



The New Urbanism Versus the Market Process

RANDALL G. HOLCOMBE

holcombe@garnet.acns.fsu.edu

Department of Economics, Florida State University, Tallahassee, Florida 32306, USA

Abstract. The new urbanism argues that land-use planning should be used to create higher-density development and to promote alternatives to the use of personal automobiles for transportation. The concerns of the new urbanist movement are shown to be misplaced, and the goals of the new urbanism are shown to be in conflict with market incentives, making them difficult to implement in any event. A better policy for more efficient land use would be for governments to plan more effectively for their own infrastructure development while allowing the development of privately-owned land to be guided by market forces.

Key Words: new urbanism, growth management, land-use planning, market process

JEL classification: R52

Introduction

The last half of the twentieth century saw a rapid and remarkable change in land use patterns, made possible by the widespread availability of the automobile. Freed from having to rely on mass transit to travel further than walking distance, there was a substantial shift to suburban living, resulting in what critics have labeled urban sprawl. The new urbanism is a reaction against urban sprawl, which, new urbanists argue, damages the environment, sacrifices natural areas and farmland for development, wastes energy and other resources, creates traffic congestion, and in other ways lowers the quality of life. New urbanists offer two main goals to reverse the effects of urban sprawl: (1) create higher-density living areas, and (2) reduce the amount of automobile travel by relying more on mass transit and other alternative means of transportation. The first part of this paper briefly reviews the claims of the new urbanist movement, and finds them to be questionable in many areas. After this introduction to the issues, the paper offers two main themes: (1) the goals of the new urbanism are trying to work against market forces, so that regardless of their desirability, those goals are unlikely to be achieved; and (2) the methods advocated by the new urbanist movement are the same as those of Soviet-style central planning, and will lead to undesirable results for the same reasons that Soviet-style central planning did. In contrast, the market process will create efficient patterns of land use without government planning. However, because roads are owned by government, government must plan for future road development, and there are government policies that can aid the market process in the production of efficient land use patterns.

New Urbanism and Smart Growth

The new urbanism movement maintains that urban sprawl is harmful for many reasons, including environmental degradation, the destruction of open space and farmland, the creation of traffic congestion, higher monetary costs associated with sprawling development, and even social problems caused by the isolation of suburbs.¹ The solution, according to the new urbanism, is smart growth, which means increasing population density in areas where people live to preserve the environment elsewhere, and an increasing reliance on mass transit and other alternatives (like walking and bicycling) rather than automobiles.² This section considers some of the alleged problems of urban sprawl, and argues that in some cases there is no reason for concern, while in others smart growth policies actually exacerbate the problems the new urbanists have identified. A book could be written on the subject, and these issues are addressed in Holcombe and Staley (2001), but a brief review of some issues is warranted to lead into an analysis of markets and the new urbanism.

Open Space. A frequently-stated concern about urban sprawl is that development is paving over the nation's open space, consuming undeveloped land. The concern is understandable, and environmental preservation is a worthwhile goal, but Americans often overestimate the amount of developed land because most people live in developed areas, so that is what they see. Only about four percent of the nation's land area is developed, and even states that are thought of as very urbanized are mostly undeveloped. States with the highest percentage of developed area are New Jersey, which is 34.6 percent developed, Massachusetts, which is 27.4 percent developed, Connecticut, which is 25.8 percent developed, and Rhode Island, which is 22.9 percent developed. Next on the list is Maryland, which is only 15.1 percent developed. In total, four states have land areas that are more than 20 percent developed, while 39 are less than 10 percent developed, and 27 are less than 5 percent developed.³

The fact is, there is a substantial amount of undeveloped land in the United States, and the nation is not even close to the point of paving over all its undeveloped areas. Oregon (1.4 percent developed) and Florida (13.0 percent developed) have led the nation in trying to impose growth management legislation to stop urban sprawl and prevent their states from becoming like California (4.9 percent developed), but whatever the dangers of urban sprawl, the facts show that there is not a danger of development consuming a major percentage of the nation's land area. If the nation's developed areas doubled from 4.2 percent of total land area to 8.4 percent of land area, this would reduce undeveloped area from 95.8 percent of the total to 91.6 percent, a reduction in undeveloped land of only 4.4 percent. Regardless of whether one thinks it would be desirable to double the developed area of the nation in exchange for reducing the undeveloped area by 4.4 percent, the facts show that urban sprawl does not threaten to pave over the nation's undeveloped land.

Environmental Amenities. The new urbanists are concerned about the destruction of environmental amenities, such as wildlife habitats, forest areas, lakes, and so forth. There is no debate about the value of these amenities; the debate is about the effects of urban sprawl on them. The market-based solution is to place these areas off-limits to development by purchasing and preserving them (Anderson and Leal 1991, 1997). Free-market environmentalists argue the merits of private ownership, while critics argue that the government

should own and preserve the land. Regardless, the point is that urban sprawl is irrelevant to the debate. The previous section documented that there is enough undeveloped land that environmental amenities can be preserved without restricting in any way the quantity of land to be developed. All that is necessary is to set aside those environmentally-sensitive areas that should be preserved. The argument that all of it should be preserved would seem to ring hollow in light of the above statistic that doubling the amount of developed land would only reduce undeveloped land by 4.4 percent. In response to the argument that government ownership would help preserve environmental amenities, note that the federal government already owns 28.8 percent of the total land area of the United States,⁴ and total government ownership is even higher when the land owned by state and local governments is added in.

