

New England Journal of Public Policy

Volume 16 | Issue 1

Article 4

9-21-2000

Managing Sprawl in the Land of Unintended Consequences

Robert S. Bucci

University of Massachusetts Boston

Follow this and additional works at: <http://scholarworks.umb.edu/nejpp>

 Part of the [Natural Resources Management and Policy Commons](#), [Transportation Commons](#), and the [Urban, Community and Regional Planning Commons](#)

Recommended Citation

Bucci, Robert S. (2000) "Managing Sprawl in the Land of Unintended Consequences," *New England Journal of Public Policy*: Vol. 16: Iss. 1, Article 4.

Available at: <http://scholarworks.umb.edu/nejpp/vol16/iss1/4>

This Article is brought to you for free and open access by ScholarWorks at UMass Boston. It has been accepted for inclusion in New England Journal of Public Policy by an authorized administrator of ScholarWorks at UMass Boston. For more information, please contact library.uasc@umb.edu.

Managing Sprawl in the Land of Unintended Consequences

Robert S. Bucci

Americans witnessing the bulldozing of their country's pastures, farmlands, and sensitive habitats to erect suburban housing tracts and commercial centers have come to realize that the remaining open land may be too precious to waste. Residential and commercial development is no longer quickly embraced to stimulate economic progress and prosperity. Municipalities are learning that development often extracts a price — sometimes the loss of community character and local charm, sometimes tax revenues that fall short of increased expenditures, and sometimes just plain ugliness. Responding to the new reality, many community officials have initiated unilateral ordinances regulating the development of open spaces to protect the residents' way of life. Too often, however, most land-use policies are easily circumvented, leading to a rash of unintended outcomes that more than neutralize their derived benefits. Long accustomed to vast open spaces and the allure of large suburban lots and dwellings, the citizens do not readily embrace restrictions on where and how they may live. This article investigates sprawl by examining the human desires and economic realities that drive it and its development. More important, it examines the benefits of commonly used land regulations and their unintended consequences.

As America's cities and suburbs continue to grow and sprawl, engulfing those virgin lands which still remain, communities will be forced to make a choice — Will sprawl be contained or will it unrelentingly consume the remaining vestiges of open space? The decision may prove difficult, given Americans' historic quest for land and the impulse that has driven expansion, first over the Appalachians, then across the Mississippi and beyond the Rockies, stopping only when confronted by the Pacific Ocean — achieving the nation's Manifest Destiny.

The American thirst for land, hospitable or scraggly, in search of a home in which to raise a family, has been the clarion call of the American spirit. U.S. history abounds with tales of the pioneer, the frontier family, and the explorer seeking to create a new life

Robert Bucci, the research director of the UMASS Poll, is a graduate of the McCormack Public Policy Graduate Program, John W. McCormack Institute of Public Affairs, University of Massachusetts Boston.

where none had existed. Even the adage “Go west, young man” resonates with images of the American experience.

The search for elbow room alone, however, was not solely responsible for driving families to the prairies and the suburbs; the changing economy and advances in transportation also propelled expansion. No longer dependent upon the waterways of our country, industry was free to move from the great metropolitan areas of such eastern seacoast cities as New York, Boston, Philadelphia, and Baltimore. Waterways and blazed trails were first replaced by the convergence of railroad lines and later by the paving of interstates and the telephone lines that parallel our highways. Commerce, no longer restricted to the availability of raw materials and the rivers and oceans for transportation, could base location decisions on the availability of interstates and highways, a trained work force, favorable tax laws — and sometimes just a prestigious address.

New communities sprang to life, tract housing blossomed, and, with the accessibility provided by a post–World War II flood of affordable automobiles, suburbia offered comfortable single-family homes within reach of cities and jobs. Yet with each new development, commuting time lengthened and open space began to vanish. The cities had moved to suburbia, so the people moved farther out from the central cities, creating newer and more distant suburbs and exurbs.

Confronting overdevelopment and inefficient suburban land use requires reconsideration of the many government policies and practices that historically have encouraged and rewarded growth, a solution that requires not only legislative and policy remedies but also a change in the cultural orientation of Americans — no small challenge. No longer can the public interest be readily defined as either pro-growth or no growth — conflicting interests, the emergence of neighborhood organizations, and statutory and political limits on tax increases have all contributed to the new subtlety of public opinion and complexity of the problem.

On one hand, communities have increasingly come to depend on new growth and development, especially commercial growth, which is believed to generate more revenue than expenditures. On the other, environmental protection and maintaining a community’s culture now receives considerable support from a broad range of constituents who value the preservation of pristine lands not only for habitat protection but for the recreational benefits it provides urban and suburban dwellers.

However, even with an abiding concern for the environment and the great frontier that remains undeveloped, communities have willingly grown dependent on property-tax revenue generated by the conversion of undeveloped land to commercial property. Finding additional moneys to support schools bulging with students has become a prevalent problem for urban and suburban populations. Even in municipalities that are not experiencing large student increases, taxpayers expect government to maintain, if not expand, current services without increasing taxes — a dilemma that leaves broadening the tax base through new growth the only viable option. It is a Hobson’s choice that may, over time, fuel the cost of municipal services, bringing the community full circle with no new land to convert to development.

Hemmed between reluctance to raise taxes and a desire to protect their environment and culture, municipalities have begun embracing “Smart Growth,” a middle ground that encourages economically beneficial low-impact development while protecting a “sense of community and place.”¹ Although easily defined, balancing new development and economic prosperity, while protecting the environment, spending more on education, and maintaining a community’s way of life requires the deft hand, if not outright magic,

of policymakers and elected officials. But local municipal officials alone will be hard pressed to implement unilaterally smart-growth policies acceptable to the broad range of state legislatures, local zoning boards, developers, and neighborhood organizations. Further, as difficult as this may be, something far more comprehensive, namely, regional cooperation is needed — a daunting task given the 87,000 local municipalities nationwide. Across the country, among municipalities cognizant of both the intricacies and the perplexing dilemmas they face, sprawl is beginning to acquire political notice for some. Presidential candidate and current vice president Al Gore has embraced sprawl management as a national priority. Although he is not alone in his advocacy of smart-growth policies, the prevailing national sentiment is “hands off, it’s a local problem — best left to local politicians to resolve.”

Even with effective local policies, the environment and community life, as well as policymakers and elected officials, will not fare well if a municipality that eschews unregulated sprawl is encircled by communities embracing endless development. Such a scenario inevitably forces a community that limits its own development, without benefit of new tax revenue, to increase spending to meet the ancillary growth of the region. Forced to confront increased housing demands, traffic congestion, overburdened schools, and a myriad of other costs, all but the wealthiest communities will eventually be compelled to expand their tax base by soliciting new growth.

