Smart Growth: More Than a Ghost of Urban Policy Past, Less Than a Bold New Horizon

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Abstract

Proponents of smart growth tout its more compact, less automobile-dependent development as a superior alternative to the prevailing pattern of sprawl. Admittedly, smart growth is characterized by the ghost of urban policy past, ranging from inner-area revitalization to growth management. Yet smart growth incorporates leading-edge, contemporary components (e.g., encouraging multimodal transportation, strategically locating public employment), and its timing is propitious—as aging baby boomers, rising immigration, and other forces support core-area revitalization and other smart growth themes.

The future of smart growth is promising, but its success is far from assured. Multiple factors, such as the lack of adoption across governments, market support for sprawl, the automobile's clinging dominance, and a paucity of techniques, could impair broad implementation. However, smart growth is sensible, broadly recognized, and fortuitously timed, and its proponents have learned from the miscues of its historical antecedents.

Keywords: Development/revitalization; Growth management; Land use/zoning

Smart growth has many proponents as well as critics. This article describes smart growth, places it in historical perspective, and analyzes its contributions. The discussion attempts to answer the following questions:

1. Is smart growth a ghost of urban policy past?

2. Or is it a bold new horizon?

The article evaluates the merit of these two conflicting points of view by tracing old and new smart growth activities within its five major components: (1) control of outward growth movement, (2) inner-area revitalization, (3) design innovation, (4) land preservation, and (5) transportation reorientation. The article concludes that smart growth is more than a ghost of urban policy past but less than a bold new horizon.

Definition and origins of smart growth

At the millennium, we have a unique opportunity to change the prevailing pattern of sprawl and to lay the groundwork for how we want

to live in the next century. We can do so through more efficient use of the resources that were left behind as people moved outward in the metropolitan area. 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 (for example, meeting the needs of new households and employment and reinvigorating inner-metropolitan areas). In many cases, redirecting just 20 percent of the growth headed for areas outside central cities and inner suburbs would double or triple the growth projected for inner areas (Burchell et al. 1999). This is *smart growth*, as opposed to *sprawled growth*.

The time is ripe for change. A growing number of empty-nester households, young professionals, and immigrants from all parts of the world are interested in inhabiting central places that offer cultural experiences and a sense of community. The immigrant component alone is allowing central cities to maintain population counts in the face of the continued suburbanization of child-rearing households and the general decline in household size (Hughes and Seneca 1999). Most central cities are much better off than they have been in years, although they still lag behind suburbs in all their vital signs (U.S. Department of Housing and Urban Development [HUD] 1999). This helps answer the demand question for smart growth.

There is also interest on the part of middle- and moderate-income central-city households to suburbanize. For example, African-American households are moving to first- and second-ring suburbs in greater numbers than ever before. This movement is the result of minority households' seeking the benefits of better educational opportunities in metropolitan areas. In addition, a change in federal housing policy encourages low- and moderate-income households to move to housing in the outer reaches of metropolitan areas (HUD 1999). This helps answer the displacement question for smart growth.

During prior periods of metropolitan development, either or both of the above trends were too embryonic to allow these changes to take place. In addition, public policy tended to support the reverse of these trends. Through various types of subsidies and infrastructure financing, the suburbs were expanded for the middle class to the detriment of inner-city markets. Similarly, low- and moderate-income households were encouraged through public housing and rental/ownership construction programs to remain in central cities (von Hoffman 1996). Now there is a unique opportunity to do something different: to allow those who desire suburban residence, regardless of race or income, to reside there, and to allow those who feel similarly about urban residence to do the same. This can be achieved by a concerted effort to rebuild inner-suburban and central-city markets through infill and redevelopment,

and to channel suburban development to the most efficient and easiest-to-serve locations. In other words, we need to promote smart growth and stop the unnecessary consumption of natural and other resources.

What does smart growth entail?

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. At the same time, a share of growth is taken away from the rural and undeveloped portions of the metropolitan area. This is accomplished by revitalizing existing central cities and inner suburbs so they can participate in the region's future growth. While this is happening, the regional economy is strengthened, residents' quality of life is enhanced, and outer-area natural resource systems are protected and restored. In effect, smart growth encompasses and extends the growth management efforts of the previous decades. One exception is that it is much more pro-growth and much less proconservation than earlier growth management efforts.

Smart growth comprises the following activities; the groupings below are used throughout the article to categorize smart growth's antecedents and precedents (Porter 1999):

1. Control of outward movement/growth controls

    - Accommodating within close-in areas a larger share of projected growth than would occur through current development trends

    - Reducing or limiting potential growth outside close-in areas in environmentally threatened lands and habitats

2. Inner-area revitalization

    - Creating and orienting state, federal, regional, nonprofit, and private actions to stimulate and support community and neighborhood revitalization efforts

    - Expanding and evening-out local tax yields through the location of public and private employment to provide funding for new and improved public services

    - Infilling on vacant lands and redeveloping underused and brownfield sites to accommodate future development

    - Restoring and adapting existing structures, neighborhoods, and business areas to more effectively serve market demands

3. Design innovations

   - Creating and maintaining attractive, functional communities that focus on centers
   - Expanding opportunities for social and economic interaction and cultural exchange
   - Designing buildings, neighborhoods, and special-use centers to provide attractive, convenient, safe, and integrated living and working environments
   - Improving infrastructure systems and community amenities to support the above types of development

4. Land and natural resource preservation

   - Developing more compact urban growth forms to prevent further impact on threatened land resources and natural habitats
   - Promoting development that sustains the supply of natural resources and their consumption over time

5. Transportation reorientation

   - Improving regional access to all forms of goods and services and cultural and recreational amenities
   - Emphasizing intermodalism and nonmotorized forms of transportation
   - Ensuring that the regional transportation system is both functional and well represented in areas where future development is to take place
   - Building an enhanced regional economy by improving the links between major retail and employment centers

What are the contemporary origins of smart growth?

While it has historical antecedents that will be discussed shortly, smart growth, as presently defined, appeared in the mid- to late 1990s on a variety of fronts. Smart growth was an initiative of the American Planning Association (APA), HUD, and the Henry M. Jackson Foundation on the one hand, and the Natural Resources Defense Council (NRDC) and the Surface Transportation Policy Project (STPP) on the other. The APA/HUD/Jackson Foundation initiative called for updating land

use controls to allow them to be sensitive to ongoing problems of lack of housing diversity, traffic congestion, and environmental degradation. The initiative also called for land use controls that emphasized compact development to conserve resources; limited development in undeveloped areas and encouraged investment in older central cities; promoted social equity in the face of economic and spatial separation; and were sensitive to the role of the private market and the need for simplicity and predictability in land use controls. A variety of educational materials were prepared for members and constituencies (APA 1997).

The NRDC/STPP smart growth effort consisted of a "toolkit" for policy makers that attempts to promote growth that is "compact, walkable, and transit accessible" and that will ultimately "compete better with sprawl in policy forums and in the marketplace." The toolkit contains three policy reports on the environmental, economic, and social impacts of sprawl; research reports on sprawl-induced fiscal impacts and infrastructure requirements (including utilities and roads); and a *Smart Growth Guidebook* (NRDC/STPP 1997).

Maryland adopted smart growth legislation at the state level in 1997 (Kreitner 1998). This legislation withholds, or at least sharply limits, subsidies for new roads, sewers, or schools for political jurisdictions outside state-targeted smart growth areas (Maryland Office of Planning 1997). Rhode Island and Colorado have adopted similar initiatives (Urban Land Institute [ULI] 1998). Each of the above techniques has as its basis improved management of growth and more compact development to conserve resources.

The entire focus of the second New Jersey State Development and Redevelopment Plan is to emphasize the five basic components of smart growth listed earlier. This is being done to save natural and financial resources (New Jersey Office of State Planning 2000). State Planning Commission members, including representatives from agriculture, business, and real estate, passed the original State Plan by a vote of 17 to zero.

In January 1999, President Clinton issued a "Livability Agenda" that contained funding for open space purchases (Better America Bonds), congestion reduction (Congestion Mitigation and Air Quality Improvement Program), and regional infrastructure improvements (Regional Connections Initiative). These initiatives amounted to about $17 billion in funding for fiscal year (FY) 2000.

In the summer of 1999 alone, the popular media repeatedly notified the public of smart growth activities (Knopman 1999). Smart growth was illustrated on a segment of CNN's *Year 2000 Millennium Series* that cited Arthur Levitt's 1950s Long Island, New Jersey, and Pennsylvania building activities as examples of what can be learned from the past

and done better in the future. Governor Roy Barnes of Georgia was profiled in the July 1999 issue of *Newsweek* after he created a 13-county regional transportation agency (the Georgia Regional Transportation Authority) to deal with Atlanta's traffic congestion and resultant failure to comply with the Clean Air Act Amendments (Pedersen, Smith, and Adler 1999). In an August 1999 issue of *Business Week*, the 10th of "21 Ideas for the 21st Century" identified ways to combat urban sprawl as a "smart" strategy to improve both existing and new living environments (Carey 1999). Finally, in a September 1999 issue of the *New Yorker*, two books on a smart living environment, Celebration, FL, were simultaneously reviewed (Andersen 1999). Smart growth is becoming increasingly well-known to the public at large (Miller 1999).

Why do we grow?

Growth takes place to answer housing and employment demands related to the forces of natural increase, immigration, and regional shifts. In response to these forces, the United States will grow by 25 million housing units and 40 million jobs between 2000 and 2025 (Woods and Poole Economics 1999) (see table 1).

Table 1. **Housing and Employment Growth, 2000 to 2025**

	Change (In Millions)	Share (%)
Housing units	25.0	100
Northeast/Midwest	5.6	22
South/West	19.4	78
Employment	40.0	100
Northeast/Midwest	13.4	34
South/West	26.6	66
Housing units	25.0	100
In central city	3.0	12
Outside central city	22.0	88

Source: Woods and Poole Economics (1999).

Over three-quarters of the growth in housing units and nearly two-thirds of the growth in employment will take place in the South and the West. Close to 90 percent of the housing-unit growth will take place outside of central cities.

We also grow because growth provides us with housing amenities that most people would agree constitute a high quality of life, if quality of life is defined as owning a home that will appreciate in value, is in a safe location, offers a good school system, and has relatively low property taxes. Expanding tax bases in growing areas and marginal levels of local public services hold down property tax increases in these areas

(Wolpert and Danielson 1992). Yet it is also possible to have growth without depleting outer-metropolitan natural resources or inner-metropolitan neighborhoods; the result is savings for everyone. This is fundamental to understanding smart growth.

Savings related to a smart growth future

Given the prior discussion on the definition of smart growth and its component activities, the calculation of its impacts must take place in substantive areas where it is believed to play a significant role. These are land and capital infrastructure consumption, and property development and public service costs. Specifically, what are the impacts of smart growth on agriculture and environmental lands, roads, and other basic development utilities; residential and nonresidential property development costs; and costs of basic public safety, public works, and public education services? Evidence gathered in alternative-growth studies of similar methodology conducted by Rutgers University can help answer this question and project its results nationally (Burchell 1992, 1997a, 1997b; Burchell and Listokin 1994; Burchell and Moskowitz 1995; Burchell et al. 1999).

The figures in table 2 represent the pooled results of the findings in New Jersey, the Delaware Estuary, Michigan, South Carolina, and Florida and are applied to a national growth of 25 million housing units over the next 25 years. An average difference in resource consumption between two future development scenarios (sprawl versus smart growth) is created, reflecting the numerous localities and conditions in which these studies have been undertaken. This average difference is expressed per residential unit (and associated nonresidential growth) by region and is applied to the future growth of the U.S. housing stock over the next 25 years also by region (i.e., 1 percent per year, or about 25 million units as indicated above). While this is not a scientific sample, the studies have been undertaken in diverse locations, including slow- and fast-growth states, rural and developed locations, and large and small jurisdictions.

Smart growth—which emphasizes close-in development, infill, a mixing of land uses, and cluster development—can save resources in each of the above areas. For the United States as a whole, over a 25-year period, this 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 percent would be in road savings to local and state governments; about 6 percent would be in land savings to local and state governments; and, finally, 4 percent would be in development utility savings, again to land developers and occupants of new structures.

Table 2. **Smart versus Traditional Growth Savings**

Area of Savings	Savings per Dwelling Unit	Total Savings over 25 Years
All lands (acres)	0.124	3,099,000
Land cost	$619.79	$15.49 billion
Agricultural land (acres)	0.0694	1,735,000
Frail environmental land (acres)	0.0341	852,000
Local roads (lane miles)	0.0036	91,000
Local road costs	$1,325.08	$33.13 billion
State roads (lane miles)	0.0001	3,000
State road costs	$106.49	$2.66 billion
Water laterals (#)	0.0902	2,255,000
Water lateral costs	$185.52	$4.64 billion
Sewer laterals (#)	0.0966	2,416,000
Sewer lateral costs	$167.45	$4.19 billion
Housing costs	$5,791.78	$144.79 billion
Nonresidential costs	$861.25	$21.53 billion
Fiscal impacts	$964.02	$24.10 billion

Note: Amounts are expressed in 1999 dollars, per residential unit, multiplied by 25 million units for U.S. growth from 2000 to 2025. Dollar savings are $250 billion, or $10 billion/year ($10,000/dwelling unit).

