

**Urban Sprawl: A Case Study on the
Mitigation of Sprawl in Omaha, NE and
Portland, OR**

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An Introduction to Sprawl.

Sprawl—everyday we wander through our meticulously designed network of highways and we watch the landscape evolve from commercial and city buildings to midtown housing developments to outer suburbia where the city continues to slowly creep out into our precious farmland. As the years go by, it takes longer and longer to traverse this sprawl of highway. This is not due to congestion (though it very well might be, but for our purposes let us assume that it is not) or lower speed limits (would suburbanites ever allow this?) but due to the ever growing, ever sprawling city limits. The city continues to swallow up farmland in order to grow, but this growth is not always economic or efficient by any means. The growth is an outward growth, a growth of the area that the city has consumed in order to appease the suburbanites who are constantly attempting to escape the evils of the city. Different cities have approached the problem many different ways and have had varying amounts of success. *Why are some cities doing more to manage sprawl than others?* We will begin by highlighting our cities' urban expanse problems with a quick example and then we will look at the context of growth in the last fifty years.

Post World War II has seen substantial growth, especially in our metropolitan areas, and some of this rampant growth has been beneficial to the city but some of it has been haphazard, causing tremendous economic losses not only for the citizens but for the city's coffers as well. With the consumption of more land, we are pushing the outer limits of our city budgets as well as the limits of the services the city is required to provide. The suburbanites are consuming more land for no other reason than the possibility that they might live like princes with their green lawns, swimming pools, and air-conditioned 3,000 square foot home on the edge of the city limits attempting to escape the problems of the city, namely traffic, crime, etc. Among other economic incentives to build on the edges of a city, this has led to the swallowing of smaller towns and municipalities forming the ever growing and monstrous metropolis, and even in some cases an even larger megalopolis. This constant struggle to maintain one's distance from the 'economically crippled and poverty stricken' city center has led suburbanites to continue building with little or no realization of the consequences of irresponsible development. With the abandonment of the city center and the constant pressure to expand the city limits, the city government is finding harder and harder to provide adequate services with nearly the same budget year after year. Consider, for example, a factory close to or within the city center that has provided consistent tax revenue for many years and decides to move or shut down business

completely. If this factory remains abandoned, in most cases they remain abandoned for a long period of time, two things most possibly will occur.

First, the city, while still providing services such as fire and police protection (other services are provided, but we will leave it at fire and police protection for simplicity's sake), has lost the tax revenue that the city had counted on for years. The services still continue, but not without stretching the city's budget. From the opposing side they may claim that the city has lost one source of tax revenue, but say that two new companies build factories just south of town and are covering the revenue lost from the abandoned factory. Growth has occurred but not efficiently. Let me explain. The abandoned factory is still consuming services, not only that but the services must now be expanded to include the new factories. The city may gain revenue, but it is not recovering the dead weight loss incurred in providing services to the abandoned factory. An efficient way to prevent this dead-weight loss is to provide incentives to one of the companies so that they might develop the factory and only take a loss on tax revenue for a few years (ten or twenty years is a pretty short time for a city). This leads us to our second consequence of haphazard development.

What happens to the people that were employed by the company and the surrounding areas? Of course, I assume that those who decide to live within or close to the city center live within a reasonable distance from work, but

regardless the effect is roughly the same. Those that lived close to the abandoned factory will seek employment with one of the two new companies located just on the south border of the city limits. These same people will also move closer to where they work, spurring more development along the edges of the city and abandoning the homes they lived in before. This constitutes the same problem as before, only the city has to allocate even more services (wider roads, schools, parks, playgrounds, baseball fields as well as police and fire protection) to the new area while still providing services to the newly abandoned neighborhoods. Some have argued that this is why are education system is so inefficient and why the school's budget can only sustain a certain number of schools while building new ones for the newer more southern development. Not only does the city lose tax revenue, but also the citizens lose out because the services are now becoming inefficient and diluted. Schools are crowded and it takes longer for police and/or fire protection to respond to emergency calls. This is merely an illustration, but it gives us a good look at the problem that is occurring in our cities. Urban sprawl may not be all bad, but the way cities and city planners are approaching the problem is inefficient as well as lacking a good understanding of how to address the needs of a city and how to maximize a neighborhoods profitability and potential.

The Context of Growth.

The dramatic growth over the last fifty years is in no doubt due to the fact that the

population in the United States has grown prolifically since the end of World War II. Yet, the seeds of urban growth were planted well before the war ended. We will begin with an examination of the federal promotion of urban development and conclude with an analysis of state and metropolitan policies that affect urban development.

Federal Promotion of Urban Development

The federal-level activity has been the easiest to identify because it is law that everyone in the United States must abide by. My argument here is not that the United States government has caused the haphazard development that has occurred, but only that it has spurred the constant growth and consumption of land through six different arenas—Low-cost home mortgages, the creation of a secondary mortgage market, pro-homeownership policies, poor urban renewal programs, Federal transportation policy and finally federally funded sewage plant expansion (Rusk 86-95).

