Growth Management: An Introduction

by Joseph L. Bast President, The Heartland Institute April 1998

As the population and wealth of the United States grow, so too do the country's cities, towns, and suburbs. Farm fields and woods give way to freeways and suburban homes, and formerly pristine wilderness areas become crisscrossed with roads and dotted with houses. Air that was once clean is contaminated with car exhaust, and water that once could be drank directly from a lake or river must now be "treated" before drinking.

In the words of a popular song from the 1960s, we "pave paradise and put up a parking lot." For a growing number of people, that trade-off is no longer thought to be fair or beneficial. These people are calling for "growth management," an umbrella term that refers to the use of state authority to limit

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or direct urban expansion according to a formal plan or planning process.

The growth management debate may sound arcane or of little interest to most people, but in fact it touches on an enormous range of public policies affecting virtually every aspect of our lives. Growth management policies aim to influence where we live and work, how we travel from place to place, whether elected officials or unelected bureaucrats will decide important planning issues, and the character of our local communities.

Government's Role in Managing Growth

At the heart of the debate over growth management is not *whether* growth should be managed, but *how* it is managed and *by whom*. In most parts of the country, the path and nature of growth were traditionally left to the private sector. Individual homebuyers, developers, and business executives drove most decisions about where new neighborhoods would be born and where a business would be located. Elected local officials participated in the process by using zoning powers, their control over public infrastructure, and their power of eminent domain.

The history of the growth management movement is often presented as the heroic emergence of a larger role for government, working in partnership with the private sector to

provide public goods, long-term planning, and a democratic process for solving conflicts. But this "history" is largely mythical, as was brilliantly revealed by Edwin S. Mills, now a professor emeritus at Northwestern University's Kellogg School of Management, in a classic essay published in 1979.¹

According to Mills, government land-use controls originated as an attempt by elites to segregate unpopular minorities (Orientals in San Francisco, and low-paid immigrant workers in New York), and ever since have been driven more by private agendas than by any concern for the public good. Mills finds land-use controls to be "a web of complex, redundant, inconsistent, and ineffectual controls that furthers no coherent set of social goals," a seemingly radical claim that he vigorously defends with historic and economic analysis.

A more recent, and equally devastating, report on government land-use controls is Randal O'Toole's "The Vanishing Automobile and Other Urban Myths." ² According to O'Toole, what he calls "planning disasters" are inevitable because "planners can't predict the future any better than anyone else," planners "cling to outdated models of how our cities work," "cities are

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much too complicated to completely understand, much less plan," and "political interference and compromises with special interest groups" severely handicap any public planning effort.

Portland, Oregon, has probably gone further down the path to government-imposed growth restrictions than any other U.S. city. The results have not been promising. The effort to concentrate development inside an "urban growth boundary" has driven up housing prices and increased congestion, reducing air quality and lengthening commuting times.³ Jobs have been a fatality as agricultural land, which generates about 0.03 jobs per acre, is protected at the expense of manufacturing, which often generates more than 100 jobs per acre.⁴ Agriculture is also the largest source of water pollution in Oregon, making it more polluting than whatever development would have displaced it.

We should not assume that giving government more authority or resources is the solution to whatever problems are produced by urban growth and expansion. Indeed, Mills and other writers make a compelling case that the problems often associated with unplanned growth are more often the result of prevailing government policies that interfere with and distort market processes that would otherwise lead to win-win solutions.

Environmental Concerns

Expanding suburbs occupy land that once was forest, prairie, or farmland, a grave concern to nature lovers. Because so many suburbanites rely on cars to commute to work in urban areas, suburban "sprawl" leads some to worry about air quality and the depletion of petroleum supplies. Closer investigation, however, reveals little cause for concern.

