

**A New Northwest Indiana:
A Cleaner Economy and Environment**

by

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Section I

Introduction

A hot and humid summer day is perfect for a trip to the beach. The sand burns your feet, but the water offers cool relief while you develop a bronze tan. When the lake is smooth and there are gentle breezes I like to sail my catamaran sailboat. The large sand dunes are visible from the boat, inhabited by many species and covered with marram grass. It is days like these I live for when I visit my parents at home. While this description may sound like that of a coastal vacation spot, the setting I describe is Northwest Indiana. The Indiana Dunes are globally unique because of their unusual ecological diversity and beauty. The National Park Service reports that the Indiana Dunes is home to over 1300 species of flowering plants and ferns (U.S. Dept. of the Interior, 1998). Also, Henry Cowles reported in 1891 that more than 300 varieties of birds and hundreds of bald eagles, deer, bears, and timber wolves roamed the dunes and sand ridges of the region (Moore, 1959). The diversity was so exceptional that Cowles, sometimes called “the father of ecology,” developed his model of ecological succession in the dunes. Moore (1959) finds that early settlers described the area “along the shores of Lake Michigan east of Gary as one of the most remarkable regions in America, the Indiana Dune Country” (p. 16). For over a century, visitors have come from all over the world to see what the glacial masses created by force thousands of years ago.

These visitors do not come to see most of the lakeshore lined, as it is, with steel mills, power plant cooling towers and oil refineries. If you drive down Interstate 90, you can clearly see the ten-mile stretch of lakeshore that U.S. Steel’s Gary Works occupies. My college classmates tell me that Northwest Indiana is one of the dirtiest places they have seen in the United States. Indeed, for many, Northwest Indiana is just an industrial wasteland that one

passes on the road to Chicago. In addition, the region's economy is definitely diminished from what it was in its industrially vital times. Northwest Indiana used to be known for its outstanding school systems, beautiful homes and economic opportunity (Trusty, 1992). But today, many of its cities are known as crime ridden, racially divided, highly polluted failures.

While it is not the cleanest place, it is a permanent residence for many people. For a century, steel mills have lined the shores of the southern tip of Lake Michigan. Most people who drive down the Indiana Toll Road do not ever stop to see the Indiana Dunes, but they certainly remember the brown skyline, the raunchy smell and the rusting steel buildings as far as the eye can see. The environment is such that citizens of Northwest Indiana cannot tell you what clean air smells like. For example, my father has always joked, cynically, that you are not home until you can smell and see the air. The large number of steel mills and their steel producing capacity inevitably leads to pollution in Northwest Indiana. The area is marked by higher incidences of children's asthma, regular beach closings and an un-fishable, un-swimmable and undrinkable Calumet River. The sand immediately underneath the soft top layer on Northwest Indiana beaches is black from tar created by burning coal and from large barges. Still, Northwest Indiana has provided steady employment with benefits and high pay for a century. Citizens of the region viewed the smoke rising from the smoke stacks as a sign of prosperity 100 years ago (Mohl and Betten, 1986). Only a few citizens actively campaigned to save the natural environment of Northwest Indiana, primarily members of the Save the Dunes Council founded in 1952 (Engel, 1983).

The steel industry has benefits. While dunes are beautiful, the steel industry provides jobs. This began when U.S. Steel purchased ten miles of lakeshore in 1902 in the hopes of turning the supposedly desolate wasteland of marshes and dunes into a viable steel community

(Warren, 2001). Over one hundred years later, the Gary Works, Midwest Steel, former Bethlehem Steel, International Steel Group (ISG), the Port of Indiana, the Michigan City coal power plant, the BP/Amoco Oil Whiting Refinery and associated industries line the lakeshore.

Despite the obvious environmental and health damage it causes, the steel industry is supported by citizens and elected officials alike (Dowdy, 1992). The citizens of Northwest Indiana have viewed the steel industry as their life-blood and pollution as just an annoyance. The question I seek to address is in this paper whether citizens of Northwest Indiana have to choose between high paying jobs and clean air, land and water, or whether they can have both. I will answer this question in the affirmative: Northwest Indiana can have economic development and clean air, land and water. I will discuss the enterprises that could prosper in Northwest Indiana while fostering a clean environment and I will analyze the current environment in Northwest Indiana and show how it can be improved. The current environmental problems in Northwest Indiana are not irremediable.

In section II, I review the history of Northwest Indiana, detailing the incursion of industry into the region, focusing on the steel mills. Following a brief historical review, I will present the early attitudes of the citizens of Northwest Indiana from the 1880's through the 1920's. Then I will return to history by discussing the decline of the steel industry in the nation and more specifically in Northwest Indiana. In section III, I will explain through statistical analysis what the local environment is like today and follow that explanation with a demographic survey of the area as well. I will then profile the current economic situation in Section IV and the region's many explorations in the last twenty years of the potential alternative economic industries including casinos, high tech industry and sports. Then, in Section V, I will consider the obstacles that Northwest Indiana faces to changing its economy

and environment, including historical circumstances, ideology, infrastructure, education, industry and citizen opinion. In Section VI, I will explore the benefits of change for Northwest Indiana by presenting the case studies of Pittsburgh, Pennsylvania and Birmingham, Alabama. Section VIII will conclude the paper by discussing the implementation of change for Northwest Indiana.

Section II

Industrial history of Northwest Indiana

The history of industry in Northwest Indiana began long before U.S. Steel's Gary Works opened in 1902. The region's development began with the arrival of the railroad in the 1850's. Starting in the 1880's, industry was drawn to Northwest Indiana because of its abundant natural resources, including clay, timber and sand. Because of the Dunes' relative isolation, "nuisance" industries like the Miami Powder Company, which manufactured and tested gun and cannon powder, set up shop there. These small companies like Miami Powder paved the way for other nuisance industries that created pollution, including brick making, meat packing and later the oil and steel industries. Northwest Indiana was also home to a number of sawmills and to farming. While these activities used natural resources, they were not heavy polluters (Moore, 1959).

Standard Oil preceded U.S. Steel in the industrial colonization of Northwest Indiana. Standard sought to establish a refinery for their Lima, Ohio, crude oil, which would be the first oil refinery West of Ohio (Moore, 1959). Their choice was initially Chicago for its proximity to midwestern markets, abundant railroads, cheap water transportation and abundance of water for industrial processes (Moore, 1959). Standard Oil began preparing for a refinery on the south

side of Chicago, but was discouraged by residents' reaction to the extreme sulfur odor that was characteristic of Lima, Ohio crude oil. Residents complained that their city was already filled with industry. After hearing so many complaints from south side residents and comparing the price of land in Chicago and Northwest Indiana, Standard Oil decided not to build a refinery in Chicago (Moore, 1959).

Standard Oil found the same transportation, railroad and water benefits of Chicago on less expensive land in Northwest Indiana. For the purchase, Standard Oil sent its real estate and tax representative, Theodore M. Towle, to purchase land from Whiting residents, not telling them to whom they were selling. In fact, Moore (1959) says that when asked what was to be done to the land, Towle said: "I'm going to build a whim wham for a goose's bridle" (p. 192). Towle paid in cash for 235 acres in March and April of 1889. Standard Oil wanted to keep the construction secret to avoid the same public outcry that they had experienced in Chicago. As construction began for the refinery, Standard Oil Company kept the area concealed, barring newspapermen from it. Nevertheless, information leaked to The Chicago Tribune, which reported days after construction began that the largest oil refinery in the world was being built in Whiting, Indiana. Many industries were drawn by Standard Oil and the region's geographical advantages. Many industries viewed Northwest Indiana as a corridor to the West, since it had access to the railroads and access to water without being in Chicago, and decided to locate in Indiana. These included William Graver Tank Works, 1888; C.A. Treat Car Wheel Works, 1889; National Forge and Iron Company; and Graselli Chemical Company, 1892 (Moore, 1959). Thus began the industrial history of Northwest Indiana.

Steel in Northwest Indiana did not start with U.S. Steel, but with the big three Chicago meat packing companies. Moore (1959) states that "Armour, Morris and Swift purchased five

parcels of land for \$678,000. It was the previous ownership of another industry that allowed U.S. Steel to purchase its lakefront property. Expansion of the steel industry in the Chicago area was largely responsible for the origin and development of East Chicago and Gary” (p. 185). Because large industries were often not welcomed with open arms next to neighborhoods that appreciated their clean air, it was important that U.S. Steel was able to purchase its land from another large corporation rather than from local residents.

East Chicago and Gary became cities as a result of ISG and Gary Works. U.S. Steel, Gary Works was named after the U.S. Steel chairman Elbert H. Gary. As America expanded, the western markets began to grow economically and thus began to increase their demand for steel. Recognizing Chicago as a natural center for transportation and distribution, U.S. Steel began to look for sites that were cheap, wide open and flat to accommodate the newer open-hearth furnaces. U.S. Steel began by expanding its recently purchased Illinois Steel plant with one new blast furnace and ten new open-hearth furnaces, but they also wanted to acquire land for a new mill. The requirements for a new mill included close proximity to the lakeshore, the proper political environment and ease of purchasing. It has been said that had politics been different at the time, U.S. Steel would have expanded its South Works instead of building a new mill. Indiana politicians were looking to expand their economy by developing Northwest Indiana, while Illinois politicians were facing public opposition to more industry in Chicago. U.S. Steel anonymously, much like Standard Oil, purchased nine thousand acres along ten miles of the southern tip of Lake Michigan for \$7.2 million in November of 1905. In Gary U.S. Steel could take advantage of the railroads and ports in Chicago without dealing with Chicago politics. Gary Works opened in December of 1908 and produced its first steel in February

1909. Almost overnight, Gary Works became the largest steel mill in the United States (Warren, 2001).

Along with the mill, U.S. Steel built what would be labeled the “magic city” by journalists of that era, Gary, Indiana. Gary was labeled the “magic city” because it was home to the largest steel mill in the world and offered opportunity to everyone who was looking for a job (Mohl and Betten, 1986). Gary, founded in 1906, was built in conjunction with the Gary Works. It became an immigrant oasis where 60.5 percent of the population in 1920 was foreign immigrants. The immigrants included Poles, Czechs, Russians, Lithuanians, Hungarians, Croatians, Serbians, Slovaks, Turks, Greeks and Italians. Mexicans and Southern blacks were also encouraged by U.S. Steel to settle in Gary. Mohl and Betten (1986) say the city was boosted as “one of the industrial wonders of the twentieth century” (p. 14). U.S. Steel executives actively opposed building a Pullman-style industrial town where everyone lived in company owned barracks. U.S. Steel made it clear that they wanted to build a city of individually owned homes. However, the planning was criticized as lacking a long-term outlook as a sacrifice to economic gains. The layout of the city became more like Pullman’s design than was anticipated. The town became separated by income level and ethnicity. Management had their own homes, while eastern European laborers were housed in apartments separated by ethnicity and blacks migrating from the south were placed in overcrowded shanties. From the beginning, the initial haphazard lack of planning has been blamed for the racial segregation that has characterized Gary since its founding (Mohl & Betten, 1986).