These savings reflect differences in resource consumption emerging from two different land development futures. The first represents development as it historically has taken place; the other offers a smarter, more contained type of development for the future. In the second, more development is directed to inner-suburban and urban areas and less to rural and undeveloped areas. Once development is directed to inner-suburban and urban areas, a variety of development procedures are implemented. Density is increased modestly; a small number of different housing types are introduced; cluster and mixed-use development are encouraged; and a variety of compatible transportation measures are implemented—for example, traffic-calming techniques, transit-oriented districts, and nonmotorized transportation options. Open space protection and urban design initiatives, including pocket park and playground redevelopment, sign and awning conformity ordinances, and a variety of activities that relate to additional landscaping, street furniture, coordinated lighting schemes, and pavement textures, are also introduced.

Even more important, long-term measures are taken to improve public safety, achieve better public education, and upgrade the housing stock. The object of these measures is to make inner-suburban and urban areas attractive to developers and new residents. The resource savings associated with this type of development could then be realized.

Land savings

Smart growth would significantly decrease the consumption of undeveloped land in most metropolitan areas. In addition to increasing the amount of land available for recreation, retaining undeveloped land would serve to mitigate the worst effects of flooding and support the efficiency of groundwater recharge areas (Burchell 1999).

Land-purchase programs would be greatly assisted, and even obviated, by reducing land consumption for *residential and nonresidential* purposes. If U.S. housing stock grew at 1 percent per year and employment grew at 1.5 percent per year, more than 3 million acres would be saved from development between 2000 and 2025. Again, this figure is derived from applying savings per unit as identified in alternative-development studies. Of the lands saved, slightly more than 56 percent would be agricultural lands, while 27.5 percent would be fragile environmental lands.

Road savings

Smart growth would also substantially reduce traffic congestion and result in significant savings in road infrastructure costs. Encouraging growth in inner-suburban and urban areas, where road infrastructure already exists, and creating an improved housing-job mix through better land use planning and site design would in turn encourage nonautomobile travel (Hartshorn and Muller 1992). Similarly, implementing urban design criteria that are sensitive to human-scale development and public transit could lessen the need for constructing or augmenting roads. Concentrating growth in inner areas—and away from rural and undeveloped areas—would result in an overall savings of 90,000 lane-miles of local roads constructed nationally. This would mean a savings of $33 billion in local road costs over the 25-year projection period. Less of a savings would be apparent with respect to state roads, because large, median-divided roadways must still cross the state regardless of local land use patterns. A more compact development pattern would allow for 3,000 fewer new lane-miles of state roads, for a savings of $2.7 billion (Burchell 1999).

Infrastructure savings

The number of water and sewer laterals would be reduced because of more town house and multifamily developments in the central areas. This would enable greater sharing of trunk lines and result in about 4.7 million fewer water and sewer laterals than would be required under existing growth. This, in turn, would save a combined $8.8 billion in water- and sewer-lateral development costs during the period (Burchell 1999).

Development cost savings

Smart growth would also translate into somewhat enhanced affordability and diversity of housing for the nation's residents. This would be achieved through small increases in density and a greater variety of housing types in the inner-suburban and urban areas under smart growth. Further, zoning for single-family attached and multifamily development could reduce infrastructure costs to serve this type of development, which is inherently less expensive in inner locations than single-family development in outer locations because of improved access to infrastructure (Burchell 1999).

Increasing density in the inner-suburban and urban areas would reduce the land cost component of overall residential and nonresidential development costs in these areas. A small portion of development under smart growth would experience a decrease in density to allow land at the periphery to be purchased privately and to garner privately maintained open space through clustering. Density increases and decreases both take place under smart growth; however, there is more increase than decrease, thus lowering overall housing costs. These efforts could result in savings of about $5,790 per new dwelling unit—a reduction of 5 percent from the average value of $110,000 per housing unit under existing development. 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. A smaller savings of about $861 per 1,000 square feet of commercial and industrial structures, or about 1 percent, could also be expected for nonresidential development. This would amount to an aggregate savings of $21.5 billion.

Public service cost savings

Smart growth would allow new development to be served in locations where the public service system is established and complete. Smart growth would take place in more developed locations where derived revenues exceed costs to a greater degree and where there is more excess capacity in service delivery than is the case for less developed locations. As a result, smart growth would produce a fiscal surplus approximately 7 percent larger than that produced by existing development. This savings, averaged and summed for the 25-year period, would amount to more than $24 billion (Burchell 1999).

Smart growth as a ghost of urban policy past

Discussions of smart growth often give short shrift to its historical antecedents. In fact, smart growth has a long history. The 1968 Douglas Commission, for instance, considered the problems of sprawl as well as

possible solutions, such as urban growth boundaries (UGBs) (American Society of Planning Officials 1968). Other studies were similarly engaged in examining the effects of land development patterns (e.g., Freilich and Levi 1975; National Committee on Urban Growth Policy 1969). The following section considers some of the historical antecedents to smart growth from roughly the 1920s through the 1980s. (A subsequent section examines smart growth's contemporary profile from 1990 onward.) Because this historical overview covers 80 years, the presentation is necessarily abbreviated to select the aforementioned components of smart growth.

Control of outward movement/Growth controls

Noticeable use of zoning in the United States dates from the 1920s, when the Standard Zoning Enabling Act (SZEA) was issued by the U.S. Department of Commerce and the Supreme Court upheld the constitutionality of zoning (*Village of Euclid* v. *Ambler Realty Co*., 272 U.S. 365, 1926). While zoning was clearly a land use innovation for its day, with the hindsight of history, it was not, especially as first applied, very "smart."

According to the SZEA, zoning needed to have only a tenuous connection to planning (Mandelker 1978). In fact, the Standard Planning Enabling Act (SPEA) was introduced six years *after* the SZEA, and when the SPEA was passed, local planning was optional. The zoning ordinance had to contain text and a map. The text did *not* have to be the master plan, nor did it need to refer to the master plan (Delafons 1962). John Nolen observed in the late 1920s that three times as many cities had adopted zoning as opposed to long-range plans (Scott 1969)—an incongruity that continued for many years. Zoning, as a regulation, had teeth and could accomplish the segregation of uses; planning as a non–legally binding guidance document was too general and could be ignored. If you could get along without it, why become involved (Delafons 1962)?

Other aspects of the formative stages of land use, with historical hindsight, were less than "smart." Development proceeding according to a zoning framework did not have to be concurrent with providing infrastructure (Mandelker 1978). In a similar vein, the SZEA made no specific reference to regulating either the timing or the sequence of development (Williams and Taylor 1985, vol. 3A). In the early decades of zoning (as well as subsequently), land use was regulated on a Euclidean basis that strictly separated land uses (as opposed to allowing mixed uses or letting lower uses invade higher ones). Further, zoning was applied with a localized, "beggar thy neighbor" attitude (Babcock 1966; Reilly 1973). In fact, zoning often stopped at a city's borders and left the hinterland or neighboring cities unregulated. Thus, the land use system that evolved first in the 1920s and then in subsequent

decades did so in an "unsmart" fashion—zoning was adopted with little or no planning, with scant attention to infrastructure concurrency, and with a Euclidean, localized, and limited framework. Obviously, these were reforms for their time undertaken by Hoover-style Republicans rather than liberal idealists. The problem was that after the Depression and World War II, times changed and land use controls did not. The suburbs mushroomed, development got bigger and more complicated, and environmentalism emerged (Popper 1999).

In 1965, President Johnson, after years of pressure from professional planners and a succession of defeats for the proposal in Congress, established HUD. For the first time, housing and planning were represented at the Cabinet level—and by the first African American to be appointed to Cabinet rank, Robert C. Weaver. The achievement of Cabinet status came 75 years after the Congress made its first recorded appropriation for dealing with the problem of urban development (in 1892 it voted $20,000 so the Secretary of Labor could investigate slums in cities with a population of over 200,000). In 1967, HUD programs were supporting about $12 billion in public and private investments in housing and urban development annually (Delafons 1969). As Weaver's Assistant Secretary for Metropolitan Development, Charles M. Haar was responsible for programs affecting urban areas and their hinterland, including programs dealing with metropolitan and urban planning, water and sewer facilities, acquisition of recreational open space, urban mass transportation and research, and planned community development. There was an armory of federal grants and loans to secure coordinated metropolitan planning, preservation of open space, and mass transportation development.

Another significant national effort of this period was funded largely by the Ford Foundation. It was an attempt to rework the original zoning and planning model acts of the 1920s. The American Law Institute (ALI) Model Land Development Code, parts of which would be adopted into the consistently defeated National Land Use Policy Act (NLUPA) half a decade later, appeared in 1971. Richard Babcock participated in a feasibility grant, and Allison Dunham of the University of Chicago Law School led a team of reporters in preparing the draft code. The object was to carry out a comprehensive review and restatement of planning law and to produce a new enabling act that would replace the two model acts prepared in the 1920s. This never happened because the code they created was so comprehensive and complete, so sophisticated in its conception and refined in its drafting, and such a departure from the police power of eminent domain that it posed a threat to those comfortable with the existing system. Nevertheless, the arrival of the ALI code was viewed as simultaneously the most significant advance in the American system of land use controls in 45 years (from 1922 to 1967) and as the death knell of federal involvement in land use as well.

It has always been something of a puzzle why states did not develop to their full potential in the exercise of planning. They have legislative powers, they control major public works programs, they have the predominant interest in the conservation and allocation of natural resources, and they have a wider oversight of urban and rural development problems than any component of local government. Despite their strong strategic position, however, for the most part states have not responded to this opportunity. In the mid- to late 1960s, some states undertook reviews of their general laws and ordinances dealing with planning and land use controls and passed amending legislation aimed at clarifying and codifying the accumulated legislative morass dealing with the relationship between zoning and planning. The culmination of this was detailed municipal land use laws instituted in Connecticut, Maryland, Massachusetts, Minnesota, New Jersey, New York, and Pennsylvania (Delafons 1969).

It took a "quiet revolution in land use controls" (Bosselman and Callies 1972) endorsed by august foundations and professional groups (Popper 1988) to purposefully control the tempo and sequence of land development at the state level (Degrove and Stroud 1987; New Jersey Office of State Planning 1996; Scott, Brower, and Miner 1975; Sinclair 1988). The first wave of growth management, in the 1960s and 1970s, replaced atomized local control with greater state/regional oversight. On rarer occasions, individual communities acted; for example, Ramapo, NY, adopted a local growth management plan that coordinated development with the availability of public capital facilities (Freilich and Stuhler 1981). In this formative stage, oversight tended to be specialized in various ways. In many instances it was limited to coastal and other particularly fragile areas or to particular types of land uses. Several states, such as California and North Carolina, established coastal commissions to coordinate state and local planning and the permitting of coastal areas (Sinclair 1988). Similarly, state/regional bodies asserted planning and regulatory control over such unique locations as Lake Tahoe (NV), San Francisco Bay (CA), the Pinelands and Hackensack Meadowlands (NJ), and Adirondack Park (NY). The state of Maine assumed planning and permitting authority for as many as 10 million acres of "unorganized" land (Sinclair 1988; Williams and Taylor 1985, vol. 5). Finally, special districts and regulations were created for particular types of land uses, such as power plants, strip mines, and large residential developments (Popper 1999).

Sometimes state control targeted certain types of development. After severe droughts in 1970 and 1971, Florida passed an Environmental Land and Water Management Act that established an administrative process at the state level (with regional and local input) to deal with areas of critical state concern and developments of regional impact (Williams and Taylor 1985, vol. 5). Second homes and other development threatening to despoil Vermont led to the passage in 1970 of Act

250, which required that major projects obtain a permit from an environmental commission that would consider 10 criteria, such as water, soil, scenic, fiscal, and other effects (Williams and Taylor 1985, vol. 5). In a celebrated case (Beaumont 1996), a 490,000-square-foot shopping center proposed to be built six miles from Burlington, VT, was denied an Act 250 permit because of its perceived deleterious regional impacts (e.g., cannibalized retail sales from Burlington and increased highway congestion). The early 1970s regulatory innovations in Florida and Vermont paralleled recommendations from the ALI code, whereby a state land-planning agency would establish rules and standards governing development having state or regional impact (Babcock 1972).

The most extensive extralocal control over land use during growth management's first wave consisted of state government's applying its planning and permitting authority statewide (Sinclair 1988). Hawaii and Oregon adopted such strategies. Oregon, for instance, required (in 1973) that all 278 municipal and county governments in the state adopt comprehensive plans conforming to 19 goals that covered such topics as the conservation of farmland and natural and other resources (goals 3 to 7); development attributes—housing, transportation, and public facilities (goals 10 to 12); and urbanization (goal 14). The last called for the establishment of UGBs to identify and separate current and future urban land from rural land.