Many of us see new housing developments or businesses springing up along the highways we use frequently and conclude that a significant share of the nation's farmland must be disappearing. The visual evidence seems convincing, but we forget that we see only a tiny percentage of

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the nation's land area from our cars. Urban expansion, in fact, is responsible for surprisingly little conversion of either forest or croplands into roads, houses, and parking lots. In 1945, according to the U.S. Department of Agriculture, urban land uses accounted for a mere 1 percent of the area of the U.S. By 1992, that figure had risen to just 3 percent. Forests covered 32 percent of the U.S. in 1945 and a not-much-smaller 30 percent in 1992. Cropland stayed *unchanged* at 24 percent.⁵

Air quality in nearly all major American cities has dramatically improved during the past twenty years, even as suburban "sprawl" boomed. Ambient air concentrations of all six of the air pollutants tracked by the Environmental Protection Agency (EPA) fell dramatically between 1975 and 1991: Dust and airborne ash fell by 24 percent; sulfur dioxide, by 50 percent; carbon monoxide, by 53 percent; ozone, by 25 percent; nitrogen dioxide, by 24 percent; and lead, by 94 percent.⁶

Since 1991, progress has been even more rapid, thanks to the gradual replacement of older cars with cars equipped with new pollution prevention devices, new controls on electricity generating plants, and technological change. For example, according to the Environmental Protection Agency, between 1991 and 1995, the number of days that air quality failed to meet standards fell 49 percent in Chicago, 63 percent in Milwaukee-Waukesha, 42 percent in St. Louis, 74 percent in New York, and 30 percent in Los Angeles-Long Beach.⁷

Will the long commutes caused by suburban sprawl lead to depletion of the world's petroleum supplies? Not in our lifetimes, and almost certainly not in those of our children. Estimated proven reserves of oil in the world in 1997 were sufficient to last approximately 45 years at current rates of consumption. But this estimate only measures reserves that have already been discovered and which can be profitably exploited with current technologies and at current prices. During the past twenty years, estimates of oil reserves have *increased* nearly every year due to new discoveries and technological advances.

In 1991, Frances Cairncross, environment editor for *The Economist*, estimated that new technology and higher prices could enable fossil fuel resources to last as long as 650 years. As

she predicted, since 1991 the oil industry has announced a dazzling array of innovations enabling it to find previously hidden oil reservoirs, drill deeper and under more challenging conditions, convert natural gas and oil sands into liquid fuels, and in other ways expand known reserves of oil.⁹

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Social and Economic Concerns

Does suburban "sprawl" cause social and economic problems that justify a greater investment in growth management?¹⁰ When white-collar workers and business executives migrate to the suburbs to raise their families, their businesses often follow. Infrastructure designed to allow people to commute from bedroom communities in the suburbs to city workplaces is often not properly designed to enable blue-collar inner-city residents to commute out to suburban workplaces. This may foster higher rates of unemployment in urban areas. The movement of businesses and industries to suburbs and "edge" cities also reduces the tax bases of large cities, even though the latter may have the greatest need for spending on social programs. And finally, the cost of infrastructure and services could be higher in low-density suburbs than in high-density cities.

Could these problems be addressed by growth management?

The phenomenon of businesses migrating from large cities to suburban or edge-city locations is inevitable, having occurred even in ancient civilizations. As cities grow, property values in their central business districts rise, prompting use to shift relatively low value-added manufacturing activities to higher value-added activities, typically service-oriented, that utilize relatively little physical space or that benefit directly from the concentration of population. Such companies are also likely to impose fewer nuisances on their neighbors—noise, odors, and smoke—than the companies they replace. Law offices, arts and civic centers, and restaurants fit these descriptions, and consequently dominate the downtowns of many major cities.

Cities that attempt to stop industries that utilize lower-skilled labor from migrating from inner-city locations (a) are destined to fail, (b) will encourage a less-than-optimal use of scarce land resources, resulting in less productivity and less wealth for the city, and (c) will perpetuate patterns of land use that impose more nuisances on urban residents. The separation of workplace and residence has significant advantages, the foremost being quieter, safer, and cleaner residential neighborhoods. Attempts to turn back the clock to an age when factories stood cheek-to-jowl with private homes is hardly "progressive" policymaking!