Thus, while individual municipalities may enact local zoning ordinances that manage internal growth successfully, successful land management requires voluntary municipal cooperation or a mutually agreeable form of regional management committed to regulating growth, or minimally, a system of unified service delivery that shares the impact of growing expenditure. Laudable as current efforts may be, the true keystone of any collaboration, and the most difficult, will be tax sharing. Barring a legislatively enacted mechanism that requires sharing new growth revenue or, less likely, the development of interlocal tax-sharing compacts, few regional management initiatives will survive the clash of community interests and the need for new revenue. Whatever the form, voluntary or legislatively mandated regional cooperation will most likely depend on lessening property-tax dependency and a greater reliance on state aid, obviously not without its own problems and unintended outcomes.

As more and more communities confront the current and future impact of sprawl on community life, the stage will be set for either policy gridlock or a profusion of unitary and collaborative approaches. Whatever form they take, these strategies are sure to be varied, ranging from the often imprecise interpretation of voluntary goals, interlocal compacts, and legislatively enacted property-tax sharing to a mosaic of unitarily imposed cost shifting and user fees. Whatever the remedy, regulating growth by balancing economic development, preserving community flavor, protecting the environment, and generating needed revenue is sure to pit constituent group against constituent group and neighbor against neighbor. Although the debate is unlikely to reach the murderous depths of the range and water wars of the 1800s, these issues are sure to be discussed passionately with suggestions of numerous and varied remedies.

Understanding the political, organizational, financial, and aesthetic complexities of land-use management is a necessary prerequisite to any proposed remedy. A clear understanding of potential undesirable and unintended outcomes is required to deal with solutions that may pose dilemmas far more detrimental than the problem. To that end, this report attempts to provide readers with a comprehensive introduction to the many factors that foster sprawl, overtly and covertly, and how they affect a community. More

important, it also undertakes to review potential strategies that may allow a municipality to balance and respond to its many individual needs. In doing so, the report examines a range of underlying issues that contribute to developmental excursion into the surrounding environs and reviews the many strategies currently employed to manage growth.

How It All Began

Unrestrained community expansion and development, or sprawl, has been an essential component of the American experience since the first colonies were established in the 1600s. As more and more settlers occupied the New World, more and more land surrounding the original settlement was converted from pristine forest to farmlands. Although it may have been sprawl, it was compact and efficient because farmers could not stray any distance, given their dependence on the settlement for protection and commerce.

As the original settlements first became towns and then cities growing ever more prosperous, the American demand for land became all consuming. Cities grew outward; with the advent of steel and the elevator, they also grew up. They became densely settled, but transportation was limited, so employees were compelled to live within walking distance of their work. With the arrival of public transportation and the subway in the early twentieth century, workers were no longer forced to remain in densely populated cities, so the move was on. Communities expanded rapidly to the last stop on the subway regardless of where the subway line ended, as long as it was out of the city. Nevertheless, although outlying districts grew swiftly and without much thought or planning, they were densely populated. Multifamily dwellings were the norm, as were large families, and while sprawl occurred, it was efficient — land use was maximized.

Overnight, as cars and roads to support them were introduced, people began to migrate, often haphazardly, from the central city. Undesirable locales were leapfrogged to reach more appealing vistas. All they needed was a car and, as long as there was a road, home could be anywhere, regardless of how inefficiently the land was used or how costly the infrastructure. Cities, having invested in the creation of a vast infrastructure serving the central core, found it necessary to divert resources from infrastructure maintenance to building extensions in support of development, which was exploding out from the central core. Driven by the belief that cities were responsible for providing infrastructure whatever the cost, scarce resources were diverted from the inner city to the surrounding suburbs, driving up property values outside the city core at the expense of the central city.

This was especially true during the 1950s, when land efficiency was further compromised by expansive suburban property lots housing only a single residence, which, once established, often resulted in exclusionary zoning ordinances being enacted to protect the community's way of life. Zoning, in addition to its value in governing housing standards and ensuring equitable tax policy, helped to generate inefficient land use. The magnitude of this growth sprawl is well illustrated by Los Angeles, which experienced a 45 percent growth in population between 1970 and 1990, while developed land grew by 300 percent. Similarly, the population of the New York/New Jersey/Connecticut metropolitan area increased by 13 percent over the past thirty years, while developed land increased by 60 percent. In Massachusetts, statewide open space is being converted to residential, commercial, and industrial property at the rate of 300 acres per week, or about 25 square miles annually.²

Vast fertile expanses and boundless natural resources have served this country well; such abundance, however, has also allowed communities to avoid the complexities of rational land use, at least until recently. Communities find themselves confronted with a multitude of problems and limited choices, such as increased labor costs, protecting open spaces and a community's "charm," being faced all the while with an expanding budget constrained by a stagnant tax base. For poorer communities, enticing commercial/business growth for its additional tax revenue often becomes the only choice, forcing the protection of open spaces and a community's way of life to the back seat. On the other hand, richer communities with excess tax capacity, high property values, and restrictive zoning ordinances that limit growth may indirectly promote sprawl, further complicating a region's ability to manage it. Thus, limiting development, especially low-income housing by promoting large-lot zoning requirements — unflatteringly referred to as snob zoning — may in turn force additional residential development into already struggling communities.

Social attitudes, especially beliefs about urban life, have also contributed to suburban sprawl as residents flee the city to take up residences in the outlying suburbs, a migration that reflects America's long history of first embracing and then abandoning urban life. Serving as an entry port for immigrants, a source of low-income housing for the poor, and a haven for the displaced rural dweller, urban communities are often the first step to a better life, one that usually leads to a life in the suburbs. Beginning in the mid-to-late 1800s, cities came to be seen as places where disease festered, crime was rampant, and poverty was a way of life — despair easily captured in a single word, *slums*. Born out of a desire to leave the cities and no desire to return to rural life, the post-World War II years saw a mass exodus as families moved from the cities to the suburbs. During the ten years between 1950 and 1960, the suburban population increased by 17 million, 12 million of whom had moved up from either cities or farms.³

Over the years, multiple attempts were made to ameliorate the perceived squalor under the names of urban renewal, slum clearance, and urban redevelopment, all with limited success. Such prosperity as did occur is reflected in the pockets of commercial and residential neighborhoods surrounded by enclaves of poorer minority residents who do not view themselves as beneficiaries of these jeweled communities. The past four decades have seen a widening of the chasm polarizing the interests of wealthy suburbia and its poor relations, the urban communities. Mere individual poverty alone, however, is not the whole problem. Rather, it is the institutionalization of poverty, manifested through a dwindling tax base, that makes a community's financial recovery and path to solvency all the more difficult. Hard as it may be to increase revenue streams in aging metropolitan communities, the problem is compounded by the human reality that while individual wealth and a community's tax base dwindle, social needs rise; and where individual and community wealth increase, social needs remain constant or decline.

