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An Exploration Of Local Smart Growth Initiatives Within The United States

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ABSTRACT

This thesis provides a comprehensive analysis of smart growth policy mechanisms available to local governments within the United States. It begins with a description a sprawl, including its causes, impacts, and effects on society. The thesis then transitions to a discussion of the smart growth philosophy, including a definition of smart growth, a discourse debunking common smart growth myths, and an explanation of the economic benefits resulting from smart growth implementation. The discussion concludes with recommendations and examples of specific smart growth techniques that local governments can adopt in pursuit of a smart growth planning agenda.

DEDICATION

To Bill, Gail, Ellen, Maggie, and Ollie Bryant

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INTRODUCTION

The number of jurisdictions choosing to implement the planning techniques collectively known as "smart growth" continues to rise into the 21st Century. A phenomenon of the latter half of the 20th Century, smart growth can be loosely defined as a set of planning tools designed to combat decades of haphazard, largely unplanned development known in the scholarly world as sprawl. Numerous scholars contend that sprawling development is "responsible for the decline of central cities, the loss of valuable agricultural and environmentally sensitive lands, traffic congestion, the decline of civic culture, and even obesity" (Howell-Moroney, 2006:1). This essay provides the reader with a comprehensive look into the smart growth philosophy. Beginning with a discussion of sprawl, its effects, impacts, and costs, the essay then transitions to an examination of the smart growth philosophy and concludes with a list of recommended smart growth policy mechanisms highlighted by various examples of local government smart growth initiatives within the United States.

SPRAWL

What Is Sprawl?

According to Gregory Squires, editor of *Urban Sprawl: Causes, Consequences, and Policy Responses*, "sprawl can be defined as a pattern of urban and metropolitan growth that reflects low-density, automobile-dependent, exclusionary new development on the fringe of settled areas often surrounding a deteriorating city" (2002:2). There are a multitude of characteristics often associated with sprawl including, but not limited to:

> uncontrolled outward extension of development; low-density housing and commercial development; leapfrog development, 'edge cities,' and more recently 'edgeless cities'; fragmentation of land use planning among multiple municipalities; reliance on private automobiles for transportation; large fiscal disparities among municipalities; segregation of types of land use; race and class-based exclusionary housing and employment; congestion and environmental damage; and a declining sense of community among area residents. (Squires, 2002:2)

"The presence of sprawl may seem obvious when driving past a suburban strip mall, but actually measuring development patterns for empirical analysis is a highly challenging and complex undertaking because of the multifaceted nature of sprawl" (Ewing et al, 2003:9). To that end, Ewing, Pendall, and Chen have developed an index consisting of four factors based on 22 variables to empirically and operationally characterize the degree to which a city has sprawled. Those four factors, residential density; neighborhood mix of jobs, homes and services; strength of activity centers and downtowns; and the accessibility of street networks help to better define sprawl in order to get a "detailed pic-

ture of how sprawling development looks in various metropolitan areas" (Ewing et al, 2003:9).

The first of these factors, residential density, is thought by many scholars to be the most adequate measure of sprawl. Residential density levels are measured by calculating the amount of housing units per acre. Sprawling areas are marked by low residential density levels and are often characterized with "spread-out, suburban subdivisions" (Ewing et al, 2003:9). Within these sprawling areas, residents must drive, sometimes significant distances, to arrive at their place of employment, school, or shopping center. Not only does this separation of land uses create frustration for motorists, but it also creates a "jobs/housing imbalance" within a community (Ewing et al, 2003:10). By mixing land uses, these sites can be placed closer to the home and significantly limit the driving times for a community's residents. The second factor, the neighborhood mix of jobs, homes, and services, calculates the amount of mixed land uses within a given area. Communities with low levels of mixed land uses tend to be those that are the most sprawled.

Strong metropolitan centers and downtowns help strengthen a community's business environment, enhance the recreation and entertainment opportunities for its residents, and provide numerous transportation alternatives for the area. The third factor calculates the strength of activity centers and downtowns by measuring these concentrations. Sprawling areas do not have strong metropolitan centers, rather they exhibit "endless strip centers" located along the major highways within the community, illustrated by communities such as my hometown, Birmingham, Alabama.

Though it is documented that residents of sprawling areas drive more than the residents of more compactly developed areas, they often find it difficult to navigate the

roads of their community. This problem persists in many sprawling communities due to their low levels of street connectivity. Simply stated, in order to get from "Point A" to "Point B" commuters in sprawling communities must take round-about routes. The fourth factor, the accessibility of street networks, measures the degree of street connectivity within a given area. Residents of communities with low levels of street connectivity will have to endure longer drive times when traveling short distances as compared to those residents of communities with high levels of street connectivity.

The Causes of Sprawl

A result of many factors contributing to the ongoing suburban movement that began in the late 19th Century, urban sprawl began to engulf the American landscape following World War II. The preference for middle to upper class residents to relocate from the city to the suburbs should not be solely blamed for the resultant sprawl. Rather, the catalysts of the movement such as federal housing policy, the interstate system, and municipal fragmentation gave developers the impetus to construct the large, leap-frog style communities for which sprawl is commonly defined.

Housing Policy

Perhaps the greatest facilitator of sprawl was the U.S. federal government. In response to the Great Depression of the 1930's, the federal government created an agency known as the Home Owners Loan Corporation. Although the HOLC failed to complete the task which was its charge (creating jobs through home loans) it did establish an appraisal system that was adopted by many of the financial institutions responsible for

home loans. The HOLC used several factors to determine the monetary value of homes and neighborhoods within a given area. In addition to population density, age of housing stock, and proximity to wanted services, the HOLC's universal system of appraisal included racial means as a proxy for neighborhood quality (Jackson, 1985).

Not long after the indirect establishment of the HOLC's appraisal standards, another government entity, the Federal Housing Administration, was created to financially insure loans made to citizens by mortgage investors. Taking all risk from banks, the FHA allowed these institutions to reduce down payments and stretch loan periods. As a result of these procedures, interest rates fell. The housing market became increasingly easier to tap into, and large amounts of the working class could now afford to buy their own home at costs less or equivalent to the rent payments on their previous residence. According to the Bio-Diversity Project (BDP), the federal income tax code allows homeowners to deduct the amount of interest paid on their mortgage, thus "subsidizing homeowners over renters, and thus suburbs over urban areas" (2001:3). Furthermore, in 1951, the Internal Revenue Service adopted a practice which allowed homeowners to be exempt from the capital gains tax on the sale of their house if their next home purchase was of an equal or greater value. "Through the various types of subsidies and infrastructure financing, the suburbs were expanded for the middle class to the detriment of inner-city markets" (Burchell et al, 2000: 822). Floods of people now fled the city in search of single family detached homes in calm communities.

Surprisingly, loans were not given to all. Jackson states, in his book *Crabgrass Frontier*, "The FHA feared that an entire area could lose its investment value if rigid white-black separation was not maintained" (1985:208). Fearing a decrease in land value

as well as a decrease in the interest of white families to live in communities with families of color, banks shied away from lending money to blacks. In fact, they were encouraged to continue this practice by the federal government because the FHA allowed them to use racial covenants to maintain racial homogeneity. At the same time, mostly black, low- and moderate-income households "were encouraged through public housing and rental/ownership construction programs to remain in central cities" (Burchell et al, 2000:822; von Hoffman, 1996). The effects of this policy resonate into the present as blacks as a whole constitute a majority of inner-city residents while the majority of sub-urban residents are white.

The Automobile and the Interstate System

In addition to federal housing policy, the automobile allowed its users to cross vast amounts of terrain at their own pace and time. Cars were becoming prevalent among American families and larger vehicles called trucks were a hit with industrial companies due to their ability to haul larger amounts of freight more economically. This capability allowed residents to travel out from the city to settle in the suburbs as well as industry to deconcentrate, moving their plants to the fringes of the city and operate as tiny functional communities.

In the 1950s, the federal government instituted a massive public investment initia-tive in road and highway infrastructure. They created an interstate system, 41,000 miles of road made possible through the use of general taxpayer revenue. This move solidified the use of automobiles as the main source of transportation and discouraged the public funding of mass transit systems. During the period from 1960 to 1990, over $650 billion

was spent to construct and improve the federal highway system while only $85 billion was spent to support the construction and maintenance of public transportation systems (BDP, 2001). This spending trend continued and has actually been enhanced over the course of the past decade. Since 1996, federal spending on transportation alternatives has decreased by 19% and federal spending for highway improvements and road widening has increased by 21% (BDP, 2001). In effect, this spending subsidized and encouraged automobile travel and, as a result, has discouraged the need for developers to concentrate on compact development.

In addition, transportation costs have fallen over recent decades. In the past, firms chose to locate in areas that minimize their total transport costs. However, new technology now allows goods to either be shipped cheaply or without any cost at all. Furthermore, the change from an industry based largely on raw material extraction has been replaced by a focus on the production of high-value activities in order to adapt to the new global marketplace. As a result, a firm's production costs now outweigh their transport costs. Without placing a high priority on transport costs, firms have become "footloose," allowing them to locate wherever they choose. Due to the high priority placed on the production of these high-value activities, firms now go where the labor market is the strongest. Therefore, many firms are choosing to locate in suburban communities in order to attract the most qualified, highly-skilled employees (Hall, 2006).

Municipal Fragmentation

The area of suburban sprawl had now become fair game to the public at large, at least to the ones who were allowed and could afford to relocate (Jackson, 1985). As

more suburban residential areas began to form and grow in the latter half of the 20th century, these communities began to distance themselves from their central cities by incorporating into their own cities. With this move, these mostly white, wealthier communities could now levy their own taxes, provide their own public services, and encourage their own economic development without the influence of the larger city which they surround. Therefore, the fragmentation of newly incorporated municipalities further increased class and racial stratification. Many communities also developed zoning policies that required wide streets, large-lot setbacks, and parking ordinances that favored large shopping malls (BDP, 2001). In addition, new housing built on the periphery of these communities is only being constructed for those enjoying middle and upper-middle class incomes. Those with wealth will continue to move further away from the city creating even more new communities which will eventually incorporate, and thus further erode the ever diminishing tax base of the inner city (Jargowsky, 2002).

The Effects of Sprawl

The effects of sprawl on the communities of any given United States metropolitan region are abundant and wide reaching. From public health concerns to environmental pollution, high concentrations of poverty and wealth stratification to public service inadequacy, the sprawling society reduces the ability of its citizens to receive equitable services. Sprawl hinders both the construction and maintenance of needed development infrastructure such as roads and sewers and restricts the American public education system from providing all of its citizens with an equal opportunity for an adequate education.

