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LOTS AND LAND: Research has shown that smaller lot sizes and denser-building practices helps cut infrastructure costs.

The fiscal impact of sprawl in South Carolina

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In My Own Words

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Sprawl is a hard thing to define, but we know it when we see it: massive expanses of parking lots, highways, subdivisions, strip malls, and office complexes – an insatiable paving machine that swallows up the landscape.

We are well acquainted with this machine in South Carolina, which has the fifth worst sprawl rating in the country and ranks fourth in the amount of land being developed on a per capita basis. Even more remarkable is that South Carolina, one of the smallest states (40th in size), ranks ninth in the country in the total number of acres that are being developed.

The environmental impacts of sprawl – the polluted runoff from paved surfaces, air quality problems caused by more driving, and the loss of ecologically sensitive lands, wildlife habitats, and historic sites – receive (and deserve) widespread attention and are easy to understand. Less obvious is another serious impact – on our pocketbooks. Even if you could not care less about the environment, this issue should be of serious concern to every taxpayer and citizen because sprawl takes a heavy toll on both public treasuries and private bank accounts.

Fiscal impact studies

Government provides a broad range of services to the public, such as roads, water, sewer, schools, and police and fire protection. The extent to which development

patterns affect the cost of providing these services has attracted the interest of researchers across the country. Numerous studies have compared the costs of providing services in two future “growth scenarios” for the area of interest (city, county, region, or state): a

“sprawl scenario” of scattered, low-density development and a “compact scenario” where development is less spread out and has a higher density. Both scenarios assume the same number of new people and the same amount of new development (houses, offices, retail, etc.).

In “The Costs of Alternative Development Patterns,” James Frank synthesized the findings of several studies. “What Frank found was stark. By his calculations, the per-dwelling-unit cost of providing streets, sewers, water systems, storm drainage and schools to new residents varied sharply from \$20,300 (1987 dollars) in the densest, most centralized location to \$92,000 for houses 10 miles from central facilities on 1 dwelling unit-per-four acres ‘estate’ zoning.”

A major study for the State of Florida found that compact growth would reduce road costs by 60 percent and utility costs by 40 percent. Another study determined that compact growth in New Jersey would save the state \$1.79 billion (in 1990 dollars) in infrastructure costs over a 20-year period.

In a study of an 11-county region in

California's Central Valley, the American Farmland Trust found that service and infrastructure costs would be reduced by \$1.1 billion per year (1993 dollars) by increasing average density to six dwelling units per acre and planning where growth will occur. In a study of Loudon County, Va., AFT found that road maintenance costs were more than four and one-half times higher in the least dense development than in the most dense, that water and sewer operating costs were almost three times higher, and that school transportation costs were more than five and one-half times greater.

Another study concluded that compact growth would reduce Rhode Island's infrastructure costs over the next 20 years by about 20 percent. It also determined that compact growth would reduce sprawl-related deficits by \$10.6 million per year in suburban and rural areas and increase the property tax revenues of the state's "core cities" by \$39 million per year.

Sprawl in South Carolina

At least four fiscal impact studies have been done in South Carolina.

In 1994, the Charleston Harbor project included a study of both the fiscal and environmental impacts of two different subdivision designs for a 583-acre tract in Mount Pleasant - a "sprawl design" where the entire tract was developed and a "town design" where half of the tract was maintained as open space. Both designs accommodated the same number of houses.

The study showed that the town design was better for both the environment and for the developer's budget. The sprawl design produced 43 percent more stormwater runoff, 60 percent more chemical pollution, and three times more sediment, and it cost twice as much to build.

A statewide study in 1997 determined that through compact growth, South Carolina would reduce its infrastructure costs for a 20-year period (1995 to 2015) by nearly \$5 billion. In a study of Richland County in 1998, the "compact scenario" redirected 10 percent of future growth for the next 20 years (2000 to 2020) from the rural areas to the urbanized areas of the county. The fiscal savings were as follows:

- \$30.5 million in local road costs (87 fewer lane miles needed)
- \$4.6 million in state road costs (4.1 fewer lane miles)
- \$2.7 million in water capital costs
- \$24 million in sewer capital costs
- \$250 million in land development costs

In addition, the study found that compact growth saved 3,560 acres of prime farmland, 2,000 acres of fragile lands, and 5,500 acres of other lands.

The study concluded:

"One-ninth of all roads to be built need not be built. Nearly one-fifth of all land need not be consumed. Further development in a more southerly direction could mean a 5-percent savings in housing costs and a 9-percent savings in public service costs. These are very significant physical and economic accomplishments by any measure."

