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A COMPARATIVE STUDY ON THE EFFECTIVENESS OF URBAN GROWTH BOUNDARY PROGRAMS UTILIZED BY THE METROPOLITAN AREAS OF LANSING / EAST LANSING, MICHIGAN AND LINCOLN, NEBRASKA

BY

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ILLUSTRATIONS

Chapter 1: Introduction To The Concept Of Urban Growth Boundaries

1.1 Introduction

A growing number of urban areas across the United States have adopted urban growth boundaries as a measure to manage new development. The boundaries are implemented in an effort to slow the rapidly growing disproportion of human population growth and land utilization. The numerous unnecessary costs of current development patterns have been well documented and can be significantly reduced. Through a comparative case study of the Lansing, Michigan and Lincoln, Nebraska Metropolitan Statistical Areas (MSA's), this paper will examine the issues behind the creation and effectiveness of urban growth boundaries. Resources utilized in the analysis of this topic include a review of scholarly literature on the subject; investigation of relevant planning documents; and informal interviews with planning officials.

Although the basic theory behind an urban growth boundary is fairly simple, in practice, the process of effectively implementing such a program is complicated and time-consuming. There are many barriers to forming a program that will reasonably and effectively meet the goals and objectives of a community and region. A thorough understanding of these challenges allows for critical evaluation of the situation in specific communities.

In an effort to alleviate the many problems that are brought about by current development trends, many local, regional, and state governments have adopted growth-containing strategies. In order to gain a thorough understanding of the reasons behind these policies and the use of urban growth boundaries as a tool to achieve effective

growth management, we must first consider the historical context for their development, the rise of suburbanization and urban sprawl.

1.2 Evolution of American Suburbanization

American suburbs began to form in the late nineteenth century as a residential refuge for the affluent from the city (Fishman 1987, 136). Until this time, cities were typically characterized by very compact form with an overwhelming majority of the population experiencing an urban lifestyle. The suburb originally existed to house the upper class in a place that was away from the congestion and pollution of the city. The commuter rail line was the initial transportation link to the outskirts of the city. However, its user fees facilitated limited accessibility to most classes of people. Servants were the only other portion of American society that resided in the suburbs. Low and middle-class citizens could not afford to regularly travel on the rail line and had no choice but to locate in close proximity to employment that was typically in the center of the city (Fishman 1987, 135). This resulted in a definitive place segregation by class. A compact model of metropolitan growth was developed until the automobile became a part of American culture.

Eventually, the suburb was opened to the middle class as technological advances made transportation more affordable for the masses. Versatile transportation, in the form of the electric streetcar, was highly efficient in many cities by the early 1900's, and continued to serve the economic growth of the urban cores until 1920 (Fishman 1990, 33). Residential communities formed along the streetcar routes.

Commercial businesses also thrived along the streetcar corridors where customers would pick up commodities after a day at work (Muller 1981, 31).

The classic suburb had a positive effect on the viability of central cities because economic activity remained in the center despite the fact that the population moved to the periphery (Fishman 1987, 137). Major employment firms, as well as commercial and cultural districts were essentially excluded from the suburb. The majority of the labor force could only travel short distances to employment, and a relatively inflexible transportation network prevented the establishment of manufacturing on the urban fringe. The city remained the focus of the majority of the American public. Commuting to the central city in order to work, specialty shop, and go to the theatre continued to strengthen the city until after World War II. This tide began to change after the war, when automobiles became affordable to the middle class (Johnson 1974, 6).

The availability of the automobile as a private mode of transportation has been a key element in the tremendous growth of the suburbs. Between 1920 and 1945, the United States saw a great increase in automobile ownership, as well as suburban development (Jackson 1985, 175). Innovations in production technology presented the automobile as a feasible investment to the middle class citizen. This growth was also facilitated by the rapid construction of a metropolitan highway network (Muller 1981, 41).

As the common worker became more mobile, the manufacturing industry also discovered that relocation to the urban fringe could be made profitable. Industrial and manufacturing movement to the urban fringe began to occur in the 1950's, as utilities became readily available. Relocating outside of the city core was very profitable to industry and commerce due to the availability and low cost of land. Massive subsidies

that were offered by the federal government also encouraged business and industry to relocate.

The Federal Aid Highway Act was signed in 1956 and initiated one of the greatest construction projects of all time (Muller 1981, 52). A trust was created that guided the construction of more then 42,000 miles of roadway. This act perpetuated the Freeway Era, a heightened level of public mobility. A dramatic shift away from the use of public transportation was one consequence. The automobile as an economical and versatile mode of transportation continued to grow within the nation.

Continued expansion of the American suburban landscape has not been significantly delayed. Mass housing construction was an element of the post World War II period in America and it principally was located in the suburbs (Muller 1981, 54). Many of the growing suburban communities began to incorporate all of the functions that the central cities would traditionally serve (Muller 1981, 55). As a result, the continued growth of suburbia has caused the economic decline of the central cities.

1.3 The Costs of Urban Sprawl

The decentralization of the United States has not come without significant costs. The exploitation of national and global natural resources is an outcome of suburban sprawl. The conversion of land into urban uses in metropolitan areas has grown at a rate far higher than population. From 1970 to 1990 the population of Chicago grew by only four percent while the amount of developed land increased by 46 percent (Geddes 1997, 40). This continual over-utilization of land has led to the destruction of numerous natural habitats. A high rate of energy consumption has been perpetuated through

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decentralization. Lengthy commuting distances, as well as detached dwelling units have caused an increase in energy usage (Jackson 1985, 299). The dependence on the automobile in America has significantly depleted a nonrenewable energy source.

The financial impact of sprawl has been great also, as infrastructure and services had to be extended to sustain areas that were not immediately adjacent to the city. Kevin Kasowski (1993, 6) has estimated that in New Jersey, each newly constructed house has cost between $12,000 and $15,000 more then it would have if development patterns had been more compact then sprawling over the past 12 years. In effect, the homebuyers end up bearing the financial burden of scattered development.

Increased taxes have been another way that Americans have financed suburban sprawl. Providing service to remote areas has increased governmental spending which is carried over into increased tax rates (Thomas 1991, 1).

The relocation of many elements of American society has also proven to be detrimental to metropolitan centers. The central city is no longer the concentration of employment, business, or cultural activity that it once was. It is safe to say that many central cities will not recover from suburbanization as Americans have become accustomed to a suburban lifestyle (Muller 1981, 181).

A clear and concise definition of urban sprawl is found in a 1991 report by the Southwest Michigan Council of Governments (Easley 1992, 1):

> Urban sprawl is a land-use pattern characterized by low-density and/or uneven physical development occurring at the fringe of the urbanized area, as well as disinvestments and abandonment of older urbanized areas. Sprawl is the regional result of many local land-use decisions made by individuals, businesses, and communities. Those decisions are usually consistent with logical land-use plans and zoning ordinances as well as economic realities.

1.4 The Urban Growth Boundary Defined

The urban growth boundary as a planning tool is not a new concept, although it has yet to achieve universal acceptance in the United States as a desirable way to limit sprawl. Limiting growth around a city can be traced back to 1580 when Queen Elizabeth I prohibited the construction of buildings within three miles of London's city gates. This was done to provide for the preservation of agricultural resources close to the city and to prevent the spread of disease (Easley 1992, 1). If it was implemented today, the creation of this greenbelt might not effectively limit current urban sprawl, but it demonstrates an early initiative to control growth and preserve valuable resources. In the United States the boundary concept was first implemented in Lexington, Kentucky, in the late 1950's. Urban development has been kept fairly compact within the urban area since the boundary was drawn (Easley 1992, 16).

Providing a standard definition of an urban growth boundary is not an easy task due to the nature of the concept. Urban growth boundaries are individually created by a city, regional legislative body, or state and vary greatly in terms of specific provisions. Consequently, there are many different varieties of urban growth boundaries that incorporate a wide range of guidelines and objectives. Growth boundaries have also received many different titles due to this, including; urban limit lines, urban/rural limits, development policy areas, urban service boundaries, and designated growth lines (Porter 1997, 61).

Generally, an urban growth boundary refers to a line on a map that is drawn to distinguish an area that is reserved for urban growth from surrounding rural lands (Sayer 1997, 1). The urban growth area lies inside of this boundary and is slated for a

time-managed development process. Boundaries are typically created with a 20-year time frame. This allows sufficient land area for long-range planning and stability in investment expectations. In principal, for areas that lie outside of the boundary, development is to be restricted or limited to agricultural uses. The boundary is a valuable growth management tool that represents a coordinated interjurisdictional effort to determine where development can, and very often cannot, go.

Development outside of the urban growth boundary is frequently limited by the governing body through a variety of legislative tools, which discourage uncontrolled growth (Friday 1998, 33). Lands can be zoned exclusively for agricultural use so as to prevent any type of urban development. Subdivision regulations can also thwart scattered development beyond the boundary through strict standards. Rural lands can be preserved permanently under a transfer and/or purchase of development rights program. By preventing the expansion and extension of community facilities urban development can also be limited within the boundary.

Land access is also an important factor that is essential to new development. Highway exits can be limited in rural areas to discourage sprawl. Jurisdictions may also assign impact fees and designate special taxing districts to place the burdens of scattered development, which may still occur inside of the urban service area, upon those who desire it.

A specific and widely used form of an urban growth boundary is the urban service boundary, which will be described here, because it is employed in the case study. An urban service boundary does not restrict development outside of the urban service area boundaries, however the local jurisdiction makes it clear that they will not

offer services in this area (Davidson 1998, 5). This strategy is formed on the premise that a majority of development will depend upon the provision of public services. By controlling the location, extent, and timing of these services, a locality can encourage a systematic agenda for growth. This type of boundary program may be seen as more reasonable by residents and met with less scrutiny; this issue will be discussed later.

1.5 Portland, Oregon

In 1973, Oregon adopted the Land Conservation and Development Act in an effort to address many concerns over the loss of farmland, aggressive forestry practices, and urban growth issues (Easley 1992, 17). This statewide initiative created a regional perspective for the purposes of controlling urban sprawl and protecting agriculture as well as forested lands, two of the state's leading industries. Every jurisdiction was required to develop and adopt an urban growth boundary.

The largest metropolitan area in Oregon, including the city of Portland, adopted an urban growth boundary program in the late 1970's. Portland's boundary program encompasses numerous cities as well as unincorporated areas, including portions of three adjacent counties. The following map (Figure 1) illustrates Portland's urban growth Boundary.

Figure 1
Portland Urban Growth Boundary

Much of the boundary management for the Portland area is administered by the

Nation's only elected regional government, the Metropolitan Services District (METRO).

Created in 1979, METRO administers Portland's Regional urban growth boundary

program. This regional organization has some control over zoning regulations,

approves the extension of public facilities, and provides guidelines for adjusting the

boundary line. As a result of this regional approach, inefficient sprawl outside of the Portland metropolitan area has been drastically reduced.

1.6 Thurston County, Washington

A well-coordinated, localized approach to growth management can be found in Thurston County, Washington. By the 1970's, it became clear that most development was taking place outside of the municipalities in Thurston County. The jurisdictions of Lacey, Olympia, and Tumwater had no clear plan for land use, annexations, and the extension of public services. In the 1980's a County regional planning agency developed an agreement among the County and its three largest municipalities to establish an urban service boundary.

The Thurston Regional Planning Council evaluated results of this initiative in 1986 and found that sixty percent of new housing was being built in unincorporated areas. Development was below desired densities within the boundary, perpetuating a sprawl pattern. The boundary program was quickly revised and in 1988 a two-tiered boundary was enacted that implemented short and long-term growth areas. The short-term service area provides for growth over a ten-year period, where the long-term area looks for development from 11 to 25 years in the future. The extension of utilities was also staged to gradually expand from the urban core.

In 1990, the State of Washington adopted its Growth Management Act, which required all fast-growing counties and cities in the state to bring zoning into conformance with comprehensive plans. This requirement essentially forces communities to look more closely at policies and programs that are a part of the master

plan. Thurston County, in effect, had a tremendous head start compared to other communities within the state by having a growth boundary program already in place.