At about the same time that the Gary Works was opened, other steel mills in Northwest Indiana began production. Inland Steel began operation in 1901, proving to U.S. Steel the economic advantage of locating in Northwest Indiana (Workers of the Writers Program, 1939).

Subsidiaries of U.S. Steel soon opened their doors, including American Sheet and Tinplate in 1909, American Bridge in 1911 and American Steel and Tube at Indiana Harbor in 1916. After that no new plants were opened until after World War II when National Steel and Bethlehem Steel built plants east of Gary in Portage (Warren, 1973).

It is important to note that the placing of the early industries, primarily U.S. Steel Gary Works and Standard Oil, was influenced by residents' attitudes in the urban environment of Chicago who discouraged more industrial growth (Moore, 1959). The south side of Chicago was already populated by industry that was polluting the air, land and water. The residents could be said to have been early environmental activists who would not permit more foul smelling air and pollution. While many factors may have influenced the siting of Standard Oil and Gary Works, urban activism played a crucial role.

A. Early Attitudes toward the Steel Industry

Because Gary was built to serve its mills, citizens of Gary were tied to the mills' success. Therefore, the life of any mill worker was crucially affected by U.S. Steel Corporation and its decisions. In times of economic prosperity, the mill did well and the citizens were happy, but in times of economic depression, the mill did not do well and the citizens suffered (Moore, 1959). The opinions of the mill workers were shaped by the U.S. Steel Corporation which viewed the dunes as a wasteland waiting to be improved up by industry ('A City built by the Steel Trust, 1907).

In its early years Gary Works was considered the rival of Pittsburgh and the primary steel journal, *Iron Age*, called Gary Works the greatest steel plant in the world (Mohl and Betten, 1986). Gary was a city where fortunes were sought by businessmen and immigrants.

The founders of the mill and the citizens of the city had mostly positive opinions of the steel industry, but (Warren, 1973). The sand was considered useless and a nuisance to early businessmen and citizens. The Workers of the Writers projects (1939) said that the government surveyors described the area as “dry land mostly white sand among the hills, wet and good-for-nothing.” The men talked about the mill and its power as “this jungle of smoke” and “tiny men move busily among the monsters” (p. 150). Their words expressed awe at the power that Gary Works displayed. Their attitude towards the mill has had a lasting effect that equated pollution with economic progress. Despite long working hours and safety concerns, Gary was considered an industrial boom city by its early citizens (Moore, 1959). Like much of the early American frontier, Gary was the land of opportunity, this time in industrial form.

There was also a parallel community that sought to preserve the Dunes landscape from industrial development. However, they were labor organizers, scientists, artists, civic leaders and citizens who constituted a group numbered in the hundreds. These advocates included many famous individuals, including Jane Addams, Jens Jensen, Carl Sandburg, Henry Cowles and many more. The National Dunes Park Association was also established in 1917. In 1912 the Prairie Club of Chicago led a campaign to establish a “Sand Dunes National Park” (Engel, 1983). The campaign was led by Stephen T. Mather whose dissatisfaction with the state of the national parks led to his appointment as the first director of the National Park Service. Mather organized for the federal government to purchase the twenty five miles between Gary and Michigan City. In 1917 the provision was submitted to Congress. However, with the outbreak of WWI and a nervous breakdown by Mather, the provision was never implemented. The provision did bring publicity to the Dunes though, through the Dunes Pageant, attended by Chicago’s elite and considered a great success (Engel, 1983). Many of the leaders of the

movement to preserve the dunes continued their campaigns after the failure to create a national park. Landscape architect Jens Jensen established the Friends of Our Native Landscape in 1919 to promote the dunes as a place people might “engage together in the pursuit of a discipline and dedicated communal life close to nature” (Engel, 1983, 204). While the preservation of the dunes in its WWI period did not happen, the legacy of the first stewards of the dunes laid the ground work for a sustained campaign to preserve the natural beauty of Northwest Indiana that survives today. The culture of Northwest Indiana is grounded in the Dunes country along with its industrial history.

B. Decline of the Steel Industry

While steel and the Dunes made Northwest Indiana, the steel industry was fragile just like the landscape. While American steel, dominated primarily by U.S. Steel, was relishing its title as the largest producer of steel up until the 1950’s, other nations began producing steel. Japan, China, Germany and others were building up their steel industries with new technology, like the basic oxygen process, to challenge America. Because of the monumental gap at the time between steel production by the United States over other nations, U.S. Steel and other American steel companies at first refused to view any other nations as competitors. Therefore, American steel mills did not receive technological updates often; for example, they relied on rope and pulley systems through the 1970’s (Warren, 1973). Steel workers were well paid, this was guaranteed by strong unions. As a result of high wages, a lack of technological updates and overall poor management, U.S. Steel gradually lost its competitive edge as costs rose. American steel corporations failed to take action before it was too late. The results were

massive mill closings, layoffs of thousands of workers and steel towns going from being viable communities to ghost towns (Warren, 2001).

While Northwest Indiana has only seen one mill close, many people have been laid off, lost their pensions and felt the economic consequences of poor management. In the 1970's, crime rates increased and Gary, the steel city, experienced a phenomenon known as "white flight" as people began to emigrate to other Chicago suburban areas (Trusty, 1992, 4). Despite the disappearance of the steel industry in other parts of the country however, steel remains in Northwest Indiana. When U.S. Steel shut down most of its Pittsburgh, Birmingham and South Chicago operations, it focused all of its attention on its Gary Works plant. This left Northwest Indiana with what may be the worst of both worlds.

It experienced a large job loss, economic downturn and community degradation, but retained its industrial shoreline and air, land and water pollution. In other words, Northwest Indiana lost most of the advantages of the steel industry while retaining the disadvantages. The mills remained, running with fewer workers and thus providing less economic support to the region. Over thirty-thousand workers were employed in U.S. Steel Gary Works in the mid 1970's compared to only twelve thousand in 1990 (Warren, 2001). Northwest Indiana is still labeled as the steel region, but being the steel region is no longer a positive label.

Section III

The Environment of Northwest Indiana

At the same time the steel industry began to suffer from poor management and foreign competition, environmental regulation in the United States was born. The Gary Works, which had run unregulated for seventy years, was forced to comply with air, water and land pollution

regulations. While a few citizens had always been concerned about the preservation of the dunes, others now began to realize through federal requirements how harmful the steel industry was to their environment and their health (Trusty, 1992). Citizens of Northwest Indiana watched the first Earth Day on television and witnessed Richard Nixon's executive order that created the Environmental Protection Agency. The national buzz for clean air, land and water infiltrated even Northwest Indiana. Though environmental regulations were instituted in 1969 and 1970, air, water and land pollution in Northwest Indiana persist. Even after small industrial plants associated with the steel mills were closed because steel production decreased in the 1980's, the environmental problems remained. Lance Trusty (1992) found that the EPA "reported that 180 million pounds of industrial poisons five times the amount released in Alaska by the Exxon Valdez disaster including lead, PCB's, and the like, flowed into Lake Michigan from the Indiana Harbor Ship Canal every year" (p. 6). The difference between 35-100 years ago and today is that the labor-intensive industries were eliminated but the five major mills in Indiana remain, leaving fewer jobs, but much of the same pollution. In this next section, the statistical pollution data will be presented to provide a clearer picture of the environment in Northwest Indiana.

A. Pollution Levels

The current environmental condition of Northwest Indiana is among the worst in the nation. The pollution in Northwest Indiana includes toxic releases, air pollution, water pollution and land degradation. In 2002, both Porter and Lake counties were among the nation's top 10 percent dirtiest/worst counties, but Lake County was ranked 38th out of 3143 counties on the list of most polluted counties in the United States with 17,134,039 pounds of

pollution releases annually into the air, surface water, underground and on land (Scorecard, 2004). Lake County's environmental issues can be attributed primarily to BP/Amoco, ISG and the Gary Works. In fact, U.S. Steel's Gary Works was listed 41st out of the worst polluting companies in the United States in 2002, releasing 12,941,105 pounds of pollution into the environment every year and was the worst polluter in Lake County. The severity of pollution has led to between 80 percent and 90 percent of water bodies in Lake County being impaired or threatened (Scorecard, 2004).