Nobody disagrees with the idea that environmental amenities should be set aside and preserved. The debate related to new urbanism is whether urban sprawl is threatening them. Because there is so much undeveloped land, there is no conflict between expanding the boundaries of development and preserving environmental amenities. Environmental arguments in favor of higher-density development do not hold up under scrutiny.

Farmland. A related concern is that sprawling development is extending into the nation's farmland, paving over areas that could be used productively in agriculture. The fact is that farmland as a percentage of total land area has been declining for decades, from 51 percent of land area in 1950 to 41.6 percent of land area in 1992, and cropland has declined from 18 percent to 13 percent of land area over the same period. However, this decline is not due to farmland being paved over by urban sprawl (though in some cases that happens), but rather is due to the phenomenal increases in agricultural productivity. Because agricultural productivity has risen, more food can be grown on less land, and despite the decline in land area devoted to farming, farm output has steadily increased, and the United States has continued to be a net food exporter.

The facts are given in Staley (2000) and Holcombe (2000) for readers who want more support for this argument, but one can see from the numbers that farm acreage has declined by more than the total amount of developed land. From 1950 to 1992 farmland as a percentage of total land declined by 9.4 percent, and cropland as a percentage of total land declined by 5 percent. Meanwhile, total developed land is less than 5 percent. Farmland is disappearing faster than land is being developed, so urban sprawl could not be responsible for this farmland loss. From an environmental standpoint, this decline in farmland is probably desirable, because increased agricultural productivity means less land is needed to grow food, so more can be returned to more natural conditions.⁵ But this is a peripheral issue. The point is that urban sprawl is unrelated to the decline in farmland.

Pollution. Urban sprawl is often seen as a contributor to pollution, in many dimensions. By paving over open areas, sprawl creates runoff and water pollution, and because sprawl requires automobile travel, it adds to air pollution. Despite these perceptions, which appeal to common sense, there are arguments that go the other way, and the facts suggest that urban sprawl may be better for the environment than the more compact urban development favored by the smart growth movement.

First, the facts. Green (2001) looks at an extensive amount of EPA data on air quality, water quality, and soil contamination, and finds that the higher the population density, the

worse the environmental degradation in almost every dimension. Green looks at six different air pollutants over a ten year period in rural, suburban, and urban areas, and finds that for all but one of the pollutants, air quality is worse, and often substantially worse, the higher the population density. The one exception is ozone, which has concentrations about equal in rural, suburban, and urban areas, but with slightly higher concentrations in suburban areas. Green presents data covering the ten-year period from 1988 to 1997, and one bit of good news is that air pollution levels show a steady downward trend over the period. Still, pollution is the highest where population density is the highest. Green also looks at population density and nonattainment status with the EPA's air quality guidelines, and again finds a strong correlation with nonattainment status and population density. Green's data on water quality and soil contamination show similar results: higher population density is correlated with lower environmental quality.

The correlation between environmental quality and population density can be looked at in two ways for policy purposes. If the goal of policy is to create environments for human habitation that are as pollution-free as possible, then the clear policy to achieve this is to promote lower-density development. The facts show that higher-density development is associated with higher pollution levels, and this makes sense when one considers that pollutants are a by-product of human activity. A higher concentration of people is, as a result, very closely associated with a higher concentration of pollutants. By spreading people out and lowering population density, people will be living in healthier, less polluted environments. Said plainly, a policy of promoting urban sprawl will create less-polluted environments for people, whereas the new urbanist policy goal of creating higher-density living areas will create more polluted environments for people. This accords with common sense, and the facts presented in Green (2001) make it hard to disagree with this conclusion.

Looked at in another way, a more difficult question is whether urban sprawl creates a more polluted environment overall. While common sense accords with the facts presented above showing that areas with higher population density are more polluted, those facts do not indicate whether the total amount of pollution will be higher or lower with increases in population density. Urban sprawl could just spread pollution out over a greater area. However, several factors suggest that lower population densities lower overall pollution levels, because the environment can absorb pollutants, so more space per person means more room for environmental absorption. Thinking in more concrete terms (pun intended), high population density means more buildings and paved areas relative to open areas that can absorb water runoff, and means less room for trees and vegetation that can absorb and process air pollution naturally. In areas with high population density, there are fewer places for pollutants to go, resulting in stormwater runoff and lower air quality, whereas lower population density allows more natural ways for pollution mitigation. Furthermore, stormwater runoff and air pollution from densely-populated areas tends to spread beyond the boundaries of development, whereas in lower-density areas, a greater percentage of the pollution can be absorbed locally rather than spreading elsewhere.

Increasingly, planners are concerned with environmental aspects of development, and are advocating mitigating elements such as water retention ponds to allow stormwater to seep back into the water table rather than storm drains to move it somewhere else, and trees

and parks that can act as environmental buffers. But these mitigating elements take space, implying the environmental benefits of lower population densities.