Several new trends in this region point to the conclusion that the program has had a significant impact on development. Thurston County has supported the boundary program by downzoning land outside the long-term boundary for very low densities. With recent changes in zoning, there have been few requests for subdivision approvals in rural areas. In addition, few utility extensions have gone beyond the short-term growth area, and none beyond the long-term line.
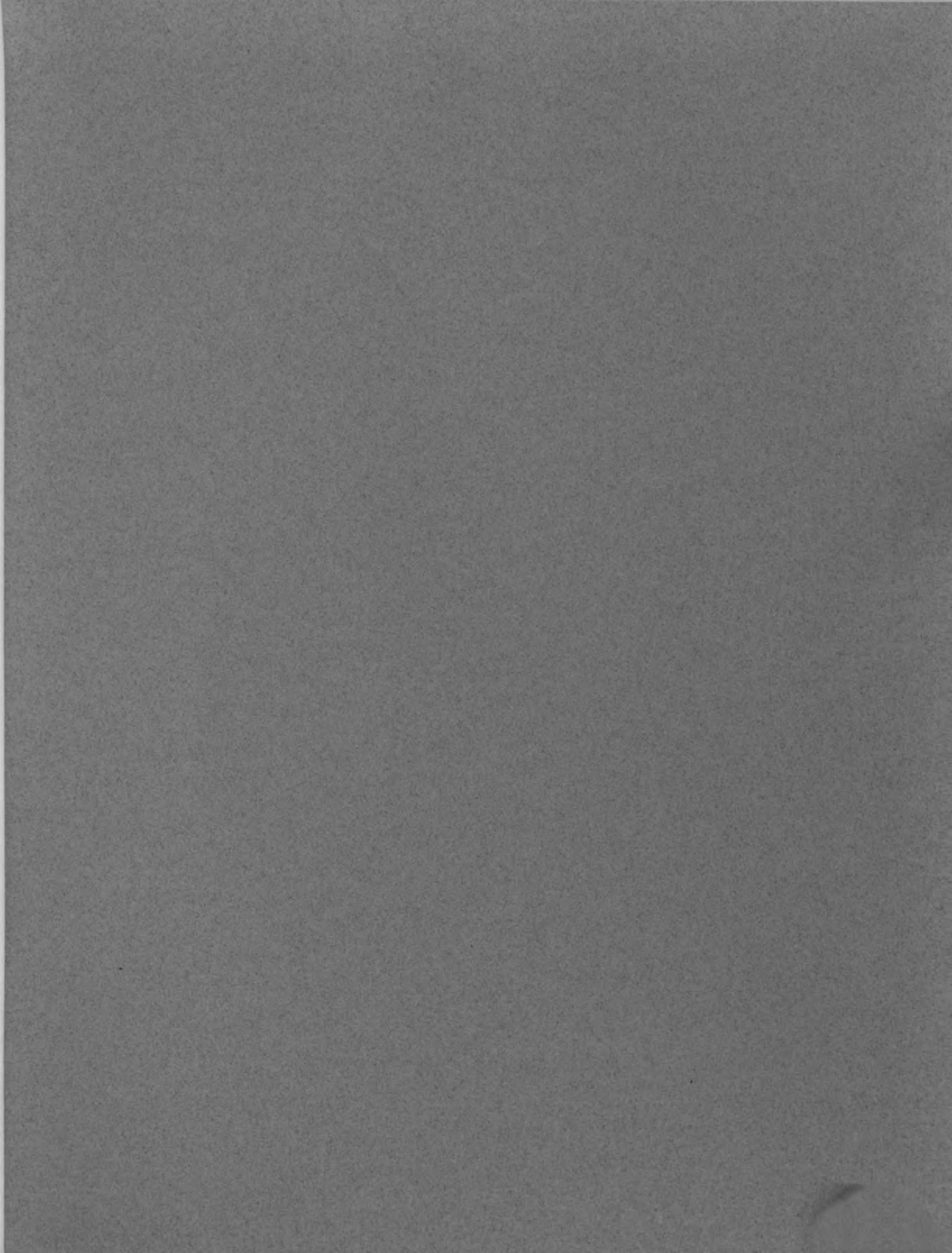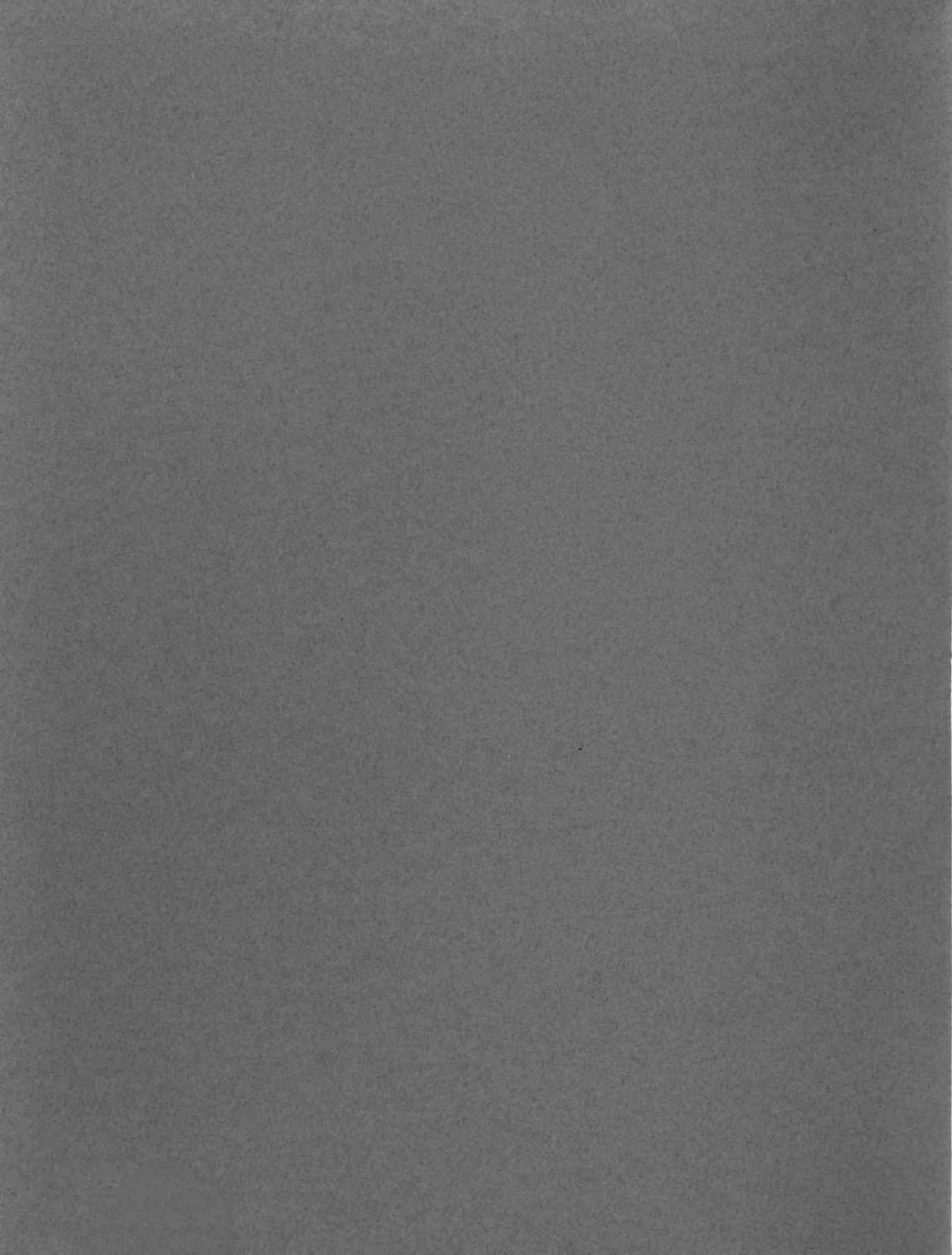
Chapter 2: Evaluation Of Key Aspects Of An Urban Growth Boundary Program

2.1 Introduction

In order to critically evaluate the case study that is presented in this report, it is necessary to thoroughly examine the issues that surround the urban growth boundary concept. When designing an urban growth boundary program, a locality must consider a wide variety of factors. Factors, which have proven to be crucial in implementing an effective urban growth boundary in other areas, must also be considered. Finally, by looking at issues that have proven to be problematic across the nation, a locality can effectively anticipate and likely prevent potential setbacks.

2.2 Creating an Urban Growth Boundary

This section reviews eight steps that are often part of a successful urban growth boundary program (Nortrup 1995, 15). Although there are no two identical growth boundary programs, each of the following concepts should be a strong component of this variety of growth management initiative. These steps are presented here in an orderly fashion; however, there is a significant amount of overlapping and integration during an actual formation process. Also, this list and discussion is not inclusive, additional factors may be entered into the program using this framework. One must keep in mind that it is impossible to create a model urban growth boundary program that is appropriate for all communities; each program must be tailored to the characteristics and needs of the region.

- Step 1 – *Identify issues and problems that the boundary will address*

Urban growth boundaries are implemented to tackle a variety of issues on the urban development front. A locality must first take the initiative to identify the problems and issues that will be dealt with in order to have a base for future evaluation and amendments to the program.

The urban growth boundary concept was conceived to address the direction and timing of growth; therefore, this issue must be given a great deal of attention (Nortrup 1995, 16). Some portions of a community will likely grow at a faster pace then others; an effective boundary must accommodate new development. The shape and size of an urban growth area, if influential, must be consistent with and account for growth patterns. Growth trends must also be considered in relation to public services.

When creating an urban growth boundary program the community must address the fiscal and environmental problems of current development (Nortrup 1995, 16). It is likely that property taxes will increase as the inefficient extension of infrastructure continues. Infrastructure issues may also surface as services are overburdened in some areas, while they are underutilized in others. Leapfrog, as well as sprawl development, has the potential to bypass land that is more appropriate for urban development. As development moves outward it is highly likely that abandoned and deteriorated urban areas will be left behind, creating more hardship for the community.

In addition to a decline in the urban core, another one of the glaring negative effects of sprawl development is the destruction and exploitation of agricultural and natural resources. By containing urban and residential land use, a growth boundary is seen as a useful tool to control sprawl. An urban growth boundary program will also typically deal with environmental degradation and fiscal efficiency as a part of its long-

term agenda. It is clear that managing the growth of a community, through an urban growth program, will ultimately address numerous issues pertaining to its future.

- Step 2 – *Public participation*

Citizen input is vital to the creation of an effective program (Nortrup 1995, 17). It is guaranteed that residents will be able to provide important information and insights that should be included in the boundary program development process. Citizens have a vested right in the planned direction and nature of growth within their community. It is important to involve the community as much as possible, not only to educate about the planning process, but to also gain support for initiatives within the plan. When the residents of a community develop an ownership in a plan for their growth, political support will often follow. Community planners must strive to make decisions that are well supported by their constituency.

Resident input is the essence of community planning and should be given high priority. A growth management program will likely be very ineffective when the citizens do not completely understand and support it. The boundary creation process should involve a great deal of participation from the community. Opportunities to participate in the process of boundary creation should be plentiful and easily accessible as well. A few public hearings may not adequately address all community concerns.

Public participation should be a strong component in every stage of the planning process, continuing through plan review. Many jurisdictions mail out periodic newsletters to keep residents informed of the status of a comprehensive plan that includes a boundary program. The administering of a survey to gain an understanding of community attitudes and concerns can also provide valuable support for plan

direction. There are numerous opportunities that can be explored to involve members of the community in the planning process. This will allow any major problems to be dealt with before the boundary is implemented and will hopefully increase the boundary's success.

- Step 3 – *Developing a vision, goals, and recommendations*

As an integrated part of a comprehensive development plan, an urban growth boundary program must be incorporated into the vision, goals, and recommendations (Nortrup 1995, 17).

First and foremost a vision statement defines the community's preferred future. To choose a direction, a community first must have developed a mental image of a possible and desirable future state. This vision should articulate a feasible, achievable, realistic, and attractive future for the community, which should be a future that is better than that of existing conditions. The process of developing a vision not only helps to define the community's preferences and desires for the future but also helps to empower members of the community. A shared vision builds community between the public and private, the leaders, and the residents. It encourages cooperation and coordination among the stakeholders. It is also easier to establish priorities when community leaders know toward what end they are working. The defined vision must become an integral part of the management and operation of the local governments and the activities in which residents participate. The purpose of this vision statement is to serve as a guide that community leaders and decision makers use as a basis for the decisions made and activities undertaken.

A goal identifies the purpose toward which an endeavor is directed. Goals are broad statements of intended accomplishments, which, if achieved as a whole, would bring the community closer to meeting its overall vision of the future. They do not identify specific activities that will be undertaken. Rather, a set of recommendations that are more specific activities are developed to guide the community toward meeting its goals. For instance, the encouragement of systematic, environmentally responsible growth can be broken down into the goal of the promotion of compact development. Goals will also typically deal with natural resource preservation, service provision, economic viability, and quality of life issues.

A recommendation is a specific activity to help bring a community closer to achieving its goals. Goals help to identify where a community wants to be and toward what they are striving. However, they do not identify specific things that can be done to help the community get there. Recommendations are planning, land use, and general government-related activities that can be pursued, ideally as a whole and in combination with the recommended policies, to help the community meet its goals. Recommendations are often referred to as objectives or implementation measures.

The vision, goals, and recommendations are integrated into the development of the comprehensive plan, which will become the primary document that lays out the structure of the urban growth boundary program.

- Step 4 – *Data collection*

In order for a boundary program to have any chance of success, an accurate, up-to-date source of data must be available (Nortrup 1995, 18). Information is used to assess the current situation of the community and will also form a base for continued

review. A locality must consider a variety of measures to reach a true picture of the community.

Most importantly, a build able land inventory should be conducted for the community and surrounding area. This information, although not easily obtainable, is very important because it produces a snapshot of where the community, as well as the region, can grow. The purpose of this inventory is to understand the ability of land to accommodate growth when taking into consideration geographical constraints and public policies that guide growth. The inventory should consider land supplies associated with other planned growth areas in the region. If the regional land supply involves other counties and municipalities, an interjurisdictional planning effort should be undertaken to provide a comprehensive and coordinated assessment of available land for future growth. The Portland case is a very clear example of a regional planning initiative that incorporates many municipalities into a single growth management effort (Easley 1992, 18).

Additional measures that must be evaluated include, but are not limited to the collection of: demographic data, an existing land use inventory, an assessment of service delivery/capacity, resources, densities, local policies, and economic conditions. By generating a thorough picture of the current conditions of a community and its surrounding region, a growth boundary program can be better designed to be an effective growth management tool.

- Step 5 – *Boundary delineation*

The urban growth boundary cannot be drawn onto the map until data has been collected and objectives for growth have been outlined (Nortrup 1995, 22). A technical

approach toward boundary delineation will prove to be most accurate in assessing the trends and forecasts for future development.

It is important to anticipate population and employment growth that will occur after a boundary is enacted. Some communities include more land then what is projected to ensure that the amount of undeveloped land is not too small to accommodate growth. It is important that the growth area is not so tight that it prevents, what would otherwise be desirable development. Such limits on land supply could result in inflated real estate prices. On the other hand, land supply that is excessively large could lead to random and scattered development within the growth boundary, or sprawl. Portland originally factored in 15.8 percent additional acreage into their boundary to incorporate some flexibility in projected growth (Kelly 1993, 158). The Minneapolis-St. Paul boundary program adds on five years of additional projected acreage to the anticipated 20-year need, essentially a 25 percent buffer (Easley 1992, 26).

Development density, population projections, and length of development agenda have to be accounted for when calculating the amount of area to be contained within the boundary. Protected lands must also be identified and considered when making area calculations.

- Step 6 – *Public education*

A well-informed public will be more likely to accept the provisions of an urban growth boundary program (Nortrup 1995, 23). People of the community who are aware of the issues that being faced as well as the benefits and consequences of growth control initiatives, will be more likely to support planning decisions as well as abide by

regulations. Often ordinances become unpopular and are not effective because of a lack of information and ignorance toward the reasons behind the regulation. A community that is educated on the issues will be more likely to approve and advocate action that is proposed by the planning agenda.

A good degree of public education comes as a result of involving the community in the comprehensive plan development process, but it shouldn't end there. There are many opportunities that local leaders and planners can initiate to inform community members of the planning process that don't necessarily involve a formal part of plan development and adoption. Supplementary education efforts can include, but not be limited to: preparing a regular newsletter informing residents of significant planning news and new initiatives within the community, holding open planning forms for interaction with community members, maintaining an up-to-date and extensive web site that can help to better inform the public, and giving presentations to teach schoolchildren about the importance of comprehensive planning.

- Step 7 – *Interjurisdictional cooperation*

An effective urban growth boundary must allow for some degree of control beyond the single local jurisdiction. An urban growth boundary ideally incorporates a regional focus to planning. A regionally focused program will preferably include all political factions to foster coordination and cooperation of the use of growth boundaries by the jurisdictions within the region. Each affected jurisdiction may have different goals and needs for defining their growth areas, thus creating possible conflicts between localized and regional views on how to best manage growth. Each participating jurisdiction should concentrate on coordination of basic land use policy within the

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region, rather then local desires, and how the policy can be furthered through use of growth boundaries. By focusing on the big picture, we can begin to break down localized views of communities.