As with all significant change, the first wave of growth management at the state level led to controversies and proceeded unevenly. Conservationists in Hawaii decried piecemeal additions to the state's urban zone (where local control was exercised and more intense development was allowed), while housing advocates blamed managed growth for rising housing prices (Healy 1976). According to Marcus Hepburn, several local governments in Florida were not including nominally required elements in their comprehensive plans (telephone conversations with the author in 1993). Sometimes, the regulations had no teeth, as evidenced by Popper's observation that throughout the 1970s, both the California and Florida coastal programs had no enforcement staffs (1988). In part, such desultory support reflected the conservative reorientation of that era, which questioned centralized government. That mood led to repeated defeats of the NLUPA, which would have provided federal aid to states drawing up statewide land use plans and devising procedures to protect/regulate environmentally sensitive areas/projects (Lyday 1976; Popper 1988). A conservative bent also helps explain the mild descriptive tone, as opposed to a more proactive stance, of the National Urban Growth Reports (mandated by the Housing and Development Act of 1970) of the early 1970s (Ashley 1975).

In time, however, a second wave of state growth management strategies was adopted, including state plans in Florida (1985), New Jersey (1986), Maine (1988), Rhode Island (1988), Georgia (1989), and Wash-

ington, Maryland, and Tennessee (1990s). These second-generation efforts had a much broader purview than the narrower, more environmentally oriented efforts of the first wave. They included more attention to infrastructure, housing, economic development, community character, and quality of life. Illustrative of this shift was the title of the New Jersey plan, "Communities of Place." These broader approaches are gaining acceptance as they are refined in subsequent iterations (New Jersey Office of State Planning 2000).

Also deserving mention in this overview were events, occurring in areas other than growth management, that helped influence land use changes. The 1978 requirement that Section 701–funded planning include a housing element (Listokin 1976) and the 1974 "expected to reside" mandate (reinforced by the Housing and Community Development Amendments of 1981) in preparing a Housing Assistance Plan (HAP)[1] ever so gently led some communities to consider regional affordable-housing needs and job-housing linkages. A bigger push toward prompting affordable housing land use changes (e.g., increased density) was the Mount Laurel (New Jersey), "antisnob" (Connecticut, Massachusetts, Rhode Island), and similar antiexclusionary zoning mandates.

There were also financial changes. Over time, the fiscal underpinning of zoning—the "ratable chase"—has been gently blunted by such changes as states' reducing the funding of schools from the local property tax (because of court mandates, taxpayer revolts, and other reasons), regional tax-base sharing (admittedly rare and limited to such isolated examples as the Hackensack Meadowlands [New Jersey] and the Twin Cities [Minnesota]), and increasingly common impact fees (Burchell and Listokin 1990). A 1987–1988 national survey indicated that, on average, development exactions in the United States amounted to approximately $2,000 per residential unit and $450, $1,400, and $2,400 per 1,000 square feet of industrial, office, and retail space, respectively (Arthur D. Little and University of Florida 1987 and 1988).

In summary, the national land use, state growth management, housing equity, fiscal reforms, and other changes noted above are the historical land use control antecedents for smart growth. Their 1990s applications are described in a subsequent section.

[1] The HAP was a prerequisite for receiving Community Development Block Grant funds (see later discussion). Technically, the HAP was to include an assessment of the housing needs of all lower-income persons—those both residing in and expected to reside in a community. Thus, a suburban municipality experiencing job growth would be required to assess in the HAP the housing needs of those employees expected to reside locally.

Inner-area revitalization

Title I of the Housing Act of 1949 authorized $1.5 billion in aid for what was labeled "slum clearance and community development and redevelopment" (National Commission on Urban Problems 1968, 152). At its inception, the 1949 act was heralded by, for instance, William Wheaton, who wrote in the *Journal of the American Institute of Planner*s that the Act "makes possible the replanning and reconstruction of American cities on [an]…undreamed of…scale" (1949, 41). The act provided federal funds for removing slum and blighted structures on an areawide basis (Fefferman 1966); moreover, planning would be fostered because Section 105(a)(III) required that as a prerequisite to federal assistance for a redevelopment project, a local governing body had to certify that the project was in accordance with a *general plan* (emphasis added) for the locality (Williams and Taylor 1985, vol. 1).

Early in Title I's implementation, its focus was on clearing a few city blocks at a time; however, the limitations of this approach quickly became apparent (Advisory Committee on Government Housing Policies and Programs 1953). The program was given a midcourse correction in the Housing Act of 1954 (Housing and Home Finance Agency 1964). The 1954 legislation changed the nomenclature and approach to how cities would be renewed. A broader framework was embodied in the new term "urban renewal."

> The 1954 act shifted the emphasis of Title I from slum clearance and urban redevelopment to slum clearance and urban renewal. "Renewal" was defined to include a number of activities designed to encourage improvement of entire neighborhoods. These activities included conservation of existing housing that had only begun to be threatened by blight and rehabilitation of blighted housing that could be improved without clearance. (Fefferman 1966, 57)

The 1954 act also required the locality to take a broader view of all its urban problems so that individual projects would be administered in the framework of a long-range program for the general improvement of the entire community (Fefferman 1966). To that end, the 1954 legislation made federal aid for future urban renewal and low-rent public housing contingent on the community's preparing a workable program—a comprehensive plan of action for meeting overall problems of blight and community development. As the "workable program" requirement included a mandate for planning, and many communities at that time had neither plans nor a planning process in place (despite the mandate of Section 105(a)(III)), Section 701 of the 1954 act established a program of federal matching grants. Aid would be afforded to state planning agencies for planning assistance to cities with populations under 25,000 and to state, metropolitan, and regional planning agencies for comprehensive planning in metropolitan or regional areas. This section of the

1954 act created a national demand for planning that ultimately was filled by members of the modern planning profession.

Taken in its historical context, it could be argued that the urban renewal strategy of the Housing Act of 1954, especially as opposed to its predecessor "redevelopment" approach of the Housing Act of 1949, had numerous elements of what in its day was smart growth for core-area revitalization. These elements included the following:

1. The underlying objective of renewing older centers.

2. The maximization of existing resources. Urban renewal brought more attention to rehabilitation and conservation and the means of accomplishing these objectives (e.g., housing codes and new Federal Housing Administration [FHA] programs). The 1953 Advisory Committee on Government Housing Policies and Programs, a body that included such august members as James Rouse and proved quite influential (all of its recommendations were adopted by Congress), emphasized that cities could not rely on slum clearance but should instead take action to prevent blight (1953). The philosophy of the committee was reflected in the title of its final report, *Slum Prevention through Conservation and Rehabilitation.*

3. Growing recognition of the importance of coordination and timing. The workable program requirements provided an example of this. That program's objective of coordinating "major land uses, thoroughfares, and other community facilities and capital improvements" (Fefferman 1966) is an early version of concurrency.

4. Encouragement of planning. Smart growth encourages planning, and the urban renewal Section 701 program provided an impetus to planning in the United States (albeit mostly suburban planning as it turned out).

5. Federal funding of decentralized regional planning. Section 701 was one of the first major funding sources of state, metropolitan, and regional planning in the United States. That support, and indeed the entire 701 concept, reflected the recommendations of studies to that same advisory committee, which spoke of the interdependence of cities and suburbs, the dual problems of urban blight and suburbs developed in a "spatterdash method" (i.e., sprawl), and the need for regional planning to deal with these and other problems (Scott 1969).

6. Nascent social equity sensitivity. In its time, urban renewal, as opposed to earlier redevelopment, incorporated greater measures of social sensitivity. The 1954 act hoped to reduce the relocation problems caused in the first five years of implementation of the Hous-

ing Act of 1949 by mandating that relocation planning be included in the workable program and by providing FHA Section 221 housing to relocated families.

The luxury of looking back 50 years is that we know how things turned out. While urban renewal had elements of smart growth, its denouement was often far different. To be sure, urban renewal did aid numerous projects that are cited today by smart growth advocates as exemplary efforts to revitalize centers and make them "livable communities." Illustrations include urban renewal assistance for preserving Society Hill (Philadelphia), Charlestown (Boston), Vieux Carré (New Orleans), College Hill (Providence, RI), and Pikes Place (Seattle) (Stipe and Lee 1987). Yet these were the isolated exceptions to the more frequent "Federal Bulldozer" as Anderson called it (1964; see also Gans 1965): demolition-focused, poorly planned (with little or no regional planning and integration), and socially and culturally destructive projects that were the antithesis of what is envisioned under growth.

A full discussion of why urban renewal was frustrated is beyond the scope of this section, although it is instructive to at least touch upon some of the obstacles, for they frame later innovations.

Bad timing and limited support. Urban renewal came to fruition when immigration was down and so could not capitalize on immigrants, who historically sought to bootstrap themselves in cities.[2] Also, the 1950s and 1960s witnessed an upsurge of child-rearing and nesting, both of which lend themselves more to suburban than urban lifestyles. Cities were simply less sought after, a distancing aggravated by their growing concentration of minorities.

Conflicting programs. While Title I attempted to renew centers, other massively funded federal programs were fostering suburbanization. The latter included the interstate highway system, suburban sewer and water grants, and FHA policies that favored suburban subdivisions (at least initially).

Internal contractions. While urban renewal nominally sought to add conservation and rehabilitation to the arsenal of revitalization strategies, other programmatic requirements, such as the "equivalent demolition" rule (a substandard unit in the locality must be eliminated for every unit of low-rent housing that was federally aided),[3] sometimes did

[2] In the three decades from 1901 to 1930, 18.6 million immigrants came to the United States; from 1931 to 1960, that figure plummeted to 4.1 million (U.S. Bureau of the Census 1997).

[3] The equivalent demolition requirement was introduced in the Housing Act of 1937. A number of issues may have influenced that provision. At the time, there was much inadequate housing that needed to be demolished; a 1934 national housing survey

the opposite. As another example, Section 701, aiding urban renewal workable-program planning, had its biggest impact in catalyzing local suburban planning and land use activities—thus fostering suburban development at the expense of the city.

Other limitations. Even with the urban renewal broadening of the original 1949 redevelopment program, the revitalization effort was limited in many respects. It focused on physical as opposed to underlying social ailments. Its geographic scale of a site or block(s) was overwhelmed by the larger metropolitan forces at work (e.g., population sprawling to the suburbs). Also, it was a federally formulated categorical program that did not allow sufficient variation to respond to changing local conditions.

Subsequent federal programs for inner-area revitalization attempted to address these shortcomings. Model Cities (the Demonstration Cities and Metropolitan Development Act of 1966) incorporated social supports. Land use controls were also linked to urban renewal objectives under this program. One of the requirements of eligibility for assistance under the Model Cities program (as with the workable programs under Section 201 of the Housing Act of 1954) was that "substantive local laws, regulations, and other requirements must be, or could be expected to be consistent with the objectives of the program"—including effective zoning and subdivision controls (Delafons 1969). The Housing and Community Development Act of 1974 further replaced numerous categorical housing/community development programs with Community Development Block Grants (CDBG). The flexible CDBG approach characterized the Urban Development Action Grant (UDAG), which was authorized by the Housing Act of 1977. The UDAG model was then extended to Housing Development Grants and sister programs in the 1980s.

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found that almost one-fifth of those units surveyed lacked private indoor toilets and almost one-tenth were without running water (Scott 1969). Also, the Housing Act of 1937 linked the provision of low-cost housing to slum renewal, and the equivalent demolition requirement may have been one means of furthering that linkage. According to acknowledged expert Hilbert Fefferman, the linkage was made because in the 1930s, there was greater legal underpinning for government involvement in the nuisance abatement of slum renewal than for the provision of low-cost housing (1999). The equivalent demolition requirement may thus have furthered the legal fig leaf for public housing. (In an ironic twist of history, Fefferman notes that by the Housing Act of 1949, the roles had reversed so that public housing, which had become legally entrenched as an acceptable public purpose, was linked to redevelopment to bolster the latter's legal underpinning (1999).)

In short, there were likely numerous influences on the equivalent demolition rule. Its effect, while not always harmful (i.e., many units deserved to be torn down or would have been demolished even in its absence), was surely not supportive of housing preservation–rehabilitation. Imagine how different history might have been if the 1937, 1949, and other landmark acts had a preservation, instead of an equivalent demolition, mandate (i.e., that federal housing and redevelopment effects had to focus on rehabilitating the existing stock in older core areas unless there was no prudent or feasible alternative).

In time, the federal government came to give more than lip service to rehabilitation and support of the existing housing stock. The Housing Act of 1964 included a stipulation that buildings in urban renewal areas had to be considered for rehabilitation before they could be considered for clearance (Schultz and Kasen 1984). Rehabilitation-exclusive programs were added (e.g., Section 312 authorized by the Housing Act of 1964), and major housing programs (e.g., Section 236 of the Housing Act of 1968) had substantial rehabilitation as well as new construction applications. Federal encouragement for adaptive use and neighborhood preservation in the 1970s and 1980s clearly had a rehabilitation orientation (Ahlbrandt and Cunningham 1979; Burchell and Listokin 1981). In addition, as the housing aids turned from supply-side to demand-side subsidies (e.g., Section 8 vouchers authorized by the Housing Act of 1983), and the latter, in turn, were limited to existing rehabilitated housing as opposed to new construction (a shift admittedly motivated mainly by philosophical and budgetary considerations), federal support to maximize the existing housing stock was augmented.