While it seems logical that steel mills and oil refineries would create polluted areas, Northwest Indiana is more polluted than it has to be. The steel industry in Lake County does not even meet federal environmental standards. As of February 12, 2005, the EPA has found that U.S. Steel Gary Works was in non-compliance with the Clean Air Act, Clean Water Act and RCRA consistently for the last three years. In particular, U.S. Steel is currently a High Priority Violator of the Clean Air Act and the violation has not been addressed. In addition, International Steel Group (ISG) in East Chicago was also in non-compliance with the Clean Air Act and the Resource Conservation and Recovery Act (RCRA) consistently for the last three years and in violation of the Clean Water Act for seven of the last twelve quarters. ISG is currently a High Priority Violator of the Clean Air Act and the violation has not been addressed (U.S. EPA, 2005).

Not only is pollution in Northwest Indiana severe, but its unequal distribution in Lake County, Indiana, burdens certain communities over others. In 2002, people of color were exposed to 7.73 times as many toxic chemicals as whites; had 1.45 times the cancer risk from hazardous air pollutants than whites; were surrounded by more Superfund sites per square mile than whites; and were surrounded by more facilities emitting criteria air pollutants (mercury,

nitrogen oxides, sulfur oxides, hydrocarbons, carbon monoxide, aerosols, asbestos, chlorofluorocarbons (CFCs), ground level ozone, hazardous air pollutants (HAPs), hydrochlorofluorocarbons (HCFCs), methane, particulate matter (PM), propellants, radon, refrigerants, substitutes, and volatile organic compounds (VOCs)) per square mile than whites (Scorecard, 2004). Northwest Indiana's industries consistently violate federal air, land and water standards, leaving both Porter and Lake County among the dirtiest communities in the country. While compliance with federal standards does not mean freedom from pollution, it would be a step in the direction of an improved environment. If the mills were to come into compliance with federal environmental standards, there would be fewer health advisories for asthma and polluted beach water, fewer brown skylines and smelly days, but compliance may not create an image of Northwest Indiana as visually appealing. Compliance leaves the lakefront dominated by industrial buildings and does not guarantee that business or new residents will be enticed to invest in Northwest Indiana.

B. Environmental Justice

The problem of environmental injustice exhibits ways in which pollution has historically limited the possibilities for both human and economic development. The most polluted areas of Northwest Indiana are associated with minority populations, low-income levels, high poverty levels and decreasing population. In those cities with steel mills, Gary, East Chicago and Portage, it is clear that two of the three cities have been losing population (Indiana Quick Facts, 2000). As Figure 1 and 2 show, these are primarily minority-populated cities and have high poverty and low income levels relative to other cities in Northwest Indiana (Indiana Quick Facts, 2000). Portage is an exception that can be explained fairly easily. While the former Bethlehem and Midwest Steel are technically part of Portage, the downtown area

and majority of the population of Portage are located five miles away from the two steel mills. As a result, the city of Portage experiences very little of the pollution effects from its two steel mills. The pollution from the two steel mills blows eastward to Michigan City, where again there is decreasing population, a significant minority population and a high poverty rate relative to other cities. In Northwest Indiana, the only town with a significant minority population and high income and low poverty levels is Merrillville. This town is the exception to the region. The cities located south of the lake, away from the industry, are predominately white, with high income levels and low poverty levels (Indiana Quick Facts, 2000). While Hammond does not have its own steel mill, the city is located in the northern part of Northwest Indiana between East Chicago and Gary. The cities in the Northwest corner have similar demographics while the cities lying to the south and east also have similar demographics. The northern part of Lake County is in a never ending cycle of limited development.

Environmental injustice amplifies the economic and environmental problems of Northwest Indiana. The cities of East Chicago, Hammond and Gary have not been successful at attracting new businesses, while the cities to the south have been (Wieland, 2004). This has been true for a number of reasons. The low income levels in these cities are not conducive to producing highly educated individuals who would be able to work in the new white collar businesses that Northwest Indiana has been trying to attract. This is true because very often the parents in these cities have less leisure time to spend teaching their children, to make sure they do their homework and to put them through college. Also, because property taxes determine how well local public schools are funded and because most residents the cities of East Chicago, Hammond and Gary do not own large expensive homes, their school systems are poor (Indiana Quick Facts, 2000) In addition, residents in these cities that often work low paying jobs have

to spend their free time working or sleeping because they work so many hours, and therefore have less free time to spend learning about their polluted environment or gathering their limited resources to improve it (Erler, 2004). These communities would benefit from a cleaner environment because their property values would increase with cleaner air and thus their schools would be better funded, they would spend less on health issues like asthma and might attract new business that pays high wages. While pollution has materially shaped population distributions, it has culturally shaped perceptions of the region as a whole.

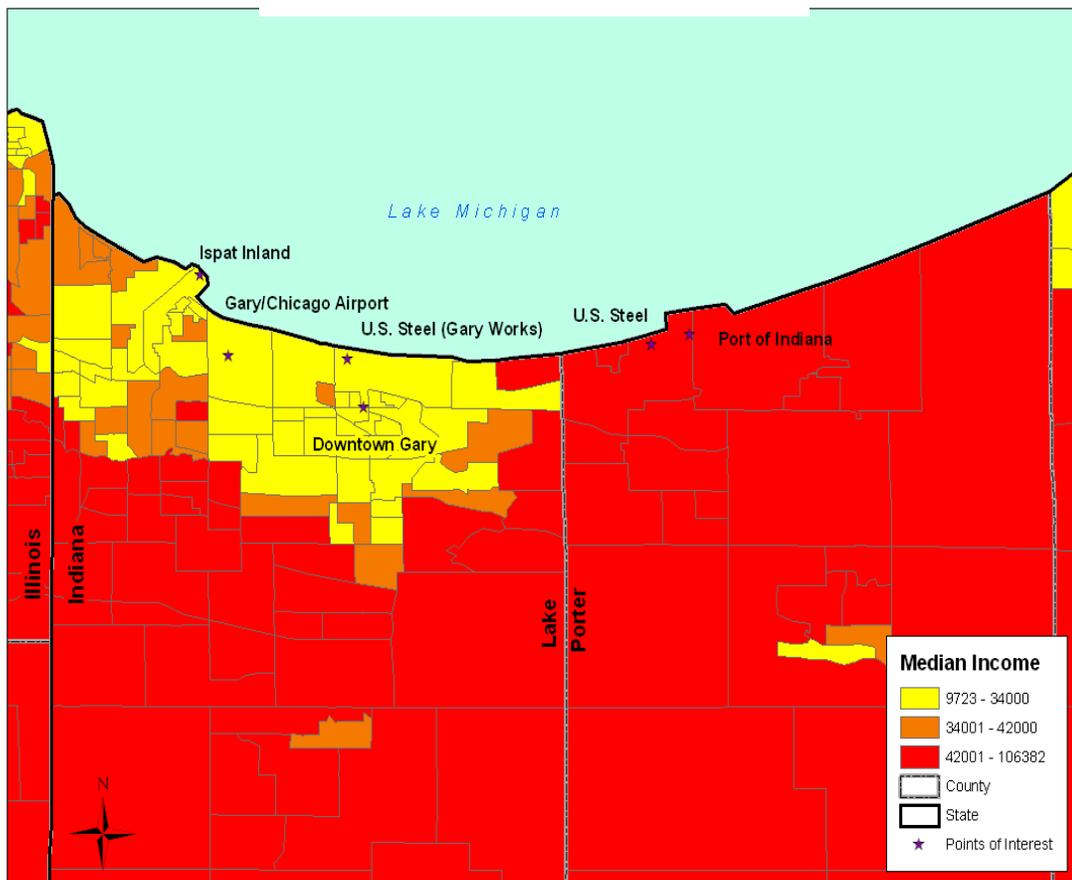


Figure 1. Median Income for Lake and Porter Counties, Indiana, 2002.

Source: Laura Paulding, College of DuPage, 2005.

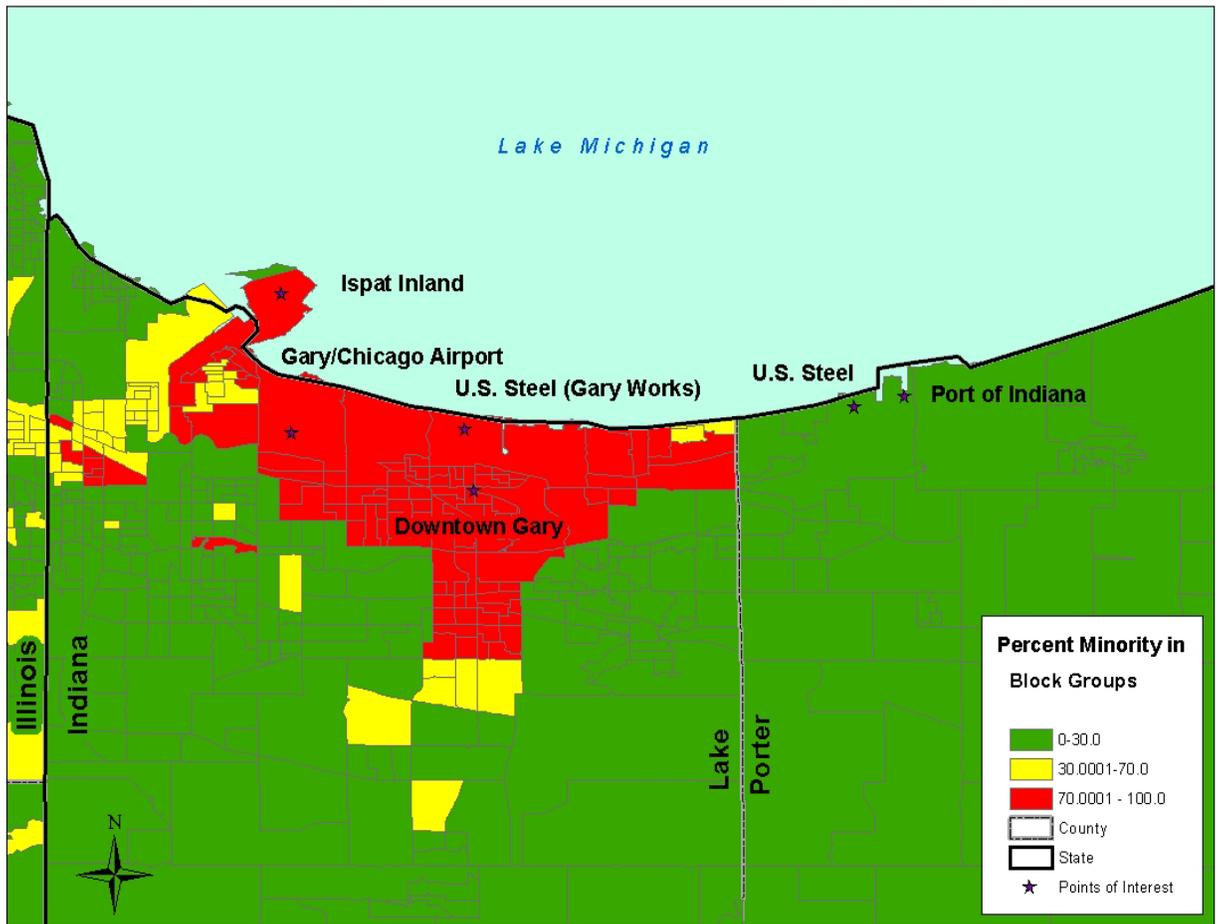


Figure 2. Percent of Minorities for Lake and Porter Counties

Source: Laura Paulding, College of DuPage, 2005.

