis and postulation is aligned with the research questions posed:


within this case study. Many environmental factors are associated with the exacerbation and/or development of asthma.

Discussion

As observed by pioneers of the environmental justice movement, polluters tend to take the path of least resistance when making decisions regarding the siting of toxic dumps. This researcher posits that stronger penalties should be imposed on the polluters and equally enforced for all communities. Whereas, a causation is more difficult to prove that a correlation, this researcher posits that more studies conducted on this issue may raise the level of the linkage of exposure to toxic dumps and the occurrence of asthma from a correlative relationship to a causal relationship may evoke stronger policies, stiffer penalties and equity in enforcement. Grassroots organizations should form coalitions whose purpose is to serve as watchdogs and monitor actions of polluters as well as policy makers. Community involvement can play a key role in advocating for stronger policies as this involvement can bring about increased civic participation. Community members can coalesce and serve as watchdogs of their communities and monitor the siting of toxic dumps within their communities. Increased civic participation can narrow the path of least resistance.

Conclusions

The art of political inquiry dictates that political scientists ask specific questions and seek specific answers to questions than those that may be asked in other disciplines; such as, the humanities and physical sciences. As a political science work, this study compels interests in the political process and the causal connections between political events. As such, in conducting this study and writing this dissertation, we felt it
necessary to make certain that it is politically relevant by asking, "What are the politics or power relationships existing in the political phenomena being studied?" Specifically, has the federal and/or state governments enacted certain policies that effectively address the disproportionate occurrence of asthma among minority youth in the state of Georgia? In this study, an analysis of certain policies is presented. The purpose of the policy analysis was to examine the public policy's impact on the political environment in which it was or was to be implemented.

In addition to the process theory, elite theory, and group theory, other theories examined in this study include 1) the Power theory, which explains political activities by examining the power relationship between individuals or groups, 2) the Goals theory, which explains political activities by examining the purpose or goals of political phenomena, 3) rationalism, which is one that achieves maximum social gain, 4) incrementalism, which views public policy as a continuation of past government activities with only incremental modifications, and 5) the elite theory, wherein which public policy may be viewed as the preferences of a governing elite. The elite theory was the selected theory under which this research was guided. The researcher's rationale for the employment of the elite theory is its structure of power. In chapter three (3) of

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this study, we incorporated the finding of several author regarding the "governing elite." Although the general consensus of these authors was that a governing elitist structure did exist, the composition of this group differed. However, all with the exception of Robert Dahl agreed that there was an identifiable elitist power structure from which decisions were made that affected the masses. Studies support that the largest polluters are corporations, which in actual fact, are controlled by the owners of these corporation. These owners possess power, which includes the power to make decision. As purported by the elite theory, elites possess the power to make decisions and this power transcends that of political leaders as well as the masses that represent the members of society.

This case study posits that there exists a disproportionate increase in asthma among minority youth residing in the state of Georgia. Based upon this assertion, it asks the questions, are current public policies effective in addressing this specific issue? Conclusively, the question can now be answered. As this research study reveals, numerous studies underscore that minority youth have been disproportionately affected by the occurrence of asthma. Based upon statistical data, this observable fact has remained constant throughout the years represented in this case study: 2000 to present.

This research process employed within this study follows Neil J. Salkind’s guide:

- Asking the Question
- Identifying the Important Factors
- Formulating a Hypothesis
- Collecting Relevant Information
- Testing the Hypothesis
- Working the Hypothesis
- Reconsidering the Theory
- Asking New Questions27

The EPA is aware of communities’ concerns about land use planning. To respond to these concerns, EPA has committed to explore how programs affect land use planning, siting, permitting, and decision making in overburdened communities. While land use planning is usually a local government responsibility, the EPA can provide interested jurisdictions with information on best practices regarding policies and approaches that can benefit all community stakeholders and minimize adverse impacts. In efforts to accomplish these objectives, the EPA developed and plan entitled, *Environmental Justice, Plan EJ 2014*. This plan is constructed as a roadmap for integrating environmental justice into its programs and policies as indicated by the phrase, “Advancing Environmental Justice through Compliance and Enforcement.”

In order to more effectively reduce disparate environmental exposure and engage the public in making environmental policy decisions, the EPA has committed to engage relevant constituencies in participation processes early, provide these constituencies with the resources and information that can contribute to effective participation, and ensure that the outcomes reflect participation. Specifically, helping communities develop the capacities to create, access, use, and interpret scientific information and changing Agency practices to better incorporate community voices in scientific activities and decisions will be a key and proper task for EPA. Therefore, the EPA proposes to establish programs

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and provide federal government support to increase technical and scientific capacity in communities.\(^{29}\)

As put forth by the EPA, communities must be the driver for local solutions. However, the EPA asserts that far too many communities lack the capacity to truly change environmental conditions for the better. As a result, many low-income, minority, tribal, and indigenous communities in the United States live near areas affected by some of the nation’s worst pollution. To this end, the EPA seeks to implement programs to support community empowerment and provide benefits ranging from basic educational and leadership development to comprehensive approaches, which includes Community-based programs; such as, Childhood Asthma, Superfund, and Brownfields.

Of the strategies the EPA has developed to accomplish these goals, those most pertinent to this case study are 1) Advance environmental justice principles by building strong state and tribal partnerships through the National Environmental Performance Partnership System and National Program Manager guidance, 2) Promote an integrated EPA presence to engage communities in the Agency’s work to protect human health and the environment, and 3) Explore how EPA funding, policies and programs can inform or help local decision-makers to maximize benefits and minimize adverse impacts from land use decision-making, planning and siting.\(^{30}\)


\(^{30}\) Ibid.
Findings of this study suggest that many environmental factors are associated with the exacerbation and/or development of asthma. The distinction between primary causation and subsequent morbidity is critical. Most prevention measures, with the notable exception of discouraging smoking during pregnancy and around young non-asthmatic children, are aimed exclusively at preventing exacerbations in asthmatic patients. However, there is strong epidemiological evidence indicating that there is direct role of environmental factors in the etiology and exacerbation of asthma. Conversely, the evidence supporting the effectiveness of interventions directed at environmental factors is modest. Therefore, clinicians, policy-makers, and public health officials should convene and set an agenda for the development of an aggressive public health approach to reduce some key environmental factors. At the national and federal levels, there needs to be support for research to address critical unanswered questions.31

Comparatively, the U.S. Department of Health and Human Services (HHS) is responsible for creating Healthy People. This program comprises a set of goals and objectives with 10-year targets designed to guide national health promotion and disease prevention efforts to improve the health of all people in the United States. Released by the U.S. Department of Health and Human Services each decade, Healthy People reflects the idea that setting objectives and providing science-based benchmarks to track and monitor progress can motivate and focus action. Healthy People is used as a tool for strategic management by the federal government, states, communities, and many other public- and private-sector partners. Its comprehensive set of objectives and targets is used

to measure progress for health issues in specific populations, and serves as (1) a foundation for prevention and wellness activities across various sectors and within the federal government, and (2) a model for measurement at the state and local levels.32

The HHS has also created Healthy People 2020. This approach is intended to draw attention to “upstream” determinants that affect the public’s health and contribute to health disparities from infancy through old age, thereby highlighting strategic opportunities to improve health and quality of life for all Americans. Collectively, Healthy People 2020’s overarching goals include:

1. Recognizing that factors related to social and physical environments, multi-sector policies, individual behaviors, health services, and biology and genetics influence the ability of individuals and communities to make progress.

2. Examine leading health indicators by using a life stages perspective that recognizes that specific disease outcomes, risk factors, and health determinants need to be addressed at various stages across the lifespan and highlights the importance of tailoring strategies to fit a particular age group.

These goals are intended to motivate action at the national, State, and local levels, as well as among individuals, families, and communities. They can also help us best focus our energies to live better and longer. The missions of Healthy People include the engaging of multiple sectors to take actions to strengthen policies and improve practices that are driven by the best available evidence and knowledge and identifying critical

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research, evaluation, and data collection needs. Organized units such as the one presented here can be crucial in the role of advocating policies that address the asthma issue presented in this study.

Recommendations

In the first chapter of this work, we expounded upon the Environmental Justice Framework as part of the theoretical framework of this case study. As suggested by this researcher, of the five components of the framework, a sixth should be added: Monitoring Of Programs and Policies for Effectiveness (MOPPE). As such, program evaluators should MOPPE the programs and policies, as well as, any actions and/or resources created to address disparities to make certain that they are effectively addressing negatively impacted individuals.

Program evaluations are also critical. The call for reform and accountability in government and the need to cut the costs of wasteful programs has made the evaluation process a central concern for managers, elected officials, and the public. Evaluation can be considered as a systematic process that gathers information about and measures the results of programs, policies, and organizations. The evaluation process can be considered to involve five basic steps: 1) Identifying problems pertaining to the program or organization, 2) setting goals and making the goals of the program or organization the basis for the evaluation and decision making about their result, 3) determining beforehand what is being evaluated and the measurement criteria, 4) conducting the actual evaluation, and 5) using the findings to inform any action about the program or

Too, the utilization of such measures as PERT Charts and Evaluation Charts can be implemented.

PERT is one of several forms of network analysis used in program planning. The PERT utilizes the rational planning process, one of the theories discussed in the theoretical framework. The end state of the project is defined first. Planners then assess the alternatives for achieving the end in terms of their feasibility, costs, and so forth, as detailed in figure 14.