Two acts—the National Housing Act of 1934 and the Servicemen’s Readjustment Act of 1944—provided low-interest loans to homeowners that helped to spur growth. The National Housing Act of 1934 created the Federal Housing Administration (FHA) in an effort to stabilize and expand homeownership. The FHA insured low-interest loans made by banks and savings and loans associations to middle-income households. The Servicemen’s Readjustment Act of 1944, also called the “GI

Bill of Rights,” facilitated a massive home buying frenzy for the returning GI’s. This bill provided over 12 million service men and women with education that spurred an increase in income but also provided for the creation of the Veteran’s Administration that provided the servicemen with anything from healthcare to low-interest mortgages that provided homeownership for over 14 million veterans (Rusk 86-87). Both of these facilitated an outward growth from the city center because it was actually more expensive to live near the center in an existing home than it was to either buy a house close to the city limits or build one in the same area.

The secondary mortgage market was officially established in 1938 by a federal statute called the Federal National Mortgage Association (FNMA and more commonly known as “Fannie Mae”). While most of the nation’s largest banks sat in the slow-growing east, and the demand for home loans and mortgages was becoming larger and larger in the south and west where banks were not able to scrap enough money together to meet demand. Fannie Mae, along with later cousins “Freddie Mac” and “Ginnie Mae,” bridged the gap between the two by creating a secondary market. In short, these financial cousins packaged tens of thousands of FHA, VA and conventional mortgages as collateral for bonds sold on Wall Street, which, in effect, gave the companies even more money to loan back to the primary mortgage lenders. This dramatic overflow and

overabundance of cash reserves gave further impetus to urban development. It was not until the early 1990's that the United States government placed regulations on these government-sponsored enterprises (GSEs) requiring them to set aside a certain amount of the funds raised for city-based homebuyers. To conclude, the FHA, secondary mortgage lenders and GSEs all combined to provide about forty times more support for middle-class suburbanites than the government provides for largely city-based, lower-income rental housing (Rusk, 88-89).

Another pro-sprawl role that the federal government has played is its subsidies of homeownership. Since the advent of federal income tax (1913) homeowners have been able to deduct the amount of interest paid on a mortgage from their tax liability, leading to the sixth largest budget expenditure (if it were actually an expenditure) on the federal budget (Rusk, 89). Amazingly enough, no subsidies are granted to those living in apartments or rental housing. Even though those that are renting are more in need of the subsidy, the mortgage interest deduction is seen as politically untouchable. To further stimulate the level of homeownership, the Internal Revenue Act Amendments of 1951 created a rollover requirement for home sales. If you sold your house, you would not be subject to capital gains tax as long as you purchased a house of equal or greater value. This spurs homeowners not only to step up value in their homes, but also makes it

more appealing to build out in suburbia. These two major tax breaks (or subsidies) have stimulated and have had a dramatic effect on how growth has taken place.

Title I of the Housing Act of 1949 created the federal urban renewal program. This program set out to redevelop city center and looked to create a commercial center within the city center to draw suburban shoppers and city residents. This was thought to logically 'draw' the suburbanites back into the city with gravitation towards the newly redesigned city center. This project failed miserably. Black ghettos were removed to make room for this urban renewal, and high-rise public housing was installed to draw the middle-class families back into the city (Rusk, 90-91). This was a complete failure as well. The blacks were inanelly displaced and occupied the new high-rise public housing (like Cabrini-Green in Chicago). But, like Cabrini-Green, most of this new public housing became poverty and crime filled, driving the middle-class family further out into the suburbs.

With the National Interstate and Defense Highway System Act of 1956, we can no doubt expect that this inevitably led to the massive stretches of highway that encompass our metropolitan areas as well as connect them. This act was in response to the threat of nuclear attack, allowing easier evacuation of civilians and more effective mobilization of military resources. This massive expanse of concrete allowed suburbanites the convenience of

suburban-style living and the feasibility of the city-based job. By launching the largest peacetime expenditure program ever, President Eisenhower also opened the floodgates of urbanization. Eisenhower set the table for 54,714-miles of highway interstate system, and 22, 134 miles of highways that were within metropolitan areas (Rusk 91). This, in turn, encouraged rapid growth to the metropolitan city limits, further decentralizing the metropolitan centers.

With the rapid advance of the city limits of most metropolitan areas, the city governments were finding it difficult to maintain an efficient and effective sewage waste program. In the Clean Water Act of 1972, the federal government attempted to help clean up the country's polluted streams and lakes. Since 1956, the federal government has provided over \$100 billion in grants to state and local governments for new sewage treatment plants. Yet, only one third of that money has gone to remedy the old problems with pollution. The other two-thirds have gone to provide new capacity to support new suburban growth. Instead of correcting the problems, the local and state governments have only added to the problem by expanding the system. How can we expect a sewage and water treatment plant to work effectively and efficiently if we continue to expand the system without any credence to the problems that are faced within the city limits? In short, we cannot expect that the water treatment plants have the capacity to effectively

harness the water from a twenty-minute downpour. Most cities still must allow sewage and untreated water spill into our rivers and lakes in order to handle that kind of water capacity. This may not be a concern to us when we do it because it only affects those that are downstream. It does concern us a great deal when other municipalities must to the same upstream.

All six areas have contributed to the awesome growth that American suburbs have seen in the past fifty years. While some may not be a direct cause, most of them are indirect in the least. Again I am not pinning the responsibility for the haphazard growth on the legislation of the federal government, I am only providing contextual information so that an understanding of what type of role the federal government has played in urban development may be adequately defined.