Section IV

The Economy of Northwest Indiana

Northwest Indiana is still known to residents and outsiders as a steel-dominated area. To outsiders, driving past ISG, Midwest Steel, the former Bethlehem Steel and U.S. Steel Gary Works gives the impression that Northwest Indiana is a one-industry region. This perception is shared by the local citizens who still think that their economic livelihood and environment are determined by how well the steel industry is doing. But no matter how much the steel industry

and its pollution may dominate the landscape, Northwest Indiana is not the one-industry area that outside observers and local citizens believe.

A. Comparing Steel Towns

To illustrate this new idea, it will be helpful to compare Northwest Indiana's economic and employment statistics with those of other present and former one-industry cities.

Pittsburgh, Pennsylvania and Birmingham, Alabama were both industrial steel centers during the twentieth century. Both cities have since shed their image as steel cities and now have diverse economies. In contrast, Galesburg, Illinois, a present day one-industry town, is home to a large Maytag Manufacturing plant, its primary employer. These three cities together illustrate what a one industry city was thirty years ago and what a one-industry town is today.

Birmingham, home to Republic Steel, U.S. Steel, U.S. Pipe and Woodward Iron Company industrial plants during the nineteenth and twentieth centuries, was the industrial center of the South. In 1920, primary metals manufacturing accounted for 52 percent of the total employment and peaked in 1930 at 68 percent of total employment. Even in 1977, manufacturing still dominated by providing 35 percent of the Birmingham area's payroll with 1,000 manufacturing plants and 130 mining companies (White, 1981). Even in 1981 Marjorie White (1981), author of The Birmingham District, described Birmingham as "solidly rooted in the basic metals and mineral industries" (p. 71) Since the nationwide steel decline in the early 1980's, steel manufacturing has been replaced by work in medicine and engineering. As of 1997 Birmingham now has an economy where manufacturing as a whole, contributes less than half of what it contributed in 1977 with only 17 percent of the primary payroll to employees coming from manufacturing. Primary metal manufacturing, one component of manufacturing

as a whole, now contributes only 4 percent of the primary payroll (County Business Patterns, 2002). Birmingham's employment is divided among health care and social and professional, scientific and technical assistance. Birmingham is viewed as a highly educated, affluent city with economic diversity (White, 1981).

Present-day Pittsburgh also has a diverse economy. No industry accounts for more than 17 percent of employment and 16 percent of income. There are five leading industries that account for greater than 8 percent of the employment and income. These sectors are health care and social assistance; retail trade; professional, scientific and technical assistance; finance; and insurance (County Business Patterns, 2002). Twenty-five years after the decline of steel in Pittsburgh, the city is economically vital. Even though the Pittsburgh area lost 130,000 U.S. Steel jobs in the steel industry, the area has found new sources of employment and economic opportunity (Briem, 2003).

While Pittsburgh and Birmingham exemplify one-industry towns of thirty to one hundred years ago, Galesburg, Illinois, is a modern day one-industry town. Galesburg is located in Knox County, Illinois, where a Maytag Manufacturing plant is located. Manufacturing accounts for 31 percent of the income in Knox County and health care and social assistance account for 27 percent of income in Knox County. The next largest contributors to income are retail trade at 12 percent and wholesale trade at 6 percent. Similarly, job distribution is dominated by manufacturing at 21 percent and health care and social services at 25 percent followed again by retail trade at 16 percent. Galesburg is known as a one-industry town because most of the manufacturing in Galesburg is for the one Maytag plant and manufacturing accounts for 31 percent of the employee income in the county (County Business Patterns, 2002).

Gary's own steel manufacturing employment shows the change that has led Northwest Indiana from being a one industry region to a more diverse economy. In 1910, Gary Works employed 72% of the population of Gary. The percentages declined as the population grew over the years, but in 1920 Gary Works alone still employed 27% of Gary's population (Workers of the Writers' Program, 1939). Thus, Gary Works was the primary employer, disregarding all other manufacturing associated with steel, of Gary residents.

Comparing Lake County, where Gary is located, with statistics from Pittsburgh, Birmingham, Galesburg and its own past provides evidence that Northwest Indiana is not the one industry town that it used to be and is falsely perceived to be today. Figures 3 and 4 show that in 2002, primary metal accounted for 15 percent of the income in Lake County and 9.5 percent of jobs. Health care and social assistance also account for 16 percent of jobs and 17 percent of income followed by retail trade with 15 percent of jobs and 10 percent of income and then construction with 7 percent of jobs and 11 percent of income (County Business Patterns, 2002). Therefore Gary seems to lie somewhere between Birmingham's economically diversified job and income distribution and Galesburg's one industry town. Lake County appears to be experiencing an increase in economic diversification.

However, there are differing ways to measure economic diversification. I have focused on income and employment distribution, but one could also look at a number of other factors. Identifying the jobs that are high paying and low paying might be useful to determine which jobs are more significant than others. In addition, diversification could also be determined by looking at how much of the income stays within the region and how much leaves and where it is going. Income and employment have been a useful measure for my purposes, but using other

measures of economic diversification may have given me a different picture of Northwest Indiana.