![PERT Chart](https://via.placeholder.com/150)

The time estimates for a project activity are determined by using the following formula:

\[
\text{Expected Time} = \text{Optimistic} + 4(\text{Most Likely}) + \text{Pessimistic} / 6
\]

Figure 14. A PERT Application

PERT uses a standard formula to calculate times that assumes a total of 6 possible time occurrences. The optimistic, pessimistic and most likely estimates are weighted to indicate their relative likelihood. The optimistic and pessimistic times are each given a weight of 1; the most likely time is given a weight of 4. This chart is based on the supposition that the experts believe that if everything fell into place and there were no disagreements among the planners, the project planning activity might take no more than

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6 weeks. In a worst-case scenario, the planners believe that this phase could take as long
18 weeks. Based on their past experience however, their most likely estimate was a 12-
week time frame as exampled by this PERT formula.\(^{35}\)

\[
6 + 4(12) + 18 = \frac{12}{6} \text{ weeks}
\]

Still, the creation of policies and programs may require more examination based
upon specific criteria as expressed in Figure 15, the use of a Program Evaluation Criteria
Chart.

\[
5 = \text{Best} \quad \rightarrow \quad 3 = \text{Average} \quad \rightarrow \quad 1 = \text{Poorest}
\]

<table>
<thead>
<tr>
<th></th>
<th>Alt 1 Program/Policy Remains as Presented</th>
<th>Alt 2 Program/Policy changed</th>
<th>Alt 3 Program/Policy eliminated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Cost</td>
<td>2</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Ease of Implementation</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Figure 15: Program Evaluation Criteria Asthma Policy/Program

By use of this chart, planners can gauge through contrast and comparison of
alternatives, based on specified criteria. As indicated by this chart, these criteria are
effectiveness, cost, and ease of implementation. Accordingly, in the chart used is this
eexample, alternative #2 has been determined to be best as indicated by the numbers.
Charts that are actually implemented will provide more in-depth analysis.\(^{36}\) However,


\(^{36}\) Public Policy Analysis, PA 6622, Troy State University, Dr. Leora S. Waldner, Instructor, Fall, 2005, Atlanta, GA.
there are dysfunctional attitudes towards program evaluation. Political and psychological factors can undermine an evaluation project. Effective evaluators seek to identify these factors, discuss conflicts, and reassure stakeholders that the program evaluation is planned to serve their needs. Some concerns simply represent misunderstandings of program evaluation and the purposes of the project being planned. Other concerns may reflect real conflict within the organization that the evaluation has brought to the surface. Notably, conducting evaluations that are not appropriate to the purposes for which they were commissioned is just as unethical as not protecting the confidentiality of information obtained from the participants.37

As the studies examined in this research has supported, there exist a growing need for more rigorous research to be conducted on the linkages between environmental toxic pollutants and the occurrence of asthma. The 2000 Asthma in Georgia Report confirmed that asthma is a major public health problem in Georgia as it is in the rest of the nation. At that time; however, because asthma was not contagious and not often fatal, few numbers were available about the prevalence of asthma in Georgia. In my communication with the Deputy Director of Communication with the Georgia Department of Public Health, I was advised The Georgia Department of Health collects data on asthma from four (4) primary sources:

A. The Behavioral Risk Factor Surveillance System (BRFSS), which provides prevalence data and not incidence.
B. Hospital discharges
C. Emergency room visits
D. Death records

When asked whether or not health departments were mandated to report asthma occurrences, I was advised that asthma is not a reportable disease, i.e. no laws or mandates requiring asthma to be reported.\textsuperscript{38} However, given the findings of this research, it is this researcher’s assertion that mandates should be placed on health departments in their reporting of asthma case; especially when it is found that a high number of cases are in minority neighborhoods. This information can be determined by use of the patient’s zip code. I was further advised that many of the existing policies and policies under consideration are directly related to the asthma condition and its management, which I found to be consistent with my research. Therefore, I would recommend more studies geared towards the linkage of asthma and toxic dumps so that we could gain more support development of policies that directly focus on asthma outcomes relative to toxic dumps. Too, research supports that limitations exists; such as, the utilization of exposure and proximity to toxic pollutants as determining factors. However, much research supports the existence of significant linkages between toxic pollutants and asthma. This evidence widely supports the need for more robust public policies to obviate this phenomenon.

With children being so susceptible to many hazards of life especially environmental, one has to be sensitive to the continuous environmental changes. One should educate oneself and understand more about children’s health and talk to other people about the problems children face. Health education should not be limited to professionals but also to the at-risk group. Ways of communication should be devised to those who cannot read. Letters can be written to senators, representatives, congress and

\textsuperscript{38} Interview with a State of Georgia Worker, November 12, 2010.
other government officials to work together to put a policy in place to improve children’s health. An effective policy is reliant upon knowledge and understanding of the effects of environmental hazards on children’s health. Research also has to be geared towards identifying patterns of environmental diseases, assessing children’s exposures to environmental toxicants so as to determine developmental periods of vulnerability.\(^{39}\)

While numerous non-profit environmental health groups focus on asthma, relatively few actually work as partners with poor minority communities.\(^{40}\) To consistently identify asthma disparities and monitor policy effectiveness in dealing with this disparity, we hold that more coalitions should be formed that are specifically designed for this reason. For example, according to this article, “Environmental Justice & Health Union,” the American Academy of Allergy Asthma & Immunology partnered with the Congress of National Black Churches and created educational materials about asthma.\(^{41}\)

Much of the body of research on asthma pertains to asthma management and prevention of asthma attack. Specifically, we found that much of the research focuses on prevalence, risk factors, and prevention and management.\(^{42}\)

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\(^{41}\) Ibid.

Georgia Asthma Advisory Council

The Georgia Asthma Advisory Council (GAAC) is a collaborative group of medical and public health professionals, business and government agency leaders, community activists, and others dedicated to improving the quality of life for people with asthma through information-sharing, networking, and advocacy. A robust and active coalition, there are over 45 organizations from all corners of the state. In 2003, coalition committees produced the Strategic Plan for Addressing Asthma in Georgia, which outlines a comprehensive approach to addressing asthma through a broad range of population-based strategies based on the Healthy People 2010 model. Because asthma is controllable but not curable at this time, efforts are focused on secondary and tertiary prevention. The activities occur through the framework of five committees, each focused on five main objectives outlined in the Plan:

- Maintain a comprehensive surveillance system in Georgia by using data to track patterns and trends related to prevalence, burden, and risks.
- Increase awareness and knowledge of the public and community regarding asthma-related issues.
- Identify training needs and opportunities to improve knowledge, skills, attitudes, and practice regarding asthma.
- Increase knowledge and improve the ability of patients and families to self-manage their asthma.
- Increase awareness and management techniques among disparate populations.

Certification and Training

Through a contract from GAASP, Georgia State University identified and trained public health nurses across the state to become leaders in training future asthma care managers. The training is based on the Department of Human Resources (DHR)-approved curriculum that includes the epidemiology and cause of asthma, role of the case
manager, asthma symptoms and medical treatment, use of asthma-related tools and equipment, identification and control of asthma triggers, collaboration through team approach, and methods for educating children with asthma and their caregivers on how to self-manage asthma. Pertinent to this research, these types of collaboration and team approaches can also be utilized to form coalitions to advocate for public policies that directly address the linkage of toxic dumps and the occurrence of asthma. These coalitions can also be put in place to monitor the effectiveness of enacted policies in addressing asthma disparity.

Asthma Educator Institute

The Asthma Educator Institute provides a preparatory course for those qualified to take the National Asthma Educator Certification Examination, sponsored by the National Asthma Educator Certification Board (NAECB), or for those who provide asthma education to individuals living with asthma.43 Perhaps this institution can be expanded to also include classes the educate communities on the importance and dynamics of civic participation and community involvement. Moreover, these classes can be used to educate community members of the risk of negative outcomes in the absent of civic participation and community involvement.

Georgia Addressing Asthma from State Perspective (GAASP)

The Georgia Department of Human Resources (DHR) established the Georgia Addressing Asthma from a State Perspective (GAASP) program with a grant from the

43 This information was taken the Georgia Department of Human Resources, Division of Public Health website. The report is titled, the 2008 Georgia Program Data and Summary, “Asthma,” http://health.state.ga.us/pdfs/epi/cdiee/2008%20Asthma%20Data%20Summary.pdf, (accessed June 20, 2011).
Centers for Disease Control and Prevention (CDC) in 2001. The GAASP program partners with families, communities, organizations, schools, worksites, childcare providers, and healthcare providers to raise awareness of asthma, its triggers, and how to manage the disease. This agency can also form coalitions to advocate for public policies that specifically advocate for policies that specifically address the linkage of toxic dumps and the occurrence of asthma in minority communities.

Environmental Justice Program

In the southeast, the Environmental Justice Program, which was created by the EPA, is responsible for integrating environmental justice into the region's programs, policies, and procedures. Also, the Program promotes the integration of environmental justice into local, state, and federal government programs, policies, and procedures. In addition, the Program encourages stakeholder involvement in environmental justice by providing workshops and training. Other major functions of the Program include managing environmental justice grants and processing environmental justice inquiries and complaints. The grants are awarded on an annual basis to eligible community groups and federally recognized tribal governments that are working on or planning to carry out projects to address environmental justice issues. Inquiries and complaints are reported to the Environmental Violations website. This program structure can be a useful tool in policy evaluation.

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44This information was obtained from the Georgia Department of Human Resources, Division of Public Health, website under the heading, “Georgia’s Worksite Health Initiative, Georgia Addressing Asthma from a State Perspective.” For more information, please visit: http://health.state.ga.us/programs/worksitehealth/resources.asp. (accessed December 24, 2011).

In chapter four of this work, we suggested that there should be a paradigm shift in asthma-related environmental laws. As stated, we asserted that this shift is to move beyond advocating for asthma-related environmental policies and seek national environmental laws that strictly deal with asthma and its disparate impact on minority communities. Explicitly, this shift would include building strong relationships with the scientific field in advocating for the creation of asthma-specific environmental laws, utilizing different measurements in identifying environmental hazards that can potentially lead to asthma disparity, monitor success of laws created to address asthma disparities, and mandating consistent reporting of asthma by health departments and other agencies. More importantly, this shift would mandate the categorization of asthma as a reportable disease as determined by state health agencies. As an example, we can utilize the inverse of Patton’s model for policy evaluation. Table 19 illustrates Patton’s model; however, Table 20 illustrates the shift suggested by this researcher.