State Policy and Their Implications

In his book, *Inside Game/Outside Game*, David Rusk maintains, "...[where] it's at' is state legislatures. State legislatures set the rules for local governments' land use planning power (that is, potential antisprawl controls), zoning powers (potential mixed-income housing mandates), and intergovernmental agreements (potential revenue or tax base-sharing agreements). The next decade's battle [against sprawl] must be fought in the state legislatures" (325). Thus, the only way a city can hope to maintain a tight grip on its borders in with help from its big brother, the state government. Both

the city and state government have been helpless to watch the unfolding events surrounding the federal legislation that promoted so much growth, but blame for irresponsible growth lays in the hands of the city planners and the state planning commissions. Again implicating city planners, Jane Jacobs in her revolutionary book, *The Death and Life of Great American Cities*, states "...So many of the problems need never have arisen...So many of the conflicts would never occur if planners and other supposed experts understood in the least how cities work and respected those workings" (406). So we must now analyze the dynamics of the local system of governing development within the larger context of state regulations.

The state legislatures are the body that gives the 'teeth' to the local regulation. Without some degree of participation by the state, local regulation has a very hard time standing up against the local elite, but merely state regulation alone cannot suffice to control sprawl because the statewide cases of sprawl are generally specific to each metropolitan area within the state. Each has its own problem with sprawl and one approach is not necessarily the best way to solve the problem. State regulation that allows the locality to determine which steps need to be taken can expect better results where state regulation that does not allow the localities to determine what is best for the area can be detrimental and haphazard. That dynamic relationship reflects how effective each metropolitan area is in controlling sprawl.

Omaha, Nebraska

Omaha has experienced the roughly the same phenomena as the rest of the nation's cities in terms of growth. During the period from 1980 to 1990, Douglas county, within which most of Omaha's metropolitan area subsides (Council Bluffs is across the Missouri River), has seen an increase of roughly twenty thousand in the population. The city's growth has resulted in increased employment, educational, cultural, recreational, business and industrial opportunities for everyone. However, these opportunities have also aided in doubling the city's size and, consequently, the size of its service area as well. In this course of suburban development, many parts of the inner city have been partially or wholly abandoned and ignored, resulting in unnecessary waste of land and efficiency. Further, in recent years, new homes have become larger and include many amenities, which have placed the price of new housing beyond the reach of the majority of Omaha's residents. This results in reduced opportunities for low- to moderate-income families in suburban areas. Publicly, the rising cost of government services, along with the need to renew and repair aging facilities in older areas while providing additional services to newly developing areas, have begun to weigh heavily upon the city's limited financial resources. Nebraska is comprised of mainly rural communities, thus its legislature has not looked heavily upon the subject of sprawl because of the large amount of land available.

Portland, Oregon

Portland has faced the same things that have affected growth in all American cities, but it has responded substantially different. Through the effective implementation of regulations and constant monitoring by the regional agencies, mainly the Metropolitan Service District (MSD) along with the Columbian Region Association of Governments (CRAG). These regional agencies, coupled with the implementation of a state land-use policy, have effectively preserved the medium-density neighborhoods and have effectively kept the value of the city center, public and private sectors, increasing. In the 1970s and 1980s, the city undertook several major downtown revitalization efforts. During this same time, Oregon adopted sweeping land use planning laws that preserved farmland and forestland around Portland for resource uses and directed urban development into Portland and its suburbs.

Why Omaha and Portland?

I believe that it is important to look at what factors are feeding the sprawl machine. These factors are relatively evident, but I think there is a need for some research on why broad, sweeping legislation cannot work for every city in the world, or the United States of America. Of course, we know that legislation means different things for different localities; I am more interested in why cities differ in their approaches. It is evident that Portland has been effective in its land-use policy and has tamed the sprawl machine. It is not so evident that Omaha

has tamed it. My main purpose is to determine why Omaha has not adopted the same approach to sprawl as Portland, and determine some type of generalizable relationship between the two.

Omaha, Nebraska and Portland, Oregon both make different choices in how they attempt to mitigate sprawl. Omaha has little or no plan to mitigate sprawl and relies upon city center revitalization efforts to increase property values in the city center. This can be seen in the City of Omaha's recent approval of a new convention center in one of the brown fields close to downtown Omaha. Omaha also continues to sprawl to the west along Dodge Street, the main thoroughfare, spurred by expansion of the street further west.

Portland, Oregon, with the aid of a regional planning commission and state statutes that require comprehensive plans for development and also requires the metropolitan areas to plan for development twenty years into the future. Thus, I propose that although the state and regional planning board may aid in Portland's efforts to mitigate sprawl, that the factors that truly determine whether mitigation of sprawl takes place has to do with the citizenry of the metropolitan area and not the powers that be. The below table gives us an overview of population, some education, and some land area measurements that allow us to look at what exactly we are dealing with in terms of size.

Table 1: Comparison of Statistics for Omaha and Portland 1996.

	Omaha, Nebraska	Portland, Oregon
Population 1996	681,698	2,078,357
Land Area (square km)	6,412	18,009
Persons per square km	106	115
Persons per household	2.61	2.54
Citizens with Bachelor's Degree or more (percentage)	22.5	22.5
Persons below poverty level	10.8	11.7
Unemployment Rate 1996	3.0	4.7
Per capita income 1996 (dollars)	13,916	14,593

Source: Gaguin, Deidre A. & Littman, Mark S., ed. 1998 County and City Extra.