The problem of transporting inner-city workers to jobs in the suburbs is addressed below, but at this point it is worth noting that regulatory policies inflate the cost of housing in suburban

areas, making it more difficult for low- and moderate-income families to relocate closer to the new suburban job markets. The regulatory barriers to affordable housing were dramatically documented in 1991 in a report by the Advisory Commission on Regulatory Barriers to Affordable Housing, better known as the Kemp Commission.¹¹ The commission found that:

[E]xclusionary, discriminatory, and unnecessary regulations constitute formidable barriers to affordable housing, raising costs by 20 to 35 percent in some communities. As a result, many lower-income young families cannot find housing near their places of work, and elderly couples cannot afford to live close to their children.

Ironically, many of the policies denounced by the Kemp Commission are indistinguishable from the policies recommended by advocates of growth management. For example, "restrictive zoning and subdivision ordinances, building codes, and permitting procedures" prevent developers from building affordable housing, says the report's executive summary, and force workers "to live far from their jobs" and "commute long distances by car, which clogs roads and highways, contributes to air pollution, and results in significant losses in productivity."¹²

Rather than complain that the poor cannot travel to suburban jobs, advocates of growth management ought to campaign for repeal of policies that unnecessarily restrict the supply and increase the price of housing.

other basic requirements of urban living.

While the migration of low value-

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added businesses from center city locations is inevitable, the loss of tax revenues by cities is not. Cities have inherent advantages over their suburbs and edge-cities, among them a concentration of highly skilled labor, cultural amenities, access to pedestrian traffic (which reduces the need to advertise and increases stock turnover), office space suitable for large firms, and often superior transportation links to other cities for products or passengers. Cities in desperate financial straits often blame the loss of manufacturing jobs to suburban areas, but more often they get there because they fail to deliver adequate crime protection, quality schools, reliable transportation, and

Finally, it is a myth that the cost of providing infrastructure and services is significantly higher for low-density suburban development than for high-density urban locations. Randal O'Toole, in a critique of a 1974 report by the Council on Environmental Quality titled *The costs of Sprawl*, says subsequent empirical investigations consistently found that lower operating costs in the suburbs more than offset the higher initial capital costs of installing new infrastructure. One study of public service costs per housing unit in 247 counties found that "above 250 people per square mile [about one house for every *eight acres*] costs increase with higher densities." ¹³

Transportation Issues

Urban expansion inevitably raises questions concerning transportation systems. The problem of getting inner-city residents to suburban jobs has already been mentioned. The location of new roads or widening of existing roads also plays a major role in determining where new development occurs. Some say automobile owners are subsidized (i.e., don't pay enough in taxes and other fees to cover the full cost they impose on society), and that ending that subsidy would slow urban expansion. ¹⁴ The social cost of congestion, measured by the amount of time spent by commuters in their cars, is sometimes added to the "real" cost of suburban "sprawl." Some also believe that investing in mass transit, rather than roads, is a way to promote more compact development, and hence less urban expansion.

Once again, many of these concerns are not based on solid evidence. Randal O'Toole points out that the average suburban commuter spends just five minutes more per day on his commute than does the average person living in the center city. The low population densities of suburban areas make it

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possible for a suburbanite to travel on highways at speeds as high as 65 miles per hour, and then perhaps drive a few miles more slowly on local streets before arriving at the door of his home. Urban dwellers have less far to travel, but congestion forces them to travel much more slowly. They must often walk to and from train stations, and then ride trains or buses that stop many times before reaching their destinations.

People who commute by car are not subsidized by those who do not. A careful study of the taxes paid by road users in 1992 found total revenues of \$114 billion. Total spending on roads that year (including law enforcement and administration) was \$76 billion. The difference, some \$38 billion, was used to finance other social services and infrastructure needs. Automobile owners pay more than enough to recover whatever public expenditures are made on their behalf.

Indirect social costs caused by automobiles, such as compromised air quality and noise, are difficult to quantify and price. Critics of automobiles overlook, however, the huge social costs imposed by other forms of transportation that the automobile replaced. Such costs must be considered, since in the real world our choice is not between cars and immobility, but cars and alternative forms of transportation. Horses posed enormous public health problems in cities at the turn of the century. Contemporary accounts describe pools of urine and dung in the streets, omnipresent clouds of flies, and the pervasive stench of primitive incinerators used to "reduce" the carcasses of dead horses. Compared to what it replaced, today's automobile is quiet, clean, and safe.