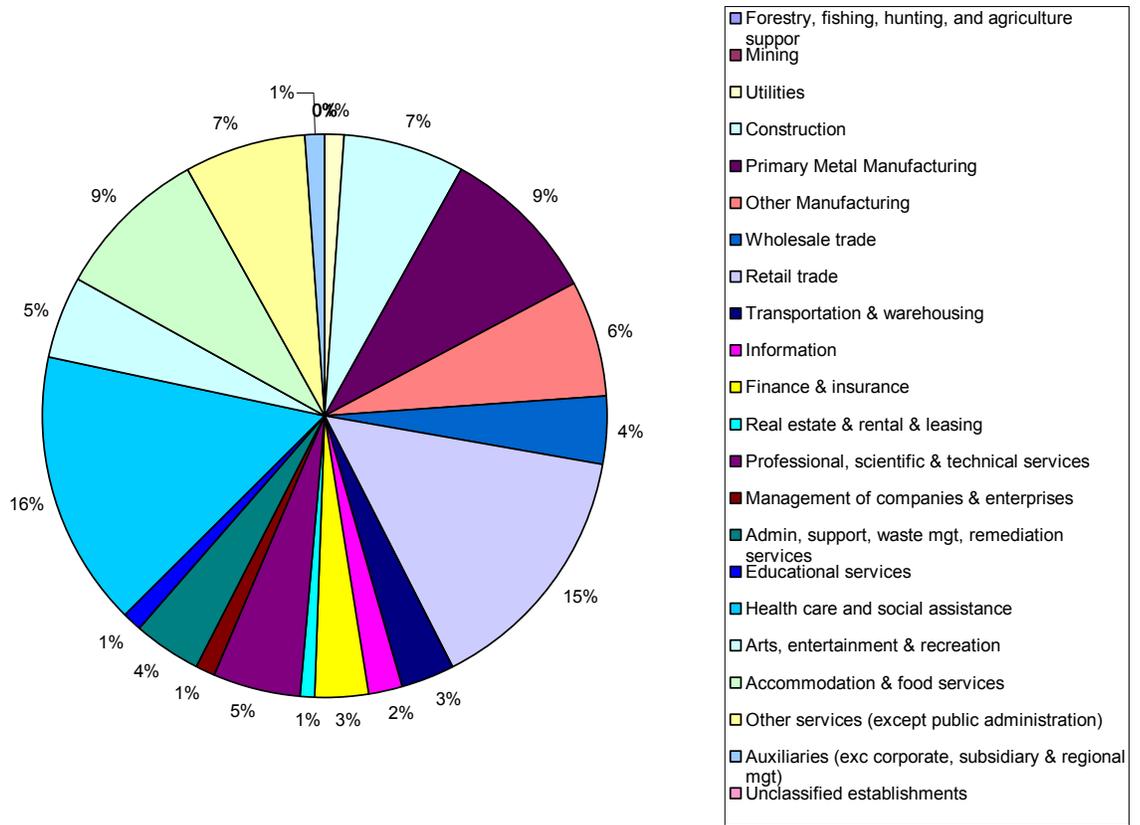


Figure 3. Job Distribution for Lake County 2002

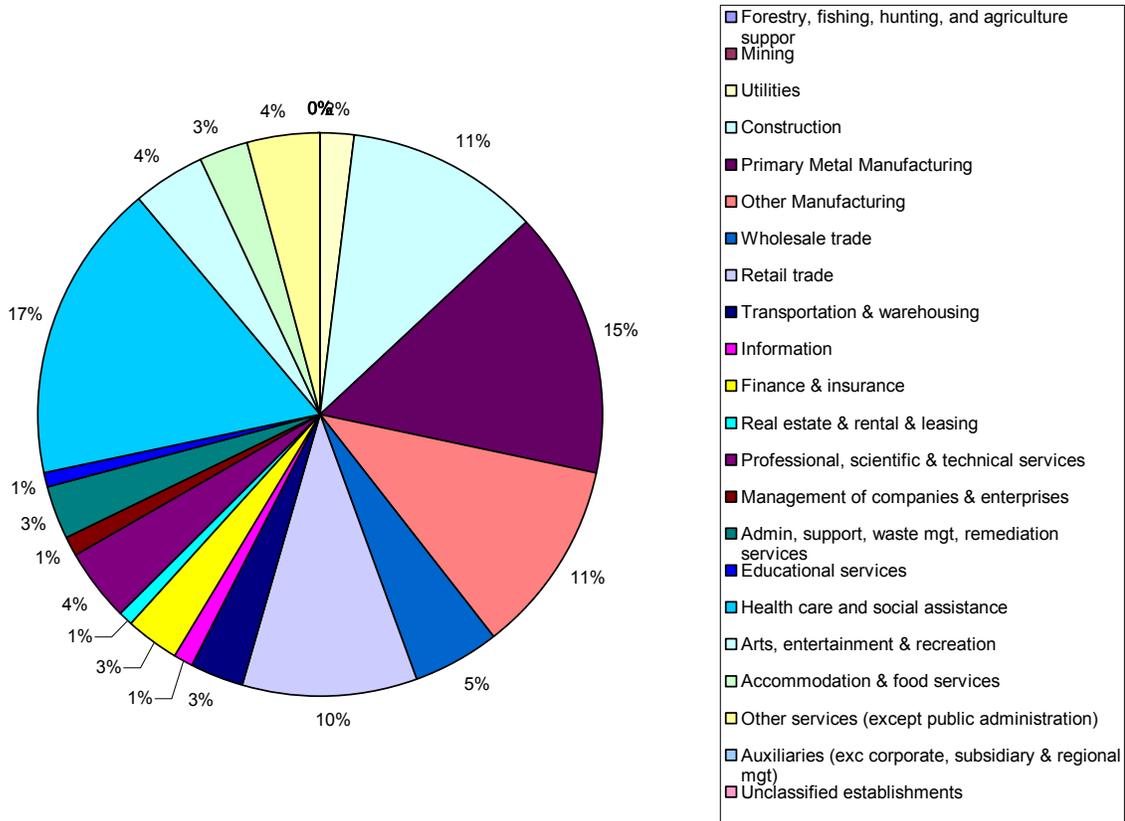


Figure 4. Earnings Distribution for Lake County 2002.

Nevertheless, the perception of ‘steel town USA’ remains with Gary despite the economic evidence that it is not true. I would argue that this sense of steel’s economic and cultural domination stems from the physical dominance of steel mills in the Northwest Indiana landscape. Nevertheless, there have been many attempts to diversify the economy of Northwest Indiana since the steel decline, as we will see in the next few sections.

B. Other Industries for Northwest Indiana

Since the early 1980’s, residents and politicians in Northwest Indiana have been trying to supplement the steel industry with new business. The region has been trying to shed its poor reputation and attract employment. There have been varying ideas and business ventures that

have brought limited success. These ventures include the five riverboat casinos, professional and semi-professional sports teams, expanding the Gary Regional Airport, integrating Northwest Indiana into Chicago's economy, ideas of high tech low-impact industry, tourism and lakefront communities.

Casinos

Gary attempted to attract business investors when Mayor Scott King decided to host the Miss USA Pageant in 1993 (Potempa, 2002). While he did not get the attention of any technologically based businesses, he did catch the eye of Donald Trump. As a result, in the 1990's Northwest Indiana became home to five riverboat casinos. While casinos in the traditional sense of a permanent building site were not permitted in Indiana, businessmen figured out that if their casinos were located in the water on boats, technically they would not be breaking the law. And so Northwest Indiana became home to Trump and Majestic Star Casinos in Gary, Harrah's in East Chicago, Horseshoe Casino in Hammond and Blue Chip Casino in Michigan City. The casinos brought hope to the region with the idea that they would create a large tax base on which the cities could draw on to expand their economies (Inkley, 1993). Casino tax revenues in Gary contributed \$216,943,746.66 from 1997-2004. The revenue was used to pay for the airport, education, community, infrastructure and judgments/debt services (King & Mahmoud, 2005). However, the casinos have turned out to be a much larger benefit to the owners than to the cities that house them. Four of the five casinos are unionized and at the end of 2004 and beginning of 2005, service workers at these casinos all threatened to strike on the basis of poor wages and lack of health care benefits. The employees are complaining that their average wage is only \$7.25 per hour and that families

cannot be raised on such a low wage while the businesses that own the casinos make fortunes (Erler, 2004). Thus, while this business has come to fruition, it is not the savior that it was expected to be, especially for the cities in the northern part of Lake County where Northwest Indiana's economic and social problems are concentrated.

Sports

The most well known business venture for Northwest Indiana has involved professional sports, specifically the Chicago/Gary Bears. While the Chicago Bears management was searching for a new stadium, it threatened to leave Chicagoland totally and relocate to nearby Gary, Indiana. While the threats were most likely used to get the City of Chicago to build the Bears a new stadium, for a brief moment in time the "Gary Bears" represented a possibility that could have boosted the economy of Northwest Indiana (Porta & Murzyn, 1995). After the Chicago/Gary Bears idea fell through, residents and politicians were motivated by the Gary Bears proposal and began looking for sports teams to set up shop in Northwest Indiana. These efforts have brought limited success, but semi-professional success nonetheless in the form of Gary Steelheads basketball and Gary Railcats baseball. The teams are popular and well attended, but do not offer the economic base that people have been searching for since the decline of steel. The sports teams are part of the entertainment industry which provides fewer than 5 percent of employment and income in Lake County where the teams are located (County Business Patterns, 2002).

Airlines

Another business venture located in northern Lake County is the Gary/Chicago Regional Airport. When Chicago began to have problems servicing all of its airline customers, it began looking for a site to build a third Chicago airport. Four sites were proposed, three in Illinois and one in Indiana. The Indiana proposal was for the expansion of the Gary/Chicago Airport. This proposal never came to fruition and the Chicago airport dilemma remains. However, politicians were inspired by the prospect of expanding the airport and Gary/Chicago Regional Airport soon hosted Southeast Airlines, Hooters Air, ATA, and more (Gary/Chicago Airport, 2004). The routes became popular with residents in the area because of the ease of using the airport and the popular destinations the airlines provide to North Carolina and Florida. However, yet again, problems arose, due to the nationwide economic decline of the airline industry (Meyer, 2004). As of 2005 Gary/Chicago Airport hosts only Hooters Air. Another hopeful business venture that could have helped has failed to revitalize Northwest Indiana.

Chicago Suburb

In 2004 more business ideas have been suggested that may offer the economic stronghold that Northwest Indiana has been desperate for since 1980. It is Northwest Indiana's connection to Chicago that offers the most economic opportunity. Northwest Indiana is looking forward to its expanded South Shore railway system which will serve the southern communities of Northwest Indiana. The hope is that the improved commuter connection to Chicago will turn Northwest Indiana into another suburb of Chicago (Gruszecki, 2004). The idea is that Northwest Indiana would "...reap all the benefits, making (Northwest Indiana)

another suburb providing all the amenities of a fine community with easy access to high-paying jobs, It would give (Northwest Indiana) a work force that is more mobile, not reliant on a single form of transportation to get to Chicago to work and enjoy its cultural amenities” (Benman, 2004, p.1). Northwest Indiana also has the potential to become a new suburb for Chicago because of its recent housing boom. According to Ed Charbonneau, interim director of the Northwest Indiana Forum, “To the outside world now, Northwest Indiana is an attractive place to invest their money. And that will improve life for all residents of Northwest Indiana” (Benman, 2004).

Another sign that economic diversification is on the rise is not so obvious. The Chicago based bank, Harris, has recently purchased the Northwest Indiana based Mercantile Bank. While this normally might seem like a sign of economic downturn, Paul Freeman, Indiana Bankers Association executive vice president and chief operating officer says that mergers can strengthen banks (Benman and Holocek, 2005). As a result, Chicago banks may be providing employment as they move to Northwest Indiana. Therefore, despite the fact that past business ventures have failed to provide the economic support that Northwest Indiana needs, there are signs of an optimistic future.

Another economic opportunity that would integrate Northwest Indiana’s economy with Chicago’s economy would be turning the area into a summer home for city dwellers or a permanent beach community for white collar workers. Northwest Indiana already has many beachfront communities. These communities include Beverly Shores, Ogden Dunes, the Miller community of Gary and Dunes Acres. These communities do sit on the sand dunes, but they do not cause severe air and water pollution like the steel industry has. These communities alone do not provide employment, but the residents who occupy the communities are highly skilled

and highly educated retirees and white collar workers who bring tax revenue and purchasing power to the area. The table below compares each of those beach communities to the average household annual income for Porter County.

Table 1. Northwest Indiana’s Lakefront Community Incomes

	Ogden Dunes	Dunes Acres	Beverly Shores	Porter County
Household Annual Income	76,924	94,843	59,107	53,100

Taken from (Community Profiles, 2005). & (Dune Acres Profile, 2005).

These communities have significantly higher incomes than most of Northwest Indiana. It would seem economically advantageous to have more communities with large income bases like these. The idea of turning Northwest Indiana into an area for beach communities comes from the example of nearby beach communities in along the western shore of Lake Michigan in southern Michigan. Those communities are used as summer weekend getaways for Chicago residents and other vacationers.