Effects on Public Health

With the continued growth of metropolitan land areas, public health issues increase and intensify. Sprawling neighborhoods with large lots and trees as boundaries socially isolate one household from the next. Many urban areas are built to capacity leaving no green space. This, in turn, limits the opportunities for recreational activity within those neighborhoods and urban areas. Specifically, those with the most time to engage in recreational activity, children, are left with fewer opportunities to exercise, to play outdoors with their friends, or to develop a sense of independence (Helling, 2002). The decline in the overall health of suburban residents, coupled with the fact that suburban residents are more financially capable to pay for health care services, has created an incentive for health care providers to leave the central city and move into the suburbs. As a result, poor city ghetto residents lose access to health care providers, which, combined with inner city high population densities, creates an atmosphere for disease to more easily spread (Shobba et al., 2003).

The sprawl index study conducted by Ewing, Pendall, and Chen showed a strong relationship between the amount of sprawl within an area and the amount of pollution affecting that area with respect to varying ozone levels. For every 25 point increase (indicating less sprawl) in a city's sprawl score, the maximum ozone levels (those levels considered to be the most dangerous within the ozone detection scale) of that city decreased by an average of 7.5 parts per billion (2003). Moreover, maximum ozone levels between the most sprawling areas and the least sprawling areas differed by an average of 41 parts per billion (2003). According to the study, elevated ozone levels "have been

shown to be dangerous for children, the elderly, asthma sufferers, and other vulnerable populations" (2003:21).

Uneven sprawled development patterns increase automobile usage. The outcome of the increase is multi-faceted. Amplified automobile use causes ozone deterioration and smog which, in turn, puts people at risk to develop respiratory ailments and skin cancer (BDP, 2001). Each year, automobiles emit over 60 million tons of carbon monoxide (BDP, 2001). A highly toxic gas, carbon monoxide has been associated to such problems as visual impairment, a reduction in muscle motor functionality, and, in high doses, exposure to carbon monoxide can be fatal (BDP, 2001). In general, air pollutants emitted from automobiles are responsible for 20,000 to 40,000 annual cases of chronic respiratory illness (Institute for Transportation Standards, 1995). Also worth noting, additional time spent driving or riding in a car decreases the amount of time people have to walk or participate in leisurely activities. This alarming trend is considered to be a contributing factor to the nation-wide obesity epidemic.

Effects on Transportation

According to Ewing, Pendall, and Chen (2003), cities with low factor scores (indicating more sprawl) calculated using their four factor sprawl index observe an over 250% decrease in the amount of residents commuting to work using modes of public transportation than do those cities with high factor scores. For every 25 point increase in a city's residential density factor (which happens to be an infinite scale), the share of people choosing to use modes of public transportation increased 3% (Ewing et al, 2003). Additionally, "sprawling places are more likely to have more traffic fatalities per capita

than more compact regions due to higher rates of vehicle use and perhaps more aggressive driving" (Ewing et al, 2003). For example, in the most sprawling region according to the Ewing et al. Sprawl Index, Riverside, CA, the rate of traffic fatalities is 18 for every 100,000 residents per year. In the least sprawling regions, that rate falls to 8 for every 100,000 residents (2003). Furthermore, communities with high residential density levels and strong metropolitan centers can expect to have an average of 5 fewer fatalities for every 100,000 residents per year due to the reduction of average traffic speeds than those communities with low residential density levels and weak metropolitan centers (Ewing et al, 2003).

According to the Bureau of Labor Statistic's 2003 Consumer Expenditure Survey, the Center for Neighborhood Technology (CNT) and the Surface Technology Transportation Project (STTP) report "the cost of gasoline and motor oil is approximately 16% of a household's transportation expenditure" (CNT/STTP, 2000:5). If only accounting for a modest 30% rise in the cost of this expenditure, the total cost of a household's annual transportation expenditure would escalate by roughly 5% (CNT/STTP, 2000). "This leaves a smaller share of income available for other needs, including retirement savings, rising health care costs, and college funds" (CNT/STPP, 2000:5). Given the increases in the cost of oil and gasoline, lower-income households are more heavily impacted. For households on a limited budget (under $52,000), "spending an extra $30 - $50 per month on gasoline reduces a family's monthly, after tax income by 1.1% (CNT/STPP, 2000:10). To further this point, lower income households are annually spending approximately 4% of their total household income on oil and gasoline expenditures versus only 2.3% of household income spent by those households with incomes above the $52,000 amount

(CNT/STPP, 2000). Couple this with the fact that household incomes for blue-collar workers have not increased at the rate of household incomes for white-collar workers, and the gap between low-income and high-income household spending capacity will continue to widen (CNT/STPP, 2000).

Effects on the Natural Environment

Sprawling areas also contribute to the loss and fragmentation of the habitats of many animals and insects. As sprawling development patterns infringe on natural habitats, many species within the area disappear. "Over the next half century, 30% of the nation's plant and animal species are at risk of disappearing, and over 500 species are missing or may already be extinct" (Ewing & Kostyack, 2005:7). This phenomenon occurs because the physical development of these habitats eliminates both the enclaves where these species reside as well as the food sources they need to consume in order live. As a result, these species must then compete for shelter and food in a much smaller patch of land. Therefore, these species either have to compete for the area's diminishing resources and risk death, or are forced to flee the area entirely.

Sprawling development also disrupts the natural cycle of our ecosystem. Both natural fire and flood cycles can be disturbed as forests and creeks are cleared to make way for houses and pavement. Interestingly, "numerous species of plants rely on fire to germinate and to recycle nutrients back into the soil, and a lack of fire can substantially alter the species composition of an ecosystem" (BDP, 2001:2). As we continue to develop on top of wetlands and watersheds, we "lose the critical services that these systems provide, such as filtering our drinking water and replenishing our ground water" (BDP,

2001:2). Furthermore, as we pave over natural land, we decrease the ability of the land to absorb water and thus "serve to increase the rate of water runoff from storms and snow-melt" (BDP, 2001:2). The excess runoff increases the rate of flooding within a given area. Additionally, this runoff is likely to be carrying the various chemicals, poisons, and pollution generated by suburban living.

Sprawling development patterns also decrease both the amount of farmland and open space available to society. Within the last decade alone, the United States has lost over 1 million acres of farmland to urban uses (BDP, 2001). As a result, the amount of harvestable agricultural land decreases and herds of animals once roaming these areas of fields become displaced. Unless development patterns change, this trend is sure to continue. Farmland is usually located on plots that are flat and near water sources. Unfortunately, these plots are also desirable to developers. Other open spaces within or adjacent to urban and suburban development such as parks, meadows, and woodlands provide habitats for animals and insects as well as natural elements for people to use and enjoy. All too often, sprawling development patterns eliminate these spaces. According to a report published by the Transit Cooperative Research Program (TCRP), "over the next 35 years, the United States will convert 18.8 million acres of farmland and open space" for residential, business, and entertainment uses (2002:9). This number is "determined by translating the households and employment projections of the Center for Urban Policy Research into demand for residential and non-residential land" (TCRP, 2002:9).

Effects of Vacant Properties on a City

According to National Vacant Properties Campaign (NVPC), vacant properties can be defined as:

> abandoned, boarded-up buildings; unused lots that can attract trash or debris; vacant or under-performing commercial properties known as greyfields (such as under-leased shopping malls and strip commercial properties); and neglected industrial properties with environmental contamination known as brownfields (2005:1).

There are many reasons as to why a property becomes abandoned, but the most prevalent of these reasons is that the abandoned property costs more to lease and maintain than the actual value of the property itself. "Most importantly for a city facing abandonment problems, the longer a property remains abandoned, the higher the cost of renovation" (NVPC, 2005:2). Therefore, local governments must address the problems brought on by abandoned properties because they can impose numerous costs to the city. Abandoned property strains the resources of a city's fire department with the increase of accidental fires and arsons, a city's police department responding to increased criminal activity, and a city's health department as a result of increased trash and rodent infestations.

Vacant properties also reduce the amount of a city's property and sales tax revenue. First, many of these properties are considered to be tax delinquent. The rights to tax delinquent properties are transferred to the city which must then try to sell the property to a prospective tenant. Second, "vacant properties generate little in taxes – but, perhaps more importantly, they rob surrounding homes and businesses of their value" (NVPC, 2005:9). Vacant properties also impose additional costs to home and business owners within close proximity. For example, the owners of homes and businesses located close to abandoned properties can expect their insurance premiums to rise (NVPC, 2005). Vacant properties affect the quality of life for surrounding residents and tenants, possibly

forcing them to leave the area, resulting in further vacancies. If not addressed, this trend can be difficult for a city to reverse.

Effects on Societal Stratification and Government Fragmentation

Even with the decline in residential segregation along racial lines over the past 30 years, central city poverty concentration has risen. According to Jargowsky, those who could afford to escape the city limits and relocate in the sprawling suburban landscape have done so. Although fewer people now live in the city's core, those left behind are mostly poor. However, new housing built on the periphery of the sprawling region tends to be high priced and catered to middle and upper middle class residents (2002). As a result, recent out migrates who settled in housing of inner ring suburbs may soon find themselves in a similar position to that which they recently vacated.

Additionally, the new suburban communities that form due to sprawl tend to in-corporate, thus resulting in the fragmentation of municipalities. Without being able to collect taxes from the wealthier individuals once residing within the city limits, inner city community tax bases will continue to erode. Though this trend facilitates each suburb to govern itself, municipal fragmentation encourages suburbs to compete with each other for enough tax revenue in order to adequately provide desired services to its residents (Or-field, 2002). Therefore, the competition between municipalities becomes a zero-sum game. The municipalities that are able to lure new business into their community benefit financially while the communities that lose these development bidding wars suffer a loss of potential revenue. As a result, the city and surrounding suburbs that are unable to court economic development as a source of revenue must raise taxes on their residents.

Those with the least amount of spendable income are stuck paying more for services than residents of the affluent suburbs succeeding in the realm of economic development (Orfield, 2002).