Table 19: Scientific versus Alternative Paradigms (adapted from Patton)

<table>
<thead>
<tr>
<th></th>
<th>Scientific Paradigm</th>
<th>Alternative Paradigm</th>
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<tbody>
<tr>
<td>Purpose</td>
<td>Summative</td>
<td>Formative</td>
</tr>
<tr>
<td>Measurement</td>
<td>Quantitative data</td>
<td>Qualitative data</td>
</tr>
<tr>
<td>Researcher Stance</td>
<td>Objectivity</td>
<td>Subjectivity</td>
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<tr>
<td>Inquiry Mode</td>
<td>Deduction</td>
<td>Induction</td>
</tr>
<tr>
<td>Analysis</td>
<td>Descriptive and inferential statistics</td>
<td>Case studies, content/pattern analysis</td>
</tr>
<tr>
<td>Goals</td>
<td>Truth, scientific acceptance</td>
<td>Understanding, perspective</td>
</tr>
</tbody>
</table>

*Source: Dissertation, L. Waldner*

Table 20: Non-Scientific and Paradigm Shift

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Formative</th>
<th>Summative</th>
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<tr>
<td>Measurement</td>
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<tr>
<td>Goals</td>
<td>Understanding, perspective</td>
<td>Truth, scientific acceptance</td>
</tr>
</tbody>
</table>

Source: Dissertation, L. Waldner

At this point, it is pragmatic to discuss the practicality of this paradigm shift. In assessing and viewing specific issues and nuisances in the selection of what informs policy, we should not only consider the process, but also the individual policymakers and what kind of paradigms they would sanction. Realizing these individuals’ past practices, voting records, community involvement, and the like is central to any projection as to how these individuals will be move within a paradigm shift in policies. This paradigm would also embrace components of the EPA’s Environmental Justice Plan 2014. The stated purposes delineated within this plan are:

- Expands conversation on environmentalism
- Integrate environmental justice and civil rights into our programs, policies and daily work
- Focus on agency-wide areas critical to advancing environmental justice, including rulemaking, permitting, compliance and enforcement, community-based programs and our work with other federal agencies
- Establish specific milestones to help meet the needs of overburdened neighborhoods thru decision making, scientific analysis and rulemaking.
Moreover, this shift will contrast central issues of activism and policy and educating as opposed to debating. For example, *Anderson vs Sandoval* was a landmark case that stated individual plaintiffs had no private right of action to enforce the EPA's disparate impact regulation in the court. Strategic activism and education can lead to part, if not all, of this law being changed. Supporting this statement, one could employ the recent successful attacks on *Roe vs Wade* and the subsequent changes in abortion laws, i.e. some states have mandated ultra sounds before abortions can be performed.

*MOPPE Model*

Former U.S. President, Franklin D. Roosevelt's Great Society Programs notably sought to eliminate poverty just as Title VI of the Civil Rights Act of 1964, The Clean Air Act, Executive Order 12898, and the National Environmental Policy Act all sought to eliminate discrimination and environmental degradation. Just as it became clear that the Great Society Programs did not eliminate poverty, actually fell very short of this goal, these Acts have also been inadequate in addressing the asthma disparities associated with environmental hazards. Accountability of the Great Society Programs were sought, just as accountability of these Acts should be sought in how effective they have been the increase of asthma among minority youth. As such, our position is to include the MOPPE model as a component of this paradigm shift. Thus, continual monitoring of the National Environmental Asthma Law can highlight its effectiveness in addressing the asthma issue brought forth through this study. The convergence of political, social, and

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scientific efforts are necessary to collect and provide the types of data needed to successfully identify the gravity of asthma disparities and create the necessary laws to eliminate this phenomenon. This convergence framework is illustrated in Figure 16.
Figure 16: Convergence of Political Science, Environmental Justice, and Public Policy Researcher’s Contribution to the Field

Source: Lolita D. Gray. 3/2012. Atlanta, GA
Asserting the claims of Dresang and Gosling, "Americans are indeed concerned about environmental issues and support protection measures. The United States has made progress toward improving its environment and is, in many ways, ahead of the rest of the world." However, Dresang and Gosling further assert that the expected population growth and expansion of the economy will continue to put pressure on the environment and continued progress will have to be made just to maintain the status quo, to prevent pollution from getting any worse. In the interest of policy protection and inclusion, the conjoined efforts of these three entities are badly needed and are in the interest of all communities throughout the United States.

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49 Ibid.
APPENDIX A

DISSERTATION RESEARCH PARTICIPATION CONSENT FORM

LETTER TO PARTICIPANTS

You are invited to be in a research study of the correlation of environmental hazardous sites and the disproportionate impact of asthma on minority youth in the state of Georgia. Too, this study examines the effectiveness of current policies implemented to address this issue. You were selected as a possible participant because the researcher has determined that you may have knowledge that directly relates to this study. We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Lolita D. Gray, at Ph. D Candidate in the Political Science Department at Clark Atlanta University.

Background Information:

The purpose of this study is to determine: Have the federal and/or state governments implemented public policies to address the disproportionate occurrence of asthma among minority youth. If so, have these policies been effective in the state of Georgia?

Procedures:

If you agree to be in this study, we would ask you to do the following things.

- Please respond to the attached survey.

Risks and Benefits of Being in the Study:

The study has no risks.

The benefits to participation are:

- Increase studies designed to eliminate environmental injustices
• Increase studies for advocacy of obviating environmental health hazards resulting from toxic waste sites
• Increase studies designed to address the disproportionate increase of asthma among minority youth

Confidentiality:

The records of this study will be kept confidential. In any sort of report we might publish, we will not include any information that will make it possible to identify a participant. Research records will be kept in a locked file; only the researchers will have access to the records. The final Dissertation document will be archived in the Robert W. Woodruff Library of the Atlanta University Center, Inc.

Voluntary Nature of the Study:

Your decision whether or not to participate will not affect your current or future relations with the researcher, or Clark Atlanta University. At any time the participant may withdraw from the study and all information submitted will be destroyed.

Contacts and Questions:

The researcher conducting this study is Lolita D. Gray who can be contacted at:

Clark Atlanta University
223 James P. Brawley Dr.
Department of Political Science
Knowles Hall-3rd Floor
Atlanta, GA 30314

You may ask any questions you have now. If you have questions later about the research, you may contact the researcher's advisor, Dr. William H. Boone, at: Phone: (404) 880-8718.

If you have any questions now, or later, related to the integrity of the research, (the rights of research subjects or research-related injuries, where applicable), you are encouraged to contact Dr. Georgianna Bolden at the Office of Sponsored Programs (404 880-6979) or Dr. Paul I. Musey, (404) 880-6829 at Clark Atlanta University.
You will be given a copy of this form to keep for your records.

Statement of Consent: I have read the above information. I have asked questions and have received answers. I consent to participate in the study.

Signature ___________________________________________ Date:

Signature of Investigator ________________________________ Date:

NOTE: Children under the age of eight (8) require the permission of their parent(s) or legal guardians to participate in any type of research; those over the age of eight (8) require permission from their parent(s)/legal guardian, in addition to their Assent to participation.

PLEASE consider the attainment of informed consent as a process within the research design that requires your attention. The consent/assent forms that are approved by the IRB committee will be stamped as such and returned to the researcher and must be utilized throughout the research study.
APPENDIX B

RESEARCH STUDY: ENVIRONMENTAL HAZARDS AND ASTHMA

INTERVIEW QUESTIONS
FOR GOVERNMENT OFFICIALS

CONDUCTED
BY

LOLITA D. GRAY, PH. D CANDIDATE
DEPARTMENT OF POLITICAL SCIENCE
CLARK ATLANTA UNIVERSITY
ATLANTA, GA
2011
250
1. Are you aware of any hazardous waste sites located in your region/district?
Yes___ No___

2. In the region, district, etc. where hazardous waste sites exist, are the residents predominately people of Color?
Yes___ No___

3. In the region, district, etc. where hazardous waste sites exist, are the residents predominately above the poverty line?
Yes___ No___

4. Does your agency have a formal process (phone, questionnaire, public hearing) whereby which to receive complaints regarding the following illnesses? Please circle all that apply.

1. Asthma
2. Respiratory Problems
3. Lead Poisoning
4. Cancer
5. Kidney Disease

5. Are you aware of any public policies that address the issue of asthma? If so, please list.

1. 
2. 
3. 
4. 
5. 

6. Are you aware of any penalties for violations of these public policies (i.e., fines, revocation of license, etc.)? If so, please list.

1. __________________________________________

2. __________________________________________

3. __________________________________________

4. __________________________________________

5. __________________________________________

7. Research and statistics support assertions that inequalities exist in environmental policies and protection that have a greater impact on blacks and other minorities than on non-minorities. What is your reaction regarding this statement? Please check one of the following:

   Strongly Agree _____ Agree _____ Disagree _____ Strongly Disagree _____

8. Research and statistics support assertions that the policies regarding penalties and/or fines that were placed on violators who targeted predominately white neighborhoods as compared to those placed on violators who targeted predominately black neighborhoods were greater. What is your opinion regarding this statement? Please check one of the following:

   Strongly Agree _____ Agree _____ Disagree _____ Strongly Disagree _____

9. Without listing your name, please provide your exact job title.

   __________________________________________

10. Based upon your job description, do you feel you have sufficient power to affect positive outcome of public policies.

    Yes____  No____
11. Have your agency been lobbied by any individuals or groups in regards to the issue of asthma? If so, please list.

1. 

2. 

3. 

4. 

5. 

12. Are there any issues regarding environmental policies implemented to address the issue of asthma that you would like to see addressed?

13. Which of the following statements best describe your attitude towards the existence of environmental policies implemented to address the disproportionate occurrence of asthma in your county? (Circle one number)

1. I believe that these environmental policies adequately address this issue.
2. I do not believe that these environmental policies adequately address this issue.
3. I prefer to examine evidence of the outcome of environmental policies more closely before I submit an opinion regarding this issue.
RESEARCH STUDY: ENVIRONMENTAL HAZARDS AND ASTHMA

INTERVIEW QUESTIONS
FOR COMMUNITY MEMBERS

CONDUCTED
BY

LOLITA D. GRAY, PH. D CANDIDATE
DEPARTMENT OF POLITICAL SCIENCE
CLARK ATLANTA UNIVERSITY
ATLANTA, GA
2011
1. Are you aware of any hazardous waste dumps located in your community?

Yes___  No___

2. Which of the following groups of people predominately reside in your community? Please circle one.

Blacks
Whites
Hispanics
Other

3. Based upon your assessment, do you feel that the majority of individuals residing in your community live above the poverty level?

Yes___  No___

4. To your knowledge, do you or anyone in your family and/or community have the following illnesses? Please circle all that apply.

A. Asthma
B. Respiratory Problems
C. Lead Poisoning
D. Cancer
E. Kidney Disease

5. Are you aware of any policies that exist within your community that address the issue of asthma? If so, please list.

1. ____________________________________________

2. ____________________________________________

3. ____________________________________________

4. ____________________________________________

5. ____________________________________________
6. Are you aware of any penalties for violations of these policies (i.e., fines, revocation of license, etc.)? If so, please list.

A. ____________________________________________

B. ____________________________________________

C. ____________________________________________

D. ____________________________________________

E. ____________________________________________

7. Of the following, please identify which individual or group you feel has the most decision-making power in creating public policies. (Please circle)

A. The Federal Government
B. The Governor
C. The Mayor
D. Chief Executive Officer (CEO)
E. Board of Commissioners
F. State Legislature
G. Other __________________________

8. Of the individual or group listed in question #7, do you feel that they have been effective in creating public policies to address the issue of asthma?