Automobiles are a major source of pollution, and the new urbanist thinking is that higher-density development can reduce automobile travel and lessen air pollution. This is not clear, however. As Green (2001) shows, air quality is worse in higher-density areas. Most people still travel by automobile, even in high density areas, and automobiles idling in traffic congestion generate far more pollution than autos moving at highway speeds. The issue is not only how far people travel, but how fast they can complete their trips, and how much of their trip time is spent idling or inching along in congestion rather than traveling at optimum speed. A policy of increasing population density in areas that are already congested will increase air pollution problems, so lower density development can lead to cleaner air if it lessens traffic congestion.

Increased wealth has brought with it increasing levels of pollution of all types, as has a growing world population, but one must be careful to separate out pollution resulting from higher incomes and wealth, and from population growth, from pollution caused by particular land use patterns. The production of goods and services creates pollution as a by-product, so as more output is produced, more pollution tends to be produced with it. But this is not uniformly true. The environment in London was cleaner in 2000 than it was in 1900, and the air in New York and Los Angeles was cleaner in 2000 than it was in 1970, despite more production, more vehicle-miles traveled, and more population. As people get wealthier, one thing they want to buy with their wealth is a cleaner environment. When looking at land use issues, one must separate out the pollution created as a by-product of increased production from pollution created by sprawling development, and when the facts are examined, it is difficult to make the argument that urban sprawl causes environmental degradation.

Traffic Congestion. One of the most immediate concerns of the general public is the impact of urban sprawl on traffic congestion. While, in the abstract, people may want to conserve open space and farmland, they have to deal with traffic congestion every day, and as more development takes place, traffic problems increase. People know from their own experience that as areas grow, traffic problems increase, so they associate urban sprawl with increased traffic congestion.

As Gordon and Richardson (2001) and Holcombe (2000:15) note, nation-wide average commuting times have remained relatively unchanged for decades, and average commuting speed has been increasing, as has average commuting distance. People are not spending more time commuting, on average. This fact is directly counter to everyone's experience, because people see their commutes taking increasingly longer. The paradox resolves itself when new development is taken into account. If people stay where they are, then as more people move into an area, the roads get more congested, but when people move to newly-developed areas, the roads in newly-developed areas tend to be less congested, lowering people's travel times. Of course, after they have moved, their new area gets increasingly congested as it develops, which may push them to move again.

When one looks at the dynamics of the problem, it becomes apparent that urban sprawl is not the problem that causes traffic congestion, it is the solution that keeps congestion from getting worse. New development acts as a safety valve that allows people to move

to less-congested areas, which has the two-pronged effect of allowing faster travel for the people who move, and also—by moving some people out of congested areas—lessens congestion for those who do not move. If traffic congestion is a problem, increasing population density will add more traffic to already-congested areas, making the problem worse. Often, because of existing development, widening roads is difficult and expensive, whereas with new development infrastructure can be planned to allow for more uncongested travel. The new urbanist vision leads to increased traffic congestion; urban sprawl lowers traffic congestion.

Part of the new urbanist vision is to couple higher-density development with reduced automobile use, and if this could work, it might lower congestion. However, as will be argued further below, people will be using personal auto transportation more in the future, not less. If this is so, building to increase population density will worsen the problem of traffic congestion. A new urbanist argument that building sprawling development away from a city core increases travel distance and time ignores the fact that new development contains both new travel origins and new destinations. If everybody commuted from the suburbs to the central city, the idea that sprawl would increase travel time and distance would have some merit, but because new development increases suburb-to-suburb travel, sprawling development enlarges transportation infrastructure and reduces congestion.

New Urbanism and Smart Growth. A brief overview of issues related to the new urbanist agenda shows that urban sprawl is not responsible for the problems they see with sprawling development patterns, and conversely, that the solutions proposed by the new urbanists are more likely to aggravate the real problems than to solve them. The issues of sprawling development consuming open space and farmland were shown to be baseless, because there is so much undeveloped land, and because farmland acreage has been contracting due to increased agricultural activity, not development. Urban sprawl is not responsible for increased pollution levels or traffic congestion either, and the solutions proposed by the new urbanists are more likely to increase pollution and traffic congestion than reduce them.

Markets and Population Density

One of the main goals of the new urbanism is to create higher-density living environments. The new urbanist method for achieving this goal is government-mandated restrictions on private land use to prevent sprawling development. If government-mandated restrictions are necessary to increase population density, this suggests that people, left to their own devices, would choose lower densities, so must be forced to live in higher-density conditions. If this were not true, the new urbanists could simply explain to people the merits of high-density living, and people could be persuaded to choose it without government coercion. The new urbanist methods imply that higher density produces a public good, but imposes a private cost by forcing people into higher-density living. The previous sections question whether higher-density development really produces public benefits, but this section sets aside the issue of the public benefits of high-density living to look at the impact of market forces on population density. The line of reasoning is straightforward: as people's incomes rise and they get wealthier, one of the things they want to buy with their increased wealth is more

living space. Therefore, rising incomes lead people to choose more living space, which lowers population density and works against the new urbanist goal of increasing population density.