Local communities that are formulating a growth boundary program should seek to involve representatives from as many affected jurisdictions as possible, including adjacent counties, nearby municipalities, and relevant State agencies. All of the affected agencies should be involved in each phase of the process in order to produce an effective cooperative effort. This coordination should be carried out under a formal agreement that delineates the major components for planning and adopting the growth boundary. A regional approach is inevitable under this agreement.

In the case of Thurston County, Washington each jurisdiction entered into the growth management effort voluntarily (Easley 1992, 22). This agreement outlines a common approach to growth and the provision of public services and facilities. It also establishes standards to guide each jurisdiction's land use planning decisions in a way that will achieve common growth management goals while leaving the power with each jurisdiction to control its own land use. Minimal extensions of services are allowed beyond the short-term growth areas. A joint land use planning process has also been established to implement the boundary. The jurisdictions jointly agree on zoning, densities, and land uses in both short-term and long-term areas. By entering into a coordinated effort, Thurston County has removed some of the barriers to localized growth management.

- Step 8 – *Regular and structured plan review*

The final step, which is very important but can easily be pushed aside, is the review and revision process (Nortrup 1995, 24). Community trends are not guaranteed to coincide exactly with what has been projected. Adjustments must be made at scheduled intervals to introduce flexibility into the program, as the community's needs and circumstances change. It is very helpful to establish criteria to guide the expansion of the boundary before it is enacted. A reasonable policy is to require a review of growth area capacity and needs on a routine basis (such as every five or six years) and to adjust the boundary in accordance with the adopted guidance policies. Periodic review of the growth boundary can prevent excessive market constraints as development occurs in the growth area and less land remains available. Periodic review of the boundary also avoids the political problems of establishing an inflexible or permanent growth boundary.

An urban growth boundary program can easily become ineffective when review is delayed or postponed. Negative consequences such as inflated real estate prices and leapfrog development are often the result of a growth boundary that does not accommodate new, orderly development. A boundary program can easily become unpopular if it is not managed well to account for a dynamic urban environment. Frequent review and revision will also be useful in assessing the success of the program through historical evaluation.

A Portland study found that after implementing the growth boundary for half of its initial 20 year design period, the growth are still had a land supply adequate to accommodate another 20 years of growth without any expansions (Easley 1992, 18). This was because Portland experienced a period of slow growth shortly after the

boundary was adopted and did not develop as quickly as anticipated. This experience reinforces the need for a periodic review of a growth area's capacity and for benchmarks that trigger and guide changes in size.

2.3 Keys To a Successful Boundary Program

In theory, a well-designed and managed urban growth boundary program will provide a community with a systematic and efficient long-term development agenda. There are certain provisions, which may not be immediately obvious, that have been instrumental in the success of many programs nationwide. It is important for any jurisdiction that is considering adopting an urban growth boundary, or one that does not have an effective program, to insure that these issues are carefully dealt with.

The urban growth boundary should delineate a realistic area to accommodate expected growth. This is accomplished by setting an adequate time frame of expected growth and establishing target densities. An urban growth boundary that limits growth to a very small area will likely encourage development to find other communities with more relaxed restrictions, hurting the economic potential of the bounded community. An overly restrictive boundary can also cause property values to rise because of limited development potential. The boundary can also include an excessive amount of land and allow sprawl to occur within the boundary. The boundary that was set around Hagerstown, Maryland included enough land for more than fifty years of future development and it had no effect on development trends (Porter 1997, 64).

The significance of garnering public support also has to be stressed as a vital aspect to a successful program. By educating the public, a need for this growth

management strategy can be demonstrated and easily defended. With the public as an ally, the sustainability of a boundary can be assured as it is found to be necessary for orderly growth. The integrity of the boundary will also be preserved when it has the influence of community cooperation.

A seemingly elementary aspect of the program, which is often manipulated for political reasons, is to make the boundary clear to everyone. The use of maps that illustrate exactly what land is contained within the boundary, and the land that is located outside of the boundary, is essential. Again, Hagerstown, Maryland provides a good example of what not to do. "The line was so crudely drawn on the map that it covered several hundred feet of territory, making interpretation of its location almost impossible" (Porter 1997, 65). Ambiguously drawn lines present not only questions in boundary effectiveness, but can easily create legal challenges as well.

A crucial step, which cannot be overemphasized, is that an urban growth boundary should become a central focus of the comprehensive development plan. It is also important that the boundary is consistent with all components within the plan. An integrative approach will ensure that the boundary is not brushed aside after creation. Very often, when a growth boundary initiative is undertaken, the program is developed as a part of the comprehensive plan update process. This provision is imperative so that the entire development agenda will respect the integrity of the boundary. It becomes clear that developing a strong program will involve a major revision to a community's comprehensive development plan.

Zoning ordinances, as well as local subdivision regulations, are legal tools that must also support the urban growth boundary program. A zoning ordinance can be

amended to contain agricultural zoning categories that are located outside of the boundary. Mechanisms can also be put into place that will make the boundary program more attractive to landowners. Easements can be allowed that protect very low-intensity development just outside of the boundary. Transfer and purchase of development rights programs can also be included in the zoning ordinance to preserve low intensity land use. Incentives can also be offered to encourage continued development within the boundary, such as a streamlined review process and a variety of density options.

Because growth is strongly encouraged within Portland's boundaries the approvals of developments there are predictable (Easley 1992, 18). This predictability shortens approval time and saves money for developers and homebuyers. Builders within the region are clear about the policies of new development and understand when, where, and which type of development is acceptable. The Portland urban growth boundary has widespread support because it has made growth more orderly and expected.

Public service and infrastructure must also support development within the boundary. In this instance, a jurisdiction should look at the methods and requirements for service extension. An immediate goal is not to extend services beyond the boundary. Allowing unlimited extensions of services make it very difficult to prevent undesired development. Public utilities should also be extended in an orderly fashion to encourage logical and efficient development patterns. Sanitary water and sewer capacity should also be taken into consideration in the designing of a growth management program. By planning for the exhaustion of utilities at the extended

growth boundary line, cost to the community can be reduced in the long run, and a certain amount of political contentiousness may be avoided.

Two additional key provisions, mentioned earlier, have proven to be critical in effective programs deserve mention here. An urban growth boundary will typically take on a regional focus; therefore, interjurisdictional cooperation is imperative for its effectiveness. Another important provision to a sustainable program is regular review and update. It is recommended that boundaries be reviewed and revised if necessary at least every six years (Friday 1998, 33).

2.4 Problematic Issues of an Urban Growth Boundary Program

The creation and implementation of urban growth boundary programs has produced a fair amount of technical and political contentiousness. By looking at the issues that can arise, a locality will be more prepared to protect the reliability of an urban growth boundary program, while defending community interests.

Often the most controversial area of land is located directly adjacent to the boundary line (Porter 1997, 63). A landowner whose property is situated outside of, and close to, the boundary may want to capitalize on selling their land for development, but is prevented from doing this because of the boundary. The potential for a lawsuit is genuine in this case when a taking is claimed. Courts have typically supported the local jurisdiction in these circumstances when a public purpose has been clearly defined (Porter 1997, 67). It is recognized that property values that lie just outside of the boundary may be diminished, but a total taking has not occurred, there is still a significant amount of value that remains.

Another trend that should be monitored closely and can defeat the purpose of a growth management program is the occurrence of sprawl within the boundary. Since sprawl has become an American trademark it is very difficult to prevent (Porter 1997, 67). Many current boundaries discourage scattered development, but still allow sprawl. This creates a major setback to the boundary program. Strong incentives must be adopted to promote higher density and conservation development. This can be fully supported by zoning ordinances and subdivision regulations.

A good example of one loophole in a boundary program is the use of "exception" lands in Oregon to allow development beyond the boundary (Easley 1992, 18). Exception areas are designated as those lands that are not suitable for agriculture or forestry due to supposed unique factors. This exclusion tactic has allowed some sprawl to leak out onto rural landscapes.

The importance of incorporating a regional focus into the program can be seen when the loss of development is experienced. Individual homeowners, as well as business and industry, may be attracted to a neighboring community that does not have as strict regulations on development. This can be detrimental, not only to the boundary program, but also to the local economy and regional environment. Adopting region-wide growth strategies will help to ensure economic health, in addition to improving the sustainability of an area.

It is sometimes argued that an urban growth boundary program will drive up the prices of land by limiting supply and increasing the concentration of demand (Porter 1997, 68). Housing prices will likely rise within an urban growth boundary if the review and revision process is not adequately implemented. However, if the program is

administered to accomplish the goals and objectives of growth management, it should

realistically decrease (or, at a minimum, offset) the costs of housing and will most

definitely decrease environmental degradation.
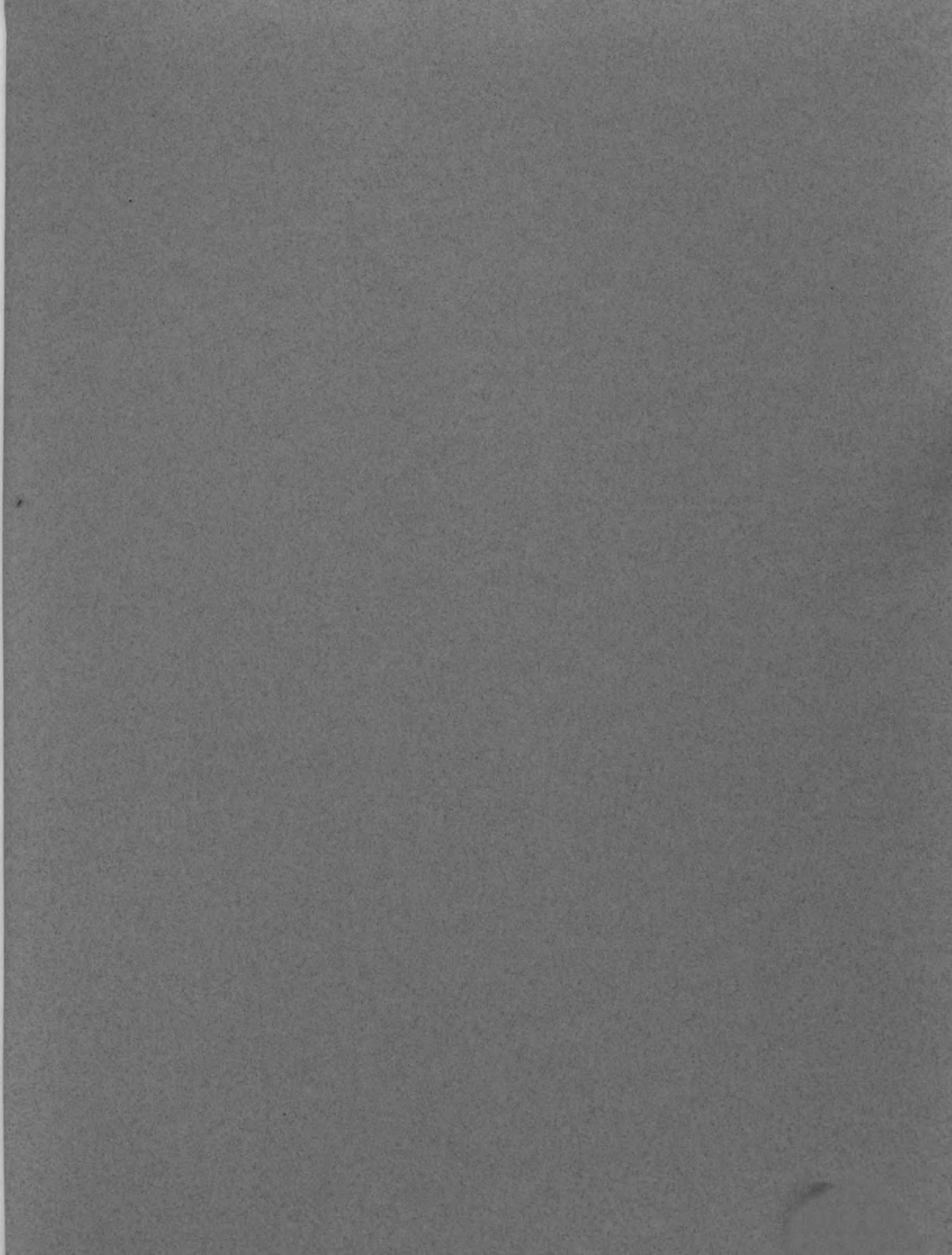
Chapter 3: Study Area Profiles

3.1 Introduction

An important aspect of this comparison study was to locate two communities, utilizing a growth boundary program, that were similar in specific situational and demographic criteria. By studying and evaluating analogous cities, the policies and strategies that work well for an urban growth boundary program will likely become evident for these types of communities. Ineffective initiatives will also surface through this analysis.

The metropolitan areas that have been selected for this study are the Lansing / East Lansing Metropolitan Statistical Area (MSA), located in Michigan and the Lincoln MSA, situated in Nebraska. The many situational and demographic characteristics that these two regions share provide a good basis for comparative study. This portion of the report will present an analysis of

3.2 Lansing / East Lansing, Michigan

Lansing lies in the center of Michigan's Lower Peninsula (Figure 2) and is characterized by a healthy metropolitan region. The Lansing / East Lansing MSA includes not only the cities of Lansing and East Lansing, but also a number of sizeable, unincorporated communities that surround the two cities (Figure 3). The 2000 U.S. Census reveals a population of 447,728 within the entire Lansing / East Lansing MSA.