Yes______ No______

9. Are there any issues regarding asthma environmental policies that you would like to address?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
10. Which of the following statements best describe your attitude towards the existence of environmental policies implemented to address the issue of asthma in your community? (Circle one number)

1. I believe current environmental policies effectively address the issue of asthma
2. I do not believe current environmental policies effectively address the issue of asthma.
3. I prefer to examine evidence of the outcome of environmental policies more closely before I submit an opinion regarding the issue of asthma.
RESEARCH STUDY: ENVIRONMENTAL HAZARDS AND ASTHMA

INTERVIEW QUESTIONS
FOR ENVIRONMENTAL JUSTICE ADVOCATES

CONDUCTED
BY

LOLITA D. GRAY, PH. D CANDIDATE
DEPARTMENT OF POLITICAL SCIENCE
CLARK ATLANTA UNIVERSITY
ATLANTA, GA
2011
1. Please identify your group.


2. Please identify the purpose(s) sought by your group.


3. How long have you and/or your group been Environmental Justice advocates?


4. Have you conducted or assisted in conducting any studies involving environmental justice issues, sociology, or public policies? If so, please list.


5. Based upon your findings, do you feel that minorities have disproportionately suffered in regards to environmental health hazards?

Yes____ No____

6. Based upon your findings, do you feel that minorities have disproportionately been affected by asthma?

Yes____ No____
7. Are you aware of any public policies implemented to address the issue of asthma? If so, please list.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

8. If you listed in policies in question #7, do you feel that these policies have effectively addressed the issue of asthma?

Yes____ No____

If no, please briefly explain.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

9. As an environmental justice advocate, are there any specific policies you would like to see created or updated to address the issue of asthma? Please list

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

________________________________________________________________________
10. Please list any activities engaged in by you or your group to address the asthma issue. If no activities along these lines, please provide an explanation as to why not.

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

11. If applicable, where does asthma rank in your group activities?

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

12. Research and statistics support assertions that inequalities exist in environmental policies and protection that have a greater impact on blacks and other minorities than on non-minorities. What is your opinion regarding this statement? Please check one of the following:

Strongly Agree _____ Agree _____ Disagree _____ Strongly Disagree _____

13. Research and statistics support assertions that there is a positive correlation between toxic waste dumps and environmental health hazards, which has resulted in significant levels of diseases, i.e. asthma, experienced by blacks and other minorities living in neighborhoods and cities affected by these dumps. What is your opinion regarding this statement? Please check one of the following:

Strongly Agree _____ Agree _____ Disagree _____ Strongly Disagree _____
14. Research and statistics support assertions that the policies regarding penalties and/or fines that were placed on violators who targeted predominately white neighborhoods as compared to those placed on violators who targeted predominately black neighborhoods were greater. What is your opinion regarding this statement? Please check one of the following:

Strongly Agree _____  Agree _____  Disagree _____  Strongly Disagree _____

15. Of the following, please identify which group or individual you feel has the most impact regarding decisions of policies created and implemented to address the issue of asthma. (Circle one number)

1. The Federal Government
2. The Governor
3. The Mayor
4. Chief Executive Officer (CEO)
5. Board of Commissioners
6. State Legislature
7. Other ______________________

16. Are there any issues regarding environmental policies implemented to address the issue of asthma that you would like to see addressed?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
### Environmental Health WebMaps

#### Must select criteria before viewing data

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- Page last reviewed: October 1, 2009
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- Content source: Agency for Toxic Substance and Disease Registry

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July 20, 2007

The Honorable Hillary Rodham Clinton, Chair
Subcommittee on Superfund and Environmental Health
476 Russell Senate Office Building
Washington, DC 20510

Dear Senator Clinton:

We the undersigned offer this letter on behalf of more than one hundred Environmental Justice Network leaders, environmental and conservation organizations, civil rights and human rights advocates, environmental educators, and health allies who represent millions of Americans from around the nation. Our government has a special role to protect all Americans. Environmental injustice in people of color communities is as much or more prevalent today than 20 years ago, according to a follow-up study to the landmark 1987 United Church of Christ *Toxic Wastes and Race in the United States* report that put the environmental justice movement on the map two decades ago.


The new report finds that people of color make up the majority (56%) of the residents living in neighborhoods within two miles of the nation’s commercial hazardous waste facilities, nearly double the percentage in areas beyond two miles (30%). They also make up more than two-thirds (69%) of the residents in neighborhoods with clustered facilities. Percentages of African Americans, Hispanics/Latinos, and Asians/Pacific Islanders in host neighborhoods are 1.7, 2.3, and 1.8 times greater in host neighborhoods than non-host areas (20% vs. 12%, 27% vs. 12%, and 6.7% vs. 3.6%), respectively.

Forty of 44 states (90%) with hazardous waste facilities have disproportionately high percentages of people of color in host neighborhoods—on average about two times...
greater than the percentages in non-host areas (44% vs. 23%). Nine out of ten EPA regions have racial disparities in the location of hazardous waste facilities.

We strongly endorse and support the report’s several dozen policy recommendations for action at the Congressional, state, and local levels to help eliminate environmental and health disparities. Based on these disturbing findings, we along with other environmental justice, civil rights and human rights, and health allies are calling for steps to reverse this downward spiral, including:

1. Hold Congressional Hearings on EPA Response to Contamination in EJ Communities;
2. Pass a National Environmental Justice Act Codifying the Environmental Justice Executive Order 12898;
3. Provide a Legislative “Fix” for Title VI of the Civil Rights Act of 1964 that was gutted by the 2001 Alexander v. Sandoval U.S. Supreme Court decision that requires intent, rather than disparate impact, to prove discrimination;
4. Require Assessments of Cumulative Pollution Burdens in Facility Permitting;
5. Require Safety Buffers in Facility Permitting;
6. Protect and Enhance Community and Worker Right-to-Know;
7. Enact Legislation Promoting Clean Production and Waste Reduction;
8. Adopt Green Procurement Policies and Clean Production Tax Policies;
9. Reинstate the Superfund tax.
10. Establish Tax Increment Finance (TIP) Funds to Promote Environmental Justice-Driven Community Development

Getting government to respond to the needs of low-income and people of color communities was sluggish decades before the world witnessed the disastrous Hurricane Katrina response nearly two years ago. The time to act is now. Our communities cannot wait another twenty years.

Signed,

Drafters and Principal Authors

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Lisa Fithian, Alliance of Community, Austin, TX

Sofia Martinez, Concerned Citizen of Wagon Mound, Wagon Mound, NM

Milena Velis, Prometheus Radio Project, Philadelphia, PA

Trupania "Trap" Bonner - Executive Director, Moving Forward Gulf Coast Inc., Slidell, LA

Bay Love, Common Ground Health Clinic, New Orleans, LA
Summary Health Statistics for U.S. Children: National Health Interview Survey, 2010
National Center for Health Statistics
Edward J. Sondik, Ph.D., Director
Jennifer H. Madans, Ph.D., Associate Director for Science

Division of Health Interview Statistics
Jane F. Gentleman, Ph.D., Director
Summary Health Statistics for U.S. Children: National Health Interview Survey, 2010

by Barbara Bloom, M.P.A.; Robin A. Cohen, Ph.D.; and Gulnur Freeman, M.P.A.; Division of Health Interview Statistics

Introduction

This report is one in a set of reports summarizing data from the 2010 National Health Interview Survey (NHIS), a multipurpose health survey conducted by the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS). The report provides national estimates for a broad range of health measures for the U.S. civilian noninstitutionalized population of children aged 17 years and under. Two other reports in this set provide estimates of selected health measures for the U.S. population and for adults (1,2). These three volumes of descriptive statistics and highlights are published for each year of NHIS (3–5), and since 1997 have replaced the annual, one-volume Current Estimates series (6).

Estimates are presented for asthma, allergies, learning disability, attention deficit hyperactivity disorder (ADHD), prescription medication use, respondent-assessed health status, school days missed due to illness or injury, usual place of health care, time since last contact with a health care professional, selected measures of health care access and utilization, and dental care.

Abstract

Objectives

This report presents both age-adjusted and unadjusted statistics from the 2010 National Health Interview Survey (NHIS) on selected health measures for children under age 18 years, classified by sex, age, race, Hispanic origin, family structure, parent education, family income, poverty status, health insurance coverage, place of residence, region, and current health status. The topics covered are asthma, allergies, learning disability, attention deficit hyperactivity disorder (ADHD), prescription medication use, respondent-assessed health status, school days missed due to illness or injury, usual place of health care, time since last contact with a health care professional, selected measures of health care access and utilization, and dental care.

DataSource

NHIS is a multistage probability sample survey conducted annually by interviewers of the U.S. Census Bureau for the Centers for Disease Control and Prevention's National Center for Health Statistics and is representative of the civilian noninstitutionalized population of the United States. Data are collected for all family members during face-to-face interviews with an adult family respondent and any other adults present at the time of interview. Additional information about children is collected for one randomly selected child per family in face-to-face interviews with an adult proxy respondent familiar with the child’s health.

Selected Highlights

In 2010, most U.S. children aged 17 years and under had excellent or very good health (82%). However, 8% of children had no health insurance coverage, and 5% of children had no usual place of health care. Seven percent of children had unmet dental need because their families could not afford dental care. Fourteen percent of children had ever been diagnosed with asthma. An estimated 8% of children aged 3–17 years had a learning disability, and an estimated 8% of children had ADHD.

Keywords: health conditions • access to care • unmet medical need • ADHD

race, Hispanic origin, family structure, parent education, family income, poverty status, health insurance coverage, place of residence, region, and current health status. Estimates for other characteristics of special relevance are also included, where appropriate. Appendix I contains brief technical notes including information about age adjustment and unknown values (Tables I–III); Appendix II, the definitions of terms used in this report; and Appendix III, the tables of unadjusted estimates (Tables IV–XV).

NHIS has been an important source of information about health and health care in the United States since it was first conducted in 1957. Given the ever-changing nature of the U.S. population, the NHIS questionnaire has been revised every 10–15 years, with the latest revision occurring in 1997. The first sample design changes were introduced in 1973 and the first procedural changes in 1975 (7). In 1982, the NHIS questionnaire and data preparation procedures of the survey were extensively revised. The basic concepts of NHIS changed in some cases; in other cases, the concepts were measured in a different way. For a more complete explanation of these changes, see Series 10, No. 150, Appendix IV (8). In 1985, a new sample design for NHIS and a different method of presenting sampling errors were introduced (9,10). In 1995, another change in the sample design was introduced, including the oversampling of black and Hispanic persons (11).