These various programs did tilt federal housing aid toward rehabilitation. In the early 1960s, only about 5 percent of federally assisted housing production consisted of rehabilitated units (Listokin 1983). By the late 1980s, the overwhelming share of federal housing support was for existing rehabilitated units (Listokin 1991).

Tax provisions also changed to further the rehabilitation of the building stock, or at least not to penalize retention of the existing stock vis-à-vis building new stock (Listokin, Listokin, and Lahr 1998). Until 1976, the U.S. tax code favored new construction (the fastest depreciation schedule was available only for new construction). The disparity in tax treatment between new and existing buildings was ultimately rescinded, however, and over time tax treatments supporting rehabilitation were introduced. For instance, the Tax Act of 1976 had some preservation-supportive measures, such as counting preservation easements as charitable donations. Much more significant was the Economic Recovery Tax Act (ERTA) of 1981. (ERTA introduced an investment tax credit that encouraged investment in existing buildings.) While the Tax Reform Act of 1986 reduced the benefit of rehabilitation's investment tax credit provisions, they remained in place, and that act also added the Low-Income Housing Tax Credit (LIHTC), which could be used for new construction as well as for rehabilitation. (About one-third of the LIHTC has been applied to existing rehabilitated buildings [Abt Associates 1996].)

Attempts were also made to have federal programs work for rather than against the interests of inner-area revitalization. The FHA was increasingly redirected to places and people in need. Whereas the FHA as an agency was historically oriented to suburban growth, by 1966 over 40 percent of its mortgage insurance for home financing covered prop-

erties in the central cities (Fefferman 1966).[4] Whereas redevelopment and road building had often destroyed inner-city neighborhoods, efforts were made to curb this practice through such mandates as Section 106 of the National Historic Preservation Act of 1966 (review of the impact of federal undertakings); the National Environmental Policy Act (NEPA) of 1969 (impact reports prepared on major federal actions); Section 4(f) of the Transportation Act of 1966 (historic, park, and other areas cannot be taken for highway purposes unless there is "no feasible or prudent" alternative); and other provisions (e.g., requirement added by the Housing and Community Development Act of 1980 that the effects of UDAG projects on historic buildings be reviewed). Other historical examples of federal attempts to coordinate revitalization efforts include the Carter administration's 1978 Urban Conservation Orders (e.g., the urban impact of major federal initiatives, such as impact on central business districts, should be examined [Sternlieb and Hughes 1981]) and the 1976 Public Buildings Cooperative Use Act (PBCUA) and 1978 Executive Order 12072 (encouraging the General Services Administration to acquire space in historic properties and to give first consideration in searching for space to central business district locations). (Executive Order 13006 mandated in 1996 that federal facilities be located in established urban areas, with first consideration given to historic properties.)

Notwithstanding all of these programs and regulations, federal efforts to renew centers in much of the post–World War II era had much more "sizzle" than steak, and with federal cutbacks in the 1970s and 1980s, there was less and less sizzle. It was no accident that certain directives had to be repeated (e.g., PBCUA and then Executive Orders 12072 and 13006) because the original mandates were not being heeded. An argument could be made that with the demise of the Title I renewal moneys in 1974, there has not been until recently[5] a focused federal program of substance to renew older centers. Instead, there has been a parade of nostrums, convention centers (UDAG) and enterprise zones, for example.

Yet as the federal government pulled back in the 1970s and 1980s, others like state governments and the nonprofit sector stepped up their efforts. Many of the lessons described earlier were carried forward (e.g., favoring preservation and capitalizing on the unique attributes of older places). These themes personify the Main Street strategy (Beaumont 1996). States also adopted regulations to foster environmental sensitivity and coordination in ways that mimicked the federal antecedents. Multiple states adopted their own versions of NEPA, Sec-

[4] A current General Accounting Office report on sprawl cites a nearly identical statistic. It found that as of 1996, 46 percent of FHA's single-family loans were located in central cities (U.S. General Accounting Office 1999).

[5] In recent years, HUD has begun a number of programs to revitalize cities and older suburbs.

tions 106 and 4(f), and Executive Order 12072. For example, a landmark hotel in Hibbing, MN, which was important to the town's sense of community, was saved from destruction through application of a Section 4f–like provision in that state's Environmental Rights Act (i.e., it was found that there was a "feasable and prudent alternative" to the building's demolition) (Beaumont 1996, 59). The state of Vermont issued an executive order in 1985 giving priority to locating state government activities in historical and other existing buildings when appropriate (Beaumont 1996). The concatenation of these and other activities (e.g., Massachusetts' adopting a rehabilitation-sensitive building code in 1979) form the historical precedent to smart growth's current efforts for inner-area revitalization.

Design innovations

New Urbanism, a leitmotiv of smart growth, clearly builds on many design elements of the past. A short list of the historical antecedents includes Clarence Perry's (1929) neighborhood unit principles; the pedestrian orientation and other features of Radburn, NJ (1929); and design elements "reclaimed from historic places such as Charleston, SC, as well as from pre–World War II planned communities such as Mariemount, OH" (Constantine 1995, 7-8). The legacy of the past is reflected in smart growth's design nomenclature, "neotraditionalism," "traditional neighborhood development (TND) projects," and other features. Thus, TNDs incorporate such traditional urbanism features as front porches, modified street grid patterns, and a variety of housing types (Constantine 1995).

TND "hardware," such as street and utility standards, also reflects an evolution over time (Arendt 1991). In the 1950s and 1960s, street dimensions (e.g., pavement width and right-of-way) were increasingly patterned on highway standards. Since that resulted in such excesses as local streets with 40-foot paved cartway areas, rethinking began in the 1980s. For example, the Bucks County (PA) Planning Commission pointed to such problems as overdesigned and excessively wide streets, which encouraged traffic rather than controlling it, and advocated that street arrangement should encourage short, quiet, residential streets that create recognizable neighborhoods and discourage through traffic (Bucks County Planning Commission 1980). The commission recommended much reduced street hardware (i.e., local street cartways of 16 to 26 feet). Other organizations, such as the ULI and the National Association of Home Builders (NAHB) (ULI, NAHB, and American Society of Civil Engineers 1976) also advocated more flexible street standards, and in time the "sea of asphalt look" of street design (one of the most common and least attractive images of sprawl) began to be chipped away. A Seaside (FL) would not be possible if its local streets had to be designed to highway standards. Clearly, the historical contributions of

Bucks County, ULI, and similar street redesign efforts benefiting New Urbanism should be acknowledged.

Similarly, other smart growth design elements have long antecedents. Sprawl can be reduced through such microdesign approaches as clustering and such large-scale initiatives as new towns. Both approaches are far from novel. Writing in 1964, William Whyte noted that "fifty years ago we clustered without thinking much about it…most Americans lived quite close to each other in towns and cities and many of the best people lived in row houses" (1964, 11). It is chastening to note the error of Whyte's 1964 prediction that "clustering (as one response to sprawl) is on the verge of becoming the dominant pattern of new residential development, and probably for many years to come" (1964, 11). Cluster development saw renewed endorsement in the 1970s and 1980s (NAHB 1986).

New towns are also not novel. They have conceptual links to the garden city advocacy of Ebenezer Howard and Raymond Unwin (Howard's *Garden Cities of Tomorrow* was published in 1902), the work of Clarence Stein and Henry Wright in Radburn, NJ, (and elsewhere) in the 1920s, and the Depression-era greenbelt communities (Stein 1957). New towns were seen as a response to sprawl. For example, a 1930s report recommended satellite towns surrounded by greenbelts as a response to what Mitchell called the "indiscriminate spawning of suburbs" (cited in Scott 1969, 335). Further, federal assistance for new communities in the Model Cities Act of 1966, Title IV of the Urban Development Act of 1968, and Title VII of the Housing and Urban Development Act of 1970 was viewed as one response to suburban sprawl (as well as a way to achieve other objectives). However, a cautionary note to smart growth's endorsement of new communities is the uneven record of the federally aided new towns of the 1960s and 1970s; even some of the ultimately successful ones, such as Reston, VA, and Columbia, MD, had difficult gestation periods.

Land and natural resource preservation

This section presents an overview of the historical antecedents of the push to keep land open as well as avoid development on environmentally sensitive (e.g., wet, coastal, or sloped) areas.

Protecting open space is an important and emotional component of smart growth. The tools to accomplish this have developed over several decades (Brenneman and Bates 1984). National, regional, and local private organizations such as the Nature Conservancy, the Trust for Public Lands, the Western Pennsylvania Conservancy, and the Philadelphia Conservationists further open space through gift, purchase, or other means (Strong 1965). These organizations' activities have been

abetted by other efforts; for example, states acting in the 1970s and 1980s to remove common law restrictions on conservation easements (Diehl and Barrett 1988; Netherton 1984) and the Tax Act of 1976 treating these easements as charitable deductions.

Government has also funded the purchase of land to keep it open. The Housing Act of 1961 provided $50 million in grants for states and localities to acquire parks and other undeveloped land. The statement of purpose referred specifically to the need "to help curb urban sprawl" (Schultz and Kasen 1984, 91). The Housing Act of 1965 increased open-space funding to $310 million (Scott 1969). Ultimately, categorical federal aid for open space, as for urban renewal, was folded into the block grant approach of the Housing and Community Development Act of 1974.

A subset of open space preservation is preservation of farmland. Loss of such land has been bemoaned for many years. For example, the 1981 National Agricultural Lands Study (NALS) observed that between 1967 and 1975, agricultural land had been converted to nonagricultural purposes at a rate of approximately 12 square miles *per day* (U.S. Department of Agriculture and Council on Environmental Quality 1981). During the 1970s and 1980s, a variety of farm preservation tools, such as those shown in table 3, were adopted in a number of states (Beaumont 1996; Brenneman and Bates 1984; Freilich and Levi 1975; Schiffman 1989; Stokes et al. 1989).

Table 3. **Farmland Protection Tools (circa 1980)**

Tool	Number of States with Indicated Tool
Tax incentives (e.g., assessment at current use)	50
Agricultural zoning	22
Purchase of development rights	10
Transfer of development rights	5
Right-to-farm laws	37

Source: Thompson (1984) citing NALS (U.S. Department of Agriculture and Council on Environmental Quality 1981).

This historical toolkit of farmland preservation has been adopted in smart growth today, and more states are allowing/using these and similar techniques. (Examples of such contemporary applications will be described shortly.) While there are those who say that farmland preservation advocates overstate their case (Crowe 1999), these techniques were widely accepted and applied in the 1990s and are prime smart growth tools.

Smart growth also incorporates heightened sensitivity to a broad array of environmentally sensitive lands, and this too builds on the past. The

1960s through 1980s saw enactment of a broad array of federal legislation to promote environmental sensitivity: the Archaeological Resources Protection, Coastal Zone Management, Coastal Barriers, Clean Air, Clean Water, Endangered Species, Flood Disaster Protection, Department of Transportation (1966), National Environmental Policy, and National Historic Preservation Acts. The panoply of federal environmental protections was often paralleled at state and local levels (e.g., environmental impact statements required by state-local mini-NEPAs), and these governments added protections of their own (e.g., hillside protection ordinances).

These public regulations reflected a changing societal perspective of land and nature. In the 1920s, the beginning point of this historical overview, wet, coastal, sloped, historic, and other "sensitive" lands were grist for the development mill. However, while a debate over regulations raged, the vocabulary of the disagreement changed. It was no longer an issue (for the most part) of whether to protect sensitive areas; rather, it was a matter of to what degree and how to balance that imperative with other needs (Buchsbaum 1994). This change in perspective, from the 1920s' view of the environment as a resource to be exploited to society's endorsement today of the need to protect it, is an important conceptual underpinning for smart growth. Indeed, contemporary smart growth works to enhance an expanded scope of the environment that goes beyond just sensitive lands to quality of life and all that it entails. (This parallels the expansion in purview from the first- to second-generation growth management plans described earlier.)

Transportation reorientation

As opposed to the previous four substantive components of land control, limits on outward growth, inner-area revitalization, design innovation, and land preservation, where smart growth builds on historical support, the transportation reorientation from the automobile to other forms is a true break from the past.

Admittedly, fractures leading to that break were evident earlier. To cite some examples, HUD-administered urban mass transit aid began in 1961 (Fefferman 1966), and such assistance expanded with the passage of the Urban Mass Transportation Act of 1964. Regional land use studies in the 1960s, 1970s, and 1980s pointed to the interface between land use and transportation and recommended alternatives to the prevailing automobile-dependent pattern of sprawl. Illustrative was a 1961 study in the Washington, DC, metropolitan area that compared an extension of the region's status quo, "formless sprawl" with other alternatives (e.g., transit-assisted radial corridors) and noted some of the advantages of the alternatives (Scott 1969). The 1960s, 1970s, and 1980s also saw development of various techniques to deal with what

was coined "suburban gridlock" (Cervero 1986): for example, transportation management associations and traffic impact ordinances.