Table 2. Southwest Michigan’s Lakefront Community Incomes

	Grand Beach	New Buffalo	Berrien County
Household Annual Income	61,875	41,658	38,576

Taken from (Community Profiles, 2005).

Like the beach communities in Northwest Indiana, the southwestern Michigan beach communities have higher incomes than the rest of their county. Both Grand Beach and New Buffalo are lakefront communities with many seasonal residents. Tourism is an important aspect of their economy. They rely upon accommodations, food services, summer rentals, recreation, and retail and are primarily operational during the summer months (County Business Patterns, 2002).

These communities thrive with the same natural dune environment that Northwest Indiana has in natural areas that have not been degraded by the steel industry. These communities have clean air, land and water. Berrien County, Michigan is among the cleanest counties in the United States for water, toxics and land. As was mentioned earlier, Porter and Lake County are among the worst counties in the United States for water, toxics and land. Berrien County does have among the worst air pollution in the United States. This is not because of their activities, however, but because of their neighbors to the east in Indiana. Berrien's largest air emitter pollutes 33 tons of particulate matter, with all other polluters emitting less than 1 ton per year, into the air each year. In contrast, Lake County's top seven largest air polluters contribute more than 35 tons per year each to amount to 6535 tons total per year (Scorecard, 2004). While turning Northwest Indiana into a group of beach communities is appealing, it is highly unlikely because of the many obstacles related to the presence of the steel industry and its pollution.

Technology

In the middle to late 1980's technological innovation was on the rise and many technology companies thought that Northwest Indiana would be a great place to set up shop.

The property taxes are lower in Indiana than in neighboring Chicago, and there is plenty of undeveloped land for development. Northwest Indiana failed to attract any big technology fish. People have blamed a number of things including air pollution, a lack of cultural activities, poor school systems and crime. There have been more initiatives to attract technology businesses this past year. The Purdue Technology Center of Northwest Indiana opened its doors in 2004 hoping to offer office space, management consulting, mentoring and other services, that could dramatically increase the chances of success for new companies (Benman and Holocek, 2005). The new center hopes to increase the number of high paying jobs in the area. Improving environmental quality would also boost business interest in the area.

Tourism

Another industry that has been explored is tourism. Northwest Indiana is home to the Indiana Dunes National Lakeshore and the Indiana Dunes State Park. Many tourists come to see the dunes, learn the history of the region and to enjoy the beach. The National Lakeshore comprises 15,067 acres presently. The Park also has jurisdiction over 3,253 acres of other public lands including the Indiana Dunes State Park and 1,050 acres of private land. Over 2 million people visit the National Lakeshore each year, providing revenue to Northwest Indiana. The Park also employs 125 full-time employees who are mostly residents of the area (Dale B. Engquist personal communication, January 20, 2005), Superintendent of the Indiana Dunes National Lakeshore). While the 125 full-time employees do not compare to the thousands of employees in the steel industry, the 2 million visitors that come do provide support for the economy. The number of visitors is expected to rise in the near future with the new construction of a combined Porter County Visitors Bureau and Indiana Dunes National

Lakeshore visitor's center located close to Interstate 94 (Newman, 2004). The current Dunes visitor's center is located relatively far from the Interstate and so is relatively underused.

Tourism could be a larger part of Northwest Indiana's economy if it were able to recover more lakefront property currently held by industry. While the National Lakeshore has slowly expanded its land jurisdiction from its inception in 1966 with 8,000 acres, there is still other land that could expand the park that is currently contaminated by steel industry use (Engel, 1983). The area situated along the lakeshore east of Ogden Dunes and west of the former National Steel (currently U.S. Steel Midwest Plant) has been within the National Lakeshore's boundary since 1976, but has been acquired only recently because the Park had to wait until the land was certified to be free of hazardous waste (Russel, 2001). Land areas not utilized by the steel industry like this could potentially be cleaned up if contaminated and added to the current land jurisdiction of the National Lakeshore. Given that the steel industry's land is located on the lakefront, any land turned over for other uses, especially preservation and recreation by the park might increase the number of visitors to Northwest Indiana and provide an incentive for permanent or summer residents to the area as well.

Currently, the arts, entertainment and recreation industry in Porter County provides only 1.5 percent of total employment and 0.5 percent of annual earned income. If we take into consideration the accommodations and food services industry, which provides 10 percent of total employment and 2.8 percent of earned annual income in Porter County, it is clear that tourism may be a significant part of Northwest Indiana's economy. (County Business Patterns, 2002). While Lake County also has tourism, the visitor's center and most of the lakefront that the National Lakeshore sits on is in Porter County (Engel, 1983). While tourism is part of the economy of Northwest Indiana and ecotourism is a large aspect of the tourism base, tourism

has not provided a replacement for the high paying and large number of jobs that the steel industry offers. The future prospects for tourism are optimistic with the expansion of the Indiana Dunes National Lakeshore as well as the new visitor's center. Tourism may also become economically more significant as the environment is improved.

Section V

Obstacles to Change

Northwest Indiana is not a dream community. And trying to change the area is not an easy or an overnight project. As was mentioned earlier, there have been attempts to supplement or replace the steel industry with casinos, sports teams and similar enterprises, but most have not met the expectations of their developers. Despite the twenty-five years since the decline of the steel mills very little change has occurred. Populations in Gary, East Chicago and Hammond have fallen while the steel industry has had its highest earnings since 1991 in the fourth quarter of 2004. Changes have not occurred because of the obstacles that must be faced in trying to transform Northwest Indiana.

A. Emotional and Historical Connection to the Steel Industry

These obstacles include the emotional and historical connection that many local residents have to the region's industrial heritage. In many cities, especially those that are currently losing population, the citizens have lived in Northwest Indiana since before the decline of the steel industry. Those people either worked for the mills when they were turning a profit or were related to someone who did. My own family is an example of this type of

situation. My grandfathers on both my mother's and father's side worked at U.S. Steel. My father and his older brother worked in the mills during their summers in college.

The last four generations of the inhabitants of Northwest Indiana have been connected to the steel mill economically and culturally. The steel industry has dominated Northwest Indiana for over one hundred years. That historical connection alone makes it difficult to make a change away from steel dominating the landscape, culture and economy. As in other industrial cities, when there was smoke rising out of the mills, times were good (Warren, 2001). For people who grew up with the steel industry, the early 1980's steel production slow down was seen as purely negative. Clearly the economy suffered when an industry that supplied 40 percent of the area's income and employment failed to make a profit for the first time in their lives (Trusty, 1992). Those same individuals grew up without the Environmental Protection Agency and now run the economy of the area. To try to convince them that the area needs to improve its environment would be difficult.

Northwest Indiana is cleaner than it was before federal environmental protection. Visible changes in the quality of the environment were not common until the 1980's (Marsh, 1996). For my father's generation, tar balls floating in Lake Michigan were a common memory from their childhood. The bad smells and industry-filled landscape of today are not viewed as harmful to the environment or dirty, but rather are an improvement upon what they grew up with. Because of their emotional and historical connections to steel, my father's generation is intent upon the steel industry making a comeback, not upon cleaning up the environment any further.

B. Ideology of the Environment vs. Jobs

A second obstacle to improving Northwest Indiana's environment is the notion that environmentalism and job security are mutually exclusive. Especially in Northwest Indiana where the steel industries blamed environmental protection for their economic downturn, it is difficult to convince the people who work or used to work for the steel industry that Northwest Indiana needs improved environmental regulation.

For large industries, environmental protection is often their scapegoat when economic downturn occurs. However, this supposed connection has been repeatedly proven false. Indeed, environmental protection has strengthened industry. For example; the 1964 Wilderness Act is known to have preserved the timber industry in the northwestern United States, which had been declining in employment and revenue since the 1930's (Hagen et al, 1992). In the case of steel, Kenneth Warren explains, U.S. Steel's decline in the late 1970's and early 1980's was not the result of environmental regulation, but of bad business practices (2001). American steel lagged behind the rest of world technologically, trying unsuccessfully to ride upon its past world steel dominance. In reality, the American steel industry began faltering back in the 1950's (Warren, 2001). But unfortunately for the environmental community, the widely visible decline of the steel industry in the 1970's and 1980's coincided with the first federal regulations of air, land and water pollution. To this day, environmental regulation is seen as stifling to business and so is not favored by the steel industry. The steel industry has been successful in making the citizenry of Northwest Indiana believe that their jobs have been destroyed by environmental legislation as well as by foreign competition. Therefore, federal or state attempts to further regulate the steel industry are frowned upon by much of Northwest Indiana's population.

C. Steel Industry Infrastructure

A third obstacle to change from steel dominance in Northwest Indiana is the physical presence of the steel mills. U.S. Steel Gary Works alone sits upon ten miles of lakefront and includes blast furnaces, a coke plant and a finishing mill that utilizes acid in large quantities. If land is to be recovered from steel production, building structures need to be removed, the land needs to be purchased, and extensive clean up projects must occur. For the former International Steel Group (ISG) plant in East Chicago and U.S. Steel Gary Works, the clean up projects would be most difficult. Both of those plants ran unregulated for seventy years. Parts of their lands are classified as Superfund sites and could be tied up in federal bureaucratic processes for up to a decade. The cost to recover the Gary Works and East Chicago plant land would be enormous.

While Northwest Indiana could look to brownfields-type redevelopment, which has been very successful at recovering the steel plant areas in Pittsburgh, cleanup would be more difficult in Northwest Indiana because the steel industry is still operating. Unlike Pittsburgh, where clean-up occurred after the mills shut down, clean-up in Northwest Indiana would involve working with the steel industries that are still trying to make a profit (Hays, 2003). The steel industry in Northwest Indiana is currently making profit and is not in danger of shutting down (Holocek, 2004). While this is good news for the economy of Northwest Indiana, it may make recovering land from the industry and cleaning up the environment in general more complicated.