In 1997, the NHIS questionnaire was substantially revised and the means of administration was changed to
The NHIS sample is redesigned and redrawn about every 10 years to better measure the changing U.S. population and to meet new survey objectives. A new sample design for NHIS was implemented in 2006. The fundamental structure of the new 2006 NHIS sample design is very similar to the previous 1995–2005 NHIS sample design, including state-level stratification. The new sample design reduced the NHIS sample size by about 13%, compared with the 1995–2005 NHIS.

Oversampling of the black and Hispanic populations has been retained in the 2006 design to allow for more precise estimation of health characteristics in these growing minority populations. The new sample design also oversamples the Asian population. In addition, the sample adult selection process has been revised so that when black, Hispanic, or Asian persons aged 65 years and over are in the family, they have an increased chance of being selected as the sample adult.

Additionally, beginning in the 2003 NHIS, editing procedures were changed to maintain consistency with the U.S. Census Bureau procedures for collecting and editing data on race and ethnicity. As a result of these changes, in cases where “other race” was mentioned along with one or more OMB race groups, the “other race” response is dropped, and the OMB race group information is retained on the NHIS data file. In cases where “other race” was the only race response, it is treated as missing, and the race is imputed.

Although this change has resulted in an increase in the number of persons in the OMB race category “White” because this is numerically the largest group, the change is not expected to have a substantial effect on the estimates in this report. More information about the race/ethnicity editing procedures used by the U.S. Census Bureau can be found at http://www.census.gov/popest/dai/aJ.

### Methods

**Data Source**

The main objective of NHIS is to monitor the health of the U.S. population through the collection and analysis of data on a broad range of health topics. The target population for NHIS is the civilian noninstitutionalized population of the United States. Persons excluded are patients in long-term care institutions (e.g., nursing homes for the elderly, hospitals for the chronically ill or physically or intellectually disabled, and wards for abused or neglected children); correctional facilities (e.g., prisons or jails, juvenile detention centers, halfway houses); active duty Armed Forces personnel (although their civilian family members are included); and U.S. nationals living in foreign countries. Each year, a representative sample of households across the country is selected for NHIS using a multistage cluster sample design. Details on sample design can be found in “Design and Estimation for the National Health Interview Survey, 1995–2004” (11). Trained interviewers from the U.S. Census Bureau visit each selected household and administer NHIS in person. Detailed interviewer instructions can be found in the NHIS field representative’s manual (13).

The annual NHIS questionnaire, now called the Basic Module or Core, consists of three main components: the Family Core, the Sample Adult Core, and the Sample Child Core. The Family Core collects information for all family members regarding household composition and sociodemographic characteristics, along with basic indicators of health status, activity limitations, and utilization of health care services. One responsible family member whose age is equal to or greater than the age of majority for a given state responds to questions about all family members in the Family Core. Any responsible family member equal to or greater than the age of majority for a given state may be the family respondent and respond to questions in the Family Core for all related household members of any age. In most states this age is 18 years, but in Alabama and Nebraska it is 19 years and in Mississippi it is 21 years. For children and for adults not available during the interview, information is provided by a knowledgeable adult family member (usually aged 18 years and over, see above) residing in the household. Although considerable effort is made to ensure accurate reporting, the information from both proxies and self-respondents may be inaccurate because the respondent is unaware of relevant information, has forgotten it, does not wish to reveal it to an interviewer, or does not understand the intended meaning of the question.

The Sample Adult and Sample Child Cores obtain additional information on the health of one randomly selected adult (the “sample adult”) and one randomly selected child (the “sample child”) in the family; the sample adult responds for himself or
herself, and a knowledgeable adult in the family provides proxy responses for the sample child. The Sample Child Core is the primary source of data for this report, with information regarding demographic characteristics, health insurance, and access to medical care derived from the Family Core.

The interviewed sample for 2010 consisted of 34,329 households, which yielded 89,976 persons in 35,177 families. A total of 12,557 children aged 17 years and under were eligible for the Sample Child questionnaire. Data were collected for 11,277 sample children, a conditional response rate of 89.8%. The unconditional or final response rate for the Sample Child component was calculated by multiplying the conditional rate by the final family response rate of 78.7%, yielding a rate of 70.7% (14).

**Estimation Procedures**

Data presented in this report are weighted to provide national health estimates. The sample child record weight is used for all estimates shown in this report with the exception of estimates for respondent-assessed health status, uninsured for health care, unmet medical needs, and delayed care due to cost, where the person record weight was used. The person record weight was used because the data for these variables were collected for all children, not just the sample child, in order to produce more precise estimates. These weights were calibrated by NCHS staff to produce numbers consistent with the civilian noninstitutionalized population estimates of the United States by age, sex, and race/ethnicity, based on projections from the 2000 U.S. Census. For each health measure, weighted frequencies and weighted percentages for all children and for various subgroups of the child population are shown. All counts are expressed in thousands. Counts for persons of unknown status with respect to each health characteristic of interest are not shown separately in the tables, nor are they included in the calculation of percentages, to make the presentation of the estimates more straightforward. For all health measures in this report, the overall percentage unknown is typically small, in most cases less than 1%, and is shown in Appendix I (Table II). Nevertheless, these unknown cases are included in the total population counts for each table. Therefore, note that readers may obtain slightly different percentages than those shown in the tables if they elect to calculate percentages based on the frequencies and population counts presented in the tables.

In addition, some of the sociodemographic variables used to delineate various subgroups of the population have unknown values. For most of these variables, the percentage unknown is small. However, in the case of family income, no income information is available for about 3% of sample children in the 2010 survey, and only a broad range for their families' income was provided for about 15% of sample children (refer to the section on Income and Poverty Status Changes for more information). Poverty status, which is based on family income, therefore also has a high nonresponse rate (see Appendix I, Table III). Estimates in this publication are based on reported income and may differ from other measures of income that are based on imputed income data (which were not available when this report was prepared). Health estimates for persons with these unknown sociodemographic characteristics are not shown in the tables, but readers should refer to Appendix I for more information on the quantities of cases in the unknown income and poverty status categories.

**Transition to the 2000 Census-based Weights**

In Summary Health Statistics reports prior to 2003, the weights for NHIS data were derived from 1990 census-based postcensal population estimates. Beginning with the 2003 data, NHIS transitioned to weights derived from the 2000 census-based population estimates. The impact of this transition was assessed for the 2002 NHIS by comparing estimates for selected health characteristics using the 1990 census-based weights with those using the 2000 census-based weights.

Although the effect of new population controls on survey estimates differed by type of health characteristic, the effect of this change on health characteristic rates was small but was somewhat larger for weighted frequencies (15).

**Age Adjustment**

Beginning with the 2002 report, estimates are provided in two sets of tables. Unless otherwise specified, the percentages in the first set (Tables I–18) were age adjusted using the projected 2000 U.S. population as the standard population. Age adjustment was used to permit comparison among various sociodemographic subgroups that may have different age structures (16,17). In most cases, the age groups used for age adjustment are the same age groups presented in the tables. The age-adjusted estimates in this report may not match age-adjusted estimates for the same health characteristics in other reports if different age groups were used for age adjustment or different record weights were used. The second set (Tables IV– XV in Appendix III) provides estimates that are not age adjusted so that readers may compare current estimates with those published in the 1997–2001 Summary Health Statistics reports and may see the effects of age adjustment on the 2010 estimates (see Appendix I for details on age adjustment).

Frequency tables have been removed from the age-unadjusted set of tables in Appendix III to eliminate redundancy in the report.

**Income and Poverty Status Changes**

Starting with the 2007 NHIS, the income amount follow-up questions that had been in place since 1997 were replaced with a series of unfolding bracket questions. This decision was based on the relatively poor performance of the 1997–2006 versions of the follow-up income amount questions and on the results of a 2006 field test that compared unfolding bracket follow-up questions to the income amount follow-up questions used since 1997. For more information
about the 2006 field test, refer to Appendix I.

The unfolding bracket method utilized a series of closed-ended income range questions (e.g., "Is it less than $50,000?") for respondents who failed to provide the exact amount of the family’s income. The closed-ended income range questions were constructed so that each successive question established a smaller range for the amount of the family’s income in the last calendar year.

Based on results from the 2006 field test, the unfolding bracket follow-up income questions performed better than the follow-up income questions used from 1997 to 2006. For example, the percentage of unknown responses for a three-category poverty status variable was 17% using the income bracket follow-up questions compared with 31% using the income follow-up questions from 1997 to 2006.

Because of these positive results, the unfolding bracket income follow-up questions were implemented during the first quarter of the 2007 NHIS. Due to the differences in the income follow-up questions between 1997–2006 and 2007–2009, income and poverty status estimates from 2007 and later years may not be comparable with those from prior years.

Sample Size Changes in NHIS

The size of the NHIS sample was reduced due to budget shortfalls in 2002–2004 and 2006–2008. Following a reduction of approximately 50% during January–March 2009, newly available funding later in 2009 permitted an expansion during October–December 2009 to expand that quarter’s normal sample size by approximately 50%. The net effect of the January–March 2009 reduction and the October–December 2009 expansion was that the 2009 NHIS sample size was approximately the same as it would have been if the sample had been maintained at a normal level during the entire calendar year.

In 2010, the NHIS sample was expanded by approximately 25% during January–March. There were no further expansions or reductions in the remaining months of that year, resulting in a 2010 NHIS sample size that was slightly larger than the 2009 NHIS sample size.

Data Limitations

As mentioned above, the redesigned NHIS is somewhat different in content, format, and mode of data collection from earlier versions of the survey. These changes can make it complex to compare 1997–2009 NHIS estimates with those of earlier years. The 2006–2009 NHIS is based on a different sample design, including the oversampling of the Asian population as well as Hispanic, black, or Asian sample adults aged 65 years and over, and a permanent sample reduction of 13%, compared with the 1997–2005 NHIS. The change in sample design should be considered when comparing estimates from the 2006–2009 NHIS with those from 2005 and earlier years. Beginning in 2003, NHIS uses weights derived from the 2000 U.S. Census-based population estimates. Analysts who compare NHIS frequencies across this transition, for example, comparing 2005 with 2002, need to recognize that some of the observed differences may be due to the change in the population estimates. Unadjusted percentage estimates shown in the Appendix III tables of this report may be compared with those published in Summary Health Statistics reports of 1997–2001, which did not contain age-adjusted estimates. Age-adjusted estimates in this report should not be compared with earlier unadjusted estimates unless it can be demonstrated that the effect of age adjustment is minimal.