A quick observation of Table 1 allows us to observe that Portland in terms of population is a little over three times larger than Omaha (3.05), but that in terms of land area, where one would assume that the amount of land are equal among the two, it is actually less than three times (2.8). Persons per household is slightly higher in Omaha, which was unexpected because I expected that if the population density is higher in Portland, then it may be the case that more people live together, which this statistic does not seem to show. Rather, it may be the case than since Portland has done such a superb job reclaiming the brownfield areas in the metropolitan areas that more people are living in apartments and less people are living in single family housing. This could be due in large part to the transit system that Portland has created and facilitates more dense residential districts along this mass transit system. The next descriptive variable was the percentage of citizenry below the poverty level. Portland is significantly higher than Omaha, but that might be expected within an area that is considerably

denser in terms of population. In 1996, the unemployment rates were pretty low for both metropolitan areas, but Omaha was significantly lower than Portland. This is probably in large part due to the waning logging industry of the west coast and will continue to be higher than Omaha until the unemployed loggers begin to find new occupations. This may also be a result of the large amount of seasonal workers that have begun to reside in the Portland metropolitan area. Thus, the unemployment statistic is possibly not as accurate as one would want. I did expect to find that Portland had a higher per capita income than Omaha and I believe that this is mainly due to the higher living costs associated with living on the west coast.

Literature Review.

The literature pertaining to urban sprawl is much like the public's loyalty to environmentalism—about three miles wide, but only one inch thick. Several areas have been covered extensively and many great books have been written that introduce great ideas and

concepts to be taken into account when creating sprawl regulating legislation. The fact is that the literature has taken huge steps towards an understanding of the intricacies of sprawl. Case studies have been done as well as comparative case studies, but they look to describe how they differ and they do not offer any answers for the differences. The question I seek to answer is why they differ. Remember that the phenomena that I am attempting to explain is why some cities do more to control sprawl than others. I am not out to describe necessarily how it happens, but I want to know what political factors enable one city to initiate effective land-use management and use it to control inefficient sprawl and why another city chooses an alternative to that model and fail to control inefficient sprawl. I have found it useful to categorize the literature into two different arenas—the normative and the positive. Obviously the normative literature is going to address what ought to be done and why, and the positive literature is going to address how it is done and how it can be changed. I will begin with the normative literature because it plays such a huge role in initiating the positive literature.

Normative Literature

This literature focuses mainly on how we should be developing and most of the development described here battles sprawl in one way or another. In Jane Jacobs' (1961) book, *The Death and Life of Great American Cities*, we are taken through a tour of how cities

should use the resources allotted to them and how they fail to address these issues. She essentially argues that because city planners are not making use out of things as simple as city blocks, the city planners are taking away from the pleasure of living in a city. If a city planner does not take into account factors for diversity, efficiency, and growth he/she slates the city for its own "death". Thus, cities that do more to manage sprawl effectively, according to Jacobs, are taking into account all of these "neighborhood" factors and using them advantageously. This book helps to set the background and context for my question.

The next major normative work is *Inside Game/Outside Game*, written by David Rusk (1999). Rusk demonstrates how race and sprawl affect the way our cities' interiors look and how we need to change our attitudes about race in order to effectively and efficiently redevelop our city centers. Rusk also outlines how social mobilization can effectively change how development happens especially in the cultural centers that tend to concentrate around city centers. Thus, when there is a large minority population that concentrates around the city center, without sufficient social mobilization, cities will continue to develop well outside that center if not altogether cause a massive migration to the suburbs. Rusk also helps to set the context of my question and also gives me insight on the social factors influencing urban development.

Matthew Wansborough and Andrea Mageean (2000) claim that cultural regeneration is a factor of urban development in their article “The Role of Urban Design in Cultural Regeneration” out of the *Journal of Urban Design*. They argue that in order to effectively promote cultural regeneration in any urban area such things as mixed-use developments, environmental improvement schemes, public art, public transportation and things as inconsequential as sidewalks must be adequately and efficiently developed or cultural regeneration will not occur in the needed areas. Like the two previous works, this also adds to the context of the question I propose to answer in this paper.

In *Suburban Nation: The Rise of Sprawl and Decline of the American Dream* the authors (Andres Duany, Elizabeth Plater-Zyberk and Jeff Speck) attempt to evaluate what has been happening to our cities as a result of inefficient sprawl. They claim that suburban sprawl contributes to the decline of civic life and civility. Sprawl is self-destructive because it promotes light-density zones that waste valuable city services and raise little tax base. The authors do not claim the aesthetic value of suburban sprawl to be not of any value whatsoever, but do claim that sprawl does not serve society nor help to preserve the environment. Duany, Plater-Zyberk and Speck spell out a six-step prescription that can help control sprawl. First, the policy makers and developers must admit that growth and sprawl

will occur, but also realize that this growth cannot continue to be ignored. Second, the authors propose a permanent countryside reserve that preserves the aesthetic beauty of the countryside, thereby limiting the spread of sprawl into our most valued landscapes. Thirdly, the authors also propose a temporary countryside reserve that is set aside for future growth. Both countryside reserves serve to stop the problem of suburbanization from the outside by preserving countryside. Fourth, the authors stress the importance of establishing set corridors for the creation of the neighborhoods that serve so well the needs of the average citizen. Fifth, the authors suggest that cities establish those sections that are in high need of development, instead of focus on how to expand city limits and the tax base. Efficient use of the inner areas in need of development will not only provide a reliable tax base, but also a more efficient use of public services that are so easily watered down. Finally, the authors establish a need to create a proactive permit process for development that follows the neighborhood model. This would promote more efficient zoning as well as take advantage of all services, tax revenue, etc. Jeff Miner (2000) also supports the previous view in his article “Impacts of Sprawl.” He argues that while people will not be willing to give up the independence given to them by cars, that a policy towards efficient sprawl control will over the years, wean them from their cars if certain

measures are taken to provide either mixed-use zones or ample public transportation. Most of the normative literature is based on little empirical evidence and generally based upon practical experience in the field and/or observation. The literature addresses many issues that play important roles in the context of my question, but fail in the aspect to provide sufficient evidence for their claims. Their literature is based upon shaping policy not necessarily the academic field.