One initiative that attempts to reduce urban poverty by dispersing city dwellers into the suburbs while easing sprawl by increasing suburban population density is Minnesota's 1995 Livable Communities Act. Using the traditional carrot of money, the stretching suburbs that surround Minneapolis and St. Paul are eligible to receive funding for toxic waste cleanup, commercial corridor development, and resolving housing problems. In consideration of these funds, communities pledge to find or create low-income housing units within their locales during the next fifteen years. Although 97 of the 115 eligible communities participate, progress has been limited, and among those which accepted money, local opposition is beginning to percolate. Minnetonka is such a town;

with a median income of more than \$50,000, it is one of the state's richest districts. Even though the town was successful in building 100 units of town houses for the elderly and low-income population, which were already in the planning phase when the money was accepted, attempting to site an additional 100 units of scattered low-income housing in a community zoned for one-acre housing and sale prices of more than \$300,000 has proved to be no easy task.⁴ All too commonly, suburban residents, once removed from city life, are increasingly resistant to city problems' intruding and encroaching on suburban living, even when there are potential financial benefits. For example, New York's Wynantskill Union Free School District, burdened with a 29 percent school tax hike in 1995 and projected double-digit tax increases for years to come, defeated a proposed tax-lowering merger with the Troy City School District. Fearful that Wynantskill children would be bused to city schools, with all their problems, they rejected the merger and accepted higher taxes.⁵

The Many Faces of Sprawl

Sprawl, usually defined as haphazard growth or a spreading outward, is far more subtle and categorical. External sprawl into undeveloped land, distinct from internal sprawl, which entails the loss of open space within a community, can be further defined into two major types, *elastic* and *inelastic*.⁶ Elastic growth, or the continued expansion of a community into the adjoining undeveloped environs, is most often associated with newer cities outside the established eastern seaboard. Examples include the cities of Houston, which, comprised of 160 square miles in 1950, had expanded to 556 square miles by 1980 through the annexation of its surrounding environs, and Jacksonville, which during the same time grew from a city of 30 square miles to one of 841 square miles. Inelastic growth, on the other hand, comprises the more established and older metropolitan areas which, unable to increase their geographical area because of existing neighboring municipalities, have contributed to an increase in regional sprawl as large segments of the population move from the cities to the suburban municipalities and bedroom communities.

Urban centers, serving as the hub of larger metropolitan areas, are often the driving force behind inelastic growth in the suburbs. Although no longer the required location of all development, owing to technological and transportation improvements, they still remain the nucleus of business activity. Rather than being reduced in importance, cities have had their dominance extended into far-reaching orbits of influence, with the nucleus and the spheres mutually dependent on each other. Although the nuclear city may be instrumental in promoting sprawl, its ability to manage inelastic growth is at best marginal.

However, by utilizing that viable open space which does exist within the central city as sites for commercial development, cities may be able to limit business sprawl into the neighboring environs. But the use of open space is not without its own set of problems. All too often, the open space that does exist is oddly shaped, prohibiting either residential or commercial development. Further, zoning requirements, foreclosures, concerns over toxic wastes, tax liens, neighborhood opposition, and the lengthy planning time required to obtain building permits often inflate costs by creating complex legal mazes that are difficult for developers to navigate. Nevertheless, with tax treaties, speedy development approvals, and reduced building permits for hookups to existing infrastructure, some properties may be successfully converted.

Cities can use another mechanism that may minimize inelastic sprawl, namely, converting abandoned industrial and military “brownfields” to sites for future commercial development. Regrettably, the reuse of brownfields, with their often contaminated land and buildings, faces considerable hurdles before their reintroduction as a viable option for development. Obstacles include the high cost of cleanup as well as opposition by residents fearful that land disruption and construction will spread contaminants throughout the neighborhood. A concern is further fueled by public hearings, which often pit expert testimony against expert testimony, leaving taxpayers confused and bewildered. Attempting to ameliorate the high cost of cleanup, several states have implemented programs to finance their cleanup costs. Locally, Massachusetts has initiated several programs such as the Brownfields Redevelopment Fund, which provides low-interest loans to eligible persons, and the Reclamation Pay Back Fund, which allows communities to borrow cleanup funds that are then repaid with half the new property taxes generated by the land conversion.

Aware that expedited development permits can be a powerful motivation in helping to promote “in-fill” development that employs vacant, abandoned, or underutilized space that exists within a community, New Jersey has enacted legislation that grants up-front approval to development applications that site commercial and residential development where it can tap into and use existing infrastructure. Augmenting this legislation, New Jersey has also embarked on a municipal education program to ensure, in the words of Governor Christine Todd Whitman, that municipalities “do not bankrupt themselves making deals for new developments that need expensive, up-front infrastructure investments.”⁷

Local taxes can also play a role in the redevelopment of potential viable sites within urban communities. However, property-tax waivers and forgiveness alone may be insufficient to offset the impact of capital gains taxes, a federal issue. While waiving such city-imposed liens as tax arrears and demolition fees may make abandoned property more attractive to buyers, it does little to ease the capital gains burden for an owner or estate. Even though liens comprising more than 50 percent of a land’s cost may frighten away buyers, landowners under no pressure to resolve outstanding tax liens may not wish to sell, hoping that, in time, property values will appreciate in a rising market to offset the capital gains tax bite.

Protecting Open Space

Protecting open space that may be environmentally valuable for its recreational, aesthetic, and flood control ability are several of the chief goals associated with limiting internal sprawl. Preserving those open spaces which remain is also valued for its role in maintaining a municipality’s sense of community. But while such guardianship is laudable, one community’s absolute ban on development may simply push development farther into the environs surrounding the community, usually into a poorer one, exporting rather than resolving the problem. Preserving and maintaining existing open space requires more than a mere prohibition on its use; it requires the development of effective land-use policies that promote manageable population densities while sustaining a community’s way of life. Such a strategy allows a district to set aside open space worthy of protection, at the same time expediting the development of open parcels already encircled with existing buildings.

Closely tied to the preservation of open space is the protection of agricultural farmland, the value of which is reflected in the preferential property-tax treatment it has been awarded by every state. A tax preference is based on both its food-producing value and its cultural heritage as well as the lower infrastructure costs associated with farmland. Further, it is not uncommon for rural area residents to pay privately for sewer treatment, police services, and road construction, arguably a bona fide justification for lower property taxes.

