



Fiscal Impacts of Different Land Uses

The Pennsylvania Experience

INTRODUCTION

The way land is used in your community affects your taxes and the quality of your life. Land uses influence the size of your local government, the types of services it offers, the types of equipment it must purchase, and the taxes and tax rates it must levy. Land use also affects the number of students in the local school district, the sizes and number of school buildings, the number of teachers, and the taxes and tax rates the school district levies.

These impacts are significant not only because they affect taxpayers and local residents, but because they affect the ability of local government to respond to the needs of its citizens. Identifying the impacts of different land uses will help you recognize what types of land development and uses should be encouraged in your municipality, and what types should be treated cautiously.

POTENTIAL IMPACTS

Land uses can affect the local government's and school district's finances by changing the revenues collected or the amount of public money spent on services. A housing development where many children live, for example, may generate a lot of tax revenue for the municipality while also requiring that the school district operate more classes.

Sorting out the net impact of different land uses requires a consideration of their impacts