Figure 2
Michigan Context Map

Legend
State Line
Cities
Metropolitan Statistical Areas
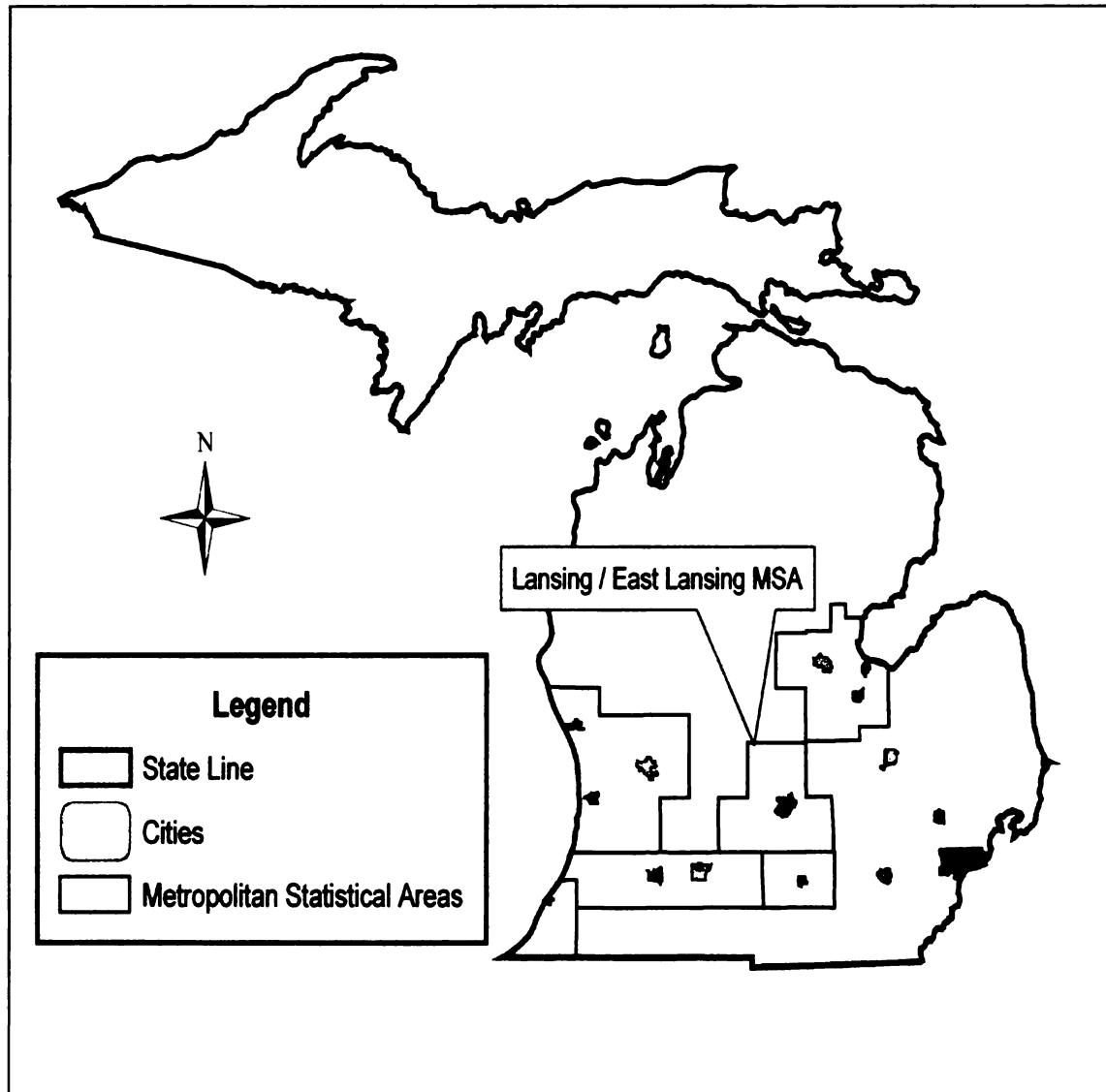
Lansing / East Lansing MSA

The Lansing / East Lansing economy is greatly influenced by three major

employers: the State of Michigan, Michigan State University, and General Motors. As

the state capital, the Lansing / East Lansing MSA plays the role of governmental, as

well as educational center. Michigan State University, one of the largest schools in the

nation, is located in East Lansing, which lies adjacent to the eastern boundary of

Lansing. These two institutions have a major influence on the local demographics,

which can profoundly affect the development agenda. As the headquarters of General

Motors' small car division, Lansing has strong ties to the manufacturing sector of the

economy. A number of other diverse industries, insurance companies, trade

associations, schools, banks, and utility companies round out the list of major

employers.

Figure 3
Lansing / East Lansing MSA Subdivisions

Lebanon	Essex	Greenbush	Duplain
Dallas	Bengal	St. Johns / Bingham	Ovid
Westphalia	Riley	Olive	Victor
Eagle	Watertown	De Witt	Bath

Sunfield	Roxand	Grand Ledge / Oneida	Delta		Meridian	Williamstown	Locke
Vermontville	Chester	Benton / Potterville	Windsor	Delhi	Alaiedon	Wheatfield	Leroy
Kalamo	Carmel	Charlotte / Eaton	Eaton Rapids	Aurelius	Mason / Vevay	Ingham	White Oak
Bellevue	Walton / Olivet	Brookfield	Hamlin	Onondaga	Leslie	Bunker Hill	Stockbridge

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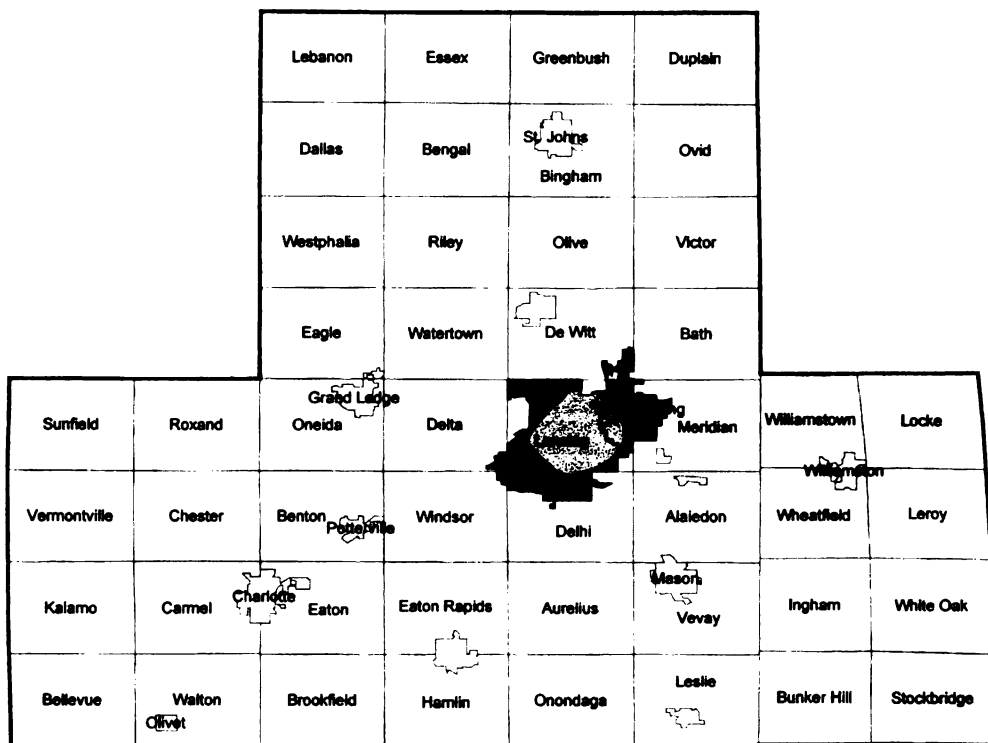
3.3 Lincoln, Nebraska

Founded in 1867, as Nebraska's capital, Lincoln is located approximately 40 miles southwest of Omaha, which is the largest city in the state (Port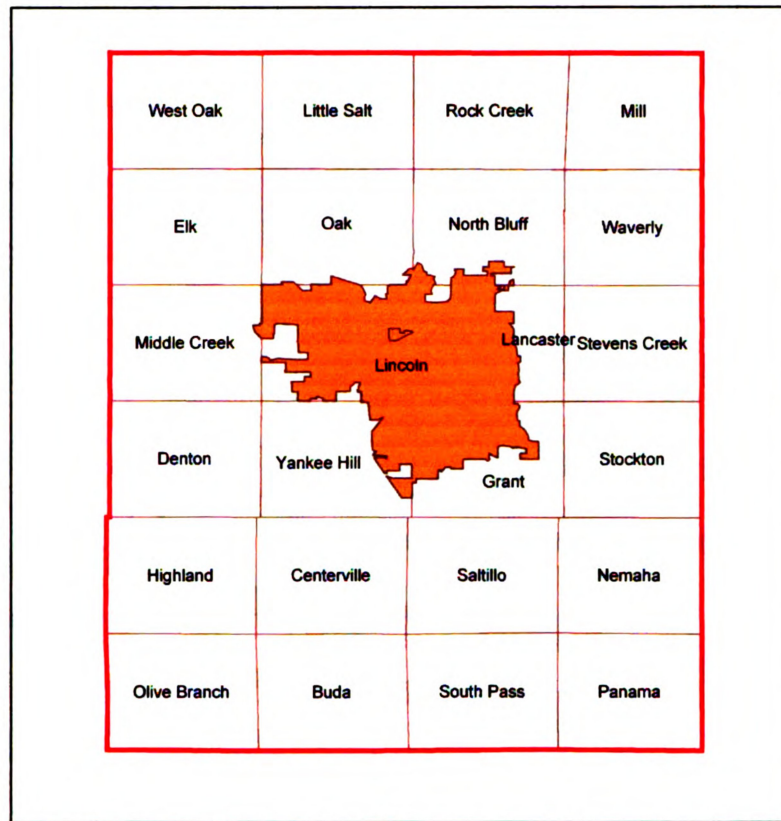er 1996, 55). Lincoln is situated in the center of Lancaster County (Figure 5), which has experienced a steadily growing population since the 1870's. The 2000 U.S. census counted 250,291 people living in the Lincoln MSA.

Figure 4
Nebraska Context Map

Legend

☐ State Line

☐ Cities

☐ Metropolitan Statistical Areas

Lincoln MSA

N
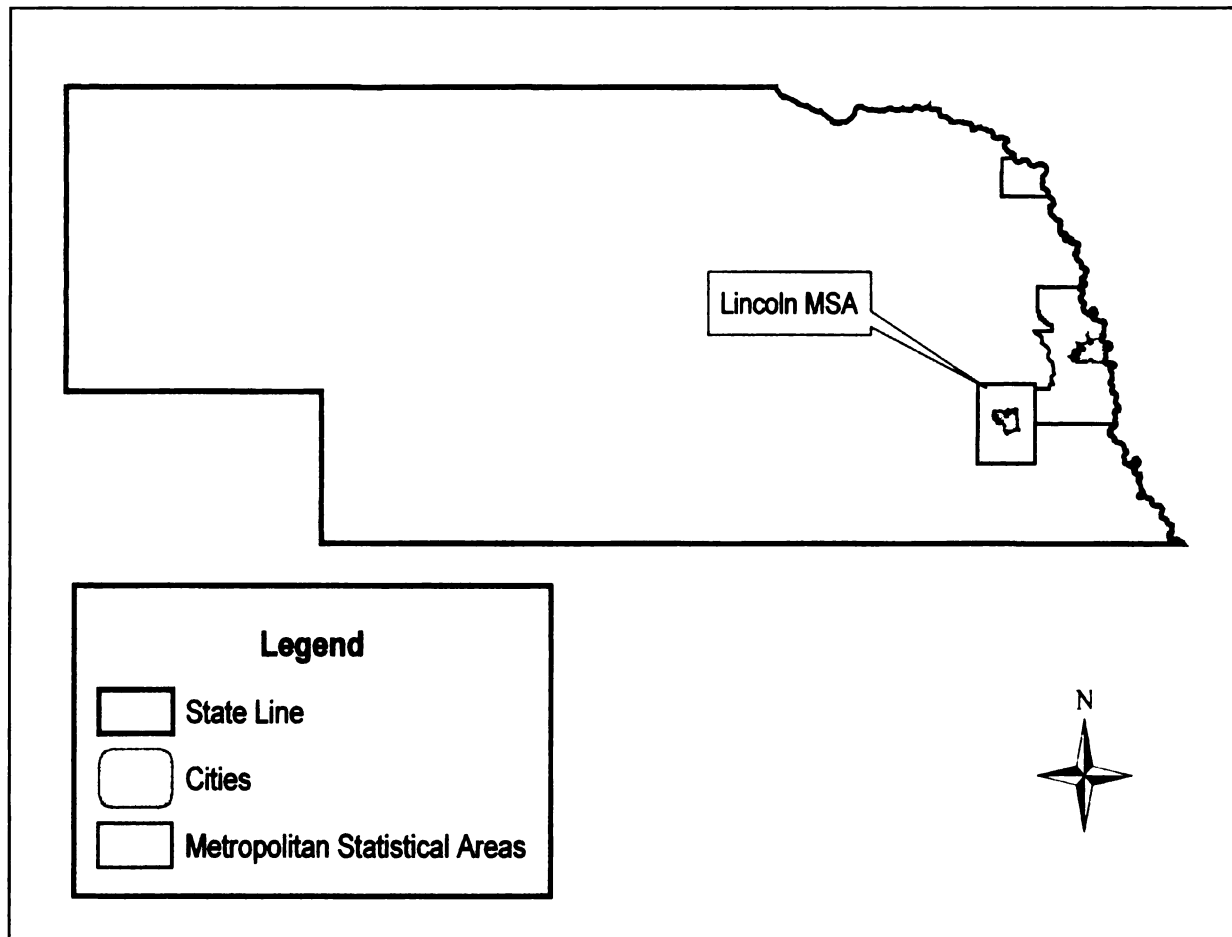
Source: U.S. Census, Census of Population and Housing

Figure 5
Lincoln MSA Subdivisions

West Oak	Little Salt	Rock Creek	Mill
Elk	Oak	North Bluff	Waverly
Middle Creek		Lancaster	Stevens Creek
		Lincoln	
Denton	Yankee Hill	Grant	Stockton
Highland	Centerville	Saltillo	Nemaha
Olive Branch	Buda	South Pass	Panama

Source: U.S. Census, Census of Population and Housing

The research and development industry has made some recent growth in Lincoln because the city is the core of state government and home to the state university. "Although past state laws favored the insurance industry, other services have recently found a niche, including survey research, software development, and printing" (Porter 1996, 55). A strong, stable economy has been established in Lincoln, which has resulted in steady growth and a local high quality of life.

3.4 Situational Comparison

The study areas have identical traits in that both house the respective state capital and are home to a major state university. These two characteristics are very important because it sets the stage for similar growth patterns. With a major portion of the working population geared toward these two industries, there is likely to be common community circumstances and concerns with respect to long-term development.

As the state center for governmental operations, it is reasonable to believe that comparable efforts are put forth to promote a high quality of life within these communities. The duties that are associated with government ensure that certain employment opportunities must exist within these communities. Capital cities also require an infrastructure that is equipped to handle the demands of running a state.
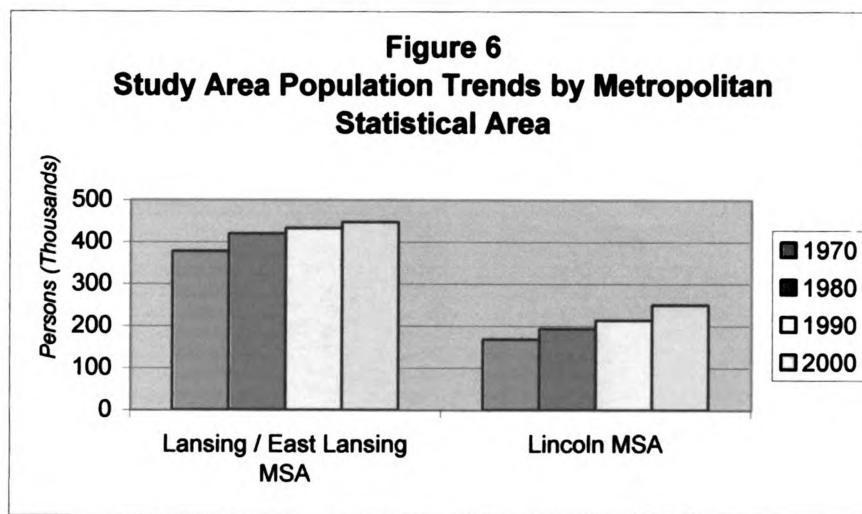
Another interesting element that should not be overlooked is that each community is not the largest in its respective state. In 2000, over 900,000 people called The City of Detroit, Michigan their home and Omaha, Nebraska had a population of just over 390,000. This is an important characteristic because we can see that the capital cities of Lansing and Lincoln do not have an overwhelming portion of their state population. Traveling to the larger cities in an automobile however, can be done in less than two hours from either Lincoln or Lansing. The subject communities have not able to rely on a tourism industry or retain any major permanent entertainment venues. Although government and university employment bring a stable job base to the community, each region also seeks additional diversification in order to maintain a vibrant economic base.