Although individual exemptions and policy may vary from state to state, most assess land value based on its value as farmland, regardless of any other use-value it may be assigned. Essentially, this assessment policy excludes any potential use-value it may possess if otherwise developed. Although some have argued that such a policy is yet another example of special interest legislation, there are indications that such policies may slow the loss of open farmland. One 1998 study concluded that such policies may reduce the rate of loss by 10 percent over a twenty-year period. However, while 10 percent is significant when examined as a matter of magnitude, the cost-effectiveness of such a tax policy has not been substantiated.⁸ Nevertheless, its special-interest status as an industry support holds validity among many since similar such protection is not often extended to privately held open space unused as farmland, a lack of protection that only increases the allure and profit of converting open space to developments.

Political Influences

It would be impossible to address a more local issue than land use and property tax without discussing municipal politics and the role developers and politicians have played in influencing land-use decisions. Historically, the two groups have enjoyed a mutually beneficial relationship. Developers have acquired wealth and prominence, and politicians have gained influence, power, and sometimes great personal wealth as they presided over a growing metropolis. Developers, and developer/politicians, have long known how to convert cheap land into prime real estate simply by influencing such land-use and transportation decisions as the direction and extent of railroad expansion in the 1800s. Similarly, developers in the early 1900s were able to amass fortunes, envied even by the best alchemist, merely by influencing the railroad's offspring, the trolley.

Although it is arguable that developers exert far less influence in the modern era of neighborhood advocacy groups and environmental protection laws than they did seventy or one hundred years ago, their influence nevertheless remains substantial. Developers, through their contributions to local election campaigns and their ability to mold public opinion via expensive media campaigns, which are readily accepted by the electorate, still possess the ability to influence local land decisions. Bombarded by multimedia messages of new jobs, more money for education, lower taxes, and the prestige of new development, few nonbelievers have the resources to refute these advantages with concerns about sprawl, traffic congestion, and the loss of vital habitat.

Another element of local government that may warrant inquiry involves the manner in which local officials are elected, specifically, whether at large or by districts. Although the influence may be subtle and unrecognized even by a politician, it is conceivable, if not probable, that the residences of at large council members are not evenly distributed throughout a municipality. Given this lack of equal distribution, the potential exists for a disproportionate share of development being localized to specific areas.

This phenomenon was observed in Little Rock, Arkansas, which before 1996 was governed by a citywide elected council, officially called a board of directors. Considered friendly to developers, the board had approved 145 bills annexing new land into the city limits without rejecting a single proposal. Once directors presumably more susceptible to the demands of local voters were elected by district representation, the board began to reject such annexation requests, sometimes three times in a row.⁹

Responses and Strategies Aimed at Reducing or Managing Sprawl

Some of the most commonly proposed solutions to controlling sprawl are use of local zoning policies, increased state aid to lessen dependence on property taxes, development fees, and direct financial assistance aimed at promoting in-fill development. In recognition of the universal need of municipalities for new sources of revenue, attempts to reduce dependency on property taxes, such as tax-sharing strategies and regional planning boards, have also been pursued. Additional tactics, often controversial and politically contentious, include establishing growth boundaries to confine and restrict new development as well as growth moratoriums that ban outright or limit growth in a designated area for a specific time period. Unfortunately, besides the difficulty of overcoming political inertia, both methods lend themselves to criticism as elitist attempts to exclude the next wave of families emerging from poverty. Notwithstanding their elitist reputation, enacting growth moratoriums and growth boundaries may find considerable support among longtime residents unwilling to share the cost of added infrastructure and those responsive to an environmental protection argument, as well as those who use environmental protection as a cover for exclusionary desires.

Commenting on the role of elitism, Samuel Staley, an economist with the Reason Public Policy Institute in Los Angeles, observed, “Suburbanization by others is what’s unpopular; people love living in the suburbs; they just don’t want anyone else out there with them.” Pointing out the social, political, and legal complexity of attempting to restrict suburbanization, he added, “You can’t develop a public policy around stopping people from moving to the communities and homes they want to live in, at least not in the United States.”¹⁰ Similarly, claims of environmental protection as a justification for restrictive zoning requirements are dismissed with the often bandied about yet profound observation that “the only difference between an environmentalist and a developer is that the environmentalist already owns the land.”

In response to the assertions that these and other antigrowth measures are elitist, multiple studies have been conducted to determine whether growth controls inflate housing costs by reducing the availability of low-income housing. A 1970s Petaluma, California, study found that limiting building permits to a maximum of 500 per year increased housing costs approximately 8 percent when compared with nearby control communities, a significant increase that may have dissuaded buyers of lower means.¹¹ One study alone, however, is unable to assess the true complexities driving housing costs and availability. Further studies, such as one conducted in nearby Davis, California, found that growth controls not only raised housing costs by 9 percent, but the availability of low-income housing also decreased even when growth controls included a provision mandating that developers construct new low-income units. Paradoxically, even with the construction of new low-income housing, unintended outcomes may have reduced the *total* availability of such dwellings. In this environment, where new housing permits were at a premium,

homeowners and purchasers of existing housing stock opted to make substantial improvements in older housing units, effectively converting them to high-value homes. Thus, older properties, which normally would have filtered down and become available and affordable to low-income residents, became residences for the affluent.¹²

A different approach to managing growth, used in Oregon during the past twenty years, has been the establishment of growth boundaries and other measures under Oregon's Land Conservation and Development Commission (LCDC). Enacted by the Oregon state legislature in 1973, the LCDC was charged with combating sprawl, preserving farmland, eliminating exclusionary zoning requirements, and speeding the permit process. Established within the LCDC is the Oregon Planning Program (OPP) whose overriding mission required that each city plan and maintain an inventory of buildable land for residential, commercial, and business development. Determined to speed the permit process, Oregon state law also requires that land-use permits be processed within 120 days, as well as mandating that each community demonstrate how each development's infrastructure would be provided. Praised by many and condemned by others, the OPP has been credited with expediting development time and increasing the availability of land for industrial development through pre-use zoning, which has minimized nuisance suits and not-in-my-backyard initiatives.

The OPP also required municipalities to plan for projected residential housing needs while prohibiting exclusionary zoning measures that ban multifamily or mobile homes. Further, according to program press releases, the OPP states that "average lot sizes in many urban areas have decreased significantly, reducing cost of housing. A 1991 study shows that housing in Portland, for example, is two to three times more affordable than it is in other West Coast cities."¹³

One of the more controversial elements of the Oregon Planning Program has been the establishment of Urban Growth Barriers, commonly referred to as greenbelts. Under Oregon's land-use planning program, greenbelts are conceived collectively by the central city as well as neighboring communities, which may share water or fire protection services, in a procedure described by the OPP as "a cooperative process between a city and the county or counties that surround it." Citizen participation is encouraged, as well as the involvement of advocacy groups that may have an interest. Once the greenbelt areas have been determined, they are forwarded to the state's Land Conservation and Development Commission for review and approval.