Mass transit is a poor substitute for the freedom and independence that is delivered by private ownership of automobiles. Automobiles, according to philosophy professor Loren E. Lomasky, have given Americans a much wider range of choices of occupations and places to live; they expand opportunities to learn and experience new things; and they enhance privacy.¹⁷ The

failure of mass transit to provide any of these things explains why public transit, which accounted for over 30 percent of all urban person-miles of travel in 1945, accounts for less than 2 percent now. According to transportation economist John Semmens, this collapse occurred despite the fact that in the 25 largest cities of the country, "in no case do riders pay even half of the cost of their transportation." In the cost of their transportation."

That current transportation systems make it inconvenient for inner-city residents to reach jobs in the suburbs is an artifact of failed central planning, not evidence of its absence. Roads and rails, after all, are inherently bidirectional, not unidirectional. Thanks to domination by public sector

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unions, slow-moving bureaucracies, and continuous political interference, publicly owned monopoly bus and train services are notoriously slow to change routes to reflect new realities.²⁰ The public sector's preferred alternative— simply adding new routes to existing routes— is unaffordable due to the high operating costs of public systems.

Financing New Infrastructure

Do new home buyers pay enough in taxes to cover the costs of providing the new infrastructure and public services they require? If not, current policies may be subsidizing urban expansion at the expense of current suburban residents (a fairness issue) and/or urban residents (an economic development issue).

Past attempts to quantify the "cost of development" in the Chicago area, conducted by Rutgers University²¹ and Arthur D. Little, Inc.²² in the late 1980s, produced voluminous reports but little agreement on how to measure such costs, how to take into account future income streams from new development, or the best way to finance development.

The Rutgers University study warned the city of Naperville that "impact fees" on developers, unless carefully formulated, would fail to accurately reflect the net impact of new development. Ten years later, a study by University of Chicago researchers found that Naperville's fees, now "officially" set at approximately \$4,345 for a typical new house but in practice much higher, are essentially arbitrary and aimed more at maximizing revenues than accurately reflecting the cost of new development.²³ The researchers found only one of the eight communities they studied explicitly credited developers with the future revenues their houses would generate.

The Arthur D. Little, Inc. report looked at a then-proposed DuPage county transportation impact fee and found it would "introduce inequities for funding highway improvements due to probably excessive fair share credits, trip length miscalculations, underestimated construction costs, absence of a state/county share calculation," and more.²⁴ The fee was adopted anyway, but

in June of 1996 the County Board voted unanimously to repeal it. Developers and others argued successfully that the fee was little more than a hidden tax that bore no relationship to actual spending on highways in the county.

We can predict, but we cannot be certain, that the taxes paid by new development tend to be sufficient to pay for the true cost of development. There are three reasons.

First, property taxes and user fees are uniquely designed to match tax rates and levies to the cost of local infrastructure and public services. The taxes are administered locally, allowing them to be finely tailored to the service needs of local businesses. Changes to property tax rates typically require voter approval, making them more flexible than sales or income taxes. Competition for businesses and new residents from neighboring communities prevents a community from setting its fees or tax rates too high.²⁵ The efficiency that this competition produces is demonstrated by recent research by Harvard economist Caroline M. Hoxby, who found a close positive relationship between reliance on local property taxes and three measures of public school performance. Hoxby concludes that relying on local property taxes "is one of the best and most stable methods of financing public schools."²⁶

Second, the difficulty in measuring the net cost of new development gives municipal officials an opportunity to set impact fees higher than necessary in order to fund projects unrelated to the new development. The law requires a "reasonable connection" between

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the fees and the cost of public facilities and services, otherwise imposition of such fees constitutes a "taking" for which developers must be compensated, but developers must resort to litigation to keep from getting gouged by municipal officials in popular communities.

Third, the current residents of a growing community probably benefit financially from high impact fees, since by raising the cost of new housing those fees have the effect of raising the resale value of existing homes.²⁷ The political system fails to give adequate representation to the interests of developers and new home buyers, since these groups are not (or not yet) voting members of the community. Consequently, it is politically expedient for elected officials to err on the side of setting fees too high rather than too low.