Yet efforts to reduce dependence on the automobile in this period were battling the "800-pound gorilla" of federal aid to highways. This assistance, begun by the Federal Aid Road Act of 1916, was not insignificant for its day. Between World Wars I and II, the federal government spent $3 billion on highway aid (Netherton 1968). That aid took on gargantuan proportions with the passage of the Federal-Aid Highway Act of 1956, which dedicated the federal fuels tax to a new Highway Trust Fund and led to the federal government's shouldering 90 percent of the cost of new interstate roads (Kienitz 1997). This program ultimately spent hundreds of billions of dollars and consumed a purported 26 million rural acres (Jackson 1983) in building 44,000 miles of interstate highways. It was not until passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991 that a reorientation in transportation away from the automobile began in earnest.

Smart growth as a bold new horizon

Control of outward movement/Growth controls

After years of marginalization, multiple smart growth factions are emerging to oppose the sprawl supported by the market preference for single-family homes and the dominance of the automobile. A number of very different constituencies have common interests in joining a smart growth coalition: businesses, urban minorities, the working class in inner-ring suburbs, advocates for social services, historic preservationists, school reform advocates, environmentalists, good-government and civic groups, fiscal conservatives, farmers, conservationists and outdoors groups, scenic and community beautification advocates, older people, and "soccer moms" (Bollier 1998a). In recent years, smart growth has emerged on the political agenda at all levels of government.

Two of the recent, major smart growth initiatives instituted at the federal level are the Livability Agenda, launched in January 1999 by President Clinton and Vice President Gore to curb urban sprawl and promote quality of life (U.S. Department of the Interior 1999), and the Lands Legacy Initiative, a $1 billion program that seeks to protect land resources and expand parks and green spaces.

Having the authority to regulate land use under the U.S. Constitution, states have started to play a critical role in managing sprawl and helping communities adopt smart growth in the first- and second-wave historical evolution described earlier (Sierra Club 1999a). To date, 12 states have passed comprehensive planning and growth management legisla-

tion: Florida, Georgia, Hawaii, Maine, Maryland, Minnesota, New Jersey, Oregon, Rhode Island, Tennessee, Vermont, and Washington.

Generally speaking, the planning regimens devised by these states include both incentives and requirements for future development to be put in place and overseen by local or regional governments (Downs 1999a). States such as Georgia and Vermont provide incentives to encourage local planning; Florida, Oregon, and Rhode Island require mandatory local planning and set deadlines for plan submission and adoption.

State plans also tend to devise measures for review by regional or state agencies to ensure the internal consistency of any local plan with regional and state plans. Florida, Maryland, Oregon, Rhode Island, and Washington have an additional requirement: The local plan must be consistent with the capital facilities plan and its program for priority and scheduling. This is usually the primary implementation mechanism.

In the case of Florida, timing plays a critical role. Infrastructure improvements must occur at the same time or precede new development. The failure to comply with this concurrency stipulation leads to a moratorium on building permits. States may also authorize local jurisdictions to use development impact fees to finance the public facilities necessary to accommodate new growth, as well as other specific growth management techniques to enhance their ability to provide for and channel growth. Jurisdictions without this authorization have taken it on themselves to establish impact fees. This is true in New Jersey, Virginia, and other locations where "proffers" and developer exactions are used.

In 1990, Washington approved a Growth Management Act to reduce sprawl. Influenced by Oregon, Washington's act has 13 statewide planning goals. It mandates the development of urban growth areas similar to those created in Oregon and requires a distinction between new urban development and rural land. The act also encourages the preservation of lands, sites, and structures of historical and archaeological significance, as well as the protection of "critical areas" and "resource lands."

In May 1997, Maine's State Planning Office published its *Cost of Sprawl* report, which pointed to recent suburbanization trends and the overall increase in public expenditures associated with them (1997). The following year, Maine passed the Comprehensive Planning and Land Use Act of 1998, Title 30 M.R.S.A. Section 4960. The act is a cooperative program between local governments, regional councils, and the state that provides statewide objectives such as identifying and designating growth areas, protecting and maintaining Maine's water and natural resources,

and preserving historical and archaeological resources. Municipalities developing comprehensive plans must follow these statewide objectives.

In 1997, Maryland extended its planning reach through smart growth legislation that guides state funding to priority growth areas, including the Baltimore-Washington corridor, existing municipalities, and enterprise zones. In addition, it redirects state infrastructure investments to activities that do not foster sprawl.

Tennessee is the most recent state to pass a comprehensive smart growth plan. The Annexation Bill of 1998 does not require local plans to be as extensive as those of Oregon or Washington and does not contain the mandatory planning requirements of Florida or Rhode Island. Before July 2001, each county—except two with metropolitan forms of government—must establish a coordinating committee whose membership reflects both government and special interests to develop and adopt its county growth plan. Each plan must identify the UGB for inclusive municipalities and establish planned growth and rural areas within the county. Among other requirements, the local plans are to "provide a unified physical design for the development of the local community" and "encourage a pattern of compact and contiguous high-density development to be guided into urban areas or planned growth areas." Communities that fail to adopt such growth plans will not receive state transportation subsidies.

In addition to these regional tools, most states provide financial and technical assistance, compliance grants, and special dispute-resolution services to help communities grow smarter. Florida, Vermont, and Washington have authorized communities to raise revenues through special financing and taxing powers.

By enacting comprehensive planning and growth management legislation, states can set the framework for implementing smart growth. Nevertheless, most of the responsibility for the physical design of communities remains with local governments. To be successful, smart growth requires that both state and local governments share a consistent view of growth and act in concert (Sierra Club 1999b). A series of state-enabled private and public incentives and regulations have proved to be effective in directing future development.

Inner-area revitalization

While inner suburbs around older urban centers continue to struggle financially, traditional cities have made remarkable comebacks during the past decade, and competition for prime urban and close-in suburban parcels is growing throughout the country (PricewaterhouseCoopers 1999). Benefiting from the strong U.S. economy, all but the most dis-

tressed cities have been able to increase their revenues, restore public services, and lower crime. Simultaneously, demographic changes—an increasing number of young singles, married professional couples, and empty-nesters who want to take advantage of proximity to cultural and recreational amenities—favor the revitalization of more urban places. Immigration has also played a crucial role, especially in the revitalization of central cities.

In a 1998 survey, the Brookings Institution and the Fannie Mae Foundation found that downtown housing is one of the fastest-growing segments of the housing market (Katz, Nguyen, and Lang 1998). Megacities, such as New York, Chicago, San Francisco, and Boston, are again considered essential places to live and prove to be investment meccas for real estate developers. The largest of cities are not the only significant draws. Denver's vibrant and fashionable historic district, coupled with Lower Downtown, is an emerging example of urban preservation and revitalization. Numerous medium-size cities and towns such as Asheville, NC; Burlington, VT; Dayton, OH; Bangor, ME; and Sheboygan Falls, WI, are experiencing a renewed demand for downtown retailing and, ultimately, downtown housing (McMahon 1999).

> Some years ago in Portland [OR], concerns about slowing growth, saving the spotted owl, and maintaining farmland led to an agreement to create an urban growth boundary. Consequently, the resources that would have sprawled out started going back in. Land and housing values in Portland started soaring, including those of the black and Latino communities. In fact, Portland's black community is accumulating wealth at a faster rate than any other black community in the country. A nonracial regional decision to create an urban boundary line had a positive impact on racial minorities. (John Powell in Wing 1999)

In addition to preserving valuable rural and natural landscapes and accommodating a growing population, social equity can be one of the unexpected positive outcomes of smart growth. Inner cities have vast amounts of undervalued real-property assets and, unlike developments in new locations, infill projects often do not require new infrastructure and related community services. Infill projects help revitalize urban areas and raise property values. Managing growth, reinvesting in existing neighborhoods, cleaning up contaminated sites, enhancing public services, streamlining permitting procedures, and changing government infrastructure policies are ways of bringing back inner cities and former industrial towns.

Local governments can spark infill development through a variety of activities, such as conducting preliminary research, providing maps of potential sites and districts where infill is needed and appropriate, and subsequently making this information available to developers. Rezoning industrial areas for residential and retail commercial uses and prepar-

ing performance codes and design guidelines are additional ways of creating a favorable climate for infill development. Streamlined permitting and the public assembly of properties are the essential ingredients of local government economic development. Predictability in obtaining permits is the most critical need of business, and streamlining measures results in the faster issuance of permits. Similarly, assembling parcels, including difficult core parcels, is of interest to developers. Approved and improved properties made available through one public meeting make urban infill a very attractive venture. In Lancaster, CA, financial incentives, such as lower development fees for infill projects, also render aging exurban areas lucrative for developers.

The redevelopment of potentially contaminated urban industrial sites, generally called "brownfields," is viewed by many as an opportunity for generating investment in urban communities that ultimately produces jobs and increased tax bases, reduces human health and environmental risks, and benefits low-income and minority populations through the renewal of retailing and housing (Smart Growth Network 1996). However, one of the major issues is the cost of environmental cleanup. This cost is generally offset by the substantial savings resulting from the fact that the parcel is already served by roads, utilities, and other infrastructure. In addition, since 1993, the Environmental Protection Agency (EPA) has been helping communities redevelop some of the nation's estimated 130,000 to 425,000 brownfield properties. EPA's Brownfields Economic Redevelopment Initiative is designed to empower states, communities, and other stakeholders in economic redevelopment to work together in a timely manner to access, clean up, and reuse brownfields. This is often accomplished by reducing cleanup requirements in these areas if the new use is an industrial or heavy-commercial one.

By the end of 1997, about half of the states had programs in place to help finance brownfield reuse. Some recipients of the EPA Brownfields Pilot Grants are Louisville, KY; New Orleans, LA; West Jordan, UT; Trenton, NJ; and Portland, OR. These projects are already showing economic benefit. In Louisville, a grocery store serving the community and employing 60 low- and moderate-income persons opened in early 1996 on the site of a former dry-cleaning store. The Circle F project in Trenton was developed on a manufacturing site that lay empty for 100 years. Half of the parcel was dedicated to senior citizen housing, and the other half remained in industrial use. In Buffalo, NY, a 763,000-square-foot greenhouse located on the site of a former steel mill now produces up to 8 million pounds of hydroponic tomatoes a year and employs 175 workers (Lerner and Poole 1999). Chicago has retained 300 jobs and attracted at least 100 others by cleaning and reusing five abandoned industrial properties.

Fiscal change may also catalyze inner-area revitalization. A tax-base sharing program aims to reduce fiscal inequalities among communities

to limit competition for new development, address problems of fiscal disparity, and make the overall area more competitive as a region. Communities with significant development pool some of their tax revenues and redistribute them to communities experiencing less development. The Twin Cities' Fiscal Disparities Plan is the nation's largest regional tax-base sharing program, covering 188 municipalities and more than 100 school districts in the seven-county Minneapolis–St. Paul region. Minneapolis's downtown, which used to be the largest net *recipient* of funds, became a net *contributor* of funds in the mid-1980s. The program narrowed fiscal disparities between rich and poor communities in the region from a ratio of 17 to 1 to 4 to 1 (*York Daily Record* 1999).

Design innovations

When shown vision-preference surveys, most people seem to like the quality of life provided by both older small towns and newer developments that retain specific characteristics of these older neighborhoods (Nelessen 1994). People like active downtowns, public places, streets designed for the harmonious cohabitation of pedestrians and automobiles, and a built environment designed on a human scale. They also seem to react positively to mixed-use development, which accommodates both residential and nonresidential needs on the same site.

A growing number of architects and planners inspired by such reactions advocate a more compact pattern of development, mixed-use development, walkability, active community life, higher housing densities, and greater reliance on public transit. Such features can be promoted through a variety of special subsidies and requirements not found in traditional land use regulations.

Cluster development, also called open-space zoning, 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. This technique, joined with mixed-use zoning, creates the effect of a parklike village. Cluster and mixed-use development allow for retail and residential enclaves that are accessed by pedestrian and bicycle systems and that reduce the requirement for an automobile.

Numerous architects and urban designers inspired by the "community" of traditional villages, towns, and neighborhoods promote neotraditional design principles. This type of development, initially called neotraditionalism, and now New Urbanism, aims to create compact (typically a neighborhood or district is defined by a radius of no more than a quarter of a mile), pedestrian-friendly, and more livable communities (Katz 1994). It provides public spaces and amenities in the center, including gardens and public buildings (e.g., a library, church, or community center), a transit stop, and retail businesses.

The objective is to re-create not only the appearance of, but also the atmosphere of, a traditional neighborhood. Houses face the street and have small front yards surrounded by picket fences. Shops and businesses front directly onto sidewalks and outdoor cafes are encouraged. Garages and parking lots are located at the rear of structures.

Towns designed according to these principles have clearly defined centers and edges. Streets form an interconnected network with multiple outlets, thereby avoiding both cul-de-sacs and congested traffic. Street characteristics are radically different; they tend to be narrower, to be lined with trees on both sides, and to contain urban furniture. Mixed-use development provides more opportunities to walk and to rely on small-scale transit systems.