My own experience working with U.S. Steel displays well how difficult it is to clean the land while the steel industry is still involved. Working for a consulting company within U.S.

Steel, I was assigned to lay out the plans of the present and past sewer systems back at the mill's inception. Our main source for the systems was the previous company that had been assigned to do the same thing we were working on. I later learned that U.S. Steel's strategy to deal with cleaning up their sewer systems was to hire a new consulting firm every ten years. Each firm would get only so far and then the new company would only be permitted access to some of the previous firm's work. Thus, no company would get far enough along to get to the clean up stage, which would have been much more expensive than mapping out the sewer system. However, the steel industry may be willing to sell some of their land if they would not be responsible for all of the clean-up process. Thus, there is hope for clean-up with collaboration between the steel industry and private or public entities.

If the steel industries were able to sell their lands, they might be bought by smaller industries, the Indiana Dunes National Lakeshore, local municipalities or private land speculators. Again, the contamination of the land currently owned by the steel industry becomes an obstacle because purchasing contaminated land requires clean-up that may be costly to the purchaser or may take decades. While it is not the purpose of this paper to discuss brownfields reclamation or Superfund issues, it is clear that obstacles within CERCLA are also obstacles to the clean-up of Northwest Indiana.

D. Lack of Awareness

Now that the steel mills no longer provide as many jobs as they did in their heyday, one might expect local residents to become more conscious of their degraded environment. Environmental awareness has increased slightly, creating movements such as Northwest

Indiana Greens, the Calumet Project and others, but the overall economic and industrial character of Northwest Indiana has not changed.

Despite the increased awareness of a few small environmental groups, the lack of environmental awareness among the general public is also an obstacle to improving the region's economy and environment. In the twenty years I have lived in Northwest Indiana, active environmentalism has never been highly visible. The largest environmental issues were invasive zebra mussels in Lake Michigan and E. coli in the summer swimming waters. Air pollution was considered a pest, but an accepted pest. I have never heard of a parents' group concerned about their children's asthma or other health concerns. The groups that are best known, primarily the Save the Dunes Council have existed under one name or another since the original battle for the dunes in the first decades of the twentieth century (Engel, 1983). Only since I have been in high school has the town where I grew up, Ogden Dunes, organized an environmental council as part of the town council. The Indiana Department of Environmental Management does not make their presence well known. Their website has a complaint forum (<http://www.in.gov/idem/pollutioncomplaints/>) that I, as a resident of the town of Ogden Dunes, was not informed about until 2002.

Formal education about environmental issues is nearly non-existent. From kindergarten through high school, I was never offered the opportunity to take an environmental science course, even as an elective. The Lake and Porter County Solid Waste Management Districts have one traveling educator and a few on-site educators for active teachers who seek them out. The Indiana Dunes National Lakeshore has an education center, again something that must be sought out by active teachers who can take field trips.

Adults also have very little access to environmental education unless they seek it out. The local newspapers, The Post Tribune and The Northwest Indiana Times, have begun to make environmental issues a regular part of the news. But to go beyond the limited education offered by newspapers in Northwest Indiana, one would have to join the Northwest Indiana Greens, The Calumet Project or the Save the Dunes Council as well as attend town or city meetings. This lack of opportunity to learn about the environment in everyday life stifles to the ability of citizens to become environmentally aware.

E. Industry

The largest and most formidable force against change in Northwest Indiana is the steel industry itself. It is not in their interest to meet federal regulations and so they often do not. Their environmental goal, from my own experience working in Gary Works, is to appear to be making an active effort to keep the public's health in mind. Because of their collective political and economic presence, the steel mills are difficult to challenge. To openly challenge the steel industry would be to challenge the economy of Northwest Indiana in many people's minds.

F. Public Perceptions of the Steel Mills and the Environment

If a change in industry is going to occur, despite these obstacles, it is important to determine what the attitudes of the citizens of Northwest Indiana are toward the steel mills and their environment. Perhaps the citizens of Northwest Indiana are satisfied with a degraded environment and a mixed and economy of service, steel industry and outsourced Chicago jobs. If this is the case, there would be little reason to attempt to determine what industries would be best for the economy and environment of Northwest Indiana. It is also important to know if

people feel a change in the structure of the region would be possible. If the attitudes of the citizens of Northwest Indiana are similar to attitudes recorded in the area 100 years ago, the environment will continue to be degraded.

The attitudes of Northwest Indiana residents about the steel mills and the local environment differ. The population in question includes members of the Save the Dunes Council, mill workers and those related to mill workers, parents of children with asthma, businessmen trying to make a living and many others. The following opinions were recorded from citizens of Portage in 1990, recalling their reaction to National Steel's Midwest plant that was built from 1959 to 1962. James B. Lane (1991), a professor of history at Indiana University Northwest and a long-time resident of Northwest Indiana, quotes one long-time resident of Portage, Alexander Saims, as having mixed feelings about the mills: "In a way it's a shame that all the prime land was taken up by the steel companies Midwest and Bethlehem. But it sat idle for years and nothing ever happened to it. It was great wide open wilderness; but, of course, jobs are important too" (p. 25). Mr. Saims recognized the need for conservation and the need for jobs. While it seems that his attitude favored jobs over conservation, he certainly acknowledged the wilderness that can be found in Northwest Indiana.

Richard Kline and Leon West had strongly positive opinions of the new mills. These men saw the mills as tax bases and the Dunes as simply piles of sand. In great contrast, Robert Kuhn, a Portage businessman, and Mel Tract, a resident of the lakefront community, Ogden Dunes, focused on the environmental impact the mills have had (Lane, 1991).

This unscientific sample of attitudes does not provide an obvious single answer about what the residents of Northwest Indiana feel about the presence of the steel mills. It may be that opinions are greatly divided. However, it is likely that many people, like Alexander Saims,

recognized the effect the mills have on the environment, but favors jobs over the environment and felt that the two could not coincide. More extreme opinions in favor of the mills or the environment are probably less common.

While opinions may have changed in the 1990's, many residents of Portage were opposed to the initial establishment of the National Lakeshore in 1966. Russell Willis, an active Republican lawyer, was of the opinion that because the Dunes were already degraded, there was no point in trying to save them in the 1960's. William Westergreen, President of the Town Board, and Cortie Wilson, member of the Porter County Democratic Central Committee, opposed the National Lakeshore because they wanted to have beachfront property or city parks instead (Lane, 1991). However, there were and are other citizens, like the members of the Save the Dunes Council, who have wanted to actively protect the Dunes. One resident of Beverly Shores, Ron Engel, even wrote a book entitled Sacred Sands in honor of his home (Engel, 1983). Thus, there are differing opinions about the public use of Northwest Indiana's unused land.

While environmental awareness has risen in Northwest Indiana since the decline of steel, there is not a strong movement to clean up the air, land and water (Tita, 1997). Citizens do not demand a high quality environment because they have come to expect the polluted environment brought by the steel industry. There may be other choices for Northwest Indiana besides steel, but citizens were discouraged by their efforts to invite industry in the 1980's and have not made an active effort to expel the steel industry or pressure them to be more environmentally friendly. The answer to many people's problems has been to move farther away from the mills and commute. As a result, the perceived opposition between jobs and the environment has become even more definite in the minds of most Northwest Indiana residents.

Section VI

While improving Northwest Indiana by diversifying its economy and cleaning its environment seems like a daunting task, at least the region has other steel cities to look to for guidance. Pittsburgh, Pennsylvania and Birmingham, Alabama, as mentioned earlier, were both major steel cities at the same time that Northwest Indiana steel thrived (Holocek, 2003). Since the nation-wide steel decline in the late 1970's, those two cities have undergone transformations to diverse economies, as mentioned in section III, and have cleaner environments.

Pittsburgh “was hit harder yet rebounded faster than many similar industrial regions around the world” following the steel bust (Briem, 2003, p.1). Through a multitude of initiatives Pittsburgh has become a thriving city once again. The citizens of Pittsburgh took great initiatives to preserve their steel culture, while moving to a service based economy. The Allegheny Conference for Community Development was set up to deal with Pittsburgh's economic, social, cultural and environmental issues in the 1940's. In recent years, the Conference, building on decades-long efforts, helped create a new Pittsburgh where unemployment is now below the national average and which integrates the multiple facets of Pittsburgh's enduring industrial heritage. One resident says that “One secret to Pittsburgh's transformation is that it was not done by abandoning manufacturing workers and firms” (Briem, 2003, p.1).

Pittsburgh has created a city that embraces the past, but moves on to the future. One example is the Rivers of Steel National Heritage Area. The Heritage area is located along the Allegheny River where many of the steel mills used to stand. Some of steel mill structures still stand, incorporated into a river walk, restaurants and retail area. Their mission is “historic

preservation, cultural conservation, education, recreation and resource development” (Rivers of Steel National Heritage Area, 2004).

Pittsburgh has had problems in building a new city that Northwest Indiana residents will also face. Residents say that even “though it is well known that most local steel mills have closed and the city is environmentally clean, people beyond the region still identify Pittsburgh with steel” (Matthews, 2003).

The experiences in Pittsburgh highlight many ideas that are important for Northwest Indiana. The first is that a diverse economy is the key to a stable economy that can adapt to a changing market. While Northwest Indiana does not have the one-industry economy it had in the past, it is not nearly as diverse as Pittsburgh or Birmingham’s economy. Pittsburgh’s experience has also shown the good and bad of preserving the steel and industrial culture through a National Heritage Area. Some feel that industries should not be abandoned without cause, but incorporated into a cleaner economy and environment while others find that preserving the steel and industrial culture causes an external image problem that Pittsburgh has found difficult to overcome. The experience of Pittsburgh is not identical to Northwest Indiana and therefore should not be replicated, but the important themes of a diversified economy and attention to its industrial roots will be necessary in the new Northwest Indiana. Like Pittsburgh, Northwest Indiana remains rooted culturally and, to some degree, economically in steel and industry.