First, consider the facts. Bruegmann (2001) provides an overview of the history of population density and urban sprawl in a number of European and American cities, and notes (p. 160), "In the twentieth century, in virtually every city in the economically developed world, a marked decentralization of both jobs and residence has been underway." Prior to the 20th century, as cities grew and jobs were increasingly concentrated in urban areas, population density grew too. People had to live near their jobs. Throughout the 20th century, transportation options widened, allowing people to live farther from where they worked, and work locations became more decentralized, again allowing people to spread out more. Bruegmann (2001:159) notes that at the beginning of the 20th century population density in the Lower East Side of New York City was as high as 350,000 people per square mile, but by the end of the 20th century New York had a population density of about 22,900 per square mile.⁶ European cities like Paris and London, that new urbanists hold up as examples for the U.S. to emulate, show similar trends. While they tend to have higher population densities than U.S. cities, population density is falling there too. There is no European policy that could be adapted to the United States to increase population density, because population density is falling in Europe too, and the trends are similar worldwide.⁷

The new urbanists would not dispute the facts, but rather would argue that the facts document the problem that needs to be reversed. Reversing the trend of declining population density would require working against market forces. As people gain income and wealth, one thing they want to buy is more living space. Thus, as areas become more prosperous, declining population density is a natural by-product of prosperity. In addition, demographic trends work against increases in population density. The tools the new urbanists want to use to promote higher population density are tools of land use planning, but there is a tenuous relationship between physical structures built on land and population density. Building apartments instead of houses, and requiring houses to be built on smaller lots, may not be able to offset the effects of demographics and income.

Imagine an apartment in New York City whose physical characteristics remain unchanged over the decades. Early in the 20th century, families tended to be larger, and often extended families lived together, but in the latter half of the 20th century elders gained more financial independence, so it would be rarer for people to be living with both their parents and their children. The extended family that once occupied one apartment would then occupy two: one for the grandparents and one for the parents and their children, lowering population density in the same physical apartment. Average family sizes declined considerably over the 20th century also, so while an apartment might have had parents and six children in an apartment early in the 20th century, the family would be more likely to have only one or two children at the end of the century, perhaps lowering population density by half. Similarly, decades ago four single working people might have shared a two bedroom apartment, living two to a bedroom, but as incomes rose, people in similar situations might choose to live two to an apartment, giving everyone their own bedroom. Further increases in income might even entice one person to rent a two-bedroom apartment. The same physical building will have a lower population density as the area's income rises, because people will devote some

of their higher incomes to buying more personal space. One cannot simply build higher population density.

In Portland, where there are stringent growth controls that include restrictions on lot sizes, some people have purchased vacant lots next to the lots they were building on to use as yards. A less common occurrence is for parents to buy a house adjacent to theirs as a children's residence, but this is the type of activity that growth controls encourage. Growth controls artificially restrict land available for development, so make housing more expensive, and this will increase population density. Still, rising incomes and the trend toward smaller families will work against policies designed to increase population density.

There is no dispute that declining population densities have been the result of people wanting to buy more personal living space, and being able to afford to do so. The new urbanist agenda is to try to reverse this trend through land use planning. People's own choices reveal that they would believe themselves to be worse off if they were crowded into higher-density living, and the previous section argued that it is questionable whether higher-density living would provide any public benefits. This section suggests that market forces work against increasing population density anyway, and that regardless of the type of construction or land use patterns that are employed, population density will continue to fall as people buy more personal space for themselves as their incomes rise.

Markets and Modes of Transportation

The previous section ignored one of the prime facilitators of lower density living: the widespread availability of automobiles. In the second half of the 20th century, automobiles became increasingly affordable, allowing people to live farther from where they worked, and allowing them to live away from corridors of mass transit. In 1950 there were 32 automobiles registered in the United States for every 100 residents. By 1996 there were 78 automobiles registered for every 100 residents, and these residents include people (such as children) who do not drive. The nation has more automobiles than it has drivers!

The impact of the automobile on land use patterns in the last half of the 20th century is beyond dispute. Freed from the constraints of mass transit, people could buy larger lots further away from where they worked and shopped, and suburban living exploded as a result of the automobile. The advantages to home purchasers were obvious. They could buy less expensive homes that offered them more living space and bigger yards, at the cost of having to drive to work and to shop. While people who live in the suburbs obviously view this as, on net, a beneficial way to live, as revealed by their choices, the new urbanists want to reduce reliance on automobile travel and have people use alternative modes of transportation, such as mass transit, bicycling, and walking. Indeed, one of the important motivations for the new urbanist desire for higher-density living is that by putting people closer together, mass transit is more feasible, and more destinations can be within walking or cycling distance.

As with the density issue, market forces work against getting people to substitute other modes of travel for the personal automobile. Personal automobile travel offers convenience, flexibility, and comfort beyond any other mode of transportation, and as people's incomes rise, they want to purchase these amenities and travel more by personal automobile. Consider the issues.

Nationwide, about 5 percent of commuters traveled by mass transit in 1990. If the new urbanists were able to develop policies that doubled ridership, that would hardly make a dent in the amount of automobile travel. Furthermore, in every major metropolitan area, it is faster to commute by personal automobile than by mass transit. In New York, commuting by auto takes 87.6 percent as much time as by mass transit in the central business district, and only 52.3 percent as much time in the larger metropolitan area (Holcombe 2000:18). Statistics are similar for other areas, and in an average for the 25 U.S. cities with the largest central business districts, travel by auto takes 73.6 percent as much time as mass transit within the central business district, and 60.4 percent as much time outside the central business district. It is easy to see that if commuters can save a quarter to a third or more of their commuting time by driving rather than taking mass transit, as people get wealthier, more of them will choose to commute by personal auto. The trends bear this out, as in 1960 mass transit had a 12.1 percent share of commuters, which fell to 8.9 percent in 1970, 6.4 percent in 1980, and 5.3 percent in 1990 (Holcombe 2000:17).