Establishing growth boundaries requires a review of seven factors, which can be divided into two categories, "need" factors and "locational" factors. Need factors include population projections supplied by state or regional agencies and how much land will be needed to accommodate the population increases, which is determined by using a housing mix that includes single-family homes, apartments, and mobile homes. Once the amount of necessary land has been determined, the total is adjusted by the availability of vacant space within the city proper, resulting in an estimate of needed land for inclusion in the urbanizable area. Once the amount of land is determined, the assignment of the urbanizable area is reviewed in light of locational factors that weigh efficient land use, protection of agricultural land, and cost-effective public services.

In a hypothetical model, the inner belt comprising the central city is allowed to develop by local option until fully built. Beyond this inner core is the urbanizable area, which may be developed once the inner core can no longer accommodate additional development and infrastructure such as streets and sewers have been installed in the zone to be developed. However, according to the OPP's own statements, "Land outside the

urban growth boundary will continue to be used for farming, forestry, or *low-density residential development*.” The low-density housing exemption may, however, serve to fuel exurban development. One study examining the impact of greenbelts identified an increase in the value of undeveloped land beyond the greenbelt corridors, suggesting that the initiative may have caused exurban sprawl by forcing development farther from the city.¹⁴

Impact Fees

Impact fees represent an up-front charge used to defray direct and indirect development costs resulting from increased student population, expanded public safety needs, road construction, and other infrastructure expenses. Generally, impact fees are in addition to, and differ from, the more traditional fees that communities impose in the form of building permits and sewer and water hookups. Although often categorized as a financial disincentive to new growth, the opposite may be true, and impact fees may actually encourage development. In one study, while an increase in fees from a typical \$500 building permit to an impact fee of \$5,000 was considerable, it was suggested that such fees may be pro-growth if, in the absence of impact fees the community would have enacted a no-growth policy.¹⁵ William Fischel points out that this is exactly what occurred in the suburban town of Guilderland, New York, whose \$900 impact fee to fund construction of a new highway entrance was overturned by the New York Court of Appeals. Having lost in litigation, the community rejected a bond referendum to pay for the proposed connector. Town officials then revamped existing zoning ordinances to require larger minimum lot sizes ostensibly to ameliorate traffic and protect neighborhoods — effectively adopting a no-growth policy that merely pushed development into other communities.

While some communities may impose impact fees to cover future direct and indirect costs, others have begun to consider limiting the impact of development infrastructure costs on *existing* residents. One such initiative works to replace the traditional method of averaging capital improvement costs among all users, both current and new, to one in which the new development pays the entire cost, usually over an extended period. One example would be requiring a commercial enterprise, which moves beyond the reaches of such existing infrastructure as water and sewer, to pay 100 percent of the cost to expand essential services. Should future development “benefit” from the new infrastructure, new beneficiaries would share in the cost, thereby reducing the remaining cost to the original developer. Again, as in the example of impact fees, requiring developers to pay these additional costs may not be a disincentive to development if, without such fees, it would be prohibited.

Commercial/Business Development and Sprawl

When employment, population, and economic growth are intertwined and increases or decreases in one sector have a direct impact on the others, the interchange of influences should eventually balance over time. In other words, jobs will follow population clusters, and the resulting economic development will be capable of funding the infrastructure required to sustain the existing and new economic growth, creating a harmonious ebb and flow of jobs and employees, people and housing, public needs and public goods. However, owing to the historical and often artificial development of municipal

boundaries and the ability of workers to travel great distances between work and home, the demand for community services can easily outstrip a municipality's ability to adjust to the new demand. Given the universal need for new revenue to pay for new services, increased service demands that are not matched by a corresponding increase in revenue pose a difficult dilemma. This is especially true for communities experiencing expenditure increases as a result of regional growth without sharing in the benefit of an increased revenue stream. In other words, individual municipal boundaries cannot isolate the vagaries of economics or human behavior.

Concerned about the "spillover" effect of development, several studies have attempted to ascertain the regional effect of business development specific to population growth, revenue, and expenditure growth. In relation to population growth, conventional wisdom has held that "jobs follow people," and study after study has documented this cause and effect. However, research into the dynamics of jobs and people has also found evidence that "people follow jobs," driven sometimes merely by the desire to reduce commuting time by minutes. Although the occurrence of "people following jobs" is less prevalent and statistically weaker than "jobs following people," it nevertheless occurs and is significant.¹⁶ Further, while the cause and effect of "people following jobs" may not be particularly strong, its impact on population growth and spending, for example, on public education, demands consideration when assessing the revenue/expenditure ratio of new growth.

Within Massachusetts, the phenomena of people following jobs and jobs following people, coupled with the availability of highway access and the allure of suburban living, may account for the substantial growth that has occurred along the Interstate 495 corridor. Reviewing growth impact figures for the 101 communities within the 495 corridor finds that eight of the ten communities experiencing the highest percentage of growth are border communities either bisected by or in proximity to Interstate 495.

Notwithstanding the above, studies have been unable to determine whether or not business development or an increase in population correlated either positively or negatively on a regional basis. They have, however, found that while a community experiencing growth benefited from it, neighboring communities that do not share the additional tax benefit often experience a negative fiscal impact, proving that economic benefits and liabilities do not respect arbitrary municipal boundaries. Interestingly, although most studies have raised the benefits of regional tax sharing and decision making among communities, few have offered recommendations except to suggest that the cost of development in neighboring communities be considered during the "fiscal impact analyses" of any new project.

Tax Policy

Local municipalities, dependent on property taxes as a major source of revenue, are often forced to set aside their concerns about sprawl and seek development for the necessary revenue it generates. Confronted by increased demands for public services and an almost universal disdain for higher taxes, municipalities see new development as a painless way to increase tax revenue without raising tax rates. Although this and other such furtive tax-raising methods have been a time-honored safe haven for politicians, tax legislation enacted during the past twenty years has increased their appeal by limiting alternative options.