Consequently, poorer urban municipalities must tax their residents at higher rates in order to generate enough money to meet the costs incurred in providing adequate public services. Even with these rate increases, Orfield (2002) shows that throughout the 1990's the average growth of the tax capacity (a scale used to measure a city's ability to provide services with its generated tax revenue) of the 30 largest United States cities was 98% of the average growth of the tax capacity of their metropolitan regions as a whole. This number uncovers a disturbing trend found within cities. Slow population growth and, in many cases, population decline continually increases the per person cost of providing public services (Ladd, 1994). Additionally, in areas of poverty and older housing stock the costs of providing public services rise at a faster rate than public service costs in affluent areas with new housing. For example, impoverished areas have higher average crime rates (Orfield, 2002). To combat this problem, the city must spend more revenue on law enforcement efforts and personnel. It also costs cities more to re-furbish aging housing stock and commercial buildings. Furthermore, though there are currently fewer people living in these cities than 50 years ago, the water and sewer supplies remain fixed to service a much larger populous (Orfield, 2002). Therefore, current residents must incur the costs of those who migrated to suburbia.

However, these problems are not just limited to the central city. Older, inner ring suburbs located close to the city and undergoing racial transitioning due to recent out migration from the city are also at risk. Many of these problems develop due to unbalanced

regional development as a result of sprawl. For instance, although an average of 44% of the residents of the 25 largest metropolitan regions of the United States reside in these areas, only an average of 20% of total regional office space is located within them (Orfield, 2002). Therefore, these municipalities lack the ability to generate sufficient revenue from economic development to maintain low tax rates. Though median home values and median income levels are on par with city levels, the population increase within these suburbs combined with the struggle for revenue from economic development call for higher tax rates. As a result, these communities are actually becoming poorer, faster than the central cities.

Bedroom-developing communities, known as such due to their distance away from the central city at the edge of sprawling metropolitan areas are also becoming increasingly fiscally stressed. Though their residents enjoy higher median home values and income levels than the city or older, inner ring suburbs, these communities' tax capacity levels are similar to those areas. This is due in large part to significant population increases. In the 1990's, these communities absorbed 60% of suburban growth (Orfield, 2002). Being that they are mostly new communities, many lacked the infrastructure to handle the expansion. In addition, a significant number of households in bedroom-developing communities have school-age children. Population levels between these communities and central cities are similar, but bedroom-developing communities average a 20% higher school enrollment than do their city counterparts (Orfield, 2002). Unable to fiscally keep up with the increased demand for more schools, these communities educate many students in trailers and forgo other community improvements to pay for the costs of their children's education.

Educational systems not only create an impetus for sprawl, they also suffer at the hands of it. Orfield explains that metropolitan areas that have high levels of racial and income segregation tend to sprawl more (2002). The higher these levels are in a given area, more suburbs tend to fail. A large reason for the failure of these suburbs results from the failure of their school systems. As the schools in these areas, mainly older, inner ring suburbs, gain more poor students, the demand for middle-class housing decreases. This is due in large part to non-poor, middle-class families with school children who decide to leave. As a result, the tax capacity of these communities suffers due to the loss of middle-class revenue. Therefore, as revenue declines, per capita spending per student also declines.

This transition occurs, in large part, due to the influx of minority residents within a community that was largely white. Orfield notes that once a school hits a minority threshold of 10%-20%, the rate of transition explodes until those levels are greater than 80% (2002). Interestingly, of the roughly 10% of U.S. schools with 80% or higher minority enrollment levels, approximately 90% of those have poverty levels higher than 50%, while 92% of majority white schools do not face this problem (Orfield & Yun, 1999). Even though poor, minority students are left to study in schools that are inadequately funded, this social separation also leaves many middle-class students of bedroom-developing communities in under funded and over crowded schools.

Summation

Caused by policies of the federal government, the transportation preferences of both firms and individuals, and the trend of suburban municipal fragmentation, sprawl

imposes problems to the health of our society, to the fiscal capability of local municipalities, and to the quality of life of both central city and suburban residents. Unless local governments and their citizens begin to understand and address these problems, the impact of sprawl will almost certainly continue to intensify. However, the smart growth philosophy seeks to remedy the problems resulting from sprawling patterns of development to enhance our quality of life, make development fair, effective, and efficient, and bring back the sense of community that sprawl tends to eliminate.

SMART GROWTH

What Is Smart Growth?

Smart growth planning cannot be restricted to a certain set of policies. Rather, smart growth is a planning style, or a planning philosophy that responds to and attempts to correct the problems caused by previous sprawling patterns of development and that attempts to prevent the continuation of sprawling development (Howell-Moroney, 2006; Leigh, 2005). "Smart growth is an effort, through the use of public and private subsidies, to create a supportive environment for refocusing a share of regional growth within central cities and inner suburbs" (Burchell et al, 2000:823). The American Planning Association (APA) explains the smart growth philosophy with the following definition:

> …smart growth is the planning, design, development and revitalization of cities, towns, suburbs and rural areas in order to create and promote social equity, a sense of place and community, and to preserve natural as well as cultural resources. Smart growth enhances ecological integrity over both the short and long term, and improves quality of life for all by expanding, in a fiscally responsible manner, the range of transportation, employment and housing choices available to a region. (APA, 2002:22)

The Smart Growth America (SGA) organization expands the APA's definition of the smart growth philosophy with a list of six tenets upon which the philosophy is built: neighborhood livability; better access, less traffic; keeping open spaces open; thriving cities, suburbs, and towns; shared benefits; and lower costs, lower taxes (2006). The first tenet, *neighborhood livability*, can be thought of as the foundation of the smart growth philosophy. According to SGA, "the central goal of any smart growth plan is improving the quality of the neighborhoods where we live" (2006). This is accomplished by keep-

ing those communities safe, convenient, attractive, and affordable while making sure to avoid having to succumb to any trade-offs between these goals that often result from sprawling development patterns (SGA, 2006). The second tenet of the smart growth philosophy, *better access, less traffic*, seeks to remedy the high degree of traffic congestion and lengthy travel times resulting from sprawl by reorienting our means and methods of transportation (Porter, 1999). This reorientation includes improving regional access, emphasizing intermodalism, ensuring the regional transportation system is functional for future development, and enhancing the regional economy by linking retail and employment centers (Burchell et al, 2000; Porter, 1999). "Smart growth's emphasis on mixing land uses, clustering development, and providing multiple transportation choices" helps to mitigate these problems as well as to help limit pollution and conserve energy (SGA, 2006).

In addition to protecting the environment with the reduction of pollution and the conservation of energy, the philosophy's third tenet extends the level of the protection by *keeping open spaces open*. Sprawling development patterns decrease the amount of natural land and natural wildlife, threatening both natural resources and natural habitats (Porter, 1999). Protecting these areas from future development will not only preserve the beauty of the earth, but also help to maintain the balance of the earth's ecosystems and to sustain the supply of natural resources. Additionally, securing portions of the planet's remaining natural resources from factory production will "provide healthier air and cleaner drinking water" (SGA, 2006). All too often, unplanned development spreads the resources and infrastructure capacity of many communities quite thin. The fourth tenet, *thriving cities, suburbs, and towns*, suggests funneling future development to those exist-

ing communities within the built environment to increase the amount of revenue local governments can invest in "transportation, schools, libraries, and other public services" therefore enhancing the resources and infrastructure of communities where people already reside (SGA, 2006). "Redirection of a portion of growth to the inner-metropolitan area, combined with a more controlled movement outward, would consume far less capital and fewer natural resources and enable the achievement of more ambitious development goals" (Burchell et al, 2000:822).

The fifth tenet, *lower costs, lower taxes* adds to this notion. Sprawl places a financial burden on local governments. As new developments are created on the fringes of existing communities, new schools, roads, water and sewer systems, and other infrastructure must be constructed to facilitate them. The burden of these costs is placed on the current residents by the new developments. As new developments are constructed at greater distances away from the cores of these communities, the residents of these developments will have to drive increasing distances to arrive at their job or shopping center, thus costing even more money. Smart growth helps to eliminate both problems:

> …taking advantage of existing infrastructure keeps taxes down. And where convenient transportation choices enable families to rely less on driving, there's more money left over for other things, like buying a home or saving for college. (SGA, 2006)

The sixth and final tenet, *shared benefits*, recognizes that sprawl fosters an economic residential divide. As jobs move away from blighted areas to more prosperous, suburban areas, low income residents struggle to find opportunities for adequate employment, education, and health care. Along with this trend, "there is also an interest on the part of middle- and moderate-income central-city households to suburbanize. This movement is the result of minority households' seeking the benefits of better educational opportunities in metropolitan areas" (Burchell et al, 2000:822). Smart growth strives to eliminate this

divide and encourages residents of all income levels to participate in the community's economy and take advantage of all the opportunities it provides.

The Costs of Sprawl vs. The Economic Benefits of Smart Growth

Developers, looking to make a profit, may not see sprawl as such a bad idea. If the opportunity for land acquisition arises, developers will quickly make the purchase and proceed with their development plans without the thought as to how their new development might add to the degree of which an area is sprawling. However, to the jurisdiction and surrounding locales in which this new development is located, the costs of sprawl resulting from this development could be quite expensive.

Before the 1970's, no substantial empirical analyses had been compiled that suggested the practice of well planned high density development had any more of a fiscal benefit than did sprawling, low density development. The lack of this information allowed planners to develop land on their own accord without regard to the cost of capital facilities and infrastructure or the impact these developments could have on the cost of service provision for the areas on their local governments. However, beginning with a report by the Real Estate Research Corporation (RERC) in 1974 and continuing with several pieces of sprawl's cost analyses impact throughout the following decades, local governments now had access to reports that factually detailed the savings that could be enjoyed through well planned, high density development and the smart growth philosophy.

According to the BDP, "compared with the amenities in a well-planned community with the same number of households, roads in sprawled areas cost 25% more, utilities cost 20% more, and schools 5% more…for typical sprawling residential develop-

ment, these public services cost an average of $1.17 for every $1.00 generated through taxes" (2001:1). These increases create a heavier tax burden on the residents of the entire state in which the sprawling area is located. Being that much of the infrastructure for new development projects is constructed before new residents move in, the cities in which the new development is located will experience revenue shortfalls and will be unable to pay for the services provided within the new development. Therefore, to make up for these shortfalls, these cities must look to subsidize their loss through general state taxes. Hence, the costs of the sprawling development will be spread among all residents of the state, and, in a sense, these costly new developments are subsidized by those who reap none of their benefit.