Time savings alone may justify an individual decision to drive rather than take mass transit, but there are many other advantages. The commuter has complete flexibility about when to come and go, and has the flexibility to make side trips without any advance planning. Furthermore, the commuter has a private environment, and can choose to listen to any type of music or talk radio, or increasingly, to talk on the phone, in a private space. The only major disadvantage is the cost, which is why in an economy where people's incomes are rising, economic forces are working to reduce travel by mass transit and increase travel by personal automobile.

A personal automobile also makes shopping more convenient. People can buy more goods at one time if they can put their purchases in their cars rather than having to carry them on a bus or train, but probably the biggest advantage of shopping trips in the automobile is the types of stores that have been made possible due to the automobile. Supermarkets, shopping centers, and large discount stores were all made possible because the stores could draw from a larger customer base. Rather than shopping at the corner grocery with a meager selection, a supermarket offers customers from a larger area a better selection and lower prices. Just as the nature of housing has been transformed by the availability of the automobile, so has the nature of shopping. Once nostalgia is set aside, few people would choose to walk to the corner grocery (or take a bus) to shop at a store with higher prices and a more meager selection. And in the case of shopping, cost factors probably weigh in favor of the automobile, as the marginal cost of driving to the store is probably less than the savings through lower prices that supermarkets and discounters such as Wal-Mart and Home Depot offer.

Market Forces and the New Urbanism

Regardless of the merits of the new urbanism, market forces are working against its goals of increasing population density and reducing automobile travel. As people's incomes rise, they want to buy more living space, and land use planning is not an effective tool for preventing that. Similarly, as people's incomes rise, they want to buy more transportation convenience, flexibility, and comfort, so rising incomes cause people to migrate from mass

transit to automobile travel. If the new urbanism is to accomplish its goals, it will have to force people into accepting alternatives that they would not choose if resource allocation decisions were left entirely to the market.

At this point, the new urbanists' tool of choice is government-mandated land use planning, but the arguments above suggest that land use planning is unlikely to achieve the new urbanists' goals, because market forces are pulling in the other direction. If so, one could imagine other types of government mandates that could target the new urbanists' goals more directly. High taxes on automobiles, motor fuels, and parking spaces have already been suggested, but automobile driving could more directly be challenged by restricting the availability of drivers' licenses. Similarly, the paper earlier noted that while land use planning can mandate the types of housing that are allowed, people can choose to live fewer to a dwelling to give themselves more space, lowering population density. Regulations might be passed requiring that at least five people live in a house, or that for apartments at least two people live there for each bedroom.⁸ Regulations like these could be evaded (Uncle Joe lives here, but he's on vacation), and the point is not to suggest plausible regulations. Rather, because the paper argues that land use planning regulations will be ineffective at attaining the new urbanist goals, it is worth conjecturing what types of regulations could be more effective at achieving them.

Growth Management as Central Planning

The new urbanists want to further their goals through government-mandated growth management policies. The actual process of growth management has many parallels to the central economic planning that took place in the former Soviet Union. New urbanists bristle at such a comparison,⁹ but there are too many similarities to ignore. The new urbanist goals might even be more attainable if the similarities were openly recognized so that they could work to avoid the problems that eventually caused the collapse of so many centrally-planned economies.

The typical process of growth management starts with a state-wide central plan.¹⁰ The state plan has a number of components or goals, such as reducing traffic congestion, preventing urban sprawl, and providing affordable housing. The state-wide goals are implemented through local plans that are designed to further those goals. In Florida, every local government is required by law to have a local comprehensive plan, and each plan is reviewed and either accepted or rejected by the state. Holcombe (1990, 2001) describes Florida's process in more detail, and while the details are worth examining, the parallels to central economic planning come more from the overall structure—the big picture. In Soviet-style central planning, a central economic committee drew up a five-year plan, and then individual plant managers were required to draw up their own plans to be consistent with the national plan. Inconsistencies (for example, not enough steel production planned for the number of planned automobiles) would then be resolved by having the central committee send the individual plans back for revision. The process for land use planning in Florida is exactly like the process of central economic planning in the former Soviet Union.

Critics of this argument first point out that land use planning in Florida is not central; rather, each local government designs its own plan. Yet in the former Soviet Union, each

factory also drew up its own plan. In both cases, plans that were inconsistent with state goals were returned to the local level for redesign. Ultimately, it is the state, through its central plan, that dictates the nature of the resulting plan in both cases.