It is important to note that frequencies are underestimate due to item nonresponse and unknowns, both of which are excluded from the tables (with the exception of the “All children” or “Total” columns shown in each table). See Appendix I for more information about the number of unknowns with respect to each health characteristic.

Interpretation of estimates should only be made after reviewing Appendix I, which contains important information about the methods used to obtain the estimates, changes in the survey instrument, and measurement issues currently being evaluated.

Variance Estimation and Significance Testing

NHIS data are based on a sample of the population and are, therefore, subject to sampling error. Standard errors are reported to indicate the reliability of the estimates. Estimates and standard errors were calculated using SUDAAN software, which takes into account the complex sampling design of NHIS. The Taylor series linearization method was used for variance estimation in SUDAAN (18).

Standard errors are shown for all percentages in the tables (but not for the frequencies). Estimates with relative standard errors greater than 30% and less than or equal to 50% are considered unreliable and are indicated with an asterisk (*). Estimates with relative standard errors greater than 50% are indicated with a dagger (†), but the estimates are not shown. The statistical significance of differences between point estimates was evaluated using two-sided t-tests at the 0.05 level and assuming independence. Terms such as “greater than,” “less than,” “more likely,” “less likely,” “compared with,” or “opposed to” indicate a statistically significant difference between estimates, whereas “similar,” “no difference,” or “comparable” indicate that the estimates are not significantly different. A lack of commentary about any two estimates should not be interpreted to mean that a t test was performed and the difference was found to be not significant. Furthermore, these tests did not take multiple comparisons into account.

Further Information

Data users can obtain the latest information about NHIS by periodically checking the website http://www.cdc.gov/nchs/nhis.htm. This website features downloadable public-use data and documentation for recent surveys, as well as important
information about any modifications or updates to the data or documentation

Researchers may also wish to join the NHIS electronic mail list. To do so, go to http://www.cdc.gov/subscribe.html. Fill in the appropriate information, and click the “National Health Interview Survey (NHIS)” researchers’ box, followed by the “Subscribe” button at the bottom of the page. The listserve consists of approximately 4,000 NHIS data users located around the world who receive e-news about NHIS surveys (e.g., new releases of data or modifications to existing data), publications, conferences, and workshops.

Selected Highlights

In the following section, brief, bulleted summaries of the estimates shown in Tables 1–18 are presented. Estimated percentages were age adjusted by the direct method using the projected 2000 U.S. population as the standard population. In most cases, the age groups used to adjust estimated percentages are the same age groups presented in the tables (see table notes for age-adjustment groups).

Asthma (Table 1)

- Over 10 million U.S. children aged 17 years and under (14%) have ever been diagnosed with asthma; 7 million children still have asthma (10%).
- Boys (16%) were more likely than girls (12%) to have ever been diagnosed with asthma.
- Non-Hispanic black children were more likely to have ever been diagnosed with asthma (21%) or to still have asthma (16%) than Hispanic (13% and 8%) or non-Hispanic white (12% and 8%) children.
- Children in poor families were more likely to have ever been diagnosed with asthma (17%) or to still have asthma (12%) than children in families that were not poor (12% and 8%).
- Children in fair or poor health (38%) were three and one-half times as likely to have ever been diagnosed with asthma and almost five times as likely to still have asthma (33%) as children in excellent or very good health (11% and 7%).

Allergies (Table 2)

- Ten percent of U.S. children aged 17 years and under suffered from hay fever in the past 12 months, 12% from respiratory allergies, 5% from food allergies, and 13% from skin allergies.
- White children were more likely to have had hay fever (10%) than black children (7%).
- Black children were more likely to have had skin allergies (17%) than white (12%) or Asian (10%) children.
- Hispanic children were less likely than non-Hispanic children to have had each type of allergy including hay fever, respiratory allergies, food allergies, and skin allergies.
- Children with a parent who had education beyond a high school diploma were more likely to have had hay fever, respiratory allergies, food allergies, or skin allergies than children with a parent who had less than a high school diploma.
- Children in fair or poor health were about twice as likely to have had respiratory allergies (20%), food allergies (10%), or skin allergies (22%) as children in excellent or very good health (11%, 4%, and 12%).

Learning Disability and ADHD (Table 3)

- In 2010, almost 5 million children aged 3–17 years had a learning disability (8%); 9% of boys had a learning disability compared with 6% of girls.
- Black children (10%) and white children (8%) were more likely to have a learning disability than Asian children (4%).
- In families with an income of less than $35,000, the percentage of children with a learning disability (12%) was twice that of children in families with an income of $100,000 or more (6%).
- Five million children aged 3–17 years had ADHD (8%). Boys (11%) were about twice as likely as girls (6%) to have ADHD.
- Hispanic children were less likely to have ADHD (4%) than non-Hispanic white (10%) or non-Hispanic black (11%) children.
- Children in single-mother families were about twice as likely to have learning disabilities (12%) or ADHD (13%) as children in two-parent families (5% and 7%).
- When compared with children with an excellent or very good health status, children with a fair or poor health status were almost five times as likely to have a learning disability (28%) and 6% and more than twice as likely to have ADHD (18% and 7%).

Prescription Medication Use for at Least 3 Months (Table 4)

- In 2010, 10 million children in the United States had a health problem for which prescription medication had been taken regularly for at least 3 months (14%).
- Boys (16%) were more likely than girls (12%) to have been on regular medication for at least 3 months.
- Eighteen percent of youths aged 12–17 years were on regular medication compared with 14% of children aged 5–11 years and 7% of children aged 4 years and under.
- White children (14%) and black children (15%) were more likely to have been on regular medication for at least 3 months than Asian children (6%).
- Non-Hispanic children were more likely to have been on regular medication (15%) than Hispanic children (9%).
- Children with a parent who had education beyond a high school diploma were more likely to have been on regular medication (14%) than children with a parent who did...
Table 1. Frequencies and age-adjusted percentages (with standard errors) of ever having asthma and still having asthma for children under age 18 years, by selected characteristics: United States, 2010

<table>
<thead>
<tr>
<th>Selected characteristic</th>
<th>All children under age 18 years</th>
<th>Ever told had asthma</th>
<th>Still have asthma</th>
<th>Percent (standard error)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number in thousandsa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totala (age-adjusted)</td>
<td>74,626</td>
<td>10,133</td>
<td>6,976</td>
<td>13.7 (0.39)</td>
</tr>
<tr>
<td>Totala (crude)</td>
<td>74,626</td>
<td>10,133</td>
<td>6,976</td>
<td>13.6 (0.39)</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>38,135</td>
<td>5,827</td>
<td>3,991</td>
<td>15.5 (0.57)</td>
</tr>
<tr>
<td>Female</td>
<td>36,491</td>
<td>4,307</td>
<td>2,986</td>
<td>11.9 (0.52)</td>
</tr>
<tr>
<td>Agea</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–4 years</td>
<td>21,414</td>
<td>1,714</td>
<td>1,285</td>
<td>8.0 (0.60)</td>
</tr>
<tr>
<td>5–11 years</td>
<td>28,666</td>
<td>4,200</td>
<td>3,020</td>
<td>14.7 (0.67)</td>
</tr>
<tr>
<td>12–17 years</td>
<td>24,546</td>
<td>4,219</td>
<td>2,672</td>
<td>17.2 (0.75)</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>56,170</td>
<td>5,747</td>
<td>4,544</td>
<td>12.1 (0.45)</td>
</tr>
<tr>
<td>Black or African American</td>
<td>11,030</td>
<td>2,331</td>
<td>1,742</td>
<td>21.4 (1.10)</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>768</td>
<td>65</td>
<td>33</td>
<td>9.6 (2.99)</td>
</tr>
<tr>
<td>Asian</td>
<td>3,456</td>
<td>428</td>
<td>281</td>
<td>13.0 (1.67)</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>166</td>
<td></td>
<td></td>
<td>8.5 (1.40)</td>
</tr>
<tr>
<td>Two or more racesa</td>
<td>3,136</td>
<td>553</td>
<td>372</td>
<td>18.7 (2.33)</td>
</tr>
<tr>
<td>Black or African American and white</td>
<td>1,373</td>
<td>294</td>
<td>180</td>
<td>23.6 (3.37)</td>
</tr>
<tr>
<td>American Indian or Alaska Native and white</td>
<td>473</td>
<td>-70</td>
<td>-59</td>
<td>14.4 (4.58)</td>
</tr>
<tr>
<td>Hispanic or Latino origina and race</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>17,167</td>
<td>2,099</td>
<td>1,385</td>
<td>12.7 (0.69)</td>
</tr>
<tr>
<td>Mexican or Mexican American</td>
<td>11,590</td>
<td>1,243</td>
<td>793</td>
<td>11.1 (0.79)</td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td>57,460</td>
<td>8,094</td>
<td>5,591</td>
<td>14.0 (0.48)</td>
</tr>
<tr>
<td>White, single race</td>
<td>40,766</td>
<td>4,936</td>
<td>3,347</td>
<td>12.1 (0.64)</td>
</tr>
<tr>
<td>Black or African American, single race</td>
<td>10,430</td>
<td>2,206</td>
<td>1,624</td>
<td>21.4 (1.14)</td>
</tr>
<tr>
<td>Family structure10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother and father</td>
<td>51,329</td>
<td>5,554</td>
<td>4,028</td>
<td>11.9 (0.48)</td>
</tr>
<tr>
<td>Mother, no father</td>
<td>10,028</td>
<td>3,367</td>
<td>2,414</td>
<td>18.6 (0.89)</td>
</tr>
<tr>
<td>Father, no mother</td>
<td>2,835</td>
<td>303</td>
<td>191</td>
<td>10.1 (1.05)</td>
</tr>
<tr>
<td>Neither mother nor father</td>
<td>2,456</td>
<td>509</td>
<td>344</td>
<td>20.3 (2.31)</td>
</tr>
<tr>
<td>Parent’s education11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school diploma</td>
<td>9,301</td>
<td>1,207</td>
<td>874</td>
<td>13.2 (1.21)</td>
</tr>
<tr>
<td>High school diploma or GED12</td>
<td>14,750</td>
<td>2,287</td>
<td>1,532</td>
<td>15.7 (0.98)</td>
</tr>
<tr>
<td>More than high school diploma</td>
<td>47,913</td>
<td>6,144</td>
<td>4,221</td>
<td>12.9 (0.47)</td>
</tr>
<tr>
<td>Family income13</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Less than $35,000</td>
<td>24,323</td>
<td>3,910</td>
<td>2,825</td>
<td>16.7 (0.77)</td>
</tr>
<tr>
<td>$35,000–$49,999</td>
<td>47,072</td>
<td>5,865</td>
<td>3,998</td>
<td>12.5 (0.47)</td>
</tr>
<tr>
<td>$50,000–$74,999</td>
<td>9,438</td>
<td>1,406</td>
<td>998</td>
<td>15.1 (1.15)</td>
</tr>
<tr>
<td>$75,000–$99,999</td>
<td>12,473</td>
<td>1,542</td>
<td>1,013</td>
<td>12.4 (0.68)</td>
</tr>
<tr>
<td>$100,000 or more</td>
<td>8,919</td>
<td>1,192</td>
<td>801</td>
<td>13.4 (1.17)</td>
</tr>
<tr>
<td>Poverty status14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>15,701</td>
<td>2,586</td>
<td>1,898</td>
<td>17.1 (1.01)</td>
</tr>
<tr>
<td>Near poor</td>
<td>15,562</td>
<td>2,344</td>
<td>1,641</td>
<td>15.4 (0.91)</td>
</tr>
<tr>
<td>Not poor</td>
<td>38,768</td>
<td>4,879</td>
<td>3,109</td>
<td>12.0 (0.50)</td>
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<td>Health insurance coverage15</td>
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<tr>
<td>Private</td>
<td>40,015</td>
<td>4,802</td>
<td>3,251</td>
<td>11.9 (0.50)</td>
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<tr>
<td>Medicaid or other public</td>
<td>26,894</td>
<td>4,465</td>
<td>3,182</td>
<td>17.8 (0.75)</td>
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<td>Other</td>
<td>2,140</td>
<td>236</td>
<td>180</td>
<td>11.0 (1.89)</td>
</tr>
<tr>
<td>Uninsured</td>
<td>5,877</td>
<td>598</td>
<td>374</td>
<td>9.8 (1.11)</td>
</tr>
</tbody>
</table>