Implementation of the smart growth planning philosophy helps to curtail the costs to the governments and citizens affected by sprawling development. Future planning using smart growth techniques such as infill development, a mixing of land uses, and cluster development can save resources. Burchell et al. (2000) conclude:

> …for the United States as a whole, over a 25-year period, [these savings] could amount to $250 billion. Three-quarters of the savings would be in the form of housing and development cost savings to residential and nonresidential developers and new home buyers/commercial building tenants. Another 15% would be in road savings to local and state governments; about 6% would be in land savings to local and state governments; and, finally, 4% would be in development utility savings, again to land developers and occupants of new structures (827).

According to Burchell et al. (2000), "if U.S. housing stock grew at 1% per year and employment grew at 1.5% per year, more than 3 million acres would be saved from development between 2000 and 2025" (829). Additionally, the use of smart growth techniques "could result in savings of about $5,790 per new dwelling unit. Considering the number of units of residential development projected to be built from 2000 to 2025, this would amount to a savings of $145 billion" (Burchell et al, 2000:830). Smart growth planning

will reduce the cost of providing infrastructure and to a lesser degree reduce the cost of service provision (Brookings Institute, 2004). Smart growth planning has also been shown to enhance the economic performance of entire metropolitan areas that implement it, and can help bolster the economic performance of entire geographic regions (Brookings Institute, 2004). In short, smart growth equals smart money.

Capital Facilities and Infrastructure

In their groundbreaking work on the impact of the cost of sprawling development patterns, the RERC (1974) noted that well planned, high density development patterns often associated with the smart growth philosophy could reduce the cost of providing infrastructure by roughly 47% as compared to the costs of providing the same infrastructure to sprawling, low density developments. In fact, in 1973 dollars, the infrastructure costs of the planned, high density developments averaged to $5,167 while the costs of infrastructure of the sprawling, low density development averaged $9,776 per 10,000 new housing/business units (RERC, 1974). Though this study had its flaws (it did not account for school costs and future accommodating regional capital facilities) it paved the way for future research on the topic.

In 1989, the Urban Land Institute (ULI) re-analyzed the findings of the RERC and came to similar conclusions. Comparing eight different development patterns ranging on a high density to low density scale, the report found that the cost of providing infrastructure such as streets, sewers, water systems, storm drainage, and schools to the most dense and highest concentrated development areas averaged $20,300 per dwelling unit to an astonishing $92,000 per dwelling unit for houses 10 miles from “central facilities” lo-

cated within areas zoned for estate (1 dwelling unit per four acres) residence (Brookings Institute, 2004). Additionally, keeping the variable for distance (10 miles from "central facilities") constant, developments with density levels of 3 units per acre would slice the capital costs of infrastructure to roughly $48,000 per dwelling unit. If at that distance developments were further concentrated to 12 units per acre, the cost of infrastructure could once again be halved to cost roughly $24,000 per unit (Brookings Institute, 2004).

Also in 1989, a team led by Duncan advanced the study of growth costs by widening the inquiry beyond density, and focused on the broader regional costs of different development scenarios. Rather than basing these costs on hypothetical developments as did the RERC and the Urban Land Institute, the Duncan team compared the actual costs of 8 different developments representing 5 styles of development (compact, contiguous, satellite, linear, and scattered) within the state of Florida. The findings of the Duncan team were in agreement with the findings of both the RERC and the Urban Land Institute. The capital and infrastructure costs of the compact areas averaged $9,252 per unit as compared to $23,960 per unit average of the areas considered to be the most scattered and sprawling (Duncan et al, 1989). Furthermore, the Duncan team concluded that smart growth development patterns could save approximately 60% of road costs associated with unplanned development and 40% savings on utility costs (1989).

Throughout the 1990's teams led by Robert Burchell compiled even more evidence of the costs saved by increasing a community's development density levels using development patterns in the states of New Jersey, South Carolina, and Michigan as models. The savings generated in high density areas with respect to road construction alone were 12% in South Carolina, 12% in Michigan, and a whopping 26% in New Jersey

(Brookings Institute, 2004). The Burchell team also calculated that clustered development patterns would save the three states over $870 million combined in local road costs, reducing their burden roughly 23% (Brookings Institute, 2004). Savings from water and sewer construction ranged from 8% in New Jersey, to 13% in Michigan, and 14% in South Carolina (Brookings Institute, 2004). The Burchell team concluded that the state of New Jersey could save $2.32 billion, or roughly 15% of the cost of providing water and sewer infrastructure to its communities between the years 2000 and 2020 if it would adopt smart growth planning methods (Brookings Institute, 2004). The Burchell team theorized that more than half of these savings would be generated by a decrease in the overall water/sewer usage amounts and the use of existing infrastructure as a result of more clustered, concentrated development patterns.

In 2002, the Burchell team extended their research nation-wide and compiled savings data for all 50 states. They based their calculations over a 25 year period (2000-2025) on the criteria that states reduce sprawl by 25%. Their results were astonishing. Their calculations assumed that, as a nation, the United States' and their governments could save $110 billion dollars and over 188,000 miles of local road construction by 2025 using smart growth development patterns (Burchell et al, 2002). Though savings for water and sewer systems were not as substantial as the savings on road construction nation-wide, the Burchell team concluded that $12.6 billion, roughly 6.6% of the cost could be saved through smart growth techniques (2002).

According to the TCRP (2000), assuming uncontrolled growth and sprawling development patterns continue for the next 20 years, "developers and local governments in the United States will expend more than $190 billion for water and sewer infrastructure

which will be needed to accommodate the more than 18 billion gallons of additional water and sewer capacity needed" (9). On the other hand, if smart growth planning methods are used to curb this growth, "over 150 million gallons of water and sewer demand per day can be saved" (TCRP, 2000:9).

Each of these studies comes to the same conclusion. Future development using the smart growth planning philosophy costs local governments less money than does future, unplanned sprawling development. It is estimated using these studies that the costs saved by implementing smart growth techniques could average between 10 to 20% on the cost of infrastructure over the period of the next 25 years.

Public Service Delivery

It is widely asserted that the savings enjoyed by local governments with respect to capital outlays and infrastructure as a result of smart growth planning are larger than those savings expected with respect to the costs of public service delivery (RERC, 1974; Burchell et al, 1992,1998; Burchell, Dolphin, & Galley, 2000; Bollinger, Berger, & Thompson, 2001; Brookings Institute, 2004). However, the reduction in infrastructure costs coupled with higher density residential concentrations also provide local governments some relief on service delivery expenditures.

The Burchell team, who conducted their studies with models based on the development patterns found in New Jersey, Michigan, and South Carolina came to a similar conclusion. Burchell's team found, that in New Jersey, implementation of smart growth development plans saved, on average, $400 million. These savings gave a 2% fiscal advantage, per year, to the localities and school districts within the state (Brookings Insti-

tute, 2004). These savings were actually greater in the states of Michigan and South Carolina. Smart growth plans implemented in Michigan were expected to generate a 4 % revenue gain, and plans implemented in South Carolina were expected to generate a 5% revenue advantage for local governments annually (Brookings Institute, 2004). In the same 2002 study that calculated the savings in infrastructure costs over the next 25 years, the Burchell team found that the implementation of smart growth planning methods could reduce public service costs around $4.2 billion or 3.7% over that same time period.

University of Kentucky professors, Bollinger, Berger, and Thompson conducted a ten year study (1987-1997) comparing the public service costs among counties in Kentucky that implemented growth controls to those that did not. Their findings consistently pointed to service cost savings for the counties they considered to be compact over those counties they considered to be sprawling. For example, in the compact county of Fayette, which includes the city of Lexington, the study found that for every additional 1,000 new residents that moved into the area service costs decreased by $1.08 per person. In contrast, in the sprawling county of Jefferson, which includes the city of Louisville, the study showed that each addition of 1,000 new residents led to an increase of $36.82 per person to accommodate services (Bollinger et al, 2001).

In 1999, H.C. Planning Consultants, Inc., for the project Grow Smart Rhode Island, concluded that smart growth implementation could save the residents of the state a collective $181 million in public utility operating costs over the next two decades (Brookings Institute, 2004). Additionally, the report shows that "smart growth in Rhode Island could increase core cities' property tax revenues by $39 million annually or $782 million over the next 20 years" (Brookings Institute, 2004). Combining the savings from

the operating costs of public utilities with the generation of the extra revenue from property taxes, the savings from controlled, compact growth is expected to save the residents of Rhode Island over $1.4 billion over the course of the next 20 years (Brookings Insitute, 2004).

Economic Performance and Expenditure

It is evident that smart growth planning techniques can save large amounts of revenue for local governments with respect to infrastructure and public service delivery costs. Data also points to the fact that these techniques can bolster the economic performance of these communities across the country. Researchers have actually begun to demonstrate that "such key smart growth goals such as compactness, density, well-integrated land-use and transportation, growth management systems, and rejuvenated urban centers may each be associated with enhanced economic growth" (Brookings Institute, 2004).

In theory, increased density levels will act as an incentive to local governments to attract new firms in their pursuit for economic development. Ciccone and Hall have concluded that higher densities will reduce transportation costs by placing employees and their businesses closer together in addition to helping cluster similar and complementary business organizations. Their data estimates that the doubling of density levels will actually increase average productivity by 6% (Ciccone & Hall, 1996). Furthermore, their study found that workers in the ten most dense states "produced $38,782 of value annually while workers in the ten least dense states produced only $31, 578 in output – about 25% less" (1996). The findings of Ciccone and Hall were extended in a 2000 study con-

ducted by Cervero. Cervero found that the "economic benefits of compactness and concentration outweighed such negative impacts as freeway congestion" (2000). Cervero's results echoed those of the Ciccone and Hall study and concluded that "cities in which firms lie close to labor markets and the transportation infrastructure works swiftly enjoy greater economic output per worker" (2000).

Nelson and Peterman add one more wrinkle to this discussion. They found that metropolitan areas implementing smart growth techniques "realized a 1% improvement in their market share relative to other metro areas" that did not engage in such practices during a 20 year period from 1972 to 1992 (Nelson & Peterman, 2000). Furthermore, higher densities have been shown to improve the effectiveness of a community's research and development efforts. Carlino, in a 2001 study, found that high density levels actually increased an area's innovation capacity. According to Carlino's data, the number of patents per capita rose, on average, 20 to 30% in a metro area for every doubling of density (2001).

Smart Growth Myths

Some local government officials are skeptical of the smart growth philosophy, and perceive smart growth to be a hindrance to future development and have formed negative opinions as to the success of implementing smart growth policies (ULI, 1999). Burchell et al (2000) note:

> at the local levels, there has been an occasional outspoken mayor or county executive who has actively embraced smart growth…on the whole, however, local leaders have been relatively silent on smart growth, especially if by being "vocal" they could diminish future job growth (859).