When looking at growth management in Florida, this fiction of local planning rubs the wrong way for two reasons. First, the state has essentially told the localities what characteristics their plans must have to win state approval, and local governments can suffer financial penalties if their plans are found to be out of conformance. Thus, the local governments must have as their goal designing a plan that corresponds with the mandates of the central plan. There is, of course, some flexibility allowed, but then the Soviet factory manager also had flexibility in making job assignments, requesting capital and other inputs, and designing the production process. Ultimately, however, in both cases the local planners had to design their plans to conform with the state mandates. A local government in Florida could not, for example, decide that while urban sprawl may be undesirable in other parts of the state, in that locality it was a good idea.¹¹ A second reason the argument that local governments are doing the planning rubs the wrong way is that while local governments have had to design their plans to conform with state mandates, the expense of the planning process was borne by the local government. If the state rejects a local plan, redesign is costly in two ways. First, there is the financial burden of going through the process again, and second, there is the political problem of trying to reach agreement. Needless to say, there are many different interest groups with stakes in the outcome of the planning process, and there are political battles fought to produce a plan. Local governments want to avoid going through those battles again, giving them a substantial incentive to look for what the state wants in a plan and producing that, rather than risking having to repeat the process.

The problems of central economic planning are well-known,¹² and it is apparent that the land use planning done by state governments is modeled after Soviet-style central planning, whether intentionally or not. Rather than deny the similarities, it would be more productive for the new urbanists to examine them and try to design a set of policies that will avoid the problems that befell 20th century centrally-planned economies.

Government Planning in a Market-Based Land Use System

A strong argument can be made for leaving the government out of the land use planning process altogether, and allowing private landowners complete freedom to use their land as they want, so long as their land use does not create a nuisance for others. Siegan (1970, 1972) describes land use patterns in Houston, which is the largest American city without zoning, shows that zoning laws have no perceptible impact on land use patterns, and explains why. Holcombe (1995:ch. 5) discusses how market mechanisms work better than government planning for creating optimal land use patterns, and explains why the law of nuisance is superior to zoning for preventing conflicting uses of land. Still, under current institutions, the government must play a crucial role in land use planning, because it owns nearly all the roads. But for optimal land use policy, the government must play a role considerably different from the role recommended by the new urbanists. It should plan more for its own infrastructure development—especially roads—and do less planning about how private landowners can use their land. If government does a good job planning for the location of

transportation corridors, private landowners will be led by market forces to make efficient land use choices.

Throughout history optimal land use patterns have been determined by transportation corridors. For most of history this has meant locating development along navigable waterways, but after about 1850 railroads took over the role of waterways, and development located along rail corridors and especially at intersections of major rail lines. Modes of transportation dictated that people had to live within walking distance of their work, or within walking distance of mass transit that could take them to work. Then around 1950 the primary transportation corridors shifted to roads, and automobiles allowed people much more flexibility in their living arrangements. Different types of land uses naturally segregate themselves in relation to their locations relative to transportation corridors.¹³ Commercial establishments want to locate on busy thoroughfares and at major intersections to increase traffic passing by and to allow convenient access. People would prefer for their residences to be conveniently located to major thoroughfares, but located far enough away that the traffic is not a nuisance. Manufacturing and industrial users will want to be conveniently located to major transportation corridors to make shipping convenient, but will avoid desirable commercial locations because the land costs are higher. Thus, industrial locations will tend to cluster together where they will not create a nuisance to commercial and residential activities. Locations desirable for commercial establishments will not be desirable residential locations, and vice versa.

Without zoning or some other type of land use restrictions, homeowners might be concerned that someone might open a gas station or convenience store next door. This is an unlikely threat in a residential neighborhood, because those commercial activities thrive where there are high traffic levels, and residential neighborhoods tend to have lower traffic levels, making them unattractive locations for commercial establishments. Residential neighborhoods can and do provide themselves extra assurance against nearby nuisances through the use of restrictive covenants, but the larger point is that market forces provide incentives for efficient and non-conflicting patterns of land use regardless of what other types of control are used. People do not want to live directly on busy thoroughfares that are ideal for commercial activity, and retail businesses do not want to locate on roads with little traffic that are ideal for residences. All of this assumes that people know the locations of major transportation corridors before they develop their property.

As an area develops, a quiet residential road could evolve into a major thoroughfare, and then people with houses on that road do face the threat that commercial establishments will want to locate next door. As the environment changes, it may be that the optimal use of a piece of property changes too, from residential to commercial. These problems are often exacerbated by a lack of government planning for transportation corridors, however. In many cases, governments wait until traffic congestion is excessive before building thoroughfares through developed areas to try to relieve some congestion after the fact. Of course people who live nearby object to the new thoroughfare (and often with good reason, because it may cause a nuisance), but from the standpoint of optimal land use planning, the larger problem is that if the location of major thoroughfares is determined after development takes place, it will turn out that after the fact, people would have decided to make different use of their property had they known in advance where major roads would go.

The location of new arterial roadways has a major impact on business and commercial users of land, and often the road location is chosen from several available alternatives. Once a new thoroughfare's location is chosen, nearby residential users would have preferred to live further from the traffic, if they had known ahead of time about the road; meanwhile, commercial users located away from a new thoroughfare will lose business as traffic moves to the new thoroughfare, and had they known, would have preferred to locate near the new road. Thoroughfares located away from commercial establishments will pull business away from those establishments, toward establishments located on the thoroughfare. As traffic shifts toward newly-constructed thoroughfares, businesses on less-traveled roads may fail, creating urban blight. Ideally, commercial development will take place adjacent to the future thoroughfare, and residential development will be far enough away so there will be a buffer against the traffic, but for this to happen, landowners must know where the future thoroughfares will be located. Because government owns the roads, they should plan well ahead and locate thoroughfares before the land is developed, not after. It is cheaper in the long run to do so, and doing so will produce more efficient patterns of land use.