Positive Literature

The positive literature is valuable for two reasons—it remains anchored in the empirical evidence and it attempts to avoid the role of advocate and look at the factors that play in the development of both policy and sprawl. While it still takes the role of advocate at some point, it does it through establishment of substantial evidence and sufficient examination of current and previous policies intended to control sprawl.

David Imbroscio (1997) in his book, *Restructuring City Politics*, lays out the groundwork for the study of how city politics play a role (or failure to play a role) in development and management of sprawl. He points out three key factors that impede a city's development. First, financial resources determine the time that can be spent developing policy and if certain allocations are looked at, like mainstream development that encourages sprawl, and redirected towards an efficient land-use policy, then the city can hope to maintain a

certain level of grasp on development. The second factor that impedes development is public support. Sprawl is cheaper for the citizen in terms of initial investment, but if citizens looked beyond tomorrow's checkbook balances, then maybe we would not bear such a cost due to watered down services such as police and fire protection, hospitals and education. The third and last impeding factor for development is offsetting ideological biases. With the presence of ideological conflict we can expect that little will be done and if something is done, it will be detrimental. These factors determine how a city will grow and also determine the effectiveness and efficiency of existing policy. This is valuable contextual information because it portrays the relationship between the city and its inhabitants in terms of revenue and social factors.

In *Urban Revitalization*, the editors compiled several works that serve to outline policies and programs that were both implemented and ditched, or continue to serve their communities (Wagner, Joder and Mumphrey 1995). A useful study of Portland and Atlanta appears in this book that will help set guidelines for my case study (Nelson and Milgroom 1995). Regardless, the book takes a look at what impedes revitalization and other things that fall under the auspices of the implementation of revitalization. The editors listed five keys to successful revitalization that were found to be of value. First, strong public leadership plays a key role in if the initiative

ever even gets off the ground. Second, well-focused planning concepts are sometimes not easily attained in a democracy that entails so much compromise like ours. Third, revitalization must have the ability to react to traumatic events. Failures to revitalize must be looked at, but also must be willing to change and reevaluate. Fourth, the authors found existing community characteristics like ideology, low percentages of minorities and other factors to affect how successful revitalization works. Finally, good relations between the levels of government also determine how successful revitalization can be. This work provides some of the framework under which I hope will enable me to evaluate my own case study with certain manipulations, of course.

Paul Lewis (1996) authored *Shaping Suburbia* which addressed the question of why metropolitan cities look like they do and found that a fundamental political logic underlies the pattern of suburban growth and the key to understanding the sprawl that we deal with everyday is to understand the local governments that control it. Lewis does this by showing us a case study of Portland, Oregon and Denver, Colorado. The framework from this book will shape how I approach my question and also allow me the opportunity to pick where he left off, namely by answering not how the cities differ in terms of development, but why they do. The author here only gives us framework for determining if local governments play a significant role in shaping development; he is

determining the relationship between the development and those powers that affect sprawl. My question is how these differences are arrived at in two differing cities, and why they pursue the same goals by two different means. This will definitely give us some insight on how to implement not only development controls across cities that face developmental problems, but may point to how to implement programs that are successful so that all cities can reap the benefits from the programs.

While both the positive and normative literature took some sort of normative stance, the positive took the means necessary in order to observe what has happened and is happening now and make certain conclusions about those observations. Both types of literature are valuable, but neither takes any stab in the direction of my question. I am trying to observe not how cities differ in their approach to managing sprawl, but why they choose the policies that they do. That literature does not currently exist and thus stresses the importance of my research. My research may or may not conclude with something that shatters the world (probably not), but it can help set the groundwork for study in the future.

Hypothesis.

A city is more likely to mitigate sprawl if it has a strong, growing economy, if its citizenry is environmentally aware, if its citizenry is largely composed of Democrats, and if its citizenry are well educated. This hypothesis is empirical, based on concepts and

variables that are measurable. The hypothesis appears to speak directly to the question (specificity) by determining the direction of the relationship between the variables. Politically, my hypothesis points to enabling other cities that suffer from haphazard sprawl to approach a way to begin to control it. The hypothesis is definitely feasible. It is realistic in that whether or not a city mitigates sprawl depends upon the levels of environmental involvement, economic status, party affiliation and education. The hypothesis is also generalizable because it does not restrict itself to any one case, or set of circumstances. It can realistically be applied across the entire population of metropolitan areas.

In my hypothesis I argue that in order for a city to begin to mitigate sprawl, these four independent variables must be present to some degree—environmental awareness, a strong Democratic majority, a strong economy, and higher education. Without these four independent variables we cannot expect that any mitigation will take place. Further, I will claim that the causation between the dependent variable and the four independent variables are not the result of any other phenomena. Essentially, these variables encompass all of the variance of the dependent variable.