New Urbanism is represented in projects such as Seaside (Walton County, FL, 1981; Duany and Plater-Zyberk Town Planners), Kentlands (Gaithersburg, MD, 1988; Duany and Plater-Zyberk Town Planners), and Laguna West (Sacramento County, CA, 1990; Calthorpe Associates). The proposed master plan for Milwaukee is a statement of New Urbanism. Examples of more recent projects in this city are Middleton Hills, a more suburban example, and City Homes in Milwaukee's Midtown Triangle neighborhood, which typifies the infill approach. Tierra Contenta in Santa Fe, NM; Petaluma, CA; and I'On in Mount Pleasant, SC, are noted for their human-scale activities. Elements of New Urbanism are turning up in individual neighborhoods, towns, and cities nationwide.

Land and natural resource preservation

More and more people are considering the conservation of environmentally valuable open spaces to be an investment that will produce economic returns in the long run. There are many reasons why preserving open space is a reasonable accompaniment to city planning. It allows communities to grow while preserving immediate open space, it increases the quality of life that attracts taxpaying residents and businesses, and it helps make cities' residential neighborhoods more livable. At the fringe, it protects undeveloped areas, agricultural economies, and communities from flooding, and it ensures that critical natural habitats remain undisturbed (Lerner and Poole 1999).

Private techniques such as conservation easements and land trusts are proving especially useful for the protection of natural areas and farmland. A conservation easement is a voluntary legal agreement in which a landowner, in exchange for income-, property-, or estate-tax relief, donates development rights to a public or private organization that protects natural or historical resources. Conservation easements are permanent and convey with the land in perpetuity. A land trust is a private, nonprofit organization, such as the Nature Conservancy, the

American Farmland Trust, or the Trust for Public Land, that protects natural or cultural resources by buying land and accepting conservation easements. Land trusts have been active in offering protection for open space, natural areas, and farmland. According to the Land Trust Alliance, between 1988 and 1998, the number of land trusts increased 63 percent, to more than 1,200. The most dramatic increases occurred in the Rocky Mountain states (160 percent), the Southwest (147 percent), and the South (118 percent) (Lerner and Poole 1999).

Public land control techniques cover a broader range of functions. For example, an adequate public facilities ordinance makes the authorization of new development dependent on the availability of infrastructure, while agricultural zoning ensures that development will occur on adequate-size lots and that the proposed development is compatible with farming.

Some of the most useful land preservation tools are the purchase of development rights, the transfer of development rights, tax-base sharing, UGBs, and the urban service district (Sierra Club 1999b). The purchase of development rights is a program that allows a unit of government or a nonprofit organization to acquire only the development rights to a piece of land, while the former owner retains full title and residual control of the land. Such an arrangement places a conservation easement on the land to ensure ongoing use as farmland and open space. The program, which began on the East Coast, has spread across 15 states and is being used by dozens of county and municipal governments.

Transfer of development rights (TDR) seeks to protect natural lands and habitats by shifting development to other locations. Through this program, a unit of government establishes by ordinance a preservation area in which land will not be developed. In exchange, landowners in another area receive development-right credits that they can sell on the open market. The money received for these credits is used to pay the owner for his or her land in the preservation area. One of the earliest uses of TDR was for land preservation activities in the New Jersey Pinelands preservation area. Montgomery County, MD, has been using TDRs since the early 1980s and has been able to preserve 39,000 acres for agriculture and open space (James 1999). Boulder, CO, adopted a TDR program in 1995. Other localities in Florida and Georgia, and numerous locations nationally, have such a provision.

UGB is a line that distinguishes urban and rural land uses to encourage growth in the former and limit it in the latter. Current and future urban areas are zoned for higher density, while lands outside the UGB remain rural and are zoned for lower density. An urban service district is generally defined within a UGB and indicates the limits to which urban services will be extended. Kentucky's 40-year experience and Oregon's 25-year experience have shown UGBs to be highly effective

in saving farmland from development and limiting the costs of public services and facilities (Bollier 1998b). Nevertheless, there are voices of dissension indicating either limited success or more success at the cost of affordable housing (Chandler 1996). Other states, for example, Washington and Tennessee, have more recently adopted this concept, and Boulder, CO, has sought to manage sprawl through a similar "community service area" concept.

Jurisdictions across the United States are applying these and other land-preserving strategies (Gurwitt 1999). For example, in 1998, Austin, TX, launched a smart growth initiative to preserve the threatened quality of its environment. The initiative included incentives for development in selected priority areas, neighborhood involvement in community investments, and the purchase of parklands, greenways, and open space. This past decade, Austin voters approved more than $130 million in local bonds to develop parks and greenways and to protect watersheds. In another location, the downtown riverfront of Chattanooga, TN, benefits from the environmentally progressive redevelopment started in the 1980s. Between 1988 and 1996, the number of businesses and full-time jobs in this area more than doubled, property values increased by more than 100 percent, and property tax revenues correspondingly doubled (Lerner and Poole 1999).

Studies in locations as diverse as Salem, OR; Oakland, CA; Front Royal, VA; Seattle, WA; Dayton, OH; and Denver, CO, show that land adjacent to a greenbelt is more valuable than land adjacent to development. The UGB established by Portland, OR, in 1980 did not hinder nonresidential development. Attracted by the quality of life provided by a livable urban area and the natural character of its surrounding environment, companies such as Hewlett-Packard, Intel, and Hyundai have chosen to locate there. Obviously, this type of development is a two-edged sword: It generates significant profits to existing owners and increases property tax revenues, but it also increases rents and raises housing prices, making housing less affordable.

Across the nation, parks, scenic lands, wildlife habitats, protected rivers, and recreational open space support a flourishing tourism industry. Flagstaff, AZ, which developed a system of parks through land acquisition, welcomes 2 million tourists who are attracted by nearby Indian ruins, on-site skiing, national forests, and Grand Canyon National Park (Lerner and Poole 1999). In some locations where the economy once relied on logging, mining, or other extractive industries, preserving the area's rural character increases the potential for tourism and provides a great opportunity to revitalize the economy. Today, Berlin, NH, a former paper mill town, attracts 6 million visitors annually (Lerner and Poole 1999).

Further, conserving wetlands and floodplains limits the impact of natural disasters; preserving forests helps clean the air, stabilizes the watershed, and protects biodiversity. In 1990, Congress created the Forest Legacy Program to identify and protect through perpetual conservation easements environmentally important, privately owned forest lands that were threatened by present or future conversion to nonforest use. By 1998, the program had distributed approximately $38 million for such purposes (Lerner and Poole 1999).

Increasingly, policy makers and practitioners use the ballot box to assess their constituencies' support for smart growth. In 1998, voters nationwide approved 72 percent of 240 state and local ballot measures related to conservation, parklands, and smarter growth. This proportion is similar to 1996 referenda, but the number of measures increased by 50 percent and the approved measures triggered more than $7.5 billion in additional state and local conservation spending (twice the 1996 amount). The most recent (1998) ballot measures launched in 31 states were designed to protect or improve parks, open space, farmlands, historic resources, watersheds, greenways, and biological habitats. Most of them elicited a strong constituency and grassroots engagement. This may have been a record year for the number of approved ballot measures and levels of funding in support of smart growth and environmental issues.

In 1998, the highest approval rate (86 percent) and most of the referenda (111) occurred in the Northeast, but the West (56) increased its financial support for parks, trails, resource protection, and open space significantly. The South had the fewest conservation ballot measures, and the Midwest faced a decline in its approval rate compared with the 1996 rate (Myers 1999). More than 50 percent of New Jersey voters agreed to a constitutional amendment to set aside nearly $100 million a year for the next 30 years to help protect half of the state's remaining developable land. In Oregon, an estimated $45 million per year will be set aside for 15 years to preserve parks and salmon habitats. Douglas County, CO, approved a $160 million open-space bond. Alabama voters approved a constitutional amendment to issue a $110 million general obligation bond to support state parks and historic sites. In Michigan, voters approved a $675 million Clean Michigan Initiative general obligation bond. A constitutional amendment that permanently extends state authority to issue bonds to finance land acquisition and outdoor recreation improvements was approved in Florida. All of these actions took place in 1998.

Most of the measures were considered at the county, municipality, or special-district level, and most of them involved conservation finance. Johnson County, KS; Arlington and Fairfax Counties, VA; Wake Forest, NC; Bernalillo and Santa Fe, NM; and Eugene, OR, approved bonds

to finance parks and land acquisition. Tax measures to support land conservation were approved in 15 towns in Cape Cod, MA; in expanding suburbs near Cincinnati, Akron, and Columbus, OH; and in Long Island, NY. In California, voters adopted UGBs in seven communities of the Bay Area and in Ventura County.

These measures and a July 1999 national poll (Environmental News Network 1999) show that an increasing number of communities care about quality of life and support measures to preserve parklands and wildlife habitats. Polls show that no issue speaks more directly to Americans' quality of life than the ability to enjoy open spaces, parks, and wilderness areas.

Transportation reorientation

After decades of exclusive reliance on the automobile and the inglorious semiretirement of the Urban Mass Transit Administration, the 1990s were a time to refocus on alternative transportation systems. This new trend has been encouraged and supported by the federal government. ISTEA, passed in 1991, required state and metropolitan transportation agencies to consider social and economic issues in selecting and implementing transportation projects. For the first time in history, ISTEA allowed highway funds to be used for public transit. In June 1998, President Clinton signed the Transportation Equity Act for the Twenty-First Century (TEA–21). For FY 2000, the Clinton administration proposed a record $6.1 billion for public transit and $2.2 billion to implement the innovative community-based programs of TEA–21. Compared with the FY 1999 budget under TEA–21, this represents more than a $1 billion (16 percent) increase in funding for these alternative-transportation efforts. This also represents a $666 million increase over the FY 2000 budget authority mandated under TEA–21.

Aware that transportation is a major force in shaping neighborhoods and activities within neighborhoods, public officials and transportation agencies began to direct transportation efforts to retrofit streets for walking and bicycling and to develop or revitalize both soft-wheel and light-transit lines. Multiple solutions have been adopted nationwide to fulfill the needs of pedestrians, bicyclists, and transit users. These include building sidewalks and bicycle paths, adopting traffic-calming programs, encouraging mixed-use zoning, and redesigning streets for transit purposes.

Effective and relatively inexpensive traffic-calming programs have been the favorite solution of cities seeking to respond in the quickest way to quality-of-life issues (Burrington and Heart 1998; Burrington and Thiebach 1998). Measures such as speed bumps, raised crosswalks, speed tables (long speed bumps), chicanes (s turns), roundabouts, and

traffic circles are used to slow traffic and protect neighborhoods. Further, narrowing streets encourages motorists to drive more slowly. The result is a more civilized streetscape that is free from road traffic hazards and noise. Some cities—such as Seattle, WA, and Portland, OR—have traffic-calming departments in their transportation agencies.

Many U.S. cities, including Ft. Lauderdale, FL; Berkeley, CA; Seattle, WA; and Cambridge, MA, have used raised crosswalks and speed tables effectively. Raised intersections are visible in Seattle, Portland, and Cambridge. Hundreds of residential street intersections in Seattle, Portland, Chicago, and other cities have been redesigned with traffic circles. Numerous other U.S. municipalities—often suburbs or small to medium-sized cities—are using traffic-calming procedures to transform their streets.

Mixed-use zoning creates environments that are friendlier to pedestrians and bicyclists. Mixed-use neighborhoods promote face-to-face interactions and reduce vehicle travel. Children, older people, and people with disabilities particularly benefit from easier access to local shopping and public services.

Street design can also contribute to improved access and increase choices for modes of travel. Additional sidewalks, pedestrian-friendly traffic lights and crosswalks, and safe corners make a community more walkable. Bicycle lanes and underground sensors ("loop detectors") improve the safety of bicyclists. In addition to the former, Davis, CA, has installed traffic lights with specific bicycle signals at busy intersections. Traffic lights that give transit vehicles priority at intersections, exclusive bus lanes, separate rights-of-way for cars and transit vehicles, and "bulb-outs" for bus stops and shelters with seating, are valuable additions for transit riders. Portland, OR, and San Francisco have adopted almost all of these elements to enhance and market their transit systems.

Regarded for years as a second-class form of transportation, local bus transit has been making a slow comeback in many U.S. cities. Rochester, NY, and Corpus Christi, TX, are cited as models for their high-quality bus stations. San Francisco and Seattle are noted for their solutions to speed buses through congested traffic. The rail form of mass transit is also receiving greater attention. Miami, Los Angeles, Boston, and Washington, DC, have built or extended their subway or rail lines in recent years. Light rail, which is less expensive to build than subway or rail and which is the modern version of the trolley or streetcar, is appearing in a variety of applications. St. Louis, Denver, Portland (OR), and Dallas successfully operate high-ridership light-rail lines. During the 1990s, many U.S. cities—Baltimore (1992); Dallas (1996); Denver (1994); Los Angeles (1990); Memphis, TN (1993); and St. Louis (1993)—opened new light-rail lines or expanded existing ones—Baltimore (1993, 1997);

Cleveland (1996); Dallas (1997); Memphis (1997); Portland, OR (1997, 1998); San Diego (1996); and San Francisco (1993, 1995, 1997).

Why is smart growth less than a bold new horizon?