The government's role in optimal land use planning is to acquire the rights of way and build roads well ahead of development, so that landowners can see where their land is relative to the major transportation corridors and develop it accordingly. If this is done, government does not need to concern itself with private land use decisions, because market forces will result in efficient land use patterns. Government does not have to build major highways before development is there to use them; it is sufficient to build a two-lane road where the major thoroughfare will someday go. But it needs to acquire enough right-of-way so that the road can eventually be expanded, and so that interchanges can replace surface-level intersections when the traffic level warrants it. Holcombe (2000, 2001) explains in more detail how government can accomplish these goals. At first, it may appear that government cannot know well ahead of time where roads should go, because it depends on how land use patterns develop, but when one more fully understands how land use decisions are made, it becomes apparent that the location of roads determines the optimal use of land, so roads should be planned ahead to guide land use decisions, rather than reacting to them.

Hayek (1945) talked about the market allowing people to take advantage of the particular circumstances of time and place known only to them. Hayek's idea is as applicable to the allocation of land as it is to any other resource, but in order to make optimal decisions, one piece of information people need is the location of future transportation corridors. If government does not plan ahead for them, people will be forced to guess and may guess wrong. If government plans the road network well ahead of development, then people can react with optimal land use decisions. As it is, government tries to dictate how private landowners can use their property, when those decisions should be left to the market, but does not plan for the development of its own infrastructure. Under current institutions, where government owns most of the roads, government's role in optimal land use planning should be to plan well ahead for their location.

An alternative to current institutions would be to leave the planning and development of roads to the market also. One can imagine how this would work by looking at the development of railroads in the 19th century (even though government had much to say about railroad development too). Through land grants, railroads controlled much land adjacent to

their rail lines, which increased in value due to its proximity to the rail line. Private road developers would have an incentive to build major thoroughfares (probably as toll roads) to connect areas that are already developed, and to extend to new developments. Meanwhile, local road development would probably resemble today's shopping centers and subdivisions, where developers build the roads and allow free access. This is speculation, but the creativity of the market may produce land use patterns and transportation options that are not easily envisioned in today's environment of government-controlled roads.

While one could envision a more pure market system in which the market mechanism was used to produce roads along with other land use decisions, the new urbanism assumes (probably correctly) that government will continue to own the roads, and argues the virtues of land use planning to control urban sprawl. This section shows that the type of land use planning advocated by the new urbanism is not optimal, and that land use patterns will be more efficient when government plans less how private landowners can use their land and plans more for its own future infrastructure development.

Conclusion

The new urbanist movement is concerned about the negative impacts of urban sprawl, and urges "smart growth" policies to control these negative impacts by increasing the population density of development, and by encouraging people to rely less on automobile travel and use alternative modes of transportation. This paper shows (1) that the concerns of the new urbanists are overblown or unfounded, and that sprawl does not generate the negative effects they claim; (2) that market forces work against the new urbanist goals of higher density development and reduced reliance on automobile travel, so those goals are unlikely to be met in any event; (3) that if those new urbanist goals were met, it would lower people's standards of living, not raise them; and (4) that the type of planning urged by the new urbanist movement plans excessively to try to control the decisions of private landowners while planning insufficiently for the development of its own resources.

The fact that market forces work against the new urbanist goals is especially problematic. As incomes rise, people want to buy more living space for themselves, and want to buy more flexible transportation options. This means that market forces push for lower-density development and increasing automobile travel. Even if government could perfectly control the physical characteristics of development, it cannot (yet) control how many people live in each housing unit, giving government planners limited control over population density in even the most optimistic of scenarios. Meanwhile, suboptimal types of housing units get built (if the new urbanist planners are successful), lowering people's standards of living. By pushing resources toward mass transit rather than planning for road networks to accommodate automobile travel, the new urbanist ideas are creating more traffic congestion, more air pollution, and again, lower standards of living. The ultimate lesson is that one cannot ignore market forces when trying to design institutions that improve people's quality of life.

Throughout most of the 20th century, many nations adopted centrally-planned economies to try to allocate resources more efficiently than the market. By the end of the century, it became apparent to everyone that central economic planning is less efficient than market

allocation of resources. While central economic planning has now been discredited, land use planning at the beginning of the 21st century uses the same methods to try to allocate land that central planners of the 20th century tried to use to allocate all resources. The results are similar. The new urbanists claim that their ideas will allocate resources more efficiently, but many reputable economists claimed the same thing about central economic planning up until a few years before the collapse of socialism. Governments are more aggressively involved in central economic planning for land use than any other area, and the new urbanist movement is providing the fundamental ideas through which this planning takes place. These ideas deserve a critical look. In the 20th century, Ludwig von Mises argued that centrally-planned economies were destined to fail, but he attracted few supporters, and only after the collapse of socialism did economists come around to seeing his point of view.¹⁴ In the 21st century, central planning for land use is moving in the same direction, with heavy public support for the new urbanist movement. This calls for a solid economic analysis in response to show how central planning for land use leads to the same counterproductive results that have finally been recognized for central economic planning.