In this hypothesis I argue that environmental awareness facilitates the mitigation of sprawl. It does this through citizen involvement and engagement. If a citizen is environmentally aware, then that person feels

like they have a stake in the environment and also attempts to engage the forces behind sprawl. I claim that they simply ‘attempt’ because sometimes there is no forum to address these issues. This environment includes the environment in which they live. One could argue that everyone is environmentally aware, but I would not categorize the average person as ‘aware.’ I would argue, rather, that the average person has an inclination to be aware of the environment in which he/she lives, but does not take an active role in shaping this environment. An environmentally aware person not only values the environment in which he/she lives, but takes an active role in shaping this environment by protesting, attending zoning board meetings, and making a conscious effort to shape how the powers-that-be control sprawl.

Political party affects the mitigation of sprawl because of simple ideological differences associated with the two major parties in the United States of America. Republicans are typically conservative and value less government. On the other hand, Democrats are generally liberal and value expanding the role of government in people’s lives. I am not arguing that Democrats are ‘environmental’ and that Republicans are ‘anti-environmental.’ I might be able to argue that ten or fifteen years ago, but virtually everyone now agrees that the environment is valuable and needs to be protected and yet they cannot agree on how to do this. Democrats argue that government intervention is the answer and the Republicans

claim that the free-market will do the work that government intervention would do that and would also do that with less money and resources. Thus, if city's residents are comprised of a majority of Democrats, they are more likely to mitigate sprawl.

How does economic status of a city affect its mitigation of sprawl? I argue that sprawl mitigation, much like the environment, is a luxury good. When economic times are good, then the environment is on top of the list. When economic times are bad, then the environmental priorities, that were previously top priorities, become the first priorities to go. The most damaging sprawl is done during times of economic despair, in an effort to prime the local economy. It is easy to see how this can be problematic when a city attempts to mitigate sprawl. A city's determination to stop sprawl can easily dissolve once things are not going well economically.

The education level of a city determines how well its citizenry can understand the damage done by haphazard sprawl and whether or not they will take action. The more educated one has, the more likely one is to be aware of problems that exist and take action. If one has no formal education, then there is less chance that one can understand the situation, attempt to redress the situation, and less chance one has to succeed in mitigating sprawl. People with formal education are aware of what is going on; they have access to the resources that enable them to engage the forces behind the sprawl; and

they simply are deemed more environmental because they have the resources available that enable them to active environmentally aware and active.

I argue that this hypothesis makes sense because politically, no politician will attempt to mitigate sprawl without some pressure from his/her constituency. The people that donate money to the politicians in the local arena tend to be the business people who are interested in keeping the red tape short when it comes to land use. This assumes that the mitigation of sprawl is detrimental to business. I argue that this assumption follows because sprawl tends to be caused by irresponsible developers out to make a quick buck. Developers have to break through enough red tape with zoning laws and permits. Thus, it is in the interest of these developers to keep sprawl mitigation at a minimum.

Accordingly, I argue that in order for sprawl mitigation to take place, the economic status of a city must be strong, the citizens have to have some awareness of the environmental problems that sprawl causes, they must be largely composed of Democrats and they must be well educated. Table 2 lists the expected values for each independent variable.

Methodology.

The four variables that I am interested in measuring are environmental awareness, the city's economy, party affiliation, and level of education. The first independent variable I looked at was environmental awareness. I looked at factors like Sierra Club and existing

Table 2. Expected Values for Analysis of Omaha, Ne and Portland, OR.

CITY	ENVIRONMENTAL AWARENESS	ECONOMIC STATUS	PARTY AFFILIATION	EDUCATION
Omaha, Nebraska	Low	Medium	Republican	Medium
Portland, Oregon	High	High	Democrat	Medium to high

citizenry at large to determine the level of environmental awareness. I contacted the Omaha and Portland chapters of the Sierra Club for the number of members in each chapter. The second was economic status of the metropolitan area itself. This was a bit difficult to conceptualize but I determined that unemployment rate could serve as a good determinant of economic status as well as the diversification of the area's industries. Thus, I used unemployment data from the *1998 City and County Extra* and also looked at the per capita income levels of both cities to determine if there was in fact a difference between the two and examined the distribution of employment among the industries. The third variable was party identification. I also obtained party affiliation data from the *1998 City and County Extra* for that data. The final independent variable was education and I used the percentage of citizens holding college degrees that lived within the metropolitan area. This data was also obtained from the *1998 City and County Extra*.

In order to demonstrate the covariation between the mitigation of sprawl and the four

independent variables, I will compare Omaha, Nebraska and Portland, Oregon on each level and attempt to determine whether there exists a significant amount of difference to support my hypothesis. Time-order becomes problematic, but there seems to be a logical link that the citizenry within the metropolitan areas had to become educated at some point, become economically viable and strong, identify with the Democratic party, and be environmentally aware before any mitigation of sprawl were to take place. It is difficult to argue that any mitigation of sprawl would take place without the presence of all four of these especially in light of my previous argument in the hypothesis section. Thus, it seems logical that the independent variables preceded the dependent variable and that those independent variables were not caused by some mystery variable.

Analysis.

In my analysis I compared both cities, Omaha and Portland, on each independent variable to determine whether there was any correlation between the presence of the independent variable and that city's mitigation of sprawl. My original hypothesis was that a city is more likely to mitigate sprawl if it has a

strong, growing economy, its citizenry is environmentally aware, its citizenry is largely composed of Democrats, and if its citizenry are well educated. I expected to find that Omaha's economy was relatively weak in comparison to Portland's, its citizenry is not environmentally aware, its citizenry is largely composed of Republicans and its citizenry are not as educated as Portland's.