See footnotes at end of table.
Table 1. Frequencies and age-adjusted percentages (with standard errors) of ever having asthma and still having asthma for children under age 18 years, by selected characteristics: United States, 2010—Con.

<table>
<thead>
<tr>
<th>Selected characteristic</th>
<th>All children under age 18 years</th>
<th>Ever told had asthma&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Still have asthma&lt;sup&gt;2&lt;/sup&gt;</th>
<th>Ever told had asthma&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Still have asthma&lt;sup&gt;2&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number in thousands&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Percent&lt;sup&gt;4&lt;/sup&gt; (standard error)</td>
<td>Percent&lt;sup&gt;4&lt;/sup&gt; (standard error)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place of residence&lt;sup&gt;6&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large MSA</td>
<td>40,071</td>
<td>5,416</td>
<td>3,759</td>
<td>13.7 (0.54)</td>
<td>9.5 (0.46)</td>
</tr>
<tr>
<td>Small MSA</td>
<td>23,245</td>
<td>3,065</td>
<td>2,107</td>
<td>13.5 (0.69)</td>
<td>9.2 (0.59)</td>
</tr>
<tr>
<td>Not in MSA</td>
<td>11,310</td>
<td>1,633</td>
<td>1,110</td>
<td>14.5 (1.16)</td>
<td>9.8 (1.00)</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>11,810</td>
<td>1,612</td>
<td>1,096</td>
<td>13.9 (0.95)</td>
<td>9.5 (0.76)</td>
</tr>
<tr>
<td>Midwest</td>
<td>17,564</td>
<td>2,431</td>
<td>1,789</td>
<td>13.8 (0.89)</td>
<td>10.2 (0.75)</td>
</tr>
<tr>
<td>South</td>
<td>28,791</td>
<td>3,957</td>
<td>2,647</td>
<td>15.0 (0.87)</td>
<td>10.1 (0.57)</td>
</tr>
<tr>
<td>West</td>
<td>18,561</td>
<td>2,134</td>
<td>1,444</td>
<td>11.7 (0.89)</td>
<td>7.9 (0.60)</td>
</tr>
<tr>
<td>Current health status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excellent or very good</td>
<td>61,019</td>
<td>6,825</td>
<td>4,455</td>
<td>11.4 (0.39)</td>
<td>7.4 (0.31)</td>
</tr>
<tr>
<td>Good</td>
<td>11,915</td>
<td>2,667</td>
<td>1,972</td>
<td>22.2 (1.21)</td>
<td>16.5 (1.13)</td>
</tr>
<tr>
<td>Fair or poor</td>
<td>1,892</td>
<td>642</td>
<td>549</td>
<td>38.3 (2.88)</td>
<td>32.8 (3.62)</td>
</tr>
</tbody>
</table>

<sup>1</sup> Estimates preceded by an asterisk have a relative standard error greater than 30% and less than or equal to 50% and should be used with caution as they do not meet standards of reliability or precision.

<sup>2</sup> Estimates with a relative standard error greater than 50% are indicated with a dagger, but are not shown.

<sup>3</sup> Unknowns for the columns are not included in the frequencies (see Appendix I), but they are included in the "All children under age 18 years" column.

<sup>4</sup> Includes other races not shown separately and children with unknown family structure, parent's education, family income, poverty status, health insurance, or current health status. Additionally, numbers within selected characteristics may not add to totals because of rounding.

<sup>6</sup> Estimates for age groups are not age adjusted.

See the text for details on the categories noted with footnotes.
Table IV. Frequencies and percentages (with standard errors) of ever having asthma and still having asthma for children under age 18 years, by selected characteristics: United States, 2010

<table>
<thead>
<tr>
<th>Selected characteristic</th>
<th>All children under age 18 years</th>
<th>Ever told had asthma</th>
<th>Still have asthma</th>
<th>Ever told had asthma</th>
<th>Still have asthma</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number in thousands $^3$</td>
<td>Percent $^4$</td>
<td>standard error</td>
<td>Percent $^4$</td>
<td>standard error</td>
</tr>
<tr>
<td>Total (crude)</td>
<td>74,826</td>
<td>10,133</td>
<td>6,976</td>
<td>13.6 (0.39)</td>
<td>9.4 (0.33)</td>
</tr>
<tr>
<td>Total (age-adjusted)</td>
<td>74,826</td>
<td>10,133</td>
<td>6,976</td>
<td>13.7 (0.39)</td>
<td>9.5 (0.33)</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>38,135</td>
<td>5,827</td>
<td>3,991</td>
<td>15.3 (0.67)</td>
<td>10.5 (0.46)</td>
</tr>
<tr>
<td>Female</td>
<td>36,691</td>
<td>4,307</td>
<td>2,986</td>
<td>11.8 (0.52)</td>
<td>8.2 (0.43)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–4 years</td>
<td>21,414</td>
<td>1,714</td>
<td>1,285</td>
<td>8.0 (0.60)</td>
<td>6.0 (0.54)</td>
</tr>
<tr>
<td>5–11 years</td>
<td>28,665</td>
<td>2,400</td>
<td>2,020</td>
<td>14.7 (0.67)</td>
<td>10.5 (0.56)</td>
</tr>
<tr>
<td>12–17 years</td>
<td>24,748</td>
<td>2,219</td>
<td>2,672</td>
<td>17.2 (0.75)</td>
<td>10.9 (0.60)</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One race $^6$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>71,490</td>
<td>9,581</td>
<td>5,605</td>
<td>13.4 (0.40)</td>
<td>9.3 (0.33)</td>
</tr>
<tr>
<td>Black or African American</td>
<td>55,170</td>
<td>6,747</td>
<td>4,544</td>
<td>12.0 (0.45)</td>
<td>8.1 (0.37)</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>11,030</td>
<td>2,331</td>
<td>1,742</td>
<td>21.2 (1.09)</td>
<td>15.8 (1.00)</td>
</tr>
<tr>
<td>Asian</td>
<td>768</td>
<td>*65</td>
<td>*33</td>
<td>8.4 (0.32)</td>
<td>4.3 (0.21)</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>3,384</td>
<td>426</td>
<td>281</td>
<td>12.8 (1.67)</td>
<td>8.4 (1.39)</td>
</tr>
<tr>
<td>Two or more races $^7$</td>
<td>3,138</td>
<td>553</td>
<td>372</td>
<td>17.7 (2.31)</td>
<td>11.9 (2.18)</td>
</tr>
<tr>
<td>Black or African American and white</td>
<td>1,373</td>
<td>294</td>
<td>160</td>
<td>21.4 (2.97)</td>
<td>13.1 (2.68)</td>
</tr>
<tr>
<td>American Indian or Alaska Native and white</td>
<td>473</td>
<td>*70</td>
<td>*59</td>
<td>14.8 (5.10)</td>
<td>12.4 (4.93)</td>
</tr>
<tr>
<td>Hispanic or Latino origin $^2$ and race</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>17,157</td>
<td>2,099</td>
<td>1,385</td>
<td>12.2 (0.67)</td>
<td>8.1 (0.55)</td>
</tr>
<tr>
<td>Mexican or Mexican American</td>
<td>11,590</td>
<td>1,243</td>
<td>763</td>
<td>10.7 (0.76)</td>
<td>8.9 (0.60)</td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td>57,480</td>
<td>8,034</td>
<td>5,591</td>
<td>14.0 (0.46)</td>
<td>9.8 (0.39)</td>
</tr>
<tr>
<td>White, single race</td>
<td>40,756</td>
<td>4,936</td>
<td>3,347</td>
<td>12.1 (0.55)</td>
<td>8.2 (0.46)</td>
</tr>
<tr>
<td>Black or African American, single race</td>
<td>10,430</td>
<td>2,206</td>
<td>1,854</td>
<td>21.2 (1.13)</td>
<td>15.9 (1.04)</td>
</tr>
<tr>
<td>Family structure $^9$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother and father</td>
<td>51,329</td>
<td>5,954</td>
<td>4,028</td>
<td>11.6 (0.45)</td>
<td>7.9 (0.38)</td>
</tr>
<tr>
<td>Neither mother, no father</td>
<td>16,026</td>
<td>3,367</td>
<td>2,414</td>
<td>10.7 (0.69)</td>
<td>10.4 (0.70)</td>
</tr>
<tr>
<td>Father, no mother</td>
<td>2,835</td>
<td>303</td>
<td>191</td>
<td>10.7 (1.70)</td>
<td>6.8 (1.44)</td>
</tr>
<tr>
<td>Neither mother, no father</td>
<td>2,436</td>
<td>509</td>
<td>344</td>
<td>21.0 (2.35)</td>
<td>14.2 (1.86)</td>
</tr>
<tr>
<td>Parent's education $^10$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school diploma</td>
<td>9,301</td>
<td>1,207</td>
<td>874</td>
<td>13.0 (1.02)</td>
<td>9.4 (1.12)</td>
</tr>
<tr>
<td>High school diploma or GED $^11$</td>
<td>14,755</td>
<td>2,287</td>
<td>1,522</td>
<td>15.4 (0.96)</td>
<td>10.4 (0.82)</td>
</tr>
<tr>
<td>More than high school diploma</td>
<td>47,313</td>
<td>6,144</td>
<td>4,221</td>
<td>12.9 (0.47)</td>
<td>8.8 (0.38)</td>
</tr>
<tr>
<td>Family income $^12$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $35,000</td>
<td>24,323</td>
<td>3,910</td>
<td>2,825</td>
<td>16.1 (0.74)</td>
<td>11.6 (0.68)</td>
</tr>
<tr>
<td>$35,000 or more</td>
<td>47,072</td>
<td>5,885</td>
<td>3,928</td>
<td>12.5 (0.48)</td>
<td>8.4 (0.39)</td>
</tr>
<tr>
<td>$50,000–$74,999</td>
<td>9,438</td>
<td>1,406</td>
<td>998</td>
<td>14.8 (1.13)</td>
<td>10.6 (0.97)</td>
</tr>
<tr>
<td>$75,000–$99,999</td>
<td>12,473</td>
<td>1,542</td>
<td>1,013</td>
<td>12.4 (0.86)</td>
<td>8.1 (0.74)</td>
</tr>
<tr>
<td>$100,000 or more</td>
<td>8,919</td>
<td>1,192</td>
<td>801</td>
<td>13.4 (1.18)</td>
<td>9.0 (0.96)</td>
</tr>
<tr>
<td>Poverty status $^13$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>15,701</td>
<td>2,586</td>
<td>1,898</td>
<td>16.5 (0.97)</td>
<td>12.1 (0.91)</td>
</tr>
<tr>
<td>Near poor</td>
<td>15,562</td>
<td>2,344</td>
<td>1,641</td>
<td>15.1 (0.89)</td>
<td>10.6 (0.78)</td>
</tr>
<tr>
<td>Not poor</td>
<td>38,758</td>
<td>4,879</td>
<td>3,109</td>
<td>12.1 (0.50)</td>
<td>8.0 (0.40)</td>
</tr>
</tbody>
</table>