Notes

1. See Putnam (1995) for a frequently-cited argument that sprawl creates social isolation.
2. One runs the risk of creating a caricature when characterizing a movement, and indeed, there is some heterogeneity within the new urbanism. For examples of new urbanist thinking, see Dantzig and Saaty (1973), Calthorpe (1993), Stein (1993) and Katz (1994).
3. Data are from *Statistical Abstract of the United States*, 120th edition (2000), p. 228, Table 382. Data exclude Alaska, and count urban and built-up land as a percentage of total land area for 1997.
4. *Statistical Abstract of the United States*, 120th edition (2000), p. 228, Table 381. This figure is for 1997.
5. This assumes that more intensive agricultural operations do not create more concentrated environmental damage, which is open to debate.
6. These numbers are illustrative, but not directly comparable, as Bruegmann cites the population density for the Lower East Side, while the end of century figure is New York City's population density in 1998, from the *Statistical Abstract of the United States*, 120th edition (2000).
7. The trend of falling population density applies to developed countries. In less developed nations, major cities tend to have increasing population densities as people move there for jobs, but lack transportation options so must live close to work, and cannot afford large living spaces. Population density trends in less developed nations through the end of the 20th century mimic those of developed nations prior to the 20th century.
8. Typically, current regulations go the other way, preventing an excessive number of people from living in a dwelling, or preventing more than two unrelated people from living in a dwelling. But since regulations like this already exist, a perceptive new urbanist could suggest a change that would require a minimum number of residents rather than a maximum. The precedent is already there.
9. This observation comes from the personal experience of having new urbanists become openly hostile when hearing the comparison on more than one occasion.
10. This typical process is descriptive of land use planning in Oregon and Florida: two states that led the way in instituting state-wide growth management, and states that have similar institutions. While the institutions are similar, they have had much more effect in Oregon than in Florida, for reasons that go beyond the scope of this paper (but that would make an interesting topic for study).
11. The sprawl issue has been a critical one in Florida. Holcombe (2001) discusses how sprawl has been defined, identified, and dealt with in Florida.
12. See, for examples, Stiglitz (1994) and Ikeda (1997).
13. See Holcombe (2000, 2001) for further analysis along these lines.
14. See Mises (1981) for his argument in this regard.

References

- Anderson, T. L. and Leal, D. R. (1991) *Free Market Environmentalism*. San Francisco: Pacific Research Institute.
- Anderson, T. L. and Leal, D. R. (1997) *Enviro-Capitalists: Doing Good While Doing Well*. Lanham, MD: Rowman & Littlefield.
- Bruegmann, R. (2001) "Urban Density and Sprawl: An Historic Perspective." In: Holcombe, R. G. and Staley, S. R. (Eds.) *Smarter Growth: Market-Based Strategies for Land-Use Planning in the 21st Century*, pp. 155–177. Westport, CT: Greenwood.
- Calthorpe, P. (1993) *The Next American Metropolis: Ecology, Community, and the American Dream*. New York: Princeton Architectural Press.
- Dantzig, G. B. and Saaty, T. L. (1973) *Compact City: A Plan for a Livable Urban Environment*. San Francisco: W.H. Freeman and Co.
- Green, K. (2001) "Air Quality, Density, and Environmental Regulation." In: Holcombe, R. G. and Staley, S. R. (Eds.) *Smarter Growth: Market-Based Strategies for Land-Use Planning in the 21st Century*, pp. 77–94. Westport, CT: Greenwood.
- Hayek, F. A. (1945) "The Use of Knowledge in Society." *American Economic Review*, 35: 519–530.
- Holcombe, R. G. (1990) "Growth Management in Florida: Lessons for the National Economy." *Cato Journal*, 10: 109–125.
- Holcombe, R. G. (2000) *Land Use Planning for the 21st Century*. Washington, DC: Joint Economic Committee of Congress.
- Holcombe, R. G. "Growth Management in Action: The Case of Florida." In: Holcombe, R. G. and Staley, S. R. (Eds.) *Smarter Growth: Market-Based Strategies for Land-Use Planning in the 21st Century*, pp. 131–154.
- Holcombe, R. G. and Staley, S. R. (2001) *Smarter Growth: Market-Based Strategies for Land-Use Planning in the 21st Century*. Westport, CT: Greenwood.
- Ikeda, S. (1997) *Dynamics of the Mixed Economy: Toward a Theory of Interventionism*. London: Routledge.
- Katz, P. (1994) *The New Urbanism: Toward an Architecture of Community*. New York: McGraw-Hill.
- Mises, L. von. (1981) *Socialism: An Economic and Sociological Analysis*. Indianapolis, IN: Liberty Classics.
- Putnam, R. (1995) "Bowling Alone: America's Declining Social Capital." *Journal of Democracy*, 6: 65–78.
- Siegan, B. H. (1970) "Non-Zoning in Houston." *Journal of Law & Economics*, 13: 71–147.
- Siegan, B. H. (1972) *Land Use Without Zoning*. Lexington, MA: D.C. Heath.
- Staley, S. R. (2000) *The "Vanishing Farmland" Myth and the Smart-Growth Agenda*. Policy Brief No. 12. Los Angeles: Reason Public Policy Institute.
- Stiglitz, J. E. (1994) *Whither Socialism*. Cambridge, MA: MIT Press.
- Stein, J. M. (Ed.) (1993) *Growth Management: The Planning Challenge of the 1990's*. Newbury Park, CA: Sage.