3.5 Demographic Comparison

A thorough analysis of the demographic makeup of the Lincoln MSA and the Lansing / East Lansing MSA will provide a better understanding of the similarities and differences between these areas. This review will also establish growth and development trends. The demographics, to some degree, can reveal resources that a community has to offer as well as constraints that could prevent the effective implementation of many policy initiatives.
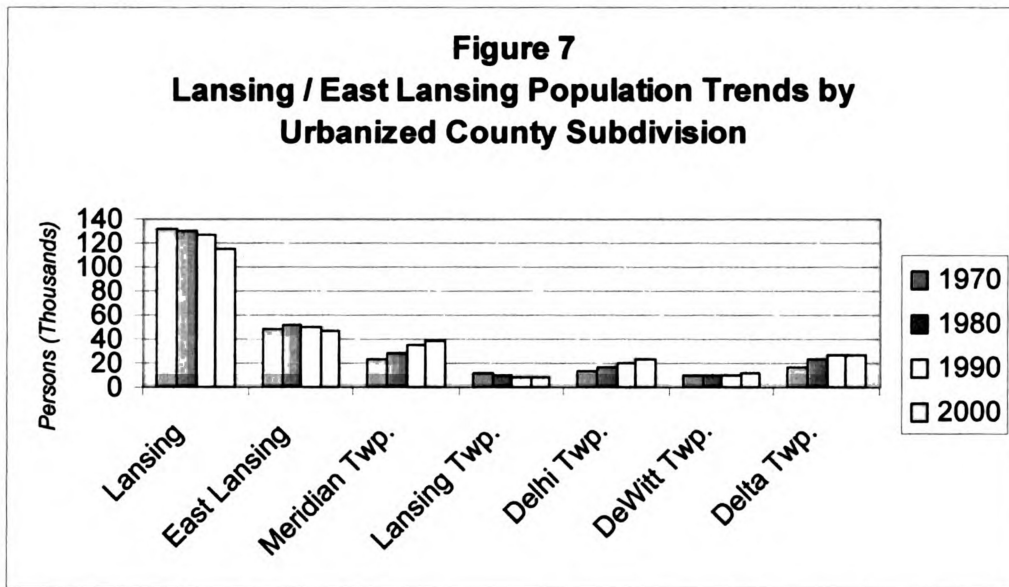
3.3.1 Population and Housing

Both regions have a population base of between 250,000 and 500,000, which puts them on the scale of a mid-size city. It is evident from Figure 6, that both regions have experienced steady population growth since the 1970's. Although overall population growth trends have been fairly consistent in both areas, the Lansing / East Lansing MSA is experiencing a slowing population growth trend where the trend in Lincoln continues to increase.
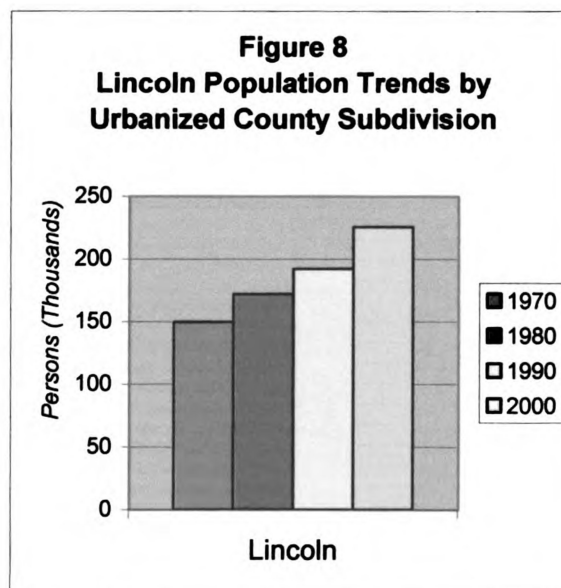
Figure 6
Study Area Population Trends by Metropolitan Statistical Area

Source: U.S. Census, Census of Population and Housing

Figure 7
Lansing / East Lansing Population Trends by
Urbanized County Subdivision

Source: U.S. Census, Census of Population and Housing

Figures 7 and 8 present a breakdown of jurisdictional population trends within each MSA. The Lansing / East Lansing MSA has seven separate urbanized jurisdictions, situated close to the urban core, that have some degree of authority over development.

Figure 8
Lincoln Population Trends by
Urbanized County Subdivision

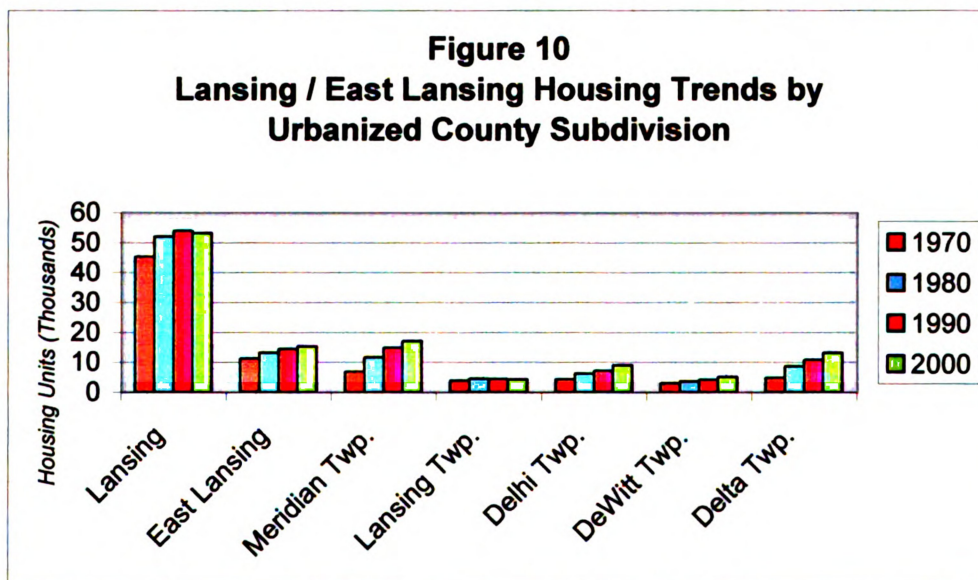Source: U.S. Census, Census of Population and Housing

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Each of these jurisdictions has a governmental body that is able to legislate development policy. It is evident, from the chart (Figure 7), that growth within the Lansing / East Lansing Region is occurring primarily on the periphery. The townships of Meridian, Delhi, De Witt, and Delta are all experiencing growing population trends, while Lansing, East Lansing, and Lansing Township show a stagnant or decreasing population trend. The Lincoln MSA consists of a single jurisdiction that sets growth policies for the entire urbanized area. The City of Lincoln has experienced an increasing trend of population growth since 1970.

The following three graphs take a look at housing trends in much the same manner as the previous figures account for population. An analysis of housing trends looks at the pattern of development from a somewhat different angle. Nationally, the number of persons per household is decreasing, signifying that even though an area may be loosing residents, there is still the possibility of continued residential development. Figure 6 indicates hosing trends for the two study regions when figures 10 and 11 break the data down into urbanized jurisdictions. By separating the data into urbanized jurisdictions, we can take a closer look at the pattern of development surrounding the downtown areas.

Figure 9
**Study Area Housing Trends by Metropolitan Statistical Area**
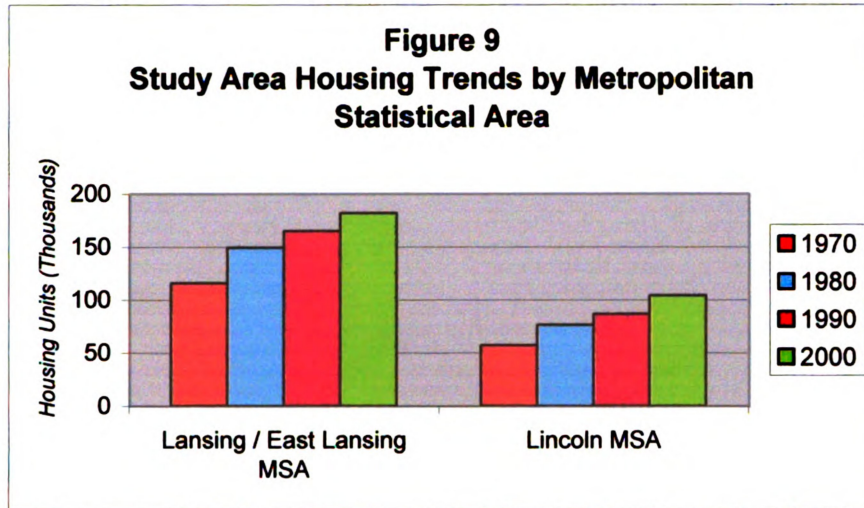
Source: U.S. Census, Census of Population and Housing

Within the Lansing / East Lansing MSA, one can see that, over the past 40 years, there has been some degree of housing increase within every jurisdiction. Despite some population loses, the core areas of the urbanized region experienced residential unit increases, shown in Figure 10. Even though population figures, described earlier, illustrate some decreases, we can see through these charts that there has been continued residential development within these core areas.

Figure 10
Lansing / East Lansing Housing Trends by Urbanized County Subdivision

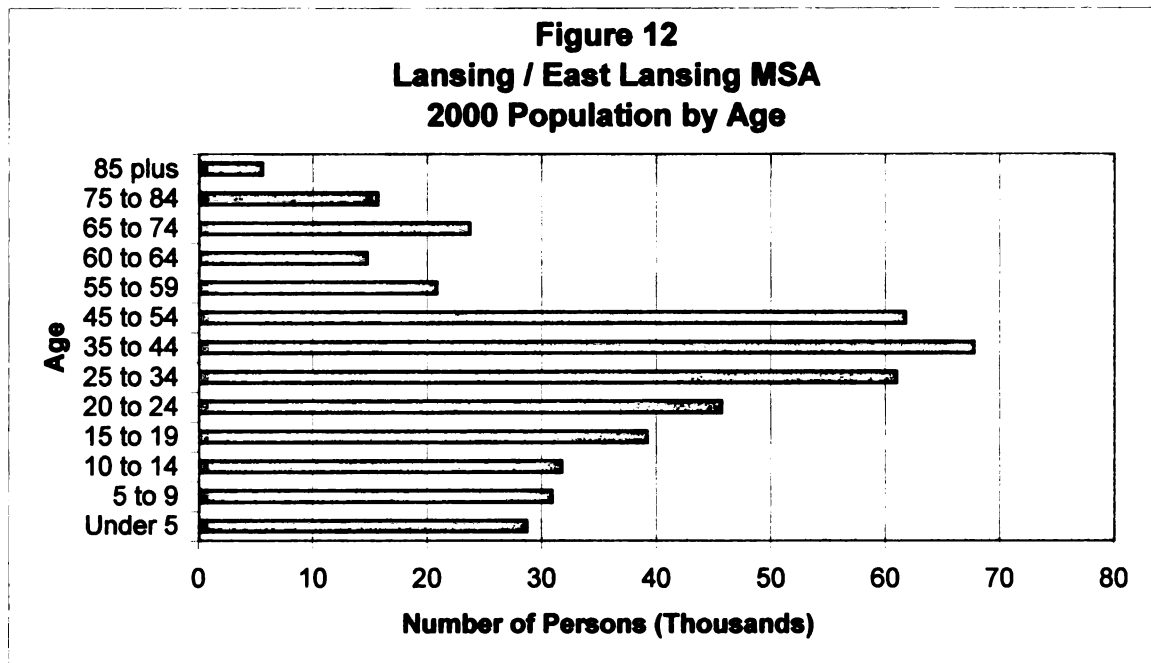Source: U.S. Census, Census of Population and Housing

Figure 11 accounts for the incorporated portion of the Lincoln MSA, which is solely the City of Lincoln. Not unexpectedly, it is demonstrated that the City of Lincoln has a healthy development agenda due to the trend of housing unit growth.

**Figure 11
Lincoln Housing Trends by
Urbanized County Subdivision**

Source: U.S. Census, Census of Population and Housing
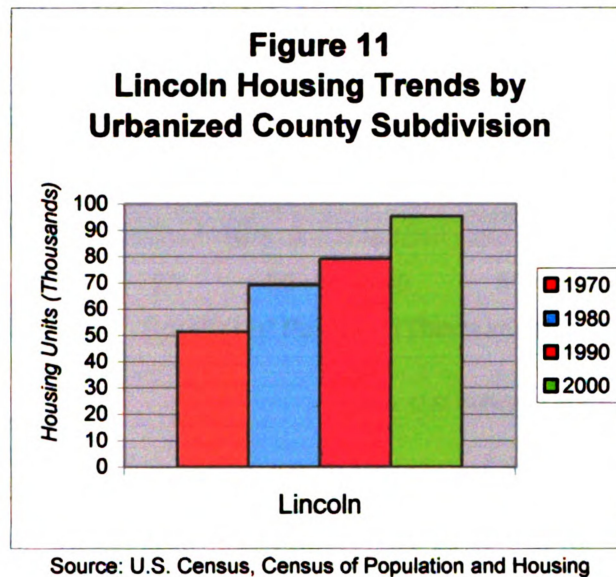
A population and housing analysis of the Lansing / East Lansing MSA and the Lincoln MSA clearly indicates similar generalized trends for development and growth in each region. Focusing on the level of metropolitan growth, we can confidently state that there are many parallel patterns in the realm of growth and development.

3.5.2 Age and Race

Just as important as numbers of people and houses are within the two regions, it is prudent to also be aware of the age and racial make-up of the areas. Communities that are vastly different in terms of population age or culture may not exhibit the same development ideals and patterns.