Economic Status

Portland has a substantial economic advantage over Omaha in that is on the west coast, and, if not obvious by its name, is a vital port on the west coast of Oregon. Omaha has the Missouri River, but no substantial economic gains have ever really formed out of use of the Missouri unless you count the riverboat casinos on the Iowa side of the Missouri. Unemployment rate definitely gives the advantage to Omaha. I expected that if Portland's unemployment was not lower than Omaha's then it would be fairly close, but according to Table 3, Omaha's unemployment rate is substantially lower than Portland's. While this does not necessarily mean that

Omaha has an advantage in terms of economic status, it does not point to the relationship I hoped to prove. My hypothesis pertaining to economic status seems to not be proven here. Thus, it seems that the relationship between economic status and mitigation of sprawl may not be as strong as I hoped. While I would still give Portland the upper hand in terms of economic status because of its diverse industry, I am not confident that economic status is as strong an indicator that a city would mitigate sprawl as the indicators I found in environmental awareness.

Environmental Awareness

I believe that environmental awareness is by far the most important and reliable factor in determining whether or not a metropolitan area will choose to mitigate sprawl or not. In my analysis, I first looked at the citizenry at large and determined that not a whole lot separated the average Omaha citizen from the average Portland citizen. In order to determine environmental awareness I obtained the number of members for the Omaha and Portland chapters of the Sierra Club.

Table 3. Comparison of Economic Variables for Omaha, NE and Portland, OR.

	Unemployment Rate 1996*	Industry Diversity*
Omaha, Nebraska	3.0	Medium
Portland, Oregon	4.7	High

*Unemployment rate was taken from the *1998 City and County Extra*.

*Economic diversity was determined by looking at how evenly employment was distributed among all of the industries within each city with data taken from the *1998 City and County Extra*. While Omaha is very concentrated in services, Portland has a high concentration in the service industry but is more diversified among the manufacturing industry. In sum, there is less reliance on services in Portland, making its economy more diverse and subject to more stability.

Table 4. Environmental Participation for Omaha, NE and Portland, OR.

	Omaha, Nebraska	Portland Oregon
Sierra Club Membership (estimated for 2000)	900	6500
Per capita Sierra Club Membership	757 citizens per member	319 citizens per member

Source: Email correspondence with the Omaha and Portland Chapters of the Sierra Club.

The Sierra Club has been a very dynamic voice for the environment and its participants are fairly easy to track. As demonstrated by Table 4, Portland demonstrates a significant amount of more participation per citizen than the Omaha metropolitan area does. While some may argue that this could be due more to the political standing of the citizenry at large, I argue that it is not necessarily a function of this for two reasons. First, there is a larger stake in the environment of the Portland metropolitan area because of the picturesque mountains that you can see from downtown Portland. It is a rare day when someone awes at the Loess Hills across the Missouri River from downtown Omaha. So there is less to lose environmentally in Omaha than there is in Portland. Second, party affiliation does not necessarily preclude membership in an environmental interest group. Some may argue that it does, but when the environment is a hot issue, and like my earlier argument, there is a stake in the Portland skyline, it is no longer a bipartisan effort. It becomes everyone's interest to preserve the view, Republican and Democrat alike. There is no stake in the skyline of Omaha.

If you were at top of the Woodmen Building, you could probably see the mountains that border the west of Portland. Thus, the less breathtaking the environment around a city center, the less likely someone will join an environmental interest group.

Environmental awareness gives us great insight to why there is something happening in Portland and not in Omaha. In Portland, there is a dynamic movement to use space efficiently, mainly to create an aesthetic panoramic view that is breathtaking. Portland residents realize the value and importance of this; Omaha residents do not have this magnificent view or liberal approach to controlling sprawl, thus they are more likely to continue to expand the city limits across the state of Nebraska.

Party Affiliation

I measured the party affiliation by consulting the *1998 County and City Extra*. As table five indicates, Omaha definitely falls under the auspices of the Republicans and Portland definitively falls under the auspices of the Democrats. How is party ideology linked to environmental participation?

It seems that there is a sense that Democrats tend to be more liberal and

Table 5. Party Affiliation Comparison for Omaha, NE and Portland, OR 1996.

	Omaha, Nebraska	Portland Oregon
Democratic Party (1996 election)	38.0%	50.4%
Republican Party (1996 election)	52.0%	36.8%
Other (1996 election)	10.0%	12.8%

Source: Gaguin, Deidre A. & Littman, Mark S., ed. 1998 County and City Extra.

Republicans tend to be less liberal. I am also assuming that the more liberal a person is, the more likely that person is to participate in actions that are pro-environment. This by no means precludes any Republican from being environmental, but it does assume that a Democrat and Republican would have different approaches to solving the same problem. For instance, the conservative Republicans may not want any governmental oversight of sprawl and would rather allow the free market to work its 'invisible' hand to control sprawl. The liberal Democrats are more likely to create government oversight to control sprawl, thus we might find significance in terms of the metropolitan politics that each party utilizes. And this seems to hold true in the case of Omaha and Portland. Omaha continues to sprawl further and further west as Portland, which has not necessarily stopped all sprawl, has facilitated efficient growth along the boundaries it has set through its process of sprawl mitigation. I am arguing that along with environment participation, a more liberal, more

Democratic metropolitan area will be more successful in mitigating sprawl because it is more likely to involve its citizens in the process. I expected to find that Omaha's citizenry would be comprised of a majority of Republicans and that Portland's citizenry would be comprised of a majority of Democrats. I found both to be true when I compiled my analysis. Omaha's population was largely Republican (52%) and Portland's population was largely Democrat (50.4%).