Lack of horizontal adoption

While smart growth is today's urban planning buzzword and has even become part of the vocabulary of central-city and inner-suburban economic development professionals, geographic commitment to smart growth is relatively limited. At the national level, there appears to be commitment but only a very limited amount of activity from the Clinton administration and the Gore campaign. As indicated earlier, this activity takes the form of the *Clinton/Gore Livability Agenda,* which is funded in the FY 2000 budget (U.S. Department of the Interior 1999). The Republican candidate, George W. Bush, has made no statements related to growth initiatives.

TEA–21 has provisions that encourage the selection of transportation projects that are intermodal, address nonmotorized needs, and are environmentally protective. Yet TEA–21 objectives can be met in a sprawl setting by weighing some project evaluation criteria higher than others in the course of project scoring and selection. Metropolitan planning organizations are free to make such scoring decisions (Pignataro et al. 1999).

The EPA was threatened with the disbanding of its Office of Urban and Economic Development. This is the group that funded and had regional offices in the Eastward Ho! Area of South Florida (St. Lucie to Miami Dade County—east of I–95); conducted national comparative risk studies in a variety of regional settings; and issued a request for proposals for a contract to study the impact of sprawl in a variety of substantive areas over a long period of time. Disbanding would mean that those who had been engaged in regional growth issues for half a decade would be put back into traditional environmental line functions such as air quality, water quality, or storm water management. Currently, the office remains in place, buoyed by attendance at a recent smart growth conference and by the Livability Agenda. The point to be made here is that, at a time of much ballyhoo about coordinating federal efforts to minimize the impacts and costs of growth, a leading player could have been taken out of the mix. If that had happened, the EPA would no longer have the structure or the personnel to comprehensively research or analyze the regional land use effects of growth.[6]

[6] We are indebted to Reid Ewing for the information in this paragraph, which was derived from conversations with EPA staff in 1999.

At the state level, 12 of 50 states are committed to some type of smart growth initiative. This usually takes the form of allocating a relatively small amount of money for local jurisdictions that "buy into" smart growth. In Maryland, a sum of money is set aside for infrastructure improvements inside the Baltimore and Washington Beltways or in established towns and cities across the state. Yet all locations in Maryland will get infrastructure money from the state for maintenance and expansion of infrastructure, and all locations can continue to use their own money or seek federal money independently. Non–smart growth resources for subjurisdictions dwarf the smart growth funding pool in the very state that is viewed as one of the national leaders in promoting smart growth.

Thus at the state level, in the most committed state, funding that advances sprawl far exceeds that which advances smart growth. The other 11 "smart growth" states are barely getting into the subsidy business, and 38 states are not addressing smart growth at all. With regard to the latter, Jane Hull, governor of Arizona, has been an avid supporter of smart growth, especially in the area of open-space preservation, but the Sierra Club has given her only a grade of "C" in terms of a comprehensive program at the state level to address this issue (Smart Growth Network 1999b).

At the local (municipality and county) levels, there has been an occasional outspoken mayor or county executive who has actively embraced smart growth. Mayors John Norquist of Milwaukee, Bret Schundler of Jersey City, and Thomas Menino of Boston claim that unbounded suburban growth and central-city revitalization are at cross purposes. These leaders promote and are advocates for smart growth. The same is true for Dale Meyers, Loudoun County, VA, supervisor; Janet Gettig, Martin County, FL, commissioner; and Fulton Brock, Maricopa County, AZ, supervisor. On the whole, however, local leaders have been relatively silent on smart growth, especially if by being "vocal" they could diminish future job growth. In each of the above locations, except possibly for the city of Milwaukee, few concrete programs have been devised by the areas' chief executives (Smart Growth Network 1999a). This is a potentially significant issue for the future of smart growth.

Lack of vertical and horizontal consistency

Another restraint on smart growth that would render it less than societally dominant is the fact that in very few places is there a coordinated top-down/bottom-up and outward-in/inward-out method of administering the technique. There certainly is no federal, state, regional, and local subscription to principles dealing with the location and timing of development. In approximately a dozen states, some type of growth management is taking place. In only one-quarter of these is there man-

dated consistency between local, regional, and state plans. In these three states, there is very little scrutiny of local or regional plans to see whether they are simultaneously consistent at a particular level of government. In other words, in a select number of cases, some care is taken that a relationship exists between the top-down goals of a state plan and the bottom-up goals of local plans. Regions have been brought into the fold as arbiters between the two. Yet in each of these situations, neighboring local plans are not examined for consistency of policy, nor are regional plans examined for their consistency.

In South Florida, Miami–Dade County has a very different approach to preserving agricultural land than Broward County; both are part of the South Florida Regional Planning Council. Martin and Palm Beach Counties, which are part of the Treasure Coast Regional Planning Council, have different approaches as well. Further, the Treasure Coast and South Florida Regional Planning Councils, in the aggregate, have different approaches to preserving agricultural land (Burchell et al. 1999). These two regional planning agencies also have very different perceptions of solutions to both the regional transportation problem and westward growth's impact on the continued viability of the Everglades. Localities and regions may be barely in sync with the state on public policy matters, but they are rarely in sync with each other. Smart growth requires not only vertical integration but also horizontal integration of land use priorities. It is possible to have the former without the latter, yet believe that smart growth is actually being implemented. Obviously, if regional planning agencies and local governments disagree with each other on *issues*, how can they be in agreement with each other on *solutions*?

Opposition of market forces / Dominance of the automobile

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.

During the 25 years that followed the fuel embargo of 1973, no abatement occurred in either the outward movement of residences in metropolitan areas or the popularity and size of single-family homes. In the 1997 Fannie Mae *National Housing Survey,* 70 percent of Americans said that they preferred to live in suburbs, small towns not near a city, or in rural areas. Nearly 90 percent of all future housing-unit growth for the next 25 years will be outside central cities (Woods and Poole Economics 1999). Single-family detached homes as a percentage of all housing units built (approximately 60 percent) remained essentially stable over the past three decades and actually increased in the 1990s compared with the 1980s (Joint Center for Housing Studies 1999).

Demand for large houses is increasing faster than demand for small houses, and three-car garages are replacing two-car garages as the preferred package in new housing (U.S. Bureau of the Census 1998a).

When the NAHB surveyed the potential home-buying market and asked for the important determinants of housing choice, the answer was a single-family home on a large lot. When informed that to achieve a village-like setting it might be necessary to require an increase in density and movement to an attached rather than detached dwelling, those surveyed indicated they would prefer the detached housing over the village-like setting (NAHB 1999).

The only thing more difficult than weaning Americans away from their single-family homes is to separate them from their automobiles. Most U.S. households have more than one vehicle. Almost all of the growth is in households with two or more vehicles, with the fastest growth in those households with three or more vehicles (U.S. Department of Transportation 1993). Illustrating this is the fact that despite considerable expansion of existing subway systems, the use of public transit has dropped 25 percent over the past 30 years. As of 1990, only 5 percent of workers used public transit to commute to work. The number and proportion of commuters who drive alone have also increased. Nearly three-quarters of all commuters drive alone. In the past decade, carpooling has declined by more than 30 percent; only 13 percent of commuters carpool to work. The number and percentage of those who walk to work have dropped over the years. Slightly less than 4 percent walk to work (U.S. Department of Transportation 1993). Possibly 80 percent of the workforce now commutes to work alone in an automobile. The reason behind this choice is the economy and versatility of the automobile. For a trip in excess of five miles, no mode of transportation can approach the automobile for cost and ease of travel. In addition, the automobile, for no additional fixed cost, may be used at the owner's discretion for recreation and shopping trips. No comparable form of transportation allows this flexibility.

Thus, it is very difficult to convince the buying public that a better life exists in locations that do not offer single-family housing and have limited capacity for storing automobiles (i.e., inner-suburban and urban areas).

Absence of techniques/Small rewards for compliance

One of the haunting realities of smart growth is that we really don't know how to grow smartly. There is a desire to have smart growth encompass every public policy and social objective on the one hand, yet there is a real dearth of techniques on the other. Concentrating on land development objectives, the smart growth handbook is barely 10

pages long (Bluegrass Tomorrow 1994). There are few smart growth techniques beyond the following:

1. Growth boundaries and urban service areas
2. Transfer/purchase of development rights
3. Tax-increment financing
4. Street and neighborhood architecture of central places
5. Impact fees and exactions
6. Executive orders relating to public employment location
7. Streamlining of permit procedures
8. Acquisition and assemblage of central-area properties
9. Conservation and preservation easements in rural areas

In addition, coordination is required if multiple techniques are to be implemented—and each of the above is individually difficult to implement.

The rewards for smart growth are comparatively small. If the $250 billion smart growth saving described earlier (see table 2) is compared with the resources of gross annual household income, the cost saving in smart growth is insignificant. There are 110 million households in the United States with an average household income of $40,000 each. This amounts to $4.4 trillion in income annually. If the $250 billion, 25-year smart growth saving is annualized, it totals $10 billion. A $10 billion annual saving is only 0.2 percent of aggregate annual household income. If disposable income is 70 percent of gross income and consumer income is 75 percent of disposable income, consumer income is about one-half of aggregate household income. Thus, if the average household has $20,000 left annually for consumer expenditures after paying for necessities, it would be penalized less than $100 (actually $90) annually for not following smart growth. Is this significant? Unfortunately, no. This is one of the reasons that it is so difficult to convince Americans to alter their behavior. Obviously, the $250 billion does not include either a full range of growth savings (costs of increased travel time, etc.) or the full costs of these savings (savings to the individual, to the community, and to society).[7] Also not included on the other side of the equation are the savings related to the benefits of sprawl, such as reduced suburb-to-suburb travel times or the price savings in devalued, skipped-over land for open space or other purposes (Gordon and Richard-

[7] We are indebted to Anthony Downs for the analysis in this paragraph.

son 1997).[8] The sprawl cost savings are not being measured against gross domestic product, which would reduce their significance even more. The fact remains that savings from smart growth, in the larger scheme of things, are relatively small. Thus, it is difficult to garner a commitment to it.

Why is smart growth more than a ghost of urban policy past?

Sensibility of approach and limited real opposition

Smart growth is so sensible that it has widespread adherents and only isolated opponents. Why not try to develop a municipality, county, or region in a way in which public and private development policies are not at odds? Why not reward those governments or developers that encourage development or build where it is most efficient to offer public services? Why not rein in development closer to where roads and water/sewer lines currently exist? Why not redevelop urban areas in parallel with new development in rural areas? Most of these ideas cannot be legitimately opposed. Growth is not halted, but rather guided toward a better result. Similarly, open lands are not being taken *from* the public, they are being taken *for* the public.

Developers, who are the most threatened by smart growth, have been counseled by their national organization (NAHB) and think tank (ULI) to become part of the solution and not part of the problem (Builders Association of the Twin Cities 1996). NAHB has produced slide presentations and infomercials on how to effectively influence smart growth rather than oppose it (NAHB 1999); ULI has produced monographs and conducted conferences on developing within and implementing a smart growth agenda (1998). If builders do not oppose smart growth, who will? Of course, some die-hard opponents inevitably remain: for example, farmers whose land has lost its development potential because it is located outside the UGB or owners of waterfront land confronted with public access requirements. But the farm lobby is not what it was, and a broad coalition of soccer moms, government officials from the central-city mayor to the elite "farmette" community business administrator, and others are happy with smart growth.

Growing national commitment

A number of national environmental advocate groups are pledged to at least oppose sprawl if not to advocate smart growth: the Sierra Club,

[8] Downs concurs with this assessment.

the National Trust for Historic Preservation, the Conservation Fund, the Georgia Conservancy, 1,000 Friends of Oregon/Florida/Maryland, the Coalition for Smarter Growth (Washington, DC, metro area), California Facilities Greenbelt Alliance, and others (Sierra Club 1998). The following professional organizations offer similar commitments: the APA, the Council of State Community Development Agencies, the National Association of Mayors, the National Association of Counties, the National Association of Regional Councils, and others (APA 1997). This level of commitment to a land use planning concept has been heretofore unheard of. It certainly was not true at the time (1) the NLUPA was promoted, (2) building codes sought standardization in states, or (3) new community and planned unit development enabling legislation was initiated. No other land use initiative to date has received the national attention that smart growth has.

Contributions by multiple levels of government

As opposed to land use initiatives that in the past have emerged solely at the federal, state, or local levels (e.g., state affordable housing mandates and local impact fees), smart growth appears to have a buckshot pattern of emergence with a definite presence at all levels of government. As indicated previously, it is part of the Democratic national platform, it has been embraced by approximately a dozen states, and it is sporadically sought in numerous local jurisdictions nationwide. There is both enough substance and limited risk in smart growth for it to be simultaneously advanced at all levels. While this advancement is still very limited, it is unique as it relates to land use initiatives. Standardizing land use legislation, though it failed, was always a federal or state agenda item. A program of affordable housing, except in central cities, has virtually never been put forward at anything but the state or county level, and impact fees are almost exclusively locally imposed. Smart growth, although in its infancy, is present at all levels of government.