Responding to the public's outcry that runaway spending was burying the home-

owner with high property taxes during the early 1980s, legislatures and taxpayer-initiated referendums across the country imposed various constraints limiting both the size of a community's levy (the amount it could tax) and the percentage it could grow each year. Starting in California with Proposition 13 in 1978, it moved east to Massachusetts, helping to galvanize a taxpayer revolt in support of Proposition 2½. Although Proposition 2½ did not wreak havoc or cause the catastrophic collapse of government that its critics foretold, it did give birth to a fundamental shift in the Massachusetts tax structure by forcing communities to slow expenditure growth while increasing their dependence on new growth and state aid.

Passed as a voter referendum in November 1980, to take effect in fiscal year 1982, Proposition 2½ set a maximum tax rate of 2.5 percent of assessed value (\$25 per \$1,000), and the levy was limited to no more than 2.5 percent of a community's assessed value. Further, the levy could not grow by more than 2.5 percent each year, regardless of how much the assessed value grew each year. Voters could, however, within specific guidelines, elect to increase the levy by more than 2.5 percent or to approve referendums to place debt and one-time capital improvements outside the levy. Although these options provided an available escape hatch to increase both the levy and the tax rate, their use is more prevalent among the wealthier communities, especially towns, than among the poorer urban areas.

In Massachusetts, when one examines the 101 communities within the Route 495 corridor for override usage, the results are clear; it is an option used almost exclusively by wealthier communities. Since 1982, 22 of these 101 communities have never attempted an override, while 79 have voted on override petitions; of them, 55 were successful and 24 failed. Further, while 7 cities have attempted overrides, 5 failed and only two, Melrose, which tried twice and approved one, and Cambridge, in 1982 (the first year of Proposition 2½ implementation), were successful. Overall, 516 initiatives in 214 separate attempts have been put to the voters; of them, 220 questions were approved and 296 defeated.

When override endeavors are reviewed, of the 12 communities attempting them the most, all but one have per capita equalized values well above the median average for the 101 communities. Interestingly, all those communities have also experienced considerable new growth, possibly suggesting that the growth in expenditure necessary to support new growth is not being adequately met by new tax dollars being generated by new growth.¹⁷

Easier to use than overrides or capital and debt exclusions and not requiring voter approval, Proposition 2½ and many other tax caps legislation included a "new growth" provision which expanded the tax levy with residential improvements, new construction, and tax-exempt property that returned to the tax rolls. With this provision, new growth equaled new tax dollars that could be raised painlessly, or so it seemed.

Viewed as a politically acceptable means to increase tax revenue, new growth is actively pursued and welcomed, often without regard to its long-term implications. As would be expected, new growth, especially that which is expected to increase revenue more than expenditures, is especially pursued. Commercial and business development is therefore prized and regarded as tax "positive," while residential housing, especially low-income residences with property values below a community's mean average and likely to increase educational costs, is viewed as tax "negative." Thus, tax-negative development, which increases expenditures more than it generates in new revenue, is either avoided or excluded by zoning restrictions.

The benefit of seeking commercial development is especially advantageous in those communities which use a classification system that allows municipalities to impose higher tax rates on commercial property. In Massachusetts, this system evolved from the pre-1978 practice of “fractional assessments,” which formally and informally assessed commercial property at differing percentages, effectively shifting the burden from residential to commercial property. When struck down as unconstitutional in a series of Supreme Judicial Court decisions between 1961 and 1979, the legislature responded by amending the Massachusetts Constitution to permit the classification of property into four classes — residential, open space, commercial, and industrial — thus allowing communities to set different tax rates for each classification. As of fiscal year 1998, 102 of the 351 cities and towns in Massachusetts use the classification system. Within these tax-classifying communities, 75 percent are urban centers and developed suburbs and all 102 have populations of more than 50,000.¹⁸

Tax classification, by shifting the tax burden from residential to commercial property, may also contribute to sprawl by potentially becoming a business siting or relocation variable. Therefore, even though its impact may be marginal when compared with such factors as the desirability of a community as a financial center, the availability of workers, and the accepted need for one and a half square feet of parking space for each square foot of office space, it may serve as yet another impetus for businesses to flee the tax-classifying urban areas to the suburbs.

As expected, wealthy communities with a mix of high property values, excess tax capacity through levies well below the statutory ceilings of tax-cap states, and low populations clearly have more latitude in contemplating the rewards and disadvantages of new development. Possessing the financial solvency to limit new development by enacting zoning ordinances that create low-density neighborhoods and high property values, wealthy towns may actually contribute to both regional sprawl and the loss of open space in poorer communities. In turn, poorer communities, lacking the capacity to raise additional revenues, may be forced to accept development for its revenue-raising ability, regardless of long-term impact. This “dumping” of development, especially low-income housing and less desirable commercial projects on poorer communities desperate for the increased property tax revenue, may accelerate a community’s fiscal decline. This phenomenon was observed by W. Stull in a 1975 study that examined median home values during the 1960s for forty suburban towns within the Boston metropolitan area. Reviewing the impact of multifamily and industrial land use on the value of single-family homes, Stull discovered that the exclusion or the existence of industrial or multifamily units mattered less than the ratio of either to single-family homes. When the proportion was small, it tended to raise home values; when large, it deflated home values. Stull postulated that low levels of commercial property such as a nearby shopping center increased resident convenience, thus raising values, while too much (especially regional) development tended to decrease a community’s appeal, hence reducing values.

All New Money Comes with a Price

Desperate for new revenue, communities embracing the quick fix of new growth may overlook the long-term positive effects of open space on residential property value as well as the minimal expenditures associated with open space. Open space provides a community with multiple benefits in the form of public goods from which it derives both consumptive and nonconsumptive benefit. Consumptive benefits include fees for hunt-

ing, tree farming, and fishing and trapping, while nonconsumptive benefits comprise hiking, boating, flood control, and the appreciation of nature, generally those goods which when used by one does not exclude their use by others.

Open space, in addition to its taxable land value, contributes to the appreciation of adjoining property, which must be considered in any cost analysis. Similar to the communitywide increase in property values that accompanies larger lots in affluent communities, open space can also create appreciation in the value of neighboring residential properties, serving as the perfect nonconsumptive public good; the benefit is never ending and its value to one does not decrease its value to others. This value was noted by M. R. Correll during an examination of greenbelts in the Boulder, Colorado, area. He recognized, after controlling for other variables, that property values were approximately 32 percent higher within 3,200 feet of the greenbelt. The relation between property value and proximity to the greenbelts correlated to a \$4.20 decrease for each additional foot in distance from the greenbelt. Total benefit, within one neighborhood alone, was more than \$500,000, which at the rate of \$25 per mil equals \$12,500 in taxes. The fiscal benefits of open space also include a higher rate of “revenue over expenses” when compared with other potential land uses. A study that examined six rural towns in New York, Connecticut, and Massachusetts concluded that residential development required an average of \$1.13 in municipal services for each \$1 of tax revenue, while open space, farmland, and forest required only \$0.29 in services for each tax dollar.¹⁹ Although tax revenue is less than would have been generated by commercial or residential development, when coupled with the reduced expenditure needs of open land as well as its appreciative effect on abutting residential property, its value is considerable.²⁰

Although there are immediate financial benefits of seeking new growth, the long-term benefits may be far more fleeting, even damaging. While it is generally agreed that an increase in the nonresidential property-tax base tends to reduce effective residential tax rates and helps to defray the cost of public services, the certainty of this hypothesis is not without its detractors. Recognizing that while “over time” both population and economic growth increase a community’s ability to generate revenue, Thomas Black and Rita Curtis also conclude that revenue capacity is the primary determinant of local government spending.²¹ Thus, over time, any increase in revenue, whatever the source, will be consumed by an increase in spending for both the direct support of development and other auxiliary spending categories.