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Figure 12
Lansing / East Lansing MSA
2000 Population by Age

Figures 12 and 13 present the age of persons within the two MSA's, broken down into specific age groups. The two charts indicate that the regions have a very similar population in terms of age breakdown. For the past 15 to 20 years, the number of new births has been fairly consistent in both regions, illustrated by the number of people in the age brackets that are under twenty years old. The majority of people fall within the middle age brackets, from 25yrs. to 54yrs., in both of the communities. This significant bulge in the population pyramid points toward the aging "baby-boomer" group that is characteristic of most American communities.

Figure 13
Lincoln MSA
2000 Population by Age
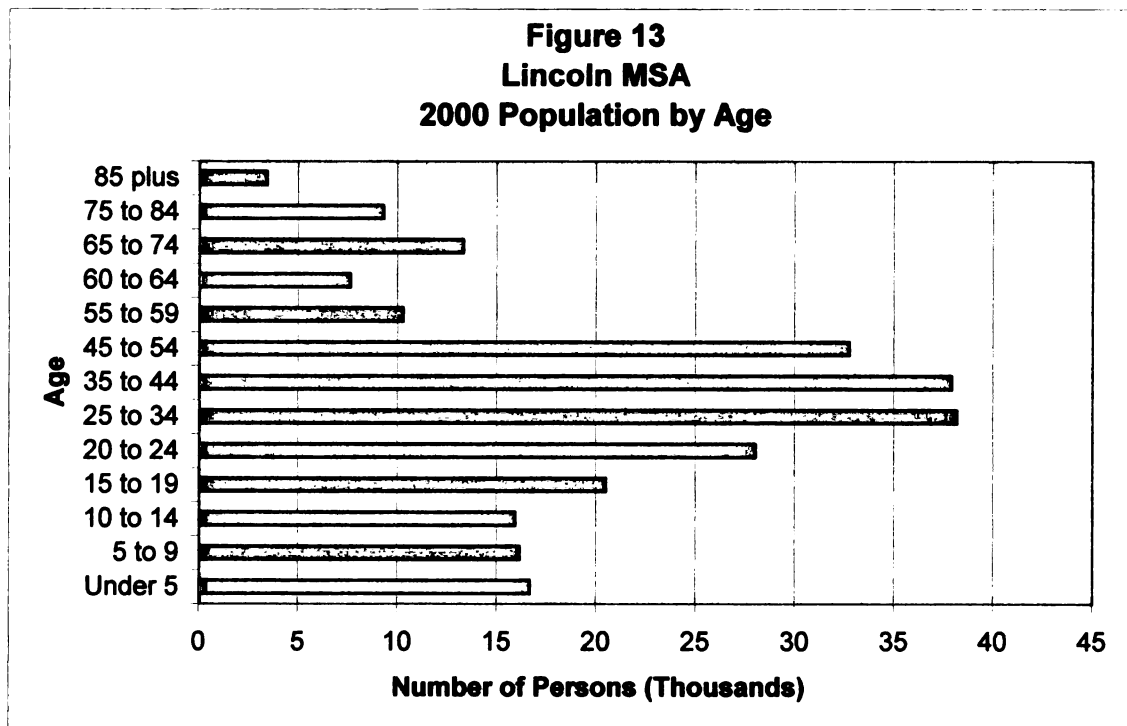
A very significant characteristic of the population that these charts represent is the small proportion of people that are within the 55 and older age brackets. Currently, most communities have a relatively small number of senior citizens to care for, but this proportion will begin to change in the near future as more "baby-boomers" retire. This is an important notion for land use planning as the older residents of communities begin to place more of a demand on services of the working-age population. By analyzing the population by age of these two regions, there is further evidence that growth management will encounter many comparable issues.

By putting together some charts according to 2000 Census data (Figures 14 and 15), it becomes clear that both the Lansing / East Lansing MSA and the Lincoln MSA have prominent similarities when it comes to racial make-up. It is evident that both regions are made up of primarily white residents. The Lansing / East Lansing MSA has

a white population of 84.4% and white persons within the Lincoln MSA compose just over 90% of the total population.

Figure 14
Lansing / East Lansing MSA
2000 Population by Race
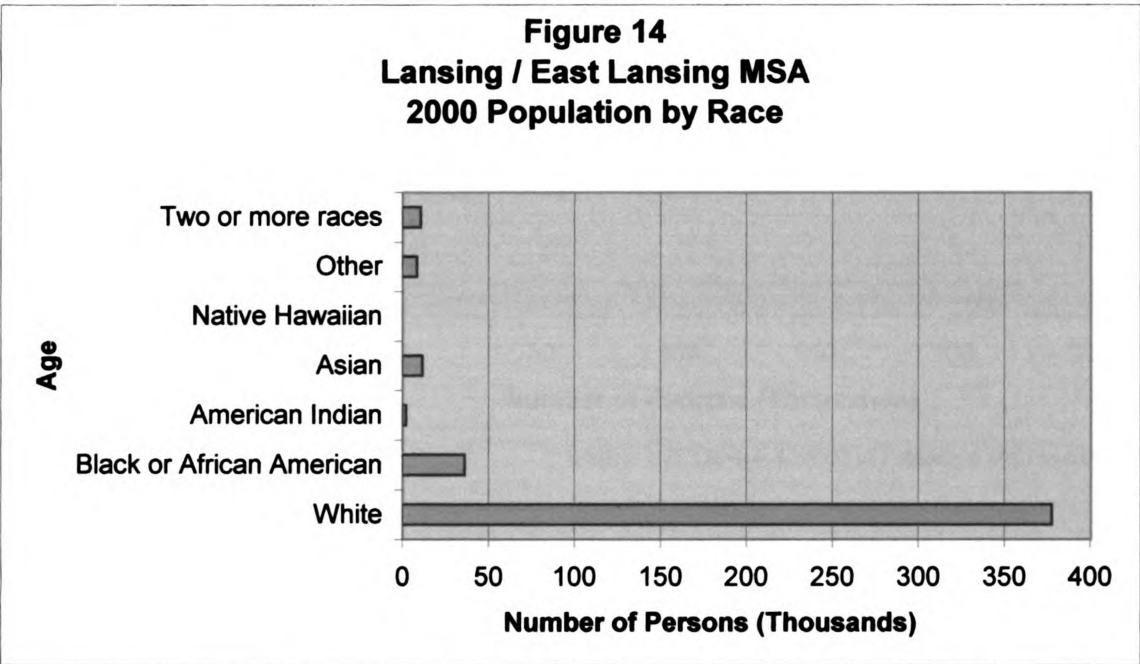
Source: U.S. Census, Census of Population and Housing

The one notable difference in racial profiles of the two regions is the percentage of black or African American citizens that form each region. Black or African American residents make-up just over 8% of the Lansing / East Lansing MSA, where only 2.8% of the Lincoln MSA populace is black or African American. A higher percentage of white residents within the Lincoln MSA seems to offset the higher percentage of black or African American citizens within the Lansing / East Lansing MSA. From the Census figures, it is apparent that each region should incorporate culturally sensitive involvement in planning in order to generate support from all sectors of the community and to provide good opportunities for all cultures to become a part of the process.

Figure 15
Lincoln MSA
2000 Population by Race
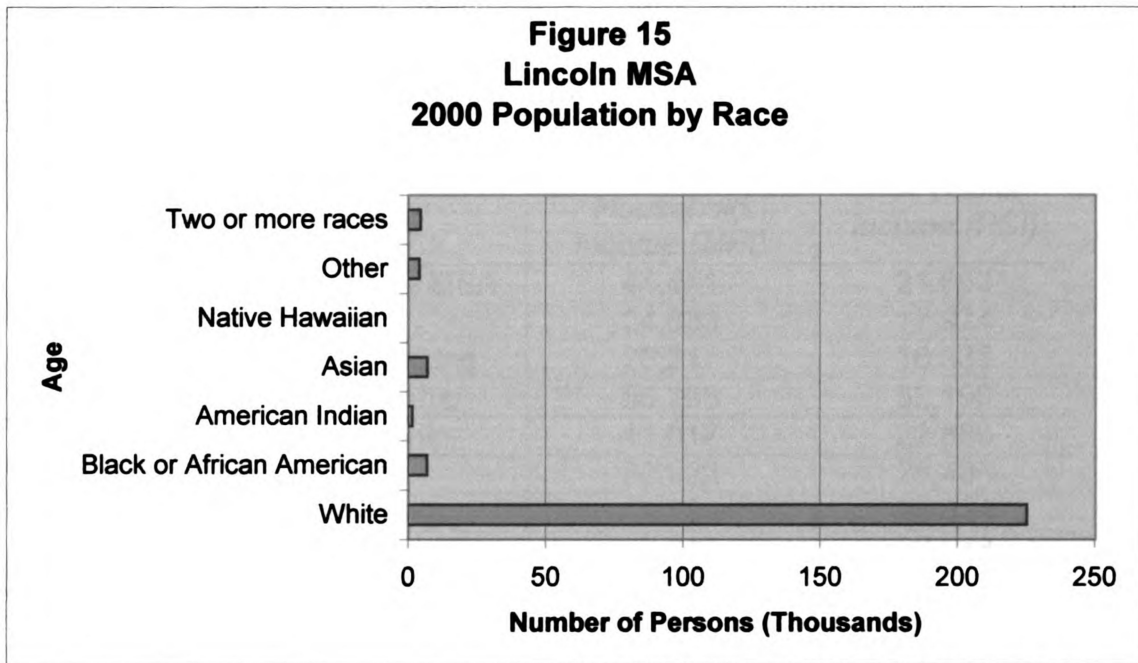
Source: U.S. Census, Census of Population and Housing

3.5.2 Income

Two of the most telling indicators of income within any population are median household income (MHI) and per capita income (PCI). These figures demonstrate the earning potential of an area as well as a measure of the average income that is available to every resident. Table 1 has been prepared as a summary of income indicators for each study area, as well as a breakdown of the urbanized jurisdictions within them.

Table 1

Income by Urbanized County Subdivision

Area / Jurisdiction	Median Household Income (MHI)	Per Capita Income (PCI)
Lansing / East Lansing MSA	44,441	21,653
City of Lansing	34,833	17,924
City of East Lansing	28,217	16,333
Meridian Township	55,203	32,190
Lansing Township	41,017	22,885
Delhi Township	50,922	23,485
De Witt Township	49,782	24,624
Delta Township	52,711	27,048
Lincoln MSA	41,850	21,265
City of Lincoln	40,605	20,984

Source: U.S. Census, Census of Population and Housing

An initial look at the income figures for both MSA's indicates that median household income is close to $40,000 in each area and per capita income is very near $20,000. As a whole, we can expect similar spending patterns and attitudes within each region. By breaking down each MSA into urban jurisdictions, we can see another trend emerging: the incorporated areas have lower MHI and PCI within each of the regions when compared to unincorporated areas. However, the difference of income between incorporated versus unincorporated areas in the Lansing / East Lansing MSA is much more exaggerated than the Lincoln MSA. A large number of college students in the City of East Lansing explains the substantial deviation from average income data within the MSA. The significantly lower than average income levels within the core city of Lansing likely signify an urban area that is feeling the effects of urban flight and decreased investment in residential areas of the city.

A significant separation of income levels between jurisdictions within the Lansing / East Lansing MSA points toward societal class boundaries as well. The PCI in Meridian Township is nearly twice that of the cities of Lansing and East Lansing. The majority of wealthy residents in this MSA live on the perimeter of the urbanized area. This separation likely causes the loss of political support for neighborhoods within the urbanized-core areas leading to a lack of governmental financial support. Since the Lincoln MSA is characterized by a single urbanized jurisdiction, the political support is much less likely to become fragmented and draw support away from the central city.

3.5.3 Employment

Table 2 provides a breakdown of sectoral employment within the study areas. When looking at these industry figures, the fields of education, health, and social services have the greatest portion of workers in the two regions. These numbers are certainly a result of both areas having major state institutions. High numbers in these fields also signifies that the community places great value in obtaining a good education. Government workers, in both communities again, generate the second highest number of employed workers. As centers for state governmental activity, this is not a surprising figure. The manufacturing sector also employs a large portion of the working community within each region. It is important to recognize that industrial employment is a vital element to the economy in each region. As we examine the sectoral employment figures for these regions, one key characteristic is that there is a fair degree of diversification of employment within each region. A community with a well-diversified employment base is considered very stable because there is not a

strong reliance on any single sector for long-term community health. It has been shown

that the percentage of workers in various sectors of employment is very similar between

the two metropolitan areas.

Table 2

### Sectoral Employment by Place of Residence for the Lansing / East Lansing and Lincoln MSA's, 1999

Industry	Lansing / East Lansing MSA		Lincoln MSA	
	Number	Percent	Number	Percent
Agriculture, forestry, fishing, and mining	2,247	1.1	1,403	1.0
Construction	12,726	5.6	9,358	6.7
Manufacturing	30,085	13.1	16,380	11.7
Wholesale Trade	6,519	2.8	4,076	2.9
Retail Trade	25,266	11.0	15,421	11.0
Transportation, warehousing, and utilities	7,978	3.5	5,974	4.3
Information	5,265	2.3	3,843	2.8
Finance, insurance, real estate, and renting	15,375	6.7	10,945	7.8
Professional and management services	16,695	7.3	12,449	8.9
Educational, health, and social services	55,795	24.4	33,131	23.7
Arts, entertainment, recreation, accommodation, and food services	18,098	7.9	11,232	8.0
Other services	11,324	4.9	5,928	4.2
Public Administration	21,484	9.4	9,421	6.8
Total employed residents	228,857	100.0	139,561	100.0
Government workers (as a portion of total)	46,851	20.5	27,841	19.9

Source: U.S. Census, Census of Population and Housing

Because of the educational demands of state government employment and

university activity, both areas of study are closely related in levels of academic

achievement as well. Lansing and Lincoln have a high percentage of those who hold a

high school diploma at 84.2 and 88.1 percent, respectively. Close to 25 percent of the

eligible population in each city have also received a bachelor's degree. Educational

attainment within a local population will clearly have a substantial impact on attitudes and perceptions of healthy, managed development.