As a result, several smart growth myths have permeated the climate that need to be addressed. The most prevalent of these myths per the Urban Land Institute (ULI) include: smart growth is actually a code word for no growth; smart growth is anti-suburb; smart growth creates another layer of government regulation; and that smart growth is not marketable (1999).

According to the ULI (1999), skeptics suggest that smart growth planning is simply a mask for stopping growth altogether. Though smart growth planning helps to control growth and concentrate sprawl, the smart growth philosophy realizes that growth is inevitable. According to the U.S. Census Bureau, by the year 2020, the population of the United States is expected to grow by 58 million people, or roughly 21% (Census, 1996). Due to this growth, the demand for housing and office space should continue to rise. In fact, Harvard University's Joint Center for Housing Studies (HJCHS) expects the number of new households to be built within the current decade to exceed 16 million (HJCHS, 1999). With the expected population growth, local governments should enjoy significant revenue increases which will allow them to further invest in infrastructure and public service improvements. The smart growth philosophy welcomes both the expected population increase as well as the expected increase in revenue. Forecasting growth well in advance, smart growth looks to harness these increases in order to bolster the economy and quality of life in a pro-growth fashion.

Being that the smart growth philosophy recognizes growth as both inevitable and desirable, smart growth "encourages development that meets the multiple objectives in downtown, suburban, and suburban fringe locations" (ULI, 1999:6). Critics of the smart growth philosophy assert the perception that smart growth seeks to direct growth away

from desirable locations, namely the suburbs. According to the ULI, "today's consumers want to feel rooted in a community, and standard suburban subdivisions that foster social isolation, segregated land uses, a dependence on the car, and long commutes do not necessarily reflect homebuyers' needs" (1999:6). Smart growth does not want to limit suburban habitation, but rather it seeks to re-invent the suburb to create a community feel. In fact, as Burchell et al (2000) state,

> if smart growth is the control of outward movement in metropolitan areas of the United States, the concept must ultimately deal with the preference of American households to live in single-family homes and to own and drive at least one automobile (860).

According to the 1997 Fannie Mae National Housing Survey, 70% of Americans said that they preferred to live in suburbs, small towns not near a city, or in rural areas. Furthermore, it is projected that nearly 90% of all future housing-unit growth for the next 25 years will be outside central cities (Woods & Poole Economics, 1999). However, as local subdivisions become more isolated, local governments find it difficult both fiscally and operationally to provide adequate public services to these areas. In response to this problem, smart growth encourage suburban areas to create comprehensive land use strategies to promote "suburban development that takes place in the context of local existing communities" including solutions for future infrastructure, transportation alternatives, recreational areas for children, and other quality of life issues (ULI, 1999:6).

There are those critics that believe implementation of smart growth policies will only add another layer to the regulatory process of local governments (ULI, 1999). This perception could not be further from the truth. While smart growth is indeed concerned with sound land use strategy, growth control, and adequate service provision, its philosophy does not restrict or complicate a local government's ability to function. Quite the contrary, "smart growth seeks to reform strict regulatory policies and streamline proce-

dures so that desirable projects are easier – not harder – to build" (ULI, 1999:8). The smart growth approach actually helps to eliminate wasteful regulation and helps to simplify a local government's operational activity. By limiting and reforming current segregated land use zoning ordinances, smart growth strives to make sure that land can be used to its most effective and efficient potential in order to enhance an area's economic performance and bolster its residents' quality of life.

Other critics argue that the marketability of smart growth is limited due to the fact that most people want to live in the suburbs, away from the hectic atmosphere of the city (ULI, 1999). However, the idea of high-density, well-planned communities is attractive to both homebuyers and business owners. While it is true that smart growth planning seeks to re-energize urban areas, it is also true that smart growth planning techniques can contribute to making both urban and suburban areas more attractive to potential residents. Recent polling suggests that people are both willing and wanting to live in better planned communities offering a myriad of transportation alternatives and mixed land uses. In a survey conducted by America Lives Inc., buyers of new homes are rejecting traditional suburban design; they want new development to take the form of a traditional small town with a town center at its core (ULI, 1999). Another survey, conducted by Gallup suggests that a significant number of Americans actually prefer living in a small town over a suburb (ULI, 1999). The size of residential lots as a preference for home location is also not as large of a factor as critics believe. According to Burchell (1997), lot sizes could decrease by 20 to 25% before purchasers begin to object. It is evident by these poll numbers that the market for smart growth planning is both substantial and increasing as more

people begin to seek the amenities, transportation choices, and increased quality of life a well-planned community can provide (ULI, 1999).

How Is Smart Growth Achieved?

As previously discussed, smart growth planning is a philosophy. Within the structure of the philosophy, local governments can implement certain smart growth techniques in order to place their communities on the path toward growing smarter. Not every community desires or has the ability to become a full-fledged smart growth community, but for those communities wishing to adopt a complete smart growth agenda, SGA has compiled a 10-point checklist (shown in Figure 1) local governments can follow in order to achieve full smart growth.

Figure 1: SGA 10-Point Checklist

Tools for Full Smart Growth

1) Mix Land Uses
2) Take Advantage of Existing Community Assets
3) Create a Range of Housing Opportunities and Choices
4) Foster "Walkable," Close-Knit Neighborhoods
5) Give Communities a Strong Sense of Place
6) Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas
7) Strengthen and Encourage Growth in Existing Communities
8) Provide a Variety of Transportation Choices
9) Make Development Decisions Predictable, Fair, and Cost-Effective
10) Encourage Citizen and Stakeholder Participation in Development Decisions

The first step toward becoming a smart growth community entails the mixing of land uses. According to SGA (2005), "new, clustered development works best if it includes a mix of stores, jobs, and homes." Communities that are able to mix land uses improve the quality of life for their residents by eliminating long distance drive times, diversifying the area's style, and enhancing the area's commercial base (ICMA, 2001). In addition to mixing land uses, communities must also take advantage of existing community assets. "From local parks to neighborhood schools to transit systems, public investments should focus on getting the most out of what we already have built" (SGA, 2005). In order to achieve smart growth, communities must create a range of housing opportunities and choices. The ICMA (2001) also states:

> In addition to improving a household's quality of life, housing can ensure a better jobs-housing balance and generate a strong foundation of support for neighborhood transit stops, commercial centers, and other services, thereby mitigating the environmental costs of auto-dependent development (17-18).

SGA points out that one of the greatest attributes of society is the fact that people want different things. Not everyone wants to live in the same type of house. In response, "communities should offer a range of options: houses, condominiums, and affordable homes for low-income families" (SGA, 2005). Smart growth communities must also foster "walkable," close-knit neighborhoods. SGA believes these types of communities not only offer the opportunity to walk, but something to walk to such as "the corner store, the transit stop, or the school" (2005). "Walkable communities are integral to achieving the goals of smart growth because they enhance mobility, reduce negative environmental consequences, strengthen economies, and support stronger communities through improved social interaction" (ICMA, 2001:26).

Communities wishing to achieve full smart growth must also "promote distinctive, attractive communities with a strong sense of place" (SGA, 2005). All communities have certain features that make them special and unique. Smart growth seeks to preserve these features, "creating a sense of civic pride, and supporting a more cohesive community fabric" (ICMA, 2001:34). "People want to stay connected to nature and are willing to take action to protect farms, waterways, ecosystems, and wildlife" (SGA, 2005). In response, smart growth preserves the environment, open space, and farmland "combating air pollution, attenuating noise, controlling wind, providing erosion control, and moderating temperatures" (ICMA, 2001:44). In order to make sure these lands stay protected, smart growth encourages communities to strengthen and develop within existing areas.

Smart growth also encourages local governments to provide the residents of their communities with a variety of transportation choices. "People cannot get out of their cars unless we provide them with another way to get where they are going. More communities need safe and reliable public transportation, sidewalks, and bike paths" (SGA, 2005). Additionally, smart growth is designed to make development decisions predictable, fair, and cost-effective (SGA, 2005). "For smart growth to flourish, state and local governments must make an effort to make development decisions that support innovation in a more timely, cost-effective, and predictable way for developers" (ICMA, 2001:70). Finally, smart growth communities must encourage citizen and stakeholder participation in development decisions (SGA, 2005). As the SGA (2005) notes, "plans without strong citizen involvement do not have staying power."

Smart Growth Policy

Engaging The Community's Participation

Being that any smart growth plan will consist of policies that could have drastic effects on the future look, size, and social climate of a given community, it is important for local governments to engage their citizens in the process, especially during the beginning stages of the plan's development. The municipalities of the Portland, Oregon metropolitan area, while developing their region's comprehensive plan, designed a method to enlist the help of their residents by providing video tapes consisting of various future planning goals and illustrating the numerous ways the area could achieve these goals. These video tapes were made available to the public, free of charge, to be checked out at Blockbuster Video locations throughout the area. As a result of this campaign, the municipalities of the Portland area received over 17,000 citizen comments and suggestions concerning the future development plans for their community (ICMA, 2001). Though this method worked well for the governments of the Portland area, there are other techniques local governments can use to engage the public in this process. Further examples of these techniques include, holding town hall meetings, partnering with neighborhood associations, and implementing the use of surveys through direct mail.

Directing Development Toward Existing Areas

Once local governments have involved their citizens in the planning process, they can then aggressively pursue a smart growth agenda beginning with plans to direct development into existing developed areas. All too often, sprawling development patterns leave communities with pockets of blighted urban areas in need of redevelopment. Addi-

tionally, the "leap-frog" characteristic of sprawling development patterns leave vast amounts of land in between suburbs that can be developed to help control future growth.

Perhaps the most comprehensive way a local government can restrict future development to existing communities is by establishing an Urban Growth Boundary (UGB). Portland, the largest city in the state of Oregon, developed a UGB to be placed around its city and 24 of its surrounding suburbs to limit the not only the physical growth of the region, but also to restrict areas of land that could be developed. The UGB conformed to the ideals of a regional commission which established goals concerning the development and economic development of the region. One of those goals centered on an equitable housing policy within the region. One major stipulation of Portland's UGB was for each municipality within the boundary to provide "necessary and suitable housing that meets the housing needs of households of all income levels" (Toulan, 1994). Studies are now showing that with the implementation of this policy, median housing values are dropping and becoming increasingly affordable to residents of high, moderate, and low income levels (Indicators of Western U.S. Economy, 2000). In fact, rates of homeownership are increasing faster in Portland than in comparable U.S. cities such as Atlanta (Peirce, 2000). Furthermore, even as Portland's population increased 25% from 1980-1994, the amount of land developed only increased 16% within the UGB (Abbott, 2002). It is possible that some citizens and developers will not welcome the establishment of a UGB to control future growth and development patterns. There will always be a tension among citizens concerning the way they value the ideals of liberty versus those of security, equity, and efficiency. Whether or not local governments in other metropolitan areas decide that a UGB is right for their communities will depend on many factors specific to the

area. However, with or without a UGB, local governments can implement many different policies to help control growth and direct it toward existing areas.