See footnotes at end of table.
Table IV. Frequencies and percentages (with standard errors) of ever having asthma and still having asthma for children under age 18 years, by selected characteristics; United States, 2010—Con.

<table>
<thead>
<tr>
<th>Selected characteristic</th>
<th>All children under age 18 years</th>
<th>Ever told had asthma</th>
<th>Still have asthma</th>
<th>Percent (standard error)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number in thousands²</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Health insurance coverage¹</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>40,015</td>
<td>4,822</td>
<td>3,251</td>
<td>12.1 (0.50)</td>
</tr>
<tr>
<td>Medicaid or other public</td>
<td>26,404</td>
<td>4,465</td>
<td>3,182</td>
<td>16.8 (0.71)</td>
</tr>
<tr>
<td>Other</td>
<td>2,140</td>
<td>236</td>
<td>160</td>
<td>11.0 (1.96)</td>
</tr>
<tr>
<td>Uninsured</td>
<td>5,877</td>
<td>598</td>
<td>374</td>
<td>10.2 (2.00)</td>
</tr>
<tr>
<td><strong>Place of residence¹⁵</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large MSA</td>
<td>40,071</td>
<td>5,416</td>
<td>3,759</td>
<td>13.5 (0.54)</td>
</tr>
<tr>
<td>Small MSA</td>
<td>23,245</td>
<td>3,065</td>
<td>2,107</td>
<td>13.3 (0.68)</td>
</tr>
<tr>
<td>Not in MSA</td>
<td>11,310</td>
<td>1,633</td>
<td>1,110</td>
<td>14.4 (1.17)</td>
</tr>
<tr>
<td><strong>Region</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>11,810</td>
<td>1,612</td>
<td>1,096</td>
<td>13.9 (0.95)</td>
</tr>
<tr>
<td>Midwest</td>
<td>17,664</td>
<td>2,431</td>
<td>1,789</td>
<td>13.8 (0.90)</td>
</tr>
<tr>
<td>South</td>
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<td>3,957</td>
<td>2,647</td>
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<tr>
<td><strong>Current health status</strong></td>
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<td>61,019</td>
<td>6,825</td>
<td>4,455</td>
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</tr>
<tr>
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<td>11,915</td>
<td>2,667</td>
<td>1,972</td>
<td>22.4 (1.22)</td>
</tr>
<tr>
<td>Fair or poor</td>
<td>1,692</td>
<td>642</td>
<td>549</td>
<td>38.1 (3.86)</td>
</tr>
</tbody>
</table>

* Estimates preceded by an asterisk have a relative standard error greater than 30% and less than or equal to 50% and should be used with caution as they do not meet standards of reliability or precision.

† Estimates with a relative standard error greater than 50% are indicated with a dagger, but are not shown.

‡ Based on the question, "Has a doctor or other health professional ever told you that [child's name] had asthma?"

§ Based on the question, "Does [child's name] still have asthma?"

² Unknowns for the columns are not included in the frequencies (see Appendix I), but they are included in the "All children under age 18 years" column.

³ Unknowns for the column variables are not included in the denominators when calculating percentages.

4 Includes other races not shown separately and children with unknown family structure, parent's education, family income, poverty status, health insurance, or current health status. Additional numbers within selected characteristics may not add to totals because of rounding.

⁵ In accordance with the 1997 standards for federal data on race and Hispanic or Latino origin (see Appendix II), the category "One race" refers to persons who indicated only a single race group. Persons who indicated a single race other than the groups shown are included in the total for "One race" but not shown separately due to small sample sizes. Therefore, the frequencies for the category "One race" will be greater than the sum of the frequencies for the specific groups shown separately. Persons of Hispanic or Latino origin may be of any race or combination of races.

⁶ Refers to all persons who indicated more than one race group. Only two combinations of multiple race groups are shown due to small sample sizes for other combinations. Therefore, the frequencies for the category "Two or more races" will be greater than the sum of the frequencies for the specific combinations shown separately.

⁷ Persons of Hispanic or Latino origin may be of any race or combination of races. Similarly, the category "Not Hispanic or Latino" refers to all persons who are not of Hispanic or Latino origin, regardless of race. The tables in this report use the current (1997) Office of Management and Budget race and Hispanic origin terms, and the text uses shorter versions of these terms for consistency. For example, the category "Not Hispanic or Latino black or African American, single race" in the tables is referred to as "non-Hispanic black" in the text.

⁸ Refers to persons living in the household. "Mother and father" can include biological, adoptive, step, in-law, or foster relationships. Legal guardians are classified in "Neither mother nor father."

⁹ Refers to the education level of the parent with the higher level of education, regardless of that parent's age.

¹⁰GED is General Educational Development high school equivalency diploma.

¹¹ The categories "Less than $35,000" and "$35,000 or more" include both persons reporting dollar amounts and persons reporting only that their incomes were within one of these two categories (see Appendix I). The indented categories include only those persons who reported dollar amounts. Because of the different income questions used in 2007, income estimates may not be comparable with those from earlier years.

¹² Based on family income and family size using the U.S. Census Bureau's poverty thresholds for the previous calendar year. "Poor" persons are defined as below the poverty threshold. "Near poor" persons have incomes of 100% to less than 200% of the poverty threshold. "Not poor" persons have incomes that are 200% of the poverty threshold or greater. Because of the different income questions used in 2007, poverty ratio estimates may not be comparable with those from earlier years.

¹³Classification of health insurance coverage is based on a hierarchy of mutually exclusive categories. Persons with more than one type of health insurance were assigned to the first appropriate category in the hierarchy. Persons under age 65 years and those aged 65 years and over were classified separately due to the predominance of Medicare coverage in the older population. The category "Private" includes persons who had any type of private coverage either alone or in combination with other coverage. For example, for persons aged 65 years and over, "Private" includes persons with only private or private in combination with Medicare. The category "Uninsured" includes persons who had no coverage as well as those who had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care (see Appendix I).

¹⁴MSA is metropolitan statistical area. Large MSAs have a population size of 1 million or more; small MSAs have a population size of less than 1 million. "Not in MSA" consists of persons not living in a metropolitan statistical area.

NOTES: Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

Region—In the geographic classification of the U.S. population, states are grouped into the four regions used by the U.S. Census Bureau:

Region States included
Midwest Ohio, Illinois, Indiana, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Kansas, and Nebraska;
South Delaware, Maryland, District of Columbia, West Virginia, Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Oklahoma, Arkansas, and Texas;

Health Characteristics or Outcome Terms

Asthma—Includes smoker asthma, bronchial asthma, and allergic asthma. Ever had asthma is indicated when a doctor or other health professional reported to the family that the sample child had asthma. Among them, children still having asthma is indicated by parent report.

Attention deficit hyperactivity disorder (ADHD)—Indicated when a doctor or other health professional reported to the family that the sample child has attention deficit hyperactivity disorder or ADHD. ADHD includes attention deficit disorder (ADD).

Contacts with health professionals—A visit to or conversation with a doctor or other health professional by anyone in the family about the health of the sample child. Contacts include home visits, office visits, or telephone calls for medical advice, prescriptions, or test results. A telephone call to schedule an appointment is not included as a contact. An emergency room visit is included as a contact, but overnight hospital stays are excluded.

Doctor or other health professional—Includes medical doctors (MDs) and osteopathic physicians (DOs), general practitioners, as well as specialists, psychologists, nurses, physical therapists, and chiropractors.

Health status—Obtained from a question in the survey that asked respondents, “Would you say your health in general was excellent, very good, good, fair, or poor?” Information was obtained from all respondents, with proxy responses allowed for adults not taking part in the interview and all children aged 17 years and under.

Hospital emergency room (ER) visits—Includes visits to a hospital ER only. Visits for emergency care received at a health maintenance organization (HMO), outpatient clinic, or urgent care center are not included. Hospital ER visits that resulted in a hospital admission are included.

Prescription medicine—Includes medication that can only be obtained with the approval of a licensed health care provider.

Usual place of health care—Based on a question that asked whether respondents had a place that they usually went to when they were sick or needed advice about their health. These places include a walk-in clinic, doctor office, clinic, health center, HMO, hospital emergency room or outpatient clinic, or a military or Veterans’ Administration health care facility.


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