Education

In terms of the education variable, both metropolitan areas are equal. Both have the same percentage of college graduates (22.5). I expected to see a much larger difference between the two because, as I argued earlier, I believe the more education a person has, the more likely he/she is to be concerned with sprawl. Regardless of what I expected to find, the metropolitan areas are alike in terms of education and they are both major educational hubs for their state. Thus, it is difficult to

Table 6. Educational Variable Comparison for Omaha, NE and Portland, OR.

	Omaha, Nebraska	Portland Oregon
Percentage of Citizens with a Bachelor's Degree	22.5	22.5

Source: Gaguin, Deidre A. & Littman, Mark S., ed. 1998 County and City Extra.

determine whether or not there is any correlation between the number of college graduates and whether or not that metropolitan area attempts to mitigate sprawl.

The educational and economic components of my hypothesis are probably less convincing than the environmental awareness and party affiliation variables. I believe that the overriding variables of both the education and economic variables are the environmental awareness and party affiliation of the metropolitan areas. Thus, my hypothesis was proven in terms of environmental awareness and party affiliation, but was not proven in terms of economic strength and education. Table seven summarizes what I found in my analysis.

Conclusion.

Although my entire hypothesis was not proven with this case study, I was able to determine two variables and concepts that are highly valuable in evaluating cities and their ability to mitigate sprawl. I demonstrated that environmental awareness and party identification were good indicators of whether a city would mitigate sprawl. This means that a city is more likely to mitigate sprawl if it is comprised of a majority of Democrats and has high environmental awareness.

This research allows city and regional leaders to take a look at the composition of their constituency and realistically look at whether or not it is politically feasible to mitigate sprawl.

Table 7. Final Analysis of the Independent Variables for Omaha, NE and Portland, OR.

CITY	ENVIRONMENTAL AWARENESS		ECONOMIC STATUS*		PARTY AFFILIATION		EDUCATION*	
	Expected	Actual	Expected	Actual	Expected	Actual	Expected	Actual
Omaha, Nebraska	Low	Low	Med. To High*	Med*	GOP	GOP	High*	Med*
Portland, Oregon	High	High	High*	High*	Democrat	Democrat	High*	High*

Shaded areas are the variables that are proven in my hypothesis.

*Signifies that my analysis did not prove that these were significant factors in determining whether or not a metropolitan area would attempt to mitigate sprawl.

This will also enable them to possibly initiate movements to increase environmental awareness or ride the wave of awareness another problem has created. While a city's party identification has been proven to be significant in this study, I do not think that it is exclusive in that cities that are mainly Republican in party affiliation are not able to mitigate sprawl. Rather I think that this research aids those cities without Democratic majorities because they know exactly why the citizens would not be behind legislation against sprawl. Sometimes it is best to know exactly what is wrong instead of not knowing at all. I believe that further research would include more cases. I think it would be realistic to take the research into a comparative research design where one would compare several metropolitan areas and measure the four variables that I proposed and tested those for correlation. I believe this would determine whether or not education and economics really play a significant role in the mitigation of sprawl and also strengthen the findings of my research.

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Presentation on theme: "Lecy â™ Urban Policy LECTURE 04 Sprawl. OVERVIEW: GIS Lab on Friday City Case Study â€" Step 1 In the news Causes of Sprawl Lab 03."â€" Presentation transcriptÂ On the same day Foxx spoke in Northern California, President Obama presented a massive six-year, \$478 billion infrastructure program that reinforces the multimodal tenets established in Beyond Traffic. Highway spending would rise 21 percent in the proposal and remain the lion's share of federal funding, but transit spending would rise 65 percent, TIGER funding (for discretionary grants) 135 percent, and passenger railroad money 221 percent, according to an initial Eno Transportation Weekly analysis.massive six-year, \$478 billion infrastructure programEno Transportation Weekly http The urban sprawl is usually looked at in a subjective manner. An area is described as a sprawl area as a status at a specific time, as a result. Looking at the way that urban sprawl is defined we can see that there are certain more. The urban sprawl is usually looked at in a subjective manner. An area is described as a sprawl area as a status at a specific time, as a result. Looking at the way that urban sprawl is defined we can see that there are certain characteristics that come up in several definitions.Â In these cases, remote sensing can provide reliable operational low cost tools for assessing, quantifying and mapping risk areas. Save to Library. Download. Many studies indicate that urban sprawl is the pattern, density, and rate of new urban growth that create the appearance of sprawl. Population dynamics are often cited as a driving force behind urban sprawl. Population increases and the consequences of unplanned urbanization are directly related to recent rowth management practices that seek to influence the way in which built-up land can proliferate.Â Although urban sprawl is a type of urban growth, sprawl is dependent on the way in which development occurs. 2.1. Issues related to urban sprawl.Â Â« Community features and urban sprawl: the case of the Chicago metropolitan region Â», Land Use Policy 18: 221-232, 2001, p. 221. 3.