Further compounding the debate on the benefits and cost of growth are the indirect ramifications that may result from an increase in either population or local revenue. A 1994 study observed that when population increases rapidly, usually at more than one percent, state revenue streams are unable to keep pace with the costs associated with an increase in population, notably for education, which results in declining per capita expenditure and service levels.

Tax-Sharing Programs

Probably the most ambitious strategy for redistributing new growth revenue among neighboring communities has been Minnesota’s Fiscal Disparities Program, which was enacted to improve the allocation, and hence equity, of fiscal resources while promoting optimal regional planning. Rooted in the goal of “good government” and led by a coalition of Rockefeller Republicans and reform Democrats during 1969, passage of the Fiscal Disparities Program was not without rancor and bitter political battles. The program’s

less than universal appeal is well illustrated by its two legislative defeats before its passage by a single vote on its third attempt. Further, although scheduled to become law in 1971, implementation was postponed until 1975 by multiple court challenges.

Essentially, this legislative act mandated that each municipality annually contribute 40 percent of its commercial/industrial new growth that exceeded the base year of 1971 to a regional revenue pool. Once collected, each municipality's share is redistributed exclusively on the basis of a community's per capita fiscal capacity. To ensure equity relative to fiscal capacity, assessed value is adjusted for differential assessments that may exist between communities, then indexed to the area's average per capita fiscal capacity. Distribution of funds is therefore heavily weighted to a community's total tax base and population. While this clearly favors large population centers with below average housing and commercial value, it may not be altogether sensitive to the burdens of small communities that are experiencing a rapid rate of population growth, especially among school-age children.

Under the provisions of the Fiscal Disparities Program, communities receive their allocation before establishing their local levy, which in turn determines local tax rates. Thus, in communities that are net contributors to the fund, taxpayers pay a greater amount in taxes than their local levy. On the other hand, in communities that are net recipients, taxpayers pay less than the amount levied. An examination of the seven participating counties during 1995 reveals a distribution range in which the largest contributor in dollars-lost tax dollars equaled 19 percent (\$169 million contributed to \$137 million received), while the second largest contributor in dollars received a 47 percent increase over its contribution (\$56 million contributed to \$83 million received).²²

Since the bill's original passage in 1971, several amendments to the law have been enacted by the Minnesota legislature. Prior to 1991, all property within federally designated redevelopment areas, under Section 401(a)(4), were exempt from assessment while being eligible to receive distributions under the Fiscal Disparities Program. Starting in 1992, the largest beneficiary of this exemption, South St. Paul, saw its contribution increase as tax-exempt properties were included in the assessment base. However, to minimize the fiscal impact resulting from the elimination of this exemption, the base year was established as 1989 rather than 1971, which serves as the base for all other communities. Although this modification did not change its status as a net receiver of tax dollars, it did lower its net share of tax dollars.

In addition to the above, 1991 also saw passage of the Establishment of Eligibility Criteria Act, which deemed communities ineligible if they participated in planning and zoning activities that served intentionally to exclude commercial and business development. Notwithstanding these achievements, legislators representing wealthy suburbs surrounding the Twin Cities have repeatedly filed legislation to repeal the fiscal disparities act in each legislative session of the past twenty-six years.

Conclusions and Recommendations

Since the earliest moment of man's existence, the value of land has been recognized by the people who have dwelt upon its plains, mountains, and valleys. Land has served as the very cradle of humanity, and its bounty has both nurtured and provided the sustenance to build great civilizations. Wars have been fought over its sovereignty, and it has been the underlying basis of economic systems from feudalism to capitalism and socialism. Locales, more than mere geographical coordinates, often resonate with deep histori-

cal and religious significance. Gettysburg, Bunker Hill, and Monticello are not simply points on a map, they are the pillars that serve to support our national identity. Even those places called home are more than just an address; they are the places where families raise their children and to which they want to return when it is their time to die. Make no mistake, the attachments that people have to the land transcend mere ownership; land serves as the repository of our individual and collective memories and hopes for the future.

Given this affinity for the land, anti-sprawl policies and laws which fail to recognize the unique relationship that Americans have for the land are sure to fall short of their goal. As this article has attempted to illustrate, initiatives designed to stem sprawl were often circumvented, compounding the very problem they were designed to resolve. Whatever the initiative, land management policies that fail to comply with the desires and inclination of existing and prospective property owners, regardless of their collective benefit, will be sidestepped by the individual.

Driven by the desire of an idyllic life in suburbia with its lower housing costs, employment opportunities, lower crime, and better schools, sprawl flows from a combination of powerful economic forces and human urges. To be effective, policies must not only recognize that housing demands reflect distinct individual needs and desires, but that they are also capable of changing throughout a person's life. The bohemian lifestyle of the young may be well suited to urban living and apartment dwelling. Once they marry and have children, a single-family home in an attractive neighborhood with good schools may quickly displace the allure of a free and easy nightlife.

Much, if not all, of the literature on sprawl and the economic implication of land policies makes little mention of the people's psychological attachment to the land. Further, the public also fails to recognize the "happiness quotient" or "measure of success" that is associated with suburban living. Economic equations frequently employed to understand land use often treat sprawl as if it complied with the laws of physics — Factor A, combined with the direct influence of B and the externalities of C, will result in D. If land policy is so mathematically simple, how do we explain each community's ever-present old-timer who refuses to sell property at ten times its value to make way for new development solely because "my grandfather cleared this land with his bare hands"?