A similar study was performed for York County, where it was determined that by

diverting 20 percent of future growth for the next 20 years from rural areas to the urban areas, the county would realize a net savings of \$2.7 million per year in service costs.

Where do we grow from here?

One thing is for certain - South Carolina will continue to grow. The most recent report of the Census Bureau, released at the end of last year, shows that South Carolina is the tenth-fastest growing state in the country. The state's population now exceeds 4.3 million and continues to grow at the mind-boggling rate of more than 140 people per day. In 20 years, there will be another one million people living here.

Where will all these people live, work, and shop? How will they get around? Where will their children go to school?

And how will government pay for providing the services they will need and demand?

These questions collectively pose one of the greatest challenges that South Carolina has faced in its entire history.

Extensive research over the last 30 years has shown that sprawl - the dominant pattern of development in South Carolina and the rest of the country - comes with a heavy price tag. The bottom line is that we "simply can no longer afford it."

Perhaps we could afford it through massive increases in taxes and impact fees, but most elected representatives are loath to even mention the "T word," and impact fees always encounter fierce opposition from developers and home builders.

But the good news is that as the research clearly shows, we do have a choice - we can accommodate population growth in a more compact and efficient form of development that saves enormous amounts of money and land. "Compact growth," as defined in all of the fiscal impact studies, is realistic and feasible, and it is entirely compatible with the "American dream" of home-ownership. It can be achieved by making only modest increases in density and by redirecting only a modest percentage of future developments from rural areas to urban areas. For example, in many studies, the density in the "compact growth scenario" is only about 20 percent more than the sprawl scenario's density. As the study of the Central Valley region in California noted:

Though higher density may be wise from the standpoint of maintaining Central Valley agriculture, we used six dwellings per acre because development at this density would not depart significantly from traditional California-style subdivision patterns. It would consist mostly of single-family, detached housing built somewhat closer together within designated urban growth areas, with superior urban and landscape design making up for smaller average lot size.

A proven cure

There is a proven cure for sprawl, and it is called "smart growth" - the term that is now widely used to describe economically sustainable, environmentally sensitive, and socially equitable patterns of development. Smart growth provides a large toolbox of many measures and policies that can easily make the "compact growth" scenario a reality in South Carolina. They include, >

> among others, the following:

1. Land use regulations that allow communities to determine "what can be built where."

2. Service boundaries, where the government designates those areas where it will provide certain services, notably, roads, water, sewer, and school.

3. Incentive programs, where the government gives developers incentives through expedited permitting, reduced taxes, or "density bonuses" for doing "good things," such as building mixed-use communities, redeveloping abandoned sites, and preserving open space.

4. Affordable housing programs that are aimed at making housing more affordable in the urban areas and thus reduce sprawling development on "cheap land" in the countryside.

5. Parks and open space programs, where the government acquires lands for parks, greenways, and open spaces to be used and enjoyed by the public.

6. Purchase of Development Rights programs, where the government purchases the development rights on certain lands through voluntary legal agreements known as conservation easements.

7. Transfer of Development Rights programs, in which the local government designates areas where growth is not desired ("sending areas") and areas where growth is desired ("receiving areas") and then puts the market to work by allowing developers to purchase development rights in the sending areas and transferring them to, and thereby achieving higher densities in, the receiving areas.

Fortunately, there is increasing interest in smart growth throughout South Carolina. Voters in Charleston and Beaufort counties recently approved tens of millions in funding for green space protection. Anderson County has a program that allows citizens to petition for and then vote on zoning for their communities. After a long and rancorous debate, Richland County approved its "Town and Country Plan" for future growth. Pickens County has adopted a buffer protection ordinance for its three major lakes.

At the state level, Gov. Sanford has made "quality of life" a top priority for his administration. In 2004, the South Carolina Quality Growth Initiative, a broad-based, statewide effort managed by the Urban Land Institute and the South Carolina Real Estate Center of the University of South Carolina, issued its final report, "Growing by Choice or Chance: State Strategies for Quality Growth in South Carolina," which sets forth ten basic principles of quality growth and five recommended actions at the state level.

In places like Atlanta, Los Angeles, Las Vegas, and much of Florida, it is now probably too late. Sprawl is king, and the chances of dethroning it are bleak indeed.

But in South Carolina, there is still time and hope. All of us - elected representatives, agency officials, business leaders, developers, builders, conservationists, and concerned citizens - can work together and achieve a different, better, and less expensive pattern of development for our state.

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