Brownfield areas, areas now blighted or abandoned that were once used for industrial or commercial purposes can be the focus for redevelopment by local governments. Many of these brownfield areas are chemically contaminated, and "federal environmental requirements impose costs on city governments or potential purchasers to cleanup brownfields" (Savitch, 2000:149). Because of these requirements, cleanup liability becomes a significant barrier to local governments wanting to redevelop brownfield areas. However, through the federal "Livable Communities" initiative, local governments can address this barrier by issuing tax credit issue bonds to help cover financial liability of the cleanup effort (Savitch, 2000).

Local governments can encourage the redevelopment of brownfield areas by targeting these parcels and making them readily available to developers for redevelopment projects. Strong local brownfield programs are an essential component to smart growth plans. One technique local governments can use to strengthen their brownfield program is to adopt a fix-it-first priority funding program (ICMA, 2001). By making it a priority to rehabilitate and upgrade existing facilities, local governments can either stop or decrease the rate of decay to existing infrastructure. As a result, developers do not have to concern themselves with replacing infrastructure in order to complete a project. Local governments can also use the split-rate property tax to encourage development and redevelopment of vacant and blighted brownfield areas (ICMA, 2001). This mechanism stimulates development by shifting the tax burden of developers and land owners from

structural improvements to the land itself. This technique raises the tax consequences of the developer or land owner if the vacant land is left dormant.

One of the strongest local brownfield programs is the St. Paul Port Authority Brownfields Program of the Minneapolis/St. Paul, Minnesota area. The program has identified 50 sites and targeted them for redevelopment based on a list of criteria including, the extent of development costs, the site configuration, the immediate area's level of unemployment, housing vacancies, and percentage of rental property (Simons, 1996). Based on those criteria, the Port Authority gives these parcels to developers who agree to attract and retain business, maintain standards of energy efficiency, and ensure the hiring of locals and competitive wages (Simons, 1996). As of 1996, the program has generated over $2 million annually in property tax revenues and created over 1,500 jobs (Simons, 1996).

Aside from brownfield redevelopment, local governments should also focus on rehabilitating other areas within their communities including historic buildings and districts, distressed areas along existing transit lines, and areas along and adjacent to waterways. For unoccupied historic buildings that are in good physical shape local governments can provide a tax credit to potential tenants as incentive to locate their businesses with the structure. Another technique to maintain the preservation of historic districts or buildings that local governments can implement is to enter into a partnership with a local non-governmental organization to create a revolving loan fund (ICMA, 2003). These funds can be started through initial grants made to non-governmental organizations by willing donors. As the fund grows, loans can then be dispersed to developers who promise to use the money to either maintain or rehabilitate the area. These low-interest loans

are then returned to the fund by the developers for use in future historic preservation projects (ICMA, 2003). The Pittsburgh History and Landmarks Foundation has been operating a historical preservation revolving loan fund since the 1960's. Over the past several decades, the foundation has dispersed loans to developers who not only agree to preserve the historical district, but also agree to provide affordable housing within the district as well (PHLF, 2006).

Local governments can also rehabilitate areas along existing transit lines to encourage the use of public modes of transportation. By giving developers incentives to concentrate centers of food and entertainment near transit stops, local governments can help keep these areas safe and attractive. Local governments can also use transportation funds to provide housing near transit stations. The government of San Mateo, California reserves 10% of the transportation funds allocated to it by the state as an incentive for developers to construct housing near transit stations (Dodge, 2002). If developers choose to locate housing within a third of a mile of a transit station, they can receive up to $2,000 for every bedroom constructed from the San Mateo government (Dodge, 2002). During the program's first cycle, $2.3 million dollars were allocated to developers who constructed a total of 1,282 bedrooms (Dodge, 2002).

Applicable to local governments whose municipalities are located on or along water, incentives can be given to developers to encourage the revitalization of waterfronts. The city of Baltimore revitalized its Inner Harbor by giving developers financial incentives to construct an aquarium, hotels, restaurants, retail shops, and a convention center (ICMA, 2003). The city of New York revitalized the banks of the Hudson River by contracting with developers to construct the Hudson River Park. The Park includes open

space, walking trails, bike trails, 13 public piers, and several park areas (www.hudsonriverpark.org, 2006).

In order for local governments to ensure the success of the continued development and redevelopment of existing areas, they must be sure to retain businesses within those areas, and try to recruit new businesses that best complement the job skills of the area's residents. One way local governments can retain businesses is by providing homeowners with incentives to locate near these businesses. This method helps to discourage businesses from relocating to more populated areas and helps to decrease the long drive times many residents must endure when traveling from their suburban homes to downtown business locations. Partnering with the state government, local governments in Maryland are testing one of these programs. For those citizens interested in being a part of the program, the state of Maryland, the pertinent local government, and the employer will each contribute $1,000 to an employee choosing to live within a specified distance from their employer to go towards a down payment on a home (State of Maryland, 2006). The municipalities of the Minneapolis/St. Paul, Minnesota metropolitan area partnered to create the Greater Minnesota Housing Fund. If area employers agree to provide their employees with down payment assistance, the fund will match the employer's contribution to help the employees find housing near their workplace (GMHF, 2006).

Local governments can also provide home buyer assistance to residents looking to locate in redeveloped areas through their financial support to community land trusts. Contributing funds to individuals wishing to become prospective homeowners, these trusts help to reduce the financial burden of homeownership by acting as a low-interest, long-term lease agent. Essentially, these trusts provide money to homeowners over a pre-

defined period of time in order to help them make payments on a home. Initially owned by the trusts, these homes are then made available to be purchased by their tenants at the end of the leasing period (ICMA, 2001). In many instances, existing housing within areas targeted for redevelopment has become too blighted to be occupied. In order to renovate these properties, local governments can create programs to encourage home renovation throughout the redevelopment period. These programs can be financed through grants, low-cost loans, tax abatements, and home equity assurance programs (ICMA, 2001). The first home equity assurance program was established in the community of Oak Park, Illinois, an older suburb of Chicago (ICMA, 2003). This program used funds generated through property taxes. These monies were then used to guarantee homeowners of areas of redevelopment within Oak Park that their property would not lose value as a result of the redevelopment projects (ICMA, 2003). As of 2003, the program has not had to pay on a single claim made by residents participating in the program (ICMA, 2003).

Mixing Land Uses

Directing development towards existing areas is an important component to the smart growth philosophy. However, after a local government has employed techniques to ensure the future direction of development and redevelopment, it must then establish how those development projects will be filled. Smart growth suggests mixing the uses of those projects. Communities that are able to mix land uses improve the quality of life for their residents by eliminating long distance drive times, diversifying the area's style, and enhancing the area's commercial base (ICMA, 2001). In many cities today, zoning re-

quirements keep residential areas away from business districts, retail centers, recreation areas, and schools (ICMA, 2001). Separated land use patterns also often create a jobs/housing imbalance within a community (ICMA, 2001).

Current zoning regulations may also serve as a barrier to a local government when trying to mix land uses. Being that many of these regulations are governed by the state, local governments may find it difficult to make wholesale changes to their zoning framework (ICMA, 2001). However, local governments can adopt smart growth codes to act in a parallel fashion with the existing zoning regulation. The parallel codes make it legal to develop mixed use projects and still allow developers to choose to work on projects that are regulated by conventional zoning codes. The city of Fort Myers Beach, Florida has adopted parallel codes which eliminate both setback and yard area requirements allowing developers to use compact construction methods (APA, 2006).

Local governments usually develop or edit their comprehensive plans every 5-to-10 years (ICMA, 2003). In order to increase the amount of space reserved for mixed land use projects, local governments can update these plans with mixed land use goals. In addition, local governments can apply application standards to both their comprehensive plans and zoning regulations to ensure that land uses are not incompatible with each other and that they are area specific (ICMA, 2003). For example, the city of Grand Rapids, Michigan designed their North East Beltline Joint Development Plan with standards to ensure that uses such as residential, commercial, and office space maintained a functioning relationship (ICMA, 2003).

In addition to adopting parallel smart codes into their zoning framework, local governments can also use several other zoning techniques in order to mix land uses that

conform to smart growth principles. The creation of overlay zones and Planned Unit Development (PUD) zones allows local governments to permit a special application of land use in targeted areas. "A PUD also involves the possibility of mixed land uses and house types" (Platt, 2004:271). The goal of these zoning techniques is to "achieve a higher quality of development with diversity of uses and retention of open space" (Platt, 2004:271). In instances where areas are in the midst of development transition, local governments can implement flex zoning. Flex zoning allows developers to change the type of use for a building without needing to be granted a variance by the local zoning adjustment board (ICMA, 2001).

Aside from adjusted zoning codes, local governments can provide a package of incentives to encourage developers who agree to construct mixed use projects within infill areas or areas targeted for redevelopment. One of these incentives can be in the form of an equity investment partnership between a local government and a developer(s). For example, the city of Albuquerque, New Mexico owned a parcel of land that they wanted to redevelop into a world class mixed use entertainment district. As the property owner, the city became an equity investment partner with several developers. The parties agreed to divide the returns on this investment by giving the short-term returns back to the developers and rewarding the city with the long-term returns (Leinberger, 2001). Another incentive that can be used is tax abatements. The city of Elgin, Illinois provided tax abatements to developers to redevelop their fading retail establishments located in the downtown Elgin area in order to encourage the construction of mixed use residential and retail projects (ICMA, 2003). Since 1999, this program has helped to redevelop 12 sites

into residential/retail projects. As a result, the city of Elgin has seen an increase in the population of their downtown area after years of decline (ICMA, 2003).