There are a number of major demographic and situational characteristics that the Lansing / East Lansing and Lincoln Regions have in common which warrant this comparative analysis. Although it is understood that the findings in this report will not conclusively result in an ideal urban growth program, the trends and logical conclusions will have a great degree of merit. The many similarities of the two jurisdictions under study indicate that an urban growth boundary program should have comparable results when utilized in both of these communities.
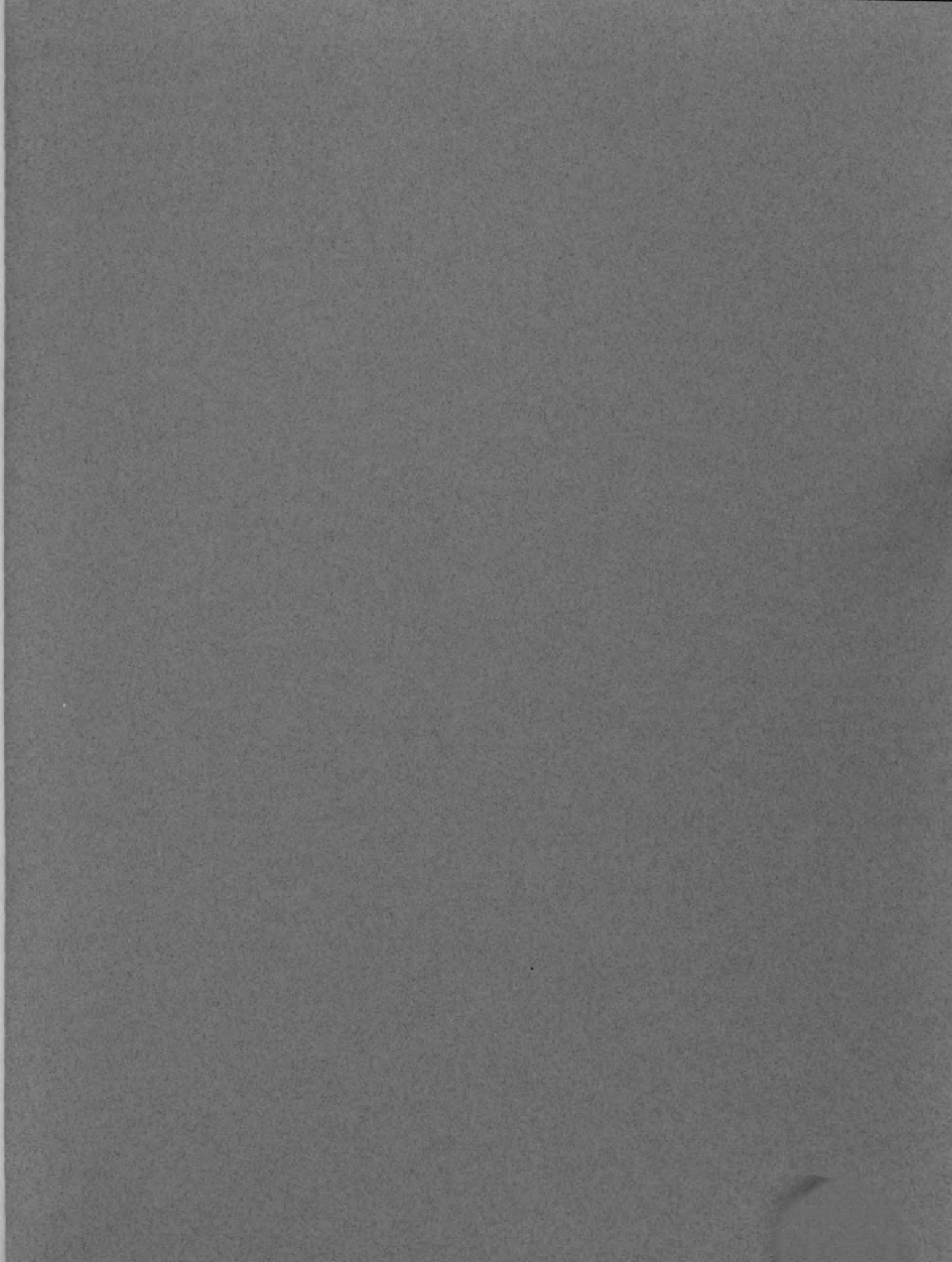
Chapter 4: Jurisdictional Growth and Boundary Performance Analysis

4.1 Introduction

This chapter will present an analysis of the urban growth boundary controls that are a part of Lincoln and Lansing / East Lansing's development agenda. It has been found that there are some striking differences in the structure and policies that the two capital cities have put in place. Although both communities may have some of the same objectives, one can see that more is needed than simply a strong vision. This final portion of the study will also empirically demonstrate the effectiveness of the growth management efforts of the two communities through an analysis of municipal growth and residential construction. By understanding the strengths and weaknesses of urban growth boundary programs, we are better able to strive for the vision of our growing communities.

4.2 Municipal Growth Analysis

An analysis of historic growth patterns is necessary to measure how effective growth management efforts have been in the life of a community. By looking at the density of a community as it changes over time, one can compare the amount of land that is being utilized to the population growth of the city. A city which uses more and more land to accommodate less people will have decreasing population density and is very likely experiencing sprawl development. On the other hand, cities that can maintain or increase population density are likely exercising effective growth

management efforts. The change in persons per square mile within the incorporated

jurisdictions of the study areas is reviewed in this section as a generalized picture of

growth management over time.

Figure 16
Population Density 1970 - 2000

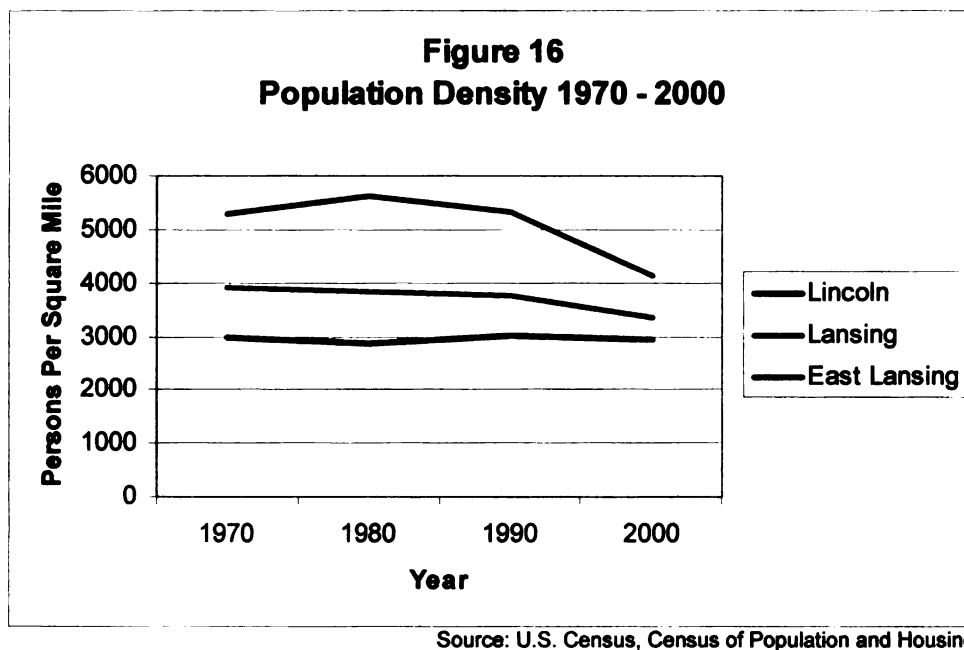Source: U.S. Census, Census of Population and Housing

Figure 16 displays the average population density over time as a result of the

number of residents within the cities when compared to land area. The graph displays

some interesting trends within both study areas. Typically, when we see a rising or

sustained population density, a city is taking up less space for development and curbing

sprawl. On the other hand, when population density falls there may be some degree of

urban and suburban sprawl. Large annexations of land as well as decreasing

population figures must also be taken into account as they may incorrectly be construed

as new, sprawling development.

When focusing on the average population density in the City of Lansing from 1970 through 2000, there is a slowly declining trend. Lansing has not grown significantly in land area since 1970 and the falling population density is a result of decreasing population within the city, not due to sprawl. Not unexpectedly, East Lansing has the greatest population density of all three jurisdictions. The city is much more tightly developed due to a large student population. We can see a more dramatic change in population density for the City of East Lansing during this time period. The variety of population density that is experienced in East Lansing can attributed to significant changes in student enrollment in addition to significant land acquisitions between 1990 and 2000. The average population density of Lincoln is shown to be the most stable of the three cities. This is a result of a healthy, growing population that exercises effective growth management measures.

4.2 Growth Controls in the Lansing Metropolitan Region

There are many jurisdictions that are included within the Lansing metropolitan area. In addition to the cities of Lansing and East Lansing, a number of townships are included within the metropolitan region. Each township has a degree of regulatory influence on development. This creates a tremendously separated regulation structure where many legislative bodies are responsible for monitoring and influencing the ultimate shape of the greater Lansing community.

With respect to growth regulation, there is very little initiative within the Lansing Region to slow sprawling development. The City of Lansing is practically landlocked by other, smaller jurisdictions and does not therefore have the opportunity to regulate

fringe area growth. Generally, the surrounding townships do not have the resources to manage an urban growth boundary program. Only one jurisdiction was found to have developed an urban growth boundary program, which is discussed in the next section.

4.2.1 Meridian Township

Meridian Township is the only community in the Lansing metropolitan area that utilized a boundary program which set forth the primary objective of managing growth. Meridian Charter Township is located on the eastern periphery of the Lansing MSA. Roughly 32 square miles of land are within the boundaries of the Township, having a population very near the 40,000 mark. The Township is a regional center for business and retail commerce having several locational advantages. It is within close proximity to Michigan State University and a major interstate highway. As a result, the Township has encountered a significant amount of residential and business development in the past two decades.

The Meridian Charter Township Comprehensive Development Plan went through a major revision process in the early 1990s and a new version was consequently adopted in May of 1993. The plan incorporated the innovative initiative of an urban service boundary "to coordinate the rate and direction of development with the ability of the Township to deliver public services in an efficient and cost-effective manner" (Charter Township of Meridian 1993, 161). This section of the Comprehensive Plan was built on the premise that growth should occur where services can be most efficiently provided. The western two-thirds of the Township, closest to the metropolitan area, were designated as a growth area where the community was committed to

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provide orderly advancement of public services. It was calculated that this area would

provide sufficient room for the community to grow until 2010.

The urban service boundary was created as a tool that would assist in

accomplishing certain goals and objectives of the plan. These ends include:

- *Conservation of natural resources by encouraging the orderly development of land.*

- *Preservation of rural open space.*

- *Providing property owners with greater security in long-range planning and investments.*

- *Making it possible for utility extensions, transportation facilities, and schools to be designed and located so as to more closely match population growth.*

- *Preservation of woodlands, wetlands, water recharge areas, and other natural resources and environmentally-sensitive lands, and the prevention of urban development from impairing the functioning of vital natural systems.*

- *Allowing the Township to make proper investments in infrastructure maintenance and development within the existing service area on the westerly side of the Township(161).*

On November 22, 1999 the Planning Commission voted to remove the urban

service boundary from the Comprehensive Development Plan. The removal was

accomplished amid a barrage of public opposition and against planning staff

recommendations. The Planning Commission reasoned that those requesting

extensions would pay for the services necessary for new development. It was also

argued that market demands should drive the pattern, timing, and direction of new

development.

4.3 Growth Controls in the Lincoln Metropolitan Region

The most recent Lincoln City-Lancaster County Comprehensive Plan was adopted in 1994 and it lays out a strict agenda for control of development. It is important to note that the plan continues a shared effort between the city and its surrounding county. In 1959, a joint City-County Planning Commission was formed to forward the purpose of planning cooperation (37). The 1994 Plan is the fourth that has been adopted under this agreement and it presents a reaffirmation of a commitment toward concentrated growth. The first three goals in the land use plan outline an agenda for growth management:

- *Maximize opportunities for planned urban development which are sensitive to the natural qualities of the area, including land uses efficiently served by a balanced and energy-efficient transportation system and community services and facilities.*

- *Concentrate new growth in the Lincoln urban area in the villages throughout Lancaster County. Protect existing rural areas from urban sprawl through planned development*

- *Preserve the rural quality of life while allowing for the quality growth of Lincoln and the incorporated communities of the county and encourage contiguous development.*

The plan recognizes that "growth is a characteristic of a dynamic, healthy community" (36). In order to continue a locally high quality of life and to remain economically viable, growth must not just be accommodated, but promoted. The plan later comments that growth must be done wisely, for development that is not served by the infrastructure could threaten the entire community. On the other hand, building infrastructure before it is needed will waste valuable resources. In order to be most

beneficial, growth must strike a balance between the provision of infrastructure and the need for resource conservation. The Lincoln Comprehensive Plan strives to realize this delicate balance through concurrent development of an adequate infrastructure in line with the growth of the community.

Lincoln has incorporated a straightforward phasing plan into its growth management agenda. The 1994 Lincoln City-Lancaster County Comprehensive Plan anticipates development until the year 2015. The community utilizes an urban growth boundary program that is broken into phases for a progression of urban services and development (see attachment A – Anticipated Lincoln Service Limit and Phasing Plan). The Plan allows flexibility for development through its Phasing Plan.

There are four separate phases of growth that affirm the communities' commitment to contiguous and efficient development. Phase I is entitled *Immediate Development Areas* and is generally adjacent to existing development where public services are available. New growth is encouraged within Phase I areas with timely approval of development plans and prioritization of capital improvements.

The second phase that is utilized in the Service Limit Plan provides for *Near Term Development*. An area that is designated as Phase II may lack a portion of the required infrastructure. Growth is not encouraged or discouraged in areas designated as such, however developers must bear the burden of any off site infrastructure costs.

Phase III provides for *Mid Term Development* where most infrastructure is not available but where future development is logical. The community will discourage any development in these areas and will consider proposals only if the developer provides all off site improvements that are needed.

Figure 17
**New Residential Units in the City of Lincoln
and the Remainder of Lancaster County**
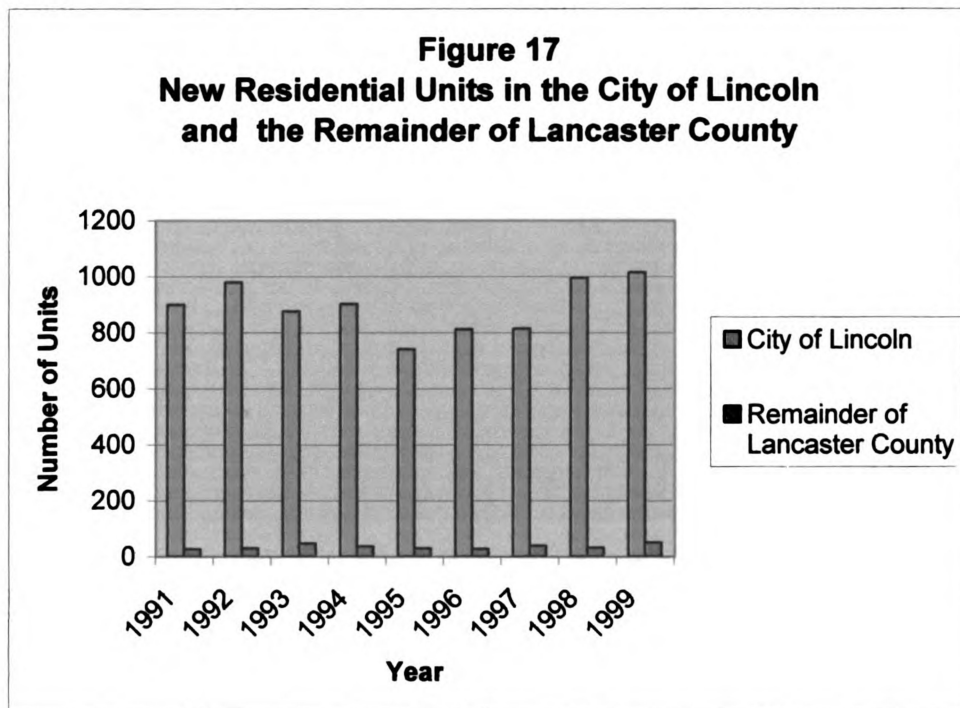
Figure 17 displays residential development in the Lincoln Region during the 1990's. With a brief glance at the chart, one can see that the vast majority of residential development in the Lincoln Region takes place within the city. As the number of units approaches, and once exceeds 1,000 there is not a single year that we have more than 60 new residential units built outside of the city.

