

TRENDS IN DELAWARE'S GROWTH AND SPENDING SUMMARY REPORT

Delaware lost 384,000 acres of farmland between 1950 and 2005¹ — much of it to scattered, low-density development, commonly referred to as sprawl. Today, only 9 percent of the state's population lives in the city of Wilmington, as compared to 35 percent in 1950. Indeed, between 1984 and 2002, new housing units in Delaware consumed more than twice the land as the state's historical average.

Sprawl separates essential uses such as home, work and shopping and results in fragmented open space and an automobile-dependent lifestyle.² It also is expensive, requiring significant capital spending, annual expenditures and bonded debt. For example, per capita the state's capital budget increased by almost 250 percent over the last 20 years — eight times more than the state's population increase and six times more than the increase in total housing units over the same time period.

The impact of sprawl on the loss of farmland, coupled with Delaware's recent growth in population and land consumption, prompted the Delaware Department of Agriculture to ask American Farmland Trust (AFT) to research historic and recent trends in the state's growth and capital spending.

AFT compared Delaware's development patterns and capital spending every 10 years from 1900 to 1970, and for selected years between 1974 and 2002, to identify connections between increasing growth, state spending and land consumption, particularly in the years following World War II. Delaware agencies, such as the Executive Budget Office, the Division of Accounting, the State Archives and the Office of State Planning Coordination provided data for the study.

AFT's analysis focused on population; total housing units; land use and land cover; acres of land consumed per housing unit; state capital spending, including cash expenditures

¹ U.S. Department of Agriculture, National Agricultural Statistics Service. "Delaware Data – Farm Numbers." Available online at http://www.nass.usda.gov:8080/QuickStats/PullData_US.

² Fulton, William, et al. *Who Sprawls Most? How Growth Patterns Differ Across the U.S.* Washington, D.C.: Brookings Institution, 2001.

and bonded debt; and spending for school bus transportation. AFT grouped these into three areas: Population and Housing, Land Use and Land Consumption, and State Spending. This report summarizes those trends and major findings from the research.

Population and Housing

By the end of the 20th century, Delaware had 783,600 residents and 343,072 housing units. The population increase in the 1990s, 117,432, was the second highest in Delaware's history, exceeded only by that of 1950s. In the most recent 20-year period, Delaware's population increased 32 percent, while the total number of housing units increased 39 percent. The increase in housing from 1970 to 2000, 162,839 units, was almost as great as the 180,233 housing units in the state in 1970.

Historic trends show that between 1900 and 1940, Delaware's population increased an average of 10 percent per decade. The rate nearly doubled between 1940 and 1950 to more than 19 percent and had doubled again by 1960 to more than 40 percent. While the population had increased only 23 percent by 1970, in absolute terms the increase was almost as high as that of the 1950s. The population growth rate slowed in the 1970s to 8 percent and in the 1980s to 12 percent. In the 1990s the population increase climbed back up to 18 percent.

Changing Land Use and Consumption

Today, more people are living outside of the city of Wilmington than ever before. In 1920, almost 50 percent of Delaware's population lived in Wilmington; in 2000, the city's population only represented 9 percent of the state's total population.

After World War II, suburbanization accelerated as people moved into new subdivisions on former farm and forest land. Land in farms decreased by 344,000 acres over 50 years, and the number of farms decreased from 8,300 to 2,600. These sprawling patterns created demand for more state-financed infrastructure, such as roads, schools and other capital facilities.

Between 1984 and 2002, 118, 000 acres of land were consumed by 96,000 units of residential housing—a number nearly equal to the acres consumed in the first 300 years

of Delaware's history. Up to 1984, the state's 260,000 housing units had consumed 125,000 acres of "urban" land, of which 105,000 acres were in residential uses.

State Spending

Post-war growth in Delaware caused bonded debt to rise in the 1960s. The total bonded indebtedness of the state, in adjusted 2005 dollars, averaged \$500 per capita between 1910 and 1940. Per capita debt tripled and then doubled over the next two decades, totaling \$3,710 per capita by 1960.

While limits on bonded debt were established in 1991, no limits have been placed on the demand for new state-financed capital facilities. As a result, the state now faces pressure to pay for roads and schools needed to serve new development. On a per capita basis, the state's capital budget increased by almost 250 percent over the last 20 years—eight times more than the state's population increase and six times more than the increase in total housing units over the same time period.

School transportation costs per pupil tripled from 1970 to 2005. Even though the number of students decreased, houses are more scattered and school buses must drive farther to serve residential development. Likewise, between 1982 and 2003, the Daily Vehicle Miles of Travel on the greater Wilmington area road system increased by 80 percent, consistent with the 84 percent increase in residential land over the same period.

Combining the Trends

AFT found a clear connection between sprawl, the loss of farmland and increases in state spending. Over the first 300 years of development in Delaware, 125,000 acres of land were consumed. Then it took only 21 years from 1984 to 2005 to develop the next 125,000 acres.³ These remarkable increases in land consumption are the result of larger average house lots as well as the infrastructure to support them — such as roads and shopping centers. Before 1984, the average new house was built on less than half an acre;

³ Between 1984 and 2002, 118,000 acres of land were consumed while 96,000 units of residential housing were constructed. The remaining residential development of 7,000 acres in the past three years is an estimate.

between 1984 and 2002, the average new house consumed 1.23 acres — nearly three times as much land!

The trends in state spending mirror the increases in land consumption. Over the last 20 years, the state's capital budget tripled, from \$264 to \$916 per person. Since 1970, state spending on school transportation more than tripled, from \$134 to \$449 per pupil. Since 1984, the land consumption rate has tripled, while the capital budget per person has increased at a similar rate.

Some final points should be considered:

- If recent development had continued in the same pattern as before 1984, Delaware would have saved 72,000 acres by 2002, nearly the number of acres it has protected with agricultural conservation easements (79,955).
- Sprawl is expensive, with rising school transportation costs and capital budgets reflecting the high rate of scattered land consumption.
- If past trends are an indicator, the bill is coming due and the costs of recent and current land use sprawl will be paid in the next decade.