Several types of structures are prime targets for redeveloped mixed use projects. Old shopping malls and dilapidated strip centers are often located on large plots of land. As they become blighted and out-dated, local governments can see large losses of tax revenue on both the property and the land that could be recovered by converting the structures into mixed use facilities (ICMA, 2001). The city of Boca Raton, Florida successfully converted a large, declining retail space known as Mizner Park into a development that consisted of ground-level retail shops and upper level condominiums (ICMA, 2001). Across the country there are hundreds more abandoned malls and strip centers that can be converted just like Mizner Park (CNU & PriceWaterhouseCoopers, 2001). Once these areas are redeveloped, it is possible that other developers may be encouraged to increase investment in the surrounding area, leading to larger streams of revenue for local governments. Downtown area warehouses no longer in use may also be prime targets for redeveloped mixed use projects consisting of residential units, restaurants, and retail establishments. Cities can also retrofit office parks and other retail structures and turn them into mixed use establishments. The city of Plano has transformed its Legacy Office Park into a town center by retrofitting the park with retail stores and apartments. The city also plans to add restaurants and park areas to the project in the near future (ICMA, 2001).

Another interesting idea for local governments attempting to mix land uses within redevelopment districts is to have developers create residential villages rather than large, conventional subdivisions. In theory, these villages function as tiny downtown districts.

These types of neighborhoods include small scale grocery stores and maintain open space for both parks and other recreational uses such as playgrounds, swimming pools, and tennis courts. The town of Columbia, Maryland developed a series of these villages connected by a village center which includes the neighborhood school and the neighborhood recreation facilities. Being that no resident of these villages lives more than a mile from the town center, residents can choose to drive, bike, or walk to it (Lockwood, 2003).

Design Practices for Areas of Redevelopment

In concert with establishing programs and policies to control growth within existing areas and encouraging developers through incentives packages to develop mixed land use projects, local governments following the smart growth philosophy should design guidelines to address the size, shape, and style of the buildings to be constructed. In order to conserve land so that the community can develop infill areas to their full potential, local governments can also use provide developers with incentives encouraging compact building design.

One of the first steps a local government can take to create extra space is to reduce off-street surface parking. Off-street parking lots can consume many blocks of land within downtown districts (EPA, 1999). Replacing these lots with on-street parking or parking decks allows the space consumed by the old off-street lots to be redeveloped to generate tax revenue for the community. Constructing large, multi-level parking decks in areas once occupied by off-street parking lots can be an expensive venture, especially the initial investment. However, local governments can begin to recover that expense as soon as the land saved as a result of replacing the lot with a deck is redeveloped (EPA,

1999). Local governments unable to pay for the construction of a parking deck can place the burden onto developers by either charging a fee if the developer refuses to construct a deck, or by providing developers who choose to build parking decks with financial incentives.

Local governments can implement the use of density bonuses as an incentive to developers in order to match the scale of new buildings to the size of the street on which they are located, or to bring the buildings closer to the lot line to calm pedestrian traffic and make walking more pleasant (ICMA, 2003). If developers choose to exceed the density requirements established by the city, local governments can require them to contribute a public amenity. Density bonuses were used in the city of Bellevue, Washington to secure ground-floor retail space. The city of Arlington, Virginia used bonuses to leave room for retail and residential space near a public transit station in a building originally designed for office use. As a result, the city of Arlington was able to create a 24-hour district filled with homes, offices, retail shops, and restaurants, all located near a transit stop (ICMA, 2001).

In order to make downtown and urban districts more pleasant to the pedestrian, local governments should try to ensure ready access to open spaces in compact places. These can take the form of urban green space, parks, gardens, plazas, and playgrounds. One goal of the smart growth philosophy is to facilitate the ability for citizens to walk freely to their destinations (SGA, 2005). With that in mind, local governments can take steps to achieve that goal within redeveloped urban, downtown districts. Equipping heavily traveled streets with sidewalks helps keep the pedestrian safe. Funding for sidewalks is available to local governments in the form of grants under TEA-21 which can be

provided to developers (ICMA, 2001). To ensure pedestrian safety, local governments should also encourage developers to construct landscaped medians between the street and sidewalks to act as a buffer zone to automobile traffic.

Smart growth also encourages local governments to strengthen their communities by giving them a sense of place. One way to accomplish this goal is to advertise and identify the community with attractive visual cues. Using attractive visual cues to define the community also help to encourage the citizens of the community to participate in community activities (ICMA, 2001). Local governments can identify attractions that promote walking, social interaction, and entertainment opportunities. Local governments can give permits to street vendors allowing them to provide sidewalk services to accommodate pedestrians. Keeping the community attractive along with the use of visual cues can also help promote community awareness, deter crime and improve social capital (ICMA, 2003).

Preserving Open Space

Prior to developing new lands, smart growth suggests that local governments take steps to preserve open space. There are several techniques local governments can implement in order to conserve these areas including, the Transfer of Development Rights (TDR) and the Purchase of Development Rights (PDR). TDR "seeks to protect natural lands and habitats by shifting development to other locations" (Burchell et al, 2000:853). According to Platt (2004) TDR involves:

> Severing the development rights from a preservation site to be retained in its existing condition and transferring them to a receiving site where higher than normal density is acceptable. The seller of the development right would record a permanent restriction on the future development, subdivision, or alteration of the site. The owner of the preserved site retains existing use rights while receiving compensation for the development value

> forgone. The public ensures the preservation of the site without paying for it, and the buyer of the development right gains legal approval for a more profitable project (271).

PDR programs allow either a government unit or nonprofit organization to purchase the development rights of a piece of land. Given this purchase, the former owner of the land still retains the title and residual control of the land. However, once the purchase is made, a conservation easement is placed on the land ensuring its continued use as either farmland or open space (Burchell et al., 2000).

Besides the use of TDR and PDR, there are other options local governments can explore to facilitate open space acquisition. Maryland's Open Space Program provides its municipalities with 100% of the funding they need to acquire open space (State of Maryland, 2006). In addition, the program provides 75% of the funding necessary for its municipalities for the maintenance of local parks (State of Maryland, 2006). Currently, more than 2,800 local projects have been funded by the program (State of Maryland, 2006). Other measures local governments can take to preserve open space include, allowing land trusts to compete for conservation funds, linking local conservation plans with local transportation plans, and partnering with nongovernmental organizations to acquire and protect selected open space areas (ICMA, 2003). Once the selected open space has been acquired and preserved, it is also the responsibility of local governments to protect sources of drinking water. This can be accomplished by securing the land upstream of these sources from various contaminants and pollutants through the construction of runoff barriers (ICMA, 2001).

There are also several zoning techniques local governments can employ to help preserve open space and target development to pre-established designated areas. One of these tools is cluster development zoning. According to Burchell et al (2000), "cluster

development aims to intensify the effects of localized open space. It concentrates development in one area while preserving the remaining sections of the tract as open space" (851).

Housing Choices and Opportunities

Smart growth encourages local governments to allow all of their citizens to share in the benefits of the community. One way for local governments to accomplish this goal is for them to ensure that housing opportunities throughout the entire community are available to households of all income levels (SGA, 2005). Local governments can implement two types of zoning tools, streamline the development process, and provide a number of financial incentives to secure adequate housing for all.

Inclusionary zoning ordinances require a portion of each new housing development beyond a given threshold is offered at a price which is affordable to low-to-moderate-income residents. The Moderately Priced Dwelling Unit Program of Montgomery County, Maryland has created more than 10,000 affordable housing units since 1974 (ICMA, 2001). The Maryland program calls for 12.5 to 15% of all units constructed in housing developments of over 50 units to be reserved for moderate income households who earn roughly 60% of the county's median income (ICMA, 2001). These units can either be purchased by residents or sold to non-profit groups who the rent the units to households meeting the established criteria. Incentive zoning ordinances include stipulations that include waiving impact fees and give priority to smart growth programs through the allocation of housing and federal Community Development Block Grant funds (Morris, 2000).

Local governments can also streamline the development review process when developments include affordable housing units or give comprehensive approval to developments that include affordable housing units (ICMA, 2003). Additionally, local governments can use financial incentives such as tax abatements to encourage developers to produce affordable housing units. The city of Olympia, Washington employs a tax abatement technique through their Property Tax Exemption Program. If developers agree to construct at least 4 multi-family housing units within their development in a targeted redevelopment area specified by the city, they are eligible to be exempt from the property taxes of the entire development for a ten-year period (City of Olympia, 2006).

Traditional Neighborhood Design

When developing new neighborhoods, smart growth suggests local governments contract with developers who implement traditional neighborhood design techniques (SGA, 2005). Traditional neighborhood design patterns include features such as well-defined centers and edges, short street block lengths, narrow street widths, landscaped medians, sidewalks, traffic circles instead of traffic lights, speed humps, and a diversity of housing types and styles (ICMA, 2001).

Possibly the most prevalent group of the traditional neighborhood design school are the "New Urbanists." The "New Urbanist" movement incorporates many goals of the smart growth philosophy in their design techniques, employing strategies to ensure their "neighborhoods are diverse, compact, of mixed use, pedestrian oriented, and transit friendly" (Bohl, 2000:762). Some examples of New Urbanist communities include Seaside and Celebration in Florida, Mount Laurel and Ross Bridge in Alabama, and Kent-

lands in Maryland. As cited in Bohl (2000), according to Leccese and McCormick (2000), "New Urbanism aspires to provide an alternative to suburban sprawl while revitalizing existing towns and cities in a manner consistent with traditional urbanism" (765). The New Urbanist neighborhood is designed to maintain the traditional urban feel so that any one of its residents will be able to walk to the center of the neighborhood within 5-10 minutes (Bohl, 2000). New Urbanists want to create "walkable communities" (ICMA, 2001). The goal is to connect everything, making driving times shorter, but more importantly, giving people the option to walk to their destinations (ICMA, 2001).

The New Urbanist philosophy "recognizes that physical planning ideals have a deeper meaning and significance that just interesting architecture and good site design" (Talen, 2002:184). Barnett (2000) finds New Urbanism to be unique because it tries to resolve both social and environmental problems. According to the charter of the Congress for the New Urbanism, the design principles of the New Urbanist movement try to achieve three social goals: community, social equity, and the common good (Talen, 2002). Some critics (Silver, 1985; Banerjee & Baer, 1984) disagree with the assertion that design principles can strengthen a community, provide social equity, or better the common good. However, Talen (2002) contends that diverse groups in close proximity can find a common bond, share common interests, and strengthen the community aspect. Talen (2000) also asserts the notion that compact, mixed use, transit oriented neighborhoods help to promote social equity, giving their residents better access to public goods and private accommodations. Furthermore, mixing housing units by income levels "is one of the only ways that planners can have an effect on limiting concentrations of pov-

erty…and allows [governments] to distribute resources in a geographically equitable way" (Talen, 2002:181).