Immigration and retirement demographics

One of the problems of a growth strategy that advocated containment was that there was never a sustained market for other than suburban or exurban locations in a metropolitan area. This was true in the 1960s and 1970s. Beginning in the 1980s, however, the forces of immigration have developed stronger markets for central cities and inner suburbs (Pitkin et al. 1997). In 1994, approximately 8.7 percent of Americans (1 out of every 12) were foreign born. Never before have so many Americans been born outside the United States. Also, this trend is likely to become more pronounced. The 1990 population of 19.8 million foreign born is projected to swell to 31.1 million in 2010, or 10.4 percent of the resident population (U.S. Immigration and Naturalization Service

1999). Over the previous decade, this population has occupied central-city housing faster than the middle-income white population could vacate it. Overall, from 1980 to 1990, vacancy rates in large central cities decreased, and crowding in these locations increased.

On another front, the retirement of the baby-boom generation will begin to contribute its impact after the year 2010 (U.S. Bureau of the Census 1996). Any projection for the next 25 years must take this factor into account (Hughes and Seneca 1999). Three-quarters of this population are now empty-nesters, and over the next 10 to 15 years, many of them will sell their single-family homes and seek multifamily, lower-priced residences. Some will seek a warm climate while others may choose to be close to their original community of residence, in a more urbanized setting, to preserve their "roots" (U.S. Bureau of the Census 1998b).

Both of these trends bode well for central places. The term "place" has a particular meaning here. It does not mean that high-crime areas, deteriorated housing, and empty-storefront cities will be swamped with renewed demand for housing. What it does mean is that livable central places that are safe, attractive, and have scale can command large new markets in the future. Examples of these markets are Hoboken, NJ; Fort Lauderdale, FL; South Miami Beach, FL; downtown Atlanta, GA; and Charleston, SC. The renewal side of smart growth (i.e., locations where people can be directed) has never had more potential housing demand.

Understanding the economies of regions

The economic development and planning professions have learned from the initial urban renewal land clearances, the boutique redevelopment and subsequent gobbling up of "revitalized" central-city neighborhoods, and the market-housing demonstration efforts in neighborhoods too severe for this housing. They have also achieved a better understanding of the economies of *centrally located,* economically deteriorating areas. Revitalization of these areas often awaits signs that the downward cycle is mostly over or at least has slowed. At this point, selective public control of properties, en route to first public, then private, nonresidential development, can take place. This is followed by private residential development and ultimately private retail development. This type of understanding is complemented by a knowledge of the limits to which peripheral private properties can be controlled en route to central-area revitalization. In the same way that "bull in the china shop" tactics would not work for central-area (central-city and inner-suburb) revitalization, they will not work in growth-control efforts at the periphery of metropolitan areas. On the one hand, it is now obvious that the market cannot be constrained or altered by significantly changing housing types and densities without also making a significant change in the livabili-

ty of these areas. On the other, it is just as obvious that private lands cannot be garnered without a willingness to incur either property rights lawsuits or reasonable owner compensation for such activities.

There is now broad knowledge of these economic realities, knowledge that makes implementing smart growth activities possible. Two decades ago, smart growth was a relatively low-profile, professionally dominated effort. (The same could be said of urban renewal three to four decades ago.) According to EPA staffers who talked to Reid Ewing in 1999, smart growth did not reach the public either in terms of understanding or as an issue to be addressed; there were no techniques for implementation, and the professionals who were implementing it lacked the competency to do so effectively. In this new millennium, people other than professionals know about smart growth, and implementation techniques have had two decades to develop and mature.

Conclusion: More than a ghost of urban policy past, less than a bold new horizon

There are some who would say, after reading this article, that we have been thrust back into the liberal years of the 1970s in a quest for government participation and a structure that will never be forthcoming and that ignores the lessons of history. After all, the repeatedly proposed NLUPA of the 1970s was never adopted, and smart growth is much more ambitious and governmentally intrusive than NLUPA was. Some argue that instead of the new regimen of smart growth, midcourse tinkering will do. All we need do to solve the problem of sprawl is to impose impact fees on those who create the need for extra public works, use congestion pricing to rid metropolitan areas of peak-hour traffic snarls, and have a land tax rather than a real estate tax as a way of excising low density from suburban growth.

This approach has been advocated by William Niskanen of the CATO Institute (Kaplan, Steelman, and Wallis 1999). Niskanen's argument contributes to policy discussion, but his well-thought-out "numbers" solution has shortcomings. First, with respect to impact fees, the solution is not to seek out those who cause excess costs and make them pay, but rather to avoid creating excess costs in the first place. Impact fees shift the burden of capital infrastructure provision from the community as a whole to new entrants to the community. If an impact fee is charged to new entrants, who in the course of their residency must pay their property value share of real property taxes, then their property taxes ought to be reduced by the capitalized value of current debt service for the items for which they are paying impact fees. Impact fees, if assigned, must be correctly structured; however, this has nothing to do with diminishing the unnecessary costs of peripheral growth, but instead involves better assigning those costs to those who caused them.

Money that is taken away from the maintenance and repair of existing infrastructure, and the adequate provision of nondevelopment infrastructure, is still taken away. Under the current system, there is not enough money to pay for two underutilized systems of infrastructure (close in and far out), and this same situation will exist even with impact fees. The difference is that there is a closer assignment of payment to those who have caused the costs.

Notwithstanding William Vickrey's Nobel Prize, congestion pricing may not work in practice (Downs 1999b). Those denied access to work at prime time because of congestion pricing on major routes will seek other non-congestion-priced, secondary routes to work—and make those routes congested as well. Further, although congestion-priced roads will initially become less congested, they will eventually attract more users until they are once again congested. Finally, employers have opposed a controlled staggered workday for decades. Why should they support something that would cause the same result and put each employee in charge of when he or she would arrive at work? Each of these realities requires further examination.

With respect to the crowding of secondary roads as a result of congestion pricing on primary roads, one of the benefits of major "spoked" roadways out of central cities is that crowding on the older secondary routes has been reduced immensely (Gordon and Richardson 1997). Central-city and inner-suburban roads are remarkably free from traffic jams during prime commuting times because most of the traffic has been diverted to major roadways and interstates into and out of the city. If these roadways are congestion priced, traffic will be diverted to older secondary roadways as commuters attempt to avoid the charge. This will clog the secondary roadways and introduce congestion to places where it did not exist before.

Traffic flows on congestion-priced roads will initially be reduced, but as travel flows improve on these main arteries, additional traffic will eventually be drawn to them (Downs 1999b). To the degree that flows are vastly improved, this may even draw users away from expensive mass transit (heavy rail, express bus, etc.) and back onto the congestion-priced major arteries. In other words, congestion pricing will not relieve congestion; rather, it will delay the date by which congestion must be addressed.

Employers' ability to predict the arrival of the workforce will be significantly changed under congestion pricing. Employers have resisted a staggered workday because they feel that it disrupts business-to-business information exchanges. Under congestion pricing, employee arrivals become much less predictable. Employers are not going to voluntarily tell workers to travel off-peak. Thus, individual workers must make this choice and arrange arrival and departure schedules with

their immediate supervisors. The workday is interrupted more than on a staggered workshift because arrival and departure times are individually determined.

The final component of Niskanen's anti–smart growth solution for sprawl is the replacement of real property taxation (land plus improvement) with land taxation as a way to increase density in the suburbs. The argument asserts that if land is taxed, and if small pieces and large pieces of land can hold the same structure, knowledgeable, profit-minded actors will always opt for the smaller piece of land to minimize tax costs and optimize profits. Implementation of such a technique comes with problems, however. The first and most important is the equity argument: Why should a million-dollar house and a $100,000 house on the same size lot incur similar taxes? Related to this is the yield argument. To obtain the same yield as that received from property taxes, localities would need to require those at the lower end of the economic scale to pay appreciably more in land taxes. Both the equity and yield arguments against a land tax are not to be discounted as merely short-term issues.

This leads to the assertion that smart growth requires an organizational structure that brings public and private implementers together in activities that produce the necessary incentives and regulations to invoke smart growth (Ewing 1997). Even if the previously described numbers solution could work, private and public organizational structure would still be required to put it in motion and keep it there. The impact fee system in Virginia Beach, VA, requires an entire office to maintain the exaction formula, review development applications, and, after development, ensure that the infrastructure has been put in place. Congestion pricing will require popular subscription to EZ Passes as well as billing offices and collection policing. Finally, a land tax will require no less administration than the current real property tax does. The property tax office is a very significant part of local government's administrative expenditures.

There should be no question that the numbers solution is not an economically pure, administrative-free approach to achieving the same ends as smart growth. Experience tells us that it is necessary to bring together multiple public and private players to implement smart growth. Three untested economic techniques that have their own problems and require their own administration are not substitutes for the smart growth structure that has been decades in arriving.

Smart growth is a popular subject in land use because it makes sense, involves a series of familiar tools and incentives/regulations, saves taxpayer money and infrastructure, protects resources and natural habitats, and revitalizes and restores neighborhoods. Smart growth is also having a greater impact than other land use ideas because the concept

has, thus far, very limited real opposition: No core value turf has been trod upon, nor have the realities of the development market been altered dramatically. The essence of smart growth is that all development does not head to the periphery of the metropolitan area. One-third of development is allowed to continue in that direction, but it is focused on larger lots and uses less public infrastructure. Another third is contained on the outskirts of existing development on smaller lots and draws on extensions of existing public infrastructure (Burchell 1999). The remaining third is redirected inward to central areas in the form of infill and redevelopment, at a slight increase in density, and uses existing infrastructure. This last form of development employs both mixed-use and cluster techniques to garner and maximize small, centrally located open spaces. The growth described above does not compete with growth in central cities as normal suburban development does, but rather shares growth and economic development between outer and inner locations. An *incentive* overlay is present to ensure that those who follow this development scheme are rewarded; a *regulatory* overlay is present to ensure that developers' first actions are to abide by smart growth principles.

Smart growth is a well-timed, popularly supported, lessons-learned approach to land use. It has been embraced by a society whose age and conscience support bringing back the nostalgia of the past and whose pocketbooks are sufficiently lined to allow this to happen. Smart growth has come to a society that is enjoying remarkably good economic times wherein many 401(k)s are performing well and no combination of interest rate or oil price increases can imminently do anything to the stock market but prevent a new high.

Smart growth comes to the United States at a time when there is growing awareness of private-life versus work-life priorities and demographics/immigration has engendered a new interest in central places. There is absolutely no question that American society still wants something related to a single-family home; but an older, more educated, and more mature society may accept an attached form of single-family residence in order to have as well the ability to be near interesting, safe, and vibrant central places.

Smart growth has pushed the button of American sensitivity; however, it remains to be seen whether Americans are willing to pay the price to see it through. Smart growth could also easily be the Titanic of land use because many an iceberg awaits it. Two icebergs have already caused dents during its maiden voyage. The first is the employee trip-reduction requirement that the ratio of automobiles to employees at an employment site be reduced by 25 percent. This EPA requirement, to afford better compliance with the 1990 Clean Air Act Amendments, caused pain to suburban employers and was rescinded, first by EPA and then by individual states, in 1994. The second dent was felt when

high-occupancy vehicle lanes were not favorably received in a northeastern state (Cervero 1999). They were abandoned in New Jersey, and the state was allowed to keep its federal EPA Control Measures for Air Quality funding (Brail 1999). This requirement caused suburban workers time delays in non–high-occupancy vehicle lanes, and when they refused to carpool and challenged the system, they won. These constituents, however, nonetheless support the smart growth agenda.

Other challenges await the implementation of smart growth. Coordinated implementation is taking place in less than a handful of locations. Even there, the easier steps have been taken (i.e., guidelines or plans are in place) but true, active implementation of smart growth is not proceeding. UGBs and urban service areas are difficult to put in place. Those who are trying to do so stand a real chance of being sued, as is the case in Richland County, SC (with their bosses thrown out of office if the political climate changes), and even when boundaries are in place, the other incentives and regulations that will make boundaries work are often slow in coming (Palmetto Conservation Foundation 1999).

Also appearing on the horizon is the reality that new neighborhood designs could become as cookie cutter as the old ones. (Repetition dulled the draw of other once-novel features, such as the dozens of festival market places and the now more than 1,200 Main Street programs.) The cul-de-sac single-family house with the long winding driveway is rightfully challenged by a new street-proximate front-porch dwelling that offers both less garage space and more chance for walking. The latter is linked to a village square with small retailing and open space (see Andersen's 1999 description of Celebration, FL). How many of these can we tolerate, however, before we scream out for West Street in Annapolis with its car lots, McDonalds, Dunkin Donuts, convenience stores, and gas stations? Actually, West Street and Main Street in Annapolis may be the compromise of the future. The former is where residents go to get essentials; it is not pretty, but it is very functional, and it is accessed by automobile. The latter, Main Street, is historic and offers shopping and art galleries best accessed by walking.

The smartest growth may be to determine what is unique and worth saving about each of these locations and what is necessary to prevent one from gobbling up the other and doing badly what the other does so well. The last thing a worker wants en route to work is a leisurely cup of coffee at an in-town reading den. However, when choosing to go out in the evening, places adjacent to McDonalds and Dunkin Donuts are not usually the first choice.

What smart growth may be missing is the preservation of useful sprawl and its retention as a functional art form. A New Jersey diner already anoints the halls of the Smithsonian; maybe it is time to consider donating a Virginia Beach strip mall.

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