A recent study of impact fees imposed by the city of Tyler, Texas, found that new houses generated more revenue than was necessary to pay for the additional services required by the increased population, even without impact fees being collected.²⁸ Because every community levies its own combination of taxes and fees, it may be impossible to state that *all* new development pays for itself. It seems highly unlikely, though, given competition among communities and the political environment in which local taxes and fees are set, that new development doesn't pay its fair share of public costs.

Conclusion

"Urban sprawl" is much less a problem than its many foes claim. The amount of forest and farmland "sprawl" threatens to convert to businesses and homes is tiny—on the order of 1 or 2 percent of the country's land area. As cars become cleaner and as technology extends the life span of petroleum supplies to hundreds of years, the possible threat of "sprawl" to our health and to the environment shrinks from sight.

The effects of suburban development on center city areas are complex. Suburban development benefits the city by enabling it to specialize in businesses that are best suited to high density development and to maintain access to a large population without having to house it in immediate proximity to

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workplaces. Transportation systems have been slow to respond to the changing realities of suburban economic development, but the problem is not inherent in roads or train lines. Innovative local officials are solving these and other challenges posed by suburban growth.

If "sprawl" were subsidized, a convincing case could be made for removing those subsidies and allowing market processes and local governments to determine the best pace and direction for new development. But the presence of any pro-sprawl subsidies is hotly contested by many experts. Mass transit, not the private automobile, benefits most from public subsidies, with its riders rarely paying half its costs. The cost of infrastructure in low-density suburbs may be no greater than in high-density neighborhoods once lower operating costs are taken into account. And the reality of competition among communities makes it unlikely that current residents are being forced to pay for new development.

Policymakers should avoid high impact fees, Portland-style "urban growth boundaries," and other schemes aimed at limiting suburban development. There is very little to be gained by increasing government's authority over where people live and work, and much to be lost. Unfortunately, the current policy debate is being driven more by what is visible—farmland being converted into tract housing, for example—than by what is more important but largely invisible—our pending loss of civil and economic liberties.

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Guide to Background Readings

- 1. Edwin S. Mills, "Economic Analysis of Urban Land-Use Controls," in Peter Mieszkowski and Mahlon Straszheim, editors, *Current Issues in Urban Economics* (Baltimore, MD: The Johns Hopkins University Press, 1979).
- 2. Randal O'Toole, "The Vanishing Automobile and Other Urban Myths," *Different Drummer*, The Thoreau Institute, Spring 1996.
- 3. Jonathan Adler, "What Farmland Crisis?" *Intellectual Ammunition*, April/May 1998, page 6.
- 4. Foundation for Clean Air Progress, "What's Missing From the Clean Air Debate?" no date.
- 5. Harold Henderson, "Come a Little Bit Closer," *Reader*, July 7, 1995.
- 6. Advisory Commission on Regulatory Barriers to Affordable Housing, *Not in My Back Yard: Removing Barriers to Affordable Housing*, Executive Summary, 1991.
- 7. Harold Henderson, "Car Trouble," *Reader*, February 20, 1998.
- 8. Rayola S. Dougher, "Estimates of Annual U.S. Road User Payments Versus Annual Road Expenditures," Executive Summary, American Petroleum Institute, March 1995.
- 9. Loren E. Lomasky, "Autonomy and Automobility," Competitive Enterprise Institute, June 1995.
- 10. John Semmens, "Public Transit Attracts Few Riders," Laissez Faire Institute, April 1997.
- 11. John Semmens, "Public Transit: A Failure Everywhere," Laissez Faire Institute, April 1997.