Section VII

Implementation

For Northwest Indiana to achieve a diversified economy and improved environment, there must be careful planning. The steel industry will remain, but what steps can be taken to improve its environment record and supplement the industry economically. Two comprehensive plans for improving Northwest Indiana have already been presented recently as well a major change in property taxes in Lake County that may be helpful in improving the environment. First, The Marquette Plan, which includes the participation of five cities, aims to recover much of the unused lakefront that had been formerly used by industry or roads. This lakefront land would be used for trails, parks, beaches and recreation areas. The second proposal that has been suggested is a Calumet/Northwest Indiana National Heritage Park which would integrate the natural, cultural and recreational resources of the area. The Park would be managed through partnerships between public and private groups. The goal of the Park would be to preserve the industrial history, natural resources and culture of Northwest Indiana. Both of these plans are ambitious efforts to recover land that is nationally and/or globally significant. They are praised by many who wish to see an improvement in the environment and economy of Northwest Indiana. Finally, the property tax changes have shifted the source of income from the industries along the lake to the individual residents. This shift, while initially perceived as negative because of the increased expense, may develop a civil society that expects more out of their tax dollars. These three major changes may spur more positive change in Northwest Indiana.

A. Marquette Plan

The most innovative idea to improve the environment of Northwest Indiana is known as The Marquette Plan, proposed by Democratic Congressman Pete Visclosky in 2003 and adopted in 2004. The goal of the plan is to recapture the shoreline by transforming industrial areas into parks, trails, housing and shops. The plan consists of two parts, a short-term plan and a long-term plan. The plan involves five communities, East Chicago, Gary, Hammond, Portage and Whiting. If the plan were completed, it would open up 21 miles of private land, resulting in 80 percent of shoreline being accessible to the public, compared to the 33 percent of the shoreline currently open to public access. The plan was first presented in October 2003, but Visclosky says he has been envisioning this plan for 20 years. The land will be acquired as industries turn over land they no longer need for production. The governments do not seek to seize land from the steel and oil companies (Zorn, 2005).

The short-term projects envisioned by the Marquette Plan include:

- Lakefront Trail in Hammond, improving Whihala Park on Whiting's lakefront
- Building a bridge for new steel access in East Chicago so that the old bridge may be used by the public to access an existing beach
- Improve Jerose Park in Gary
- Improve Lake Street beach in Gary
- Remove Mitchell Generating Plant and prepare for lakefront development
- Remove the water purification system within Midwest Steel and reclaim the land for public beach access for Portage.

The long term projects proposed by the Marquette Plan include:

- The Hammond Lakefront Trail which would run to the Illinois border including a bridge at Calumet Avenue
- Whiting/East Chicago Lakefront improvement which may relocate the BP water purification facilities and allow for the integration and connection of Whihala Park, Whiting Park, ISG beachfront and Heritage Park
- Connecting the Northwest Indiana water systems: Wolf Lake, Indiana Harbor Ship Canal, George Lake, Grand Calumet River, and Lake Michigan
- Industrial Consolidation of BP in Whiting, U.S. Steel Gary works, ISG in East Chicago and Port of Indiana lands that are unused and reclamation.
- Altering the shipping canal at ISG in East Chicago and connecting bridges to allow the area to fit better into the community and reclaim land.
- Gary lakefront Master plan to connect east and west lakefront development areas.
- Northside of Portage master plan

(Zorn, 2005).

The Marquette Plan is ambitious and it is exciting to see it developing and being actively adopted by the five communities involved. However, there is a lack of public interest and some public opposition. Some environmental citizens are concerned that the plan emphasizes development while residents would like to see nature preserves and publicly owned and controlled land instead. Another critic emphasizes that the early phases of the plan are skewed in favor of the steel industry and fail to serve the public. For instance, the short-term plans have included building two new bridges for ISG in East Chicago and Midwest Steel in

Portage. The Portage bridge is now completed and the ISG bridge is in progress while other steps have not begun. Some residents feel that while the Marquette Plan is a good start, it is also important to recognize that the landscape presence of the steel industry is not just about real estate, but also about pollution (Zorn, 2005). However, the plan is being praised by the local Quality of Life Council, a volunteer group of Porter and Lake County citizens (Brown, 2004).

B. Property Tax Changes

Until 2004, industry located along the lakefront paid 90% of Lake County's property taxes. BP oil refinery, International Steel Group (ISG) and U.S. Steel Gary Works collectively paid over \$9 million annually to the county. Dan Lowery, a professor at Indiana University Northwest, says that the result was that few individuals cared how the city spent the property tax money or whether it was used to support the political patronage system. Now that homeowners have experienced a sudden hike in property taxes as the tax burden was handed over from industry, citizens are more aware and more concerned about how their tax dollars are being spent (Smith 2004). Having witnessed the decay of a city that has collected millions in property taxes from ISG and its riverboat casino, East Chicago citizens are finally demanding to see more results. This property tax change may aid the citizens of Northwest Indiana in a quest to clean up the region's environment. If, as Dan Lowery says, citizens continue to demand to see more results from their city governments and realize the steel industry is not contributing to the cities of Lake County as much, there is hope for negotiating with the steel industry to clean up.

C. National Heritage Area

Another option for preserving lands in Northwest Indiana would be to create a National Heritage Area for the Lake Calumet/Northwest Indiana region. This region is comprised of the southwest suburbs of Chicago and Lake and Porter Counties in Indiana. The advantage of this plan is that it would draw on the historical pride in steel of the region while preserving land and restoring natural areas. This plan has been anticipated for many years. The Lake Michigan Region Planning Council suggested in 1968 that plan was needed for the Little Calumet River corridor in order to preserve natural open space. In 1985, the Lake Calumet Study Committee proposed a 2,500 acres wetland ecological park in the Lake Calumet area, which sought to both reduce pollution and address the decline in property values. In 1993, the Calumet Ecological Park Association was established as a forum for citizens to discuss the proposal and voice their support. The efforts continued in Congress and in 1998, the Calumet Ecological Park Feasibility Study was prepared by the National Park Service. They evaluated five strategies for the area including: a National Park System Unit, National Recreation Area, Ecological Park, adding the area to the Illinois and Michigan Canal National Heritage Corridor, and National Heritage Area. Their conclusions favored establishing a National Heritage Area because it could encompass the Calumet region's unique mixture of cultural and natural resources and significant industrial and urban components. A National Heritage Area would be less formal than a national park and require more involvement by residents, organizations and governments. A management plan would be drawn up by public and private partnerships to preserve the natural, cultural and historic resources of Northwest Indiana (U.S. Dept. of the Interior, 1998). Like the Marquette Plan, a National Heritage Area would focus on land preservation and recovery, but with an emphasis on culture as well.

Conclusion

The goal of this paper has been to analyze the costs and benefits of the steel industry in Northwest Indiana today. What I have found is that while the economic contribution of the steel industry is significant, it does not dominate the economy of Northwest Indiana as it once did. Northwest Indiana's economy is not as diverse as other related steel cities like Birmingham and Pittsburgh, but it is not a one-industry town like Galesburg, Illinois. Furthermore, the steel industry provides far fewer chances of employment and income to the citizenry of Northwest Indiana than it did in the past.

Given this conclusion, I compared the economic presence of the steel industry to its environmental footprint. The land that U.S. Steel Gary Works and ISG in East Chicago use is the same land they purchased at the beginning of the century. In addition, steel's environmental footprint is dominating Northwest Indiana in the form of pollution. Thus, while the steel industry's dominance of the Northwest Indiana landscape has remained almost constant since its heyday, its economic presence has significantly declined.

While it might seem rational for local residents to accept pollution to a point if the economic gains outweighed the environmental costs, this trade-off has been exceeded. The residents of Northwest Indiana have begun to realize, that there are other prospects for Northwest Indiana. Foul air and an industrial skyline are not the only ways for Northwest Indiana to thrive economically. With the steel industry turning a profit over \$1 billion, it is financially stable and able to address its environmental impact (Holocek, 2004). I feel that residents would be justified in demanding that the steel industry address its negative impacts and work with them to improve the environment, air, land and water in Northwest Indiana.

We can see the beginnings of movement from local and federal government towards that end in the form of the Marquette Plan and National Heritage Plan. However, neither plan addresses the environmental air and water degradation that plagues Northwest Indiana nor has either plan been citizen driven. The Marquette Plan is the brainchild of the politicians in Northwest Indiana, not its citizens (Zorn, 2005).

The National Heritage Plan also does not address pollution, but it does integrate the ever-important element of culture with the land recovery addressed by the Marquette Plan. A National Heritage Area would require substantial public, private and government involvement and cooperation. Citizens would be able to celebrate their steel industry history while improving the environment. If support were rallied, citizen involvement in improving the environment within Northwest Indiana would drive many improvements in the area. The National Heritage Park is a novel idea and should be explored and implemented.

I conclude with my vision for Northwest Indiana. While residents and politicians have been looking for a quick fix that can replace or supplement steel, it is the mixture of many industries that will secure a stable economy for Northwest Indiana. Technology, tourism, real estate, the Chicago connection, light industry and other industries should all be pursued. I would encourage residents, government and business to diversify the region's economy based on the region's strengths. In addition, while pollution is to be expected with the amount of industry in the region, these industries must be brought into compliance with federal environmental standards. I envision educating the residents of Northwest Indiana through the schools, chamber of commerce meetings, city council meetings and local civic associations about their right to a cleaner environment. A strong civil society, fully aware and in negotiation with industry and government would alter Northwest Indiana. Then, active

discourse between the many interested parties in Northwest Indiana can achieve their individual goals for a cleaner economy and environment.

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