**Figure 18
New Residential Units in the Lansing Urban
Areas and the Remainder of Ingham County**
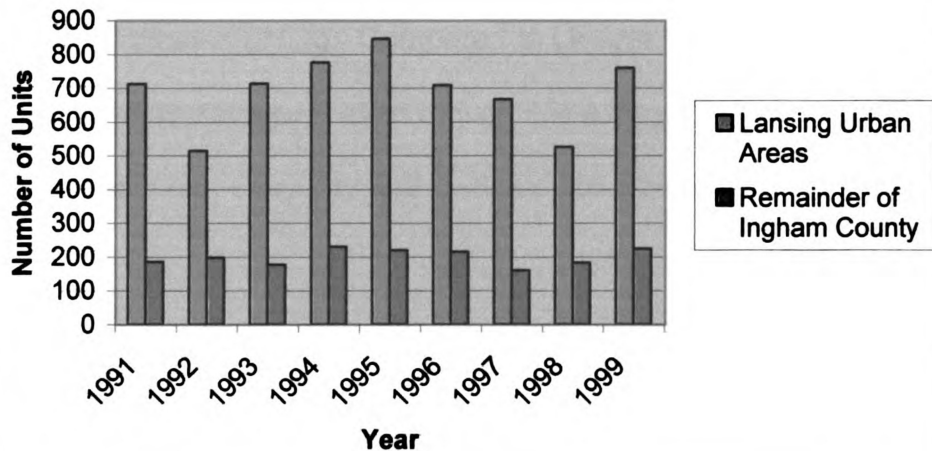
A strikingly different pattern of development is showcased as we move to figure

18 and look at residential development within Ingham County. It is shown that a greater

number of housing units are typically built outside of the urban area, when compared to

Lincoln. Although the Lansing / East Lansing Region builds fewer new units each year,

there are many more built outside of the urban area than the Lincoln Region. Another

important characteristic of this chart that is important to notice is the significant range in

the number of new units that are added to the community from year to year. This

signifies a somewhat unstable housing market and unpredictable supply.

It has become quite apparent that the Lincoln community has been much more

effective than the Lansing community at keeping residential development within the city

limits and curbing sprawl. From 1991 until 1999, Lincoln was successful in retaining

96% of the county's residential growth. Lansing, on the other hand, only managed to

keep 71% of its county's growth within urban areas. One can also see that Lincoln has a relatively steady and predictable number of new units each year. Lansing has experienced a recent slowing trend in urban residential growth, however growth within the non-urban area remains strong. Compared to Lincoln, the Lansing Region is adding fewer new housing units each year even though it is a larger community. This indicates that Lincoln has a healthier economy and continues to attract new residents.

Chapter 5: Conclusion

Through the course of this study a number of aspects relating to the development and implementation of urban growth boundaries have been explored. By understanding the cause and effects of sprawl development we gain insight into the formation of growth management strategies, with specific emphasis on urban growth boundaries. In order to appreciate the aspects of creating and implementing an effective boundary program various examples, as well as a variety of literature resources, have been reviewed. The evaluation and comparison of two similarly situated regions that utilize a growth boundary program provides a more extensive look at the effects of these programs on urban growth and development. Through this comparison study we can distinguish the most effective aspects of these growth management plans and seek to incorporate essential elements into future planning efforts.

5.1 Analysis of Lansing Area's Growth Management Efforts

The only option for the Lansing area, under current governmental structure, is fragmented land use control by jurisdiction. All of the development control in the Lansing Region is on a township or municipality basis. There are seven separate jurisdictions within the Lansing area that must work together in order to manage development. It would be a coordination nightmare to build an effective program that includes every jurisdiction. This severely restricts any regional initiative that can be implemented with the authority of government.

Ingham County, in which Lansing is located, has no resources to enforce regional planning measures. Although there is a Lansing area metropolitan planning

organization that provides valuable analysis of regional development, it seems that it has very minimal authority and influence over growth patterns. Without a system in place that incorporates regional governmental cooperation, each jurisdiction is limited to the influence of growth control to within its boundaries.

The cities of Lansing and East Lansing have very few incentives to exercise growth management initiatives. Due to the amount of development that has been permitted just beyond both of these cities, they have limited options for expansion. The townships that are located adjacent to each of the cities have developed urban settings and are unwilling to consider annexation. Although the cities have the most authority to implement development control policies, they are in the least likely position to do so.

5.1.1 Meridian Township

After a review of the literature concerning the strategies for a successful growth boundary program, it can be argued that Meridian Township's boundary program would not have been effective even if it had remained. The program was severely lacking in many of the essential characteristics of an effective program.

An evaluation of the provisions that were incorporated into the growth boundary program indicates that certain areas were simply disregarded. First, and foremost, the community did not account for any adjacent jurisdictions in its planning efforts. An effort was never made to secure regional cooperation. This could theoretically result in an undeveloped island existing within a thriving urban area. The Township would also be limiting itself by losing out on development potential. Clearly, we can envision the

ineffectiveness that was inherent in a localized boundary amidst rampant regional growth.

The Meridian Township growth boundary program was not well integrated into the Comprehensive Development Plan. There are merely three different instances in the plan where the boundary is even mentioned. In order for the program to be more effective, there must be more attention paid to incorporating the principles of growth management and urban growth boundaries into the Comprehensive Plan.

The zoning ordinance was not utilized as a means to forward conservation oriented development. There was no evidence of incentives that would allow the preservation of undeveloped land or strategies to encourage infill and redevelopment. The ordinance was also not amended in any way to support the objectives of the urban growth boundary. It can be unmistakably seen that there has been very little structural and written policy support for the urban growth boundary program.

Another important point that should be made, as to the likely ineffectiveness of this urban growth boundary program, is the lack of attention that was paid to community input. In this case, the Planning Commission was unresponsive to citizen opposition and likely made quite a few enemies. The residents raised many questions as to the value of the maintaining the urban service boundary that were not addressed. It is felt that a much greater effort was called for on the part of the commission members to more objectively assess the situation.

In conclusion, it has been found that the urban growth boundary program that was adopted and subsequently dismissed from the planning agenda of Meridian Township had minimal effects on development patterns. It has been shown that in

order to implement an effective program a variety of specific characteristics must be in place. By thoroughly considering all of the objectives that have been set forth, a locality can realistically develop a program that will become a valuable resource towards optimal community growth.

5.2 Analysis of Lincoln Area's Growth Management Efforts

A thorough review of the growth boundary program that has been adopted by the City of Lincoln, Nebraska shows the incorporation of all the elements which generate an effective blueprint for efficient community development. The Lincoln City – Lancaster County Comprehensive Plan sets forth a model program that can be tremendously effective with the support of local officials.

The Lincoln Plan presents a detailed demographic and socio-economic analysis of the metropolitan area. The second chapter in the Plan walks through population growth since 1870, detailing many characteristics of the residents. The chapter also analyzes the quality of life of the population through socio-economic indicators. By establishing an in depth picture of current conditions within the community, the Plan can more effectively anticipate trends and plan for future development.

An important element that sets this Plan apart from most current comprehensive plans is a very effective regional approach to growth management. The Lincoln Plan recognizes that there must be a unified program which accounts for the entire metropolitan area, and is not limited to jurisdictional boundaries. This can be the only option to provide for the welfare of the entire community. By taking a regional planning approach, this Plan stands at the forefront of initiatives in urban land use development.

A well-stated synopsis of the successful approach can be found on page 37 of the 1994 Lincoln City – Lancaster County Comprehensive Plan:

> This cooperative planning effort affords the citizens of the City and County with more than just a single document the can call their plan. It provides an environment for the rational delivery of public services that are designed to meet a range of urban and rural lifestyles. This cooperative planning provides stability to the development process and allows for a pattern of growth unencumbered by jurisdictional and disparate economic bases. In short, the plan provides for an orderly, viable City and County that function as one community.

The third Chapter of the 1994 Lincoln Plan *"Future Needs and Land Use Plan"* sets out a number of goals and strategies that serve to discourage sprawl and manage urban development. One goal of the land use plan specifically states that efforts should be taken to prevent sprawl by concentrating development in the Lincoln urban area and other villages throughout the County. From this initiative, we can see the incorporation of the phasing plan as one style of an urban growth boundary.

The Lincoln growth boundary program is certainly not a stand alone initiative that resolves sprawling development. The boundary has become effective through a strong community effort that is not simply a vision of the Comprehensive Plan, but it is also included in every aspect of development review.

The 1994 Lincoln Plan has convincingly shown that all of the necessary steps have been taken to create a successful growth boundary program. A thorough analysis of current community conditions was coupled with solid planning principles to form solid goals and set a strong foundation for the Plan. A systematic program was then formed to work toward the community vision. The Plan additionally sets forth an agenda for structured review of the plan, which many municipalities overlook. With continued

support from the community as well as elected officials, Lincoln will maintain its healthy patterns of development with the practice of sound planning. Lincoln is clearly a fine example for other regions and communities wishing to implement an urban growth boundary program to study and replicate, including Meridian Township and the Lansing MSA.

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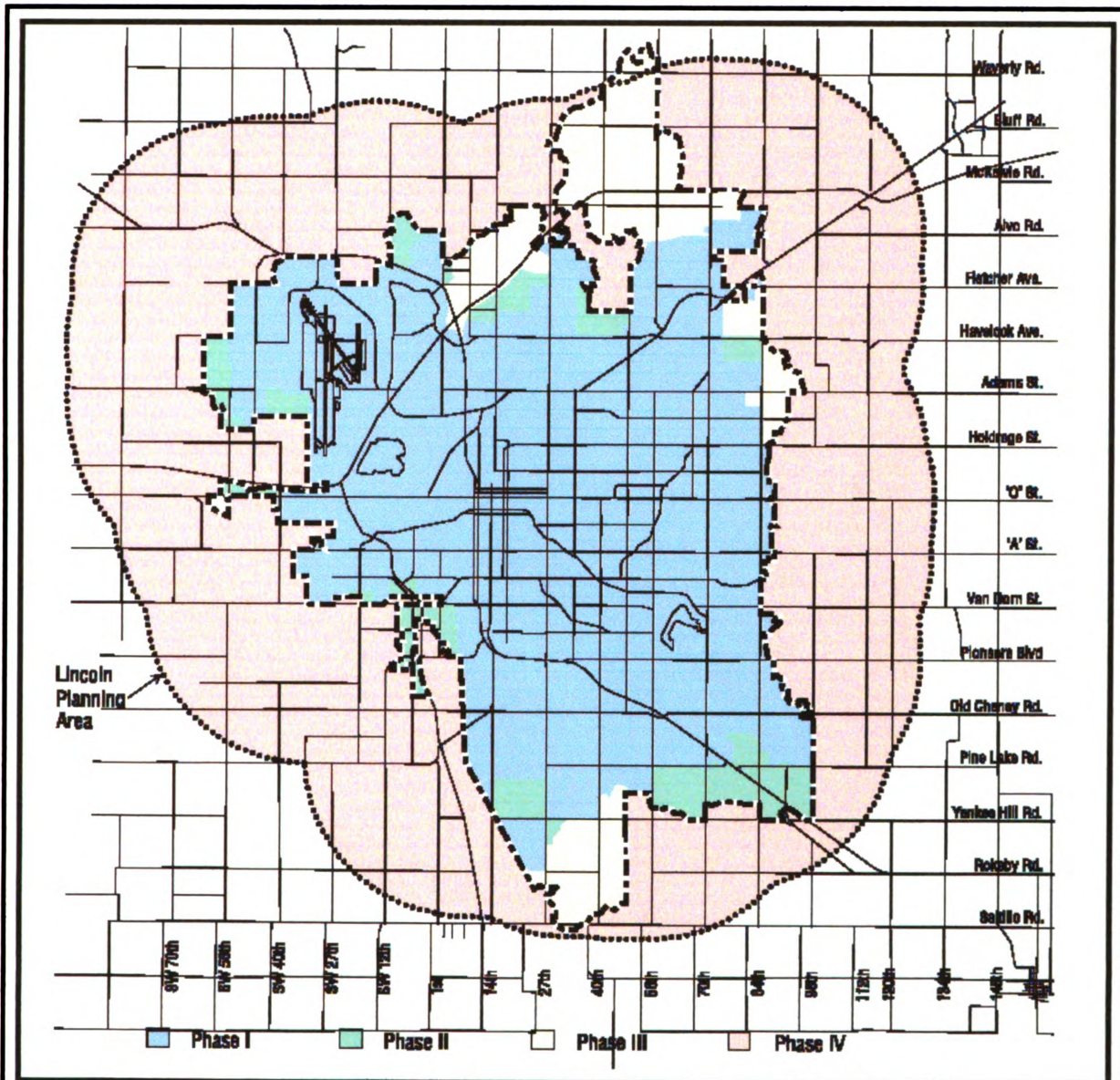U.S. Bureau of the Census. 1970 Census of Population and Housing.

Appendix

Anticipated Lincoln Service Limit and Phasing Plan

Lincoln City/Lancaster County Comprehensive Plan

- - - Lincoln's Future Service Limit

SUMMARY OF PHASES IN PLAN:

Phase I - Areas designated for immediate development will generally be contiguous to existing development with some or most of required infrastructure in place.

Phase II - Areas designated for near term development will be contiguous to existing or planned development but lacking one or more major items of infrastructure, such as arterial road, park or trunk sewer.

Phase III - Areas designated for mid-term development will be contiguous to existing or planned development, lack most infrastructure required to support development, but might reasonably be expected to develop within the planning period.

Phase IV - Balance of City of Lincoln's land use jurisdiction shall be held as an urban reserve. Falls within community's growth area but beyond the planning period.