ENDNOTES

- 1. **Reading #1:** Edwin S. Mills, "Economic Analysis of Urban Land-Use Controls," in *Current Issues in Urban Economics*, edited by Peter Mieszkowski and Mahlon Straszheim (Baltimore, MD: The Johns Hopkins University Press, 1979).
- 2. **Reading #2:** Randal O'Toole, "The Vanishing Automobile and Other Urban Myths," *Different Drummer*, The Thoreau Institute, Spring 1996.
- 3. Alan Ehrenhalt, "The Great Wall of Portland," Governing, May 1997.
- 4. John A. Charles, "Portland's Urban Growth Boundary: A Nice Idea That Doesn't Work," Cascade Policy Institute, August 1997.
- 5. **Reading #3:** Jonathan Adler, "What Farmland Crisis? *Intellectual Ammunition*, April/May 1998, page 6.
- 6. Environmental Protection Agency, *National Air Quality Emissions Trends Report 1992*, Table 40.
- 7. **Reading #4:** Foundation for Clean Air Progress, "What's missing from the clean air debate?" fact sheet, no date.
- 8. Frances Cairncross, "Energy and the Environment: A Power for Good, a Power for Ill," *The Economist*, August 31, 1991, page 5.
- 9. See Roger N. Anderson, "Oil Production in the 21st Century," *Scientific American*, March 1998, pages 86-91, and other essays in that issue.
- 10. **Reading #5:** Harold Henderson, "Come a Little Bit Closer," *Reader*, July 7, 1995.
- 11. **Reading #6:** Advisory Commission on Regulatory Barriers to Affordable Housing, *Not in My Back Yard: Removing Barriers to Affordable Housing*, 1991.
- 12. Ibid., page 3.
- 13. Randal O'Toole, supra note 2, page 19.
- 14. For example, see Phillip J. Longman, "Who pays for sprawl?" *U.S. News & World Report*, April 27, 1998, pages 22-23. For a review of *Asphalt Nation*, by Jane Holtz Kay, and a survey of the many charges made against automobiles, as well as an excellent description of the many factual errors and omissions the author makes, see **Reading #7:** Harold Henderson, "Car Trouble," *Reader*, February 20, 1998.
- 15. Randal O'Toole, supra note 2, page 19.

- 16. **Reading #8:** Rayola S. Dougher, "Estimates of Annual U.S. Road User Payments Versus Annual Road Expenditures," American Petroleum Institute, March 1995.
- 17. **Reading #9:** Loren E. Lomasky, *Autonomy and Automobility*, Competitive Enterprise Institute, June 1995. See also Kenneth Green, "Defending Automobility: The Environmental and Social Costs of Auto Use," *Policy Study*, Reason Foundation, December 1995.
- 18. **Reading #10:** John Semmens, "Public Transit Attracts Few Riders," Laissez Faire Institute, April 1997.
- 19. **Reading #11:** John Semmens, "Public Transit: A Failure Everywhere," Laissez Faire Institute, April 1997.
- 20. See Christine M. Johnson and Milton Pikarsky, "Toward Fragmentation: The Evolution of Public Transportation in Chicago," in *Urban Transit: the Private Challenge to Public Transportation* (San Francisco, CA: Pacific Institute for Public Policy Research, 1985).
- 21. David Listokin et al., "Fiscal Impacts of and Responses to Growth: Naperville, Illinois," Rutgers University Center for Urban Policy Research and the City of Naperville, Illinois, January 1988.
- 22. Arthur D. Little, Inc., "Economic Assessment of the Lake County Fair Share Transportation Impact Fee Ordinance," Final Report, April 1989.
- 23. Brett M. Baden, Don L. Coursey, and Jeannine M. Kannegiesser, "Effects of Impact Fees on the Suburban Chicago Housing Market," *Policy Study*, The Heartland Institute, forthcoming June 1, 1998.
- 24. Arthur D. Little, Inc., supra note 22, page S-1.
- 25. See Edwin S. Mills, supra note 1. The classic essay on the theory of competition among local governments is Charles Tiebout, "A Pure Theory of Local Expenditures," *Journal of Political Economy*, October 1956, pages 416-24.
- 26. Caroline M. Hoxby, Ph.D., "Local Property Tax-Based Funding of Public Schools," *Policy Study*, The Heartland Institute, May 19, 1997, page 18.
- 27. Brett M. Baden, Don L. Coursey, and Jeannine M. Kannegiesser, supra note 23.
- 28. Mark G. Dotzour, *The Fiscal Impact of New Residential Subdivisions on the City of Tyler, Texas*, Technical Report No. 1204 (College Station, Texas: Texas A&M University Real Estate Center, November 1997).