New Urbanist neighborhoods have been criticized for appealing to the housing preferences of the middle-and-upper-classes rather than appealing to those preferences of low-to-moderate-income households (Pyatok, 2000). However, New Urbanist proponents argue that this appeal is related to market demands, blaming the market instead of the design.

> "New Urbanism is regularly criticized as unaffordable for middle-and lower-income fa milies. The favorite example is Seaside, Florida, which represented the first large-scale implementation of New Urbanist concepts. While the town has developed into a high-priced resort for the rich, this has been a function of the real estate market, not the cost of the underlying urban design" (Bohl, 2000:782).

Rybczynski (1993) contends, "these arguments conjure up the puritanical view that social housing should not be fancy" (83). In fact, the Department of Housing and Development has implemented the use of new urbanist techniques in the construction of housing units within their HOPE VI projects (Bohl, 2000). If local governments can employ some of policy techniques used to ensure available affordable housing units discussed within the previous section, it is possible that these market trends can be eliminated.

Transportation

The smart growth philosophy encourages local governments to provide their communities with access to many means of transportation. Though smart growth assumes the continued use of the automobile as a citizen's main form of transportation, it also recognizes the need for local governments to finance multi-modal transportation alternatives (SGA, 2005). Several cities such as St. Louis, Denver, Portland, Dallas, Bal-

timore, Los Angeles, and Memphis have now implemented light-rail systems as a means of public transportation (Burchell et al, 2000). These systems are less expensive than traditional rail and subway systems, and can be thought of as the modern trolley or street car (Burchell et al, 2000).

Another mass transit alternative gaining popularity is Bus Rapid Transit (BRT). Bus Rapid Transit (BRT) is essentially a bus that operates at speeds similar to a monorail and can be constructed to operate on infrastructure such as interstate highways and highways already in place. According to the United States Government's General Accounting Office, BRT is over 300% cheaper to construct than light rail transit systems. In fact, the average cost per mile of a BRT runs between 10 and 15 million dollars per mile (GAO, 2001). In addition, rather than having fixed paths like light rail systems, BRT's are flexible and can be rerouted periodically to accommodate changing traffic patterns. Furthermore, BRT's average constant speeds of 30 miles per hour compared to the average of 10-15 miles per hour achieved by light rail systems (GAO, 2001).

In addition to these forms of mass transit systems, local governments can implement programs that help calm automobile traffic while simultaneously helping the environment by reducing the amount of pollutants automobiles emit. Local governments can encourage car pooling by creating HOT lanes available to only those cars with two or more passengers. They can also implement the use of variable toll rates as an incentive to citizens who car pool (ICMA, 2003).

Summation

Smart growth remains in its infancy. The previous chapter identified many policy mechanisms local governments can implement in order to begin achieving smart growth, and there are bound to be many more mechanisms yet to be tested. However, the smart growth philosophy is adaptive, and will continue to evolve to become an even more effective planning guide. Though the use of smart growth techniques can help local governments attack the problems brought on by decades of sprawling development patterns, the success of those techniques can not be fully realized without an honest effort by local governments to include and encourage the public in the development process. It is important to note that the smart growth philosophy's main goal is to improve the quality of life for all. Thus, before going forth with any smart growth plan, local governments must engage their citizens in order to better understand and identify the problems they seek to solve.

CONCLUSION

The time is ripe for a change from sprawling development patterns to policies designed to conform to a smart growth agenda. In the coming years, "baby boom" generation empty nesters, immigrants from all over the world, and new young professionals will be seeking to locate in central cities that offer both a wide range of cultural activities and a strong sense of community (Burchell et al., 2000). Minority groups, many of whom have had restricted educational and economic opportunities will be moving to the suburbs in search for the benefits of better schools and jobs (Burchell et al., 2000). Concurrently, many groups are emerging to oppose sprawl. Businesses searching to broaden their employment base, historic preservationists, working class residents of inner-ring suburbs, school reform advocates, organizations in favor of good government, and soccer moms looking to decrease their travel times are all advocates of smart growth planning. However, these groups must unite into a lobby in order to exert enough pressure and influence on government officials so that the problems resulting from sprawl can be given attention of the highest priority.

The barrier that may be the most difficult to overcome is the inherent conflict among citizens as to the meaning of liberty. While some people contend that liberty should be defined as being able to work and play without government restriction, others might suggest that the smart growth philosophy restricts the libertarian ideals on which

this country was founded, limiting a person's ability to live where they want and to develop how they want. There is also a conflict within society between free market economies and social equity. Opponents to smart growth could argue that inclusionary housing tactics are hypocritical to both democracy and the citizens' market preferences.

Another prevalent conflict existing within the American society is the battle between the betterment of the individual household versus the betterment of the common good. Being that the common good is a difficult term to define coupled with the tangible results of individual household economic improvement, the concept of planning to improve the common good may be difficult for many to grasp. Though smart growth advocates argue that improving the common good will lead to enhanced economic opportunities for all, the complexity of the concept, and the inability to realize immediate rewards makes the process a hard sell to citizens.

It is not likely that most people would be opposed to the results promised through the smart growth philosophy, but, in many communities, initializing the process will take a value-driven mindset change. It is easy for people to develop a consensus to what ought to happen, but it is increasing difficult to convince those same people to make it happen. For example, many elected officials prefer traditional economic development strategies such as branch plant recruitment and amusement park development because they provide their constituencies with easily identifiable, short-term results. They live by the motto "shoot anything that flies, claim anything that falls," because they want to remain in power. Though these strategies are actually antithetical to the new global market economy, (branch plants keep wages low, and erase incentives for people to seek better educational opportunities) they please the voters and allow the officials to stay in office.

This is why I strongly advocate the switch from elected officials to professional local government management. Professional managers help communities reduce or eliminate the political quandary elected officials face when determining the direction of future planning goals and economic development strategies.

Another barrier to widespread comprehensive smart growth reform is the willingness of state legislatures to adopt or pursue smart growth agendas. As stated in the 2002 report of the American Planning Association titled, *Planning for Smart Growth: 2002 State of the States* only a quarter of states (DE, FL, GA, MD, NJ, OR, PA, RI, TN, VT, WA, WI) are implementing "moderate to substantial statewide comprehensive smart growth planning reforms." In addition, roughly 20% of states (AZ, CA, HA, ME, NE, NH, NY, TX, VA) "are pursuing statewide amendments strengthening local planning requirements to include smart growth techniques" (APA 2002). Furthermore, a third of the states (AR, CO, CT, ID, IL, IA, KY, MA, MI, MN, MS, MO, NM, NC, SC) are just now beginning to pursue their first major planning reforms for smart growth policies (APA 2002). Lastly, a full quarter of states (AL, AK, IN, KS, LA, MT, NE, ND, OH, OK, SD, WV, WY) are not pursuing statewide smart growth planning reform (APA 2002).

Therefore, in at least 25% of the states, locales are implementing smart growth initiatives without any statewide guidance. Also of interest, a majority of the states who have already implemented smart growth policies at the state level have tended to either be those who are more liberal, or those with heavy population concentrations (Howell-Moroney, 2006). Though the APA (2002) states the smart growth adoption at the state level has been bi-partisan, states adopting comprehensive smart growth plans tend to be those whose citizens show majority support for the Democratic Party.

The federal government has only recently begun to enact policies that aid state and local governments wishing to implement smart growth agendas. The 1999 Livability Agenda provides money to local governments for smart growth projects, but its guidelines are broad and do not endorse a specific set of policy mechanisms. Within the past decade, The Department of Housing and Development has created mixed-income housing developments through the HOPE VI project, but its successes are not yet fully measurable. The federal government's earlier attempts to reduce sprawl by restricting automobile usage through such legislation as the Clean Air Act of 1990 have actually been rescinded due to forces placed on it by market trends (Burchell et al., 2000).

In fact, market trends may be the main barrier to smart growth. Over the past decade, carpooling has declined 30%, 80% of workers now travel alone to work by car, and the demand for multi-car garages has skyrocketed (Burchell et al., 2000). Local leaders have been wary of bucking market trends and have, for the most part, remained silent. One of the market barriers restricting the implementation of more comprehensive smart growth reforms is the concern of developers' ability to finance housing developments which include affordable housing units. According to Gyourko and Rybczynski (2000), "the relatively high perceived risk for these projects imposes relatively high required rates of return, which in turn require these projects to generate cash flow quickly to be financially attractive to investors" (733). Banks and other investors are reluctant to finance these projects unless the developer is a large firm with sizeable assets. Accordingly, those types of firms seem more willing to develop projects such as large-scale sprawling neighborhoods which have consistently been generating profit.

However, given those barriers, voters are overwhelmingly approving smart growth measures at the local levels. According to Burchell et al. (2000), close to 75% of more than 500 local smart growth initiatives were passed in the election of 2000. Though smart growth plans are being implemented in all regions across the country, the most common use of smart growth techniques have been concentrated in communities of the Pacific Northwest and the highly populated communities along the Eastern Seaboard. Few communities have adopted full-scale smart growth programs. There are a number of larger cities and metropolitan areas scattered throughout the United States focusing on improving and reorienting their public transportation systems, and numerous older cities throughout the country are engaging in brownfield redevelopment programs. However, many communities are now beginning to zone for and construct mixed land use developments.

Though there are not many vocal opponents of smart growth, the voice of the movement in favor of smart growth may be too broad to attract support from everyone. Unless a concerted movement is organized that can persuade the public to reverse the aforementioned barriers and trends, the widespread adoption of comprehensive smart growth policy agendas will continue to be a slow moving process. Piecemeal adoption by local governments of smart growth policies will not solve the problems resulting from sprawl. The implementation of a small selection of smart growth policy mechanisms may actually serve to create or intensify those problems. Local governments must also be careful to first implement policies to prevent further sprawl, then move forward with an agenda that will attempt to solve the problems created by it.

In order for the smart growth movement to gain steam, local governments must lead the charge. Thus far, there has been little consensus among metropolitan area municipalities to develop metropolitan wide, inward-outward smart growth strategies. Being that each municipality has their own separate interests; it has been difficult to get metropolitan locales to work together. However, in the zero-sum game of economic development competition between municipalities, local governments have the incentive to work together in order to bolster the economic performance of the region as whole and to increase the quality of life for all of their citizens region wide. In order for this to occur, local jurisdictions need strong, professional leaders who will champion the smart growth cause.

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