Growth controls alone, which constrain specific types of land use, appear to be of limited overall value. While anti-sprawl initiatives may prove successful at protecting specific and targeted areas, they will only skirt regional and national goals unless human desires are recognized and a community's ever-present need for new revenue is alleviated. This is not to suggest that anti-sprawl policies will not be embraced by communities as a desirable "public good." Indeed, communities and their residents have become increasingly aware of sprawl, and among wealthy communities it has taken on a status usually associated with education and crime. What makes consensus building difficult is that sprawl is a concern for those who have already achieved their optimal housing situation. For those emerging from poverty and those settling down to raise a family, growth prohibitions can easily be viewed as elitist, discriminatory, and a restriction on their freedom to live where and how they desire, denying them their modern pioneer spirit.

While growth controls attempt to influence and restrict the housing options of individuals, they fail to respond to the underlying motivation driving communities to embrace what is viewed by many as destructive development practices. Dependent upon the influx of new cash that development brings to a community, the decisions of city councils, selectmen, and town meetings are heavily tilted to immediate monetary concerns

that overshadow more long-term considerations. When triaging the needs of community, spending money for new school construction or fire suppression equipment will always trump spending money to purchase privately held land to protect a pristine pasture as an open space buffer.

Although a municipality's fiscal pressures may prohibit its ability to purchase and protect open space with public funds, the eagerness of communities to promote the conversion of open space to development for the added revenue will forever preclude their protection. Beyond local borders, the possibility exists that the active marketing by pro-growth communities to recruit development and particularly commercial development may not only exceed regional market demands, it may also shift consideration away from more appropriate urban siting possibilities.

Another factor complicating efforts to manage sprawl is the crossover impact of economic conditions. The inability of one community to isolate the vagaries of economic impact, positive or negative, from spilling into neighboring communities is a consequence that mandates mutual regional cooperation. Although practical economics should dictate interaction, collaboration will be no easy task, given that municipal autonomy is a powerful force with a long history that often commands disharmony even when cooperation would be mutually beneficial. Fearing the loss of authority or hometown rule, when it comes to local politics, collaboration is more the exception than the rule. Fraught with such prevailing attitudes, political will seems to favor mutual blight and ruin over sharing authority and regional accountability.

Developing and implementing effective land-use policies that acknowledge individual desires and our historical attachments to the land will not be without its share of failure, success, and political bickering. Despite the complexities, public opinion is beginning to demand action — what will be difficult is formulating remedies that will not fall victim to allegations of elitism, snobbery, and exclusion. Nevertheless, state, federal, and local governments may find it possible to use existing governmental policies and a free market economy to protect valuable land and accommodate the housing desires of individuals. What is important to their success, however, is the manner in which they are applied. What works for one area may be detrimental in another. Given the history of America, mutually agreed-upon policies are more likely to be embraced and successful than state- or federal-ordered edits, which, like performing surgery with a chainsaw, are rarely effective and usually leave the patient far more injured and defaced than when they started. ❧

Notes

1. *Building Livable Communities*, A Report from the Clinton-Gore Administration, June 1999.
2. Open letter from Bob Durant, secretary of the Executive Office of Environmental Affairs, Commonwealth of Massachusetts, to Community Preservation Advocates, September 28, 1999.
3. To learn more about this migration, see Daniel J. Boorstin, *The Americans: The Democratic Experience* (New York: Random House, 1973).
4. Alan Ehrenhalt, "Lucky Winners in the Housing Sweepstakes," *Governing*, July 1996.
5. Terry O'Brien, "Saving New York's Cities," *Empire State Report*, July 1996.
6. The terminology of elastic and inelastic is from David Rusk, "The Exploding Metropolis: Why Growth Management Makes Sense," *Brookings Review*, Fall 1998.

7. Governor Christine Todd Whitman, "The Metropolitan Challenge," *Brookings Review*, Fall 1998.
8. Adele C. Morris, "Property Tax Treatment of Farmland: Does Tax Relief Delay Land Development?" in Helen F. Ladd, *Local Government Tax and Land Use Policies in the United States: Understanding the Links* (Cheltenham, England: Edward Elgar Publishing, 1998), ch. 7.
9. Alan Ehrenhalt, "Are Developers Still Invincible in Local Politics?" *Governing*, November 1996.
10. "Sprawling," *Newsweek*, July 19, 1999, 23–27.
11. Seymour I. Schwartz, David E. Hansen, and Richard Green, "The Effect of Growth Controls and the Price of New Housing," *Journal of Environmental Economics and Management* 8 (December 1981): 303–320.
12. Seymour I. Schwartz, Peter M. Horn, and David E. Hansen, "Research Design Issue and Pitfalls in Growth Control Studies," *Land Economics* 62 (August 1986): 223–233.
13. "What Oregon's Planning Program Does for Oregon"; available at <http://www.uoregon.edu/~pppm/landuse/program.html>.
14. Arthur C. Nelson, "An Empirical Note on How Regional Urban Containment Policy Influences an Interaction between Greenbelt and Exurban Land Markets," *American Planning Association Journal* 54 (Spring 1988): 178–184.
15. William A. Fischel, "Do Growth Controls Matter? A Review of Empirical Evidence on the Effectiveness and Efficiency of Local Government Land Use Regulation," Lincoln Institute of Land Policy, May 1990.
16. Thomas F. Luce, "Local Taxes, Public Services, and the Intrametropolitan Location of Firms and Households," *Public Finance Quarterly* 22, no. 2 (April 1994).
17. A detailed examination of override history, as well as capital and debt exclusion, may be found in Joseph Baressi, "Proposition 2½," John W. McCormack Institute of Public Affairs,, November 1999.
18. For a detailed discussion concerning tax classification, see *Unequal Burdens: Property Tax Classification in Massachusetts*, Massachusetts Taxpayers Association, November 1998.
19. J. Freedgood and R. C. Wagner, "Cost of Community Services Studies: Snapshot of Net Fiscal Impacts of Different Land Uses in Towns," Northeastern Office, American Farmland Trust. Presented at "Does Land Conservation Pay? Determining the Fiscal Implication of Preserving Open Land," Lincoln Institute of Land Policy, 1992.
20. M. R. Correll, J. H. Lillydahl, and L. D. Singell, "The Effects of Greenbelts on Residential Property Values: Some Findings on the Political Economy of Open Space," *Land Economics* 54, no. 2 (1978): 207–317. Cited by Charles Fausold and Robert J. Jiliehoh, "The Economic Value of Open Space: A Review and Synthesis," Lincoln Institute of Land Policy Research Paper, 1996.
21. J. Thomas Black and Rita Curtis, "The Local Fiscal Effect of Growth and Commercial Development Over Time," *Urban Land*, January 1993.
22. Karen Baker and Steve Hinze, "Minnesota's Fiscal Disparities Program" (St. Paul: Research Department of the Minnesota House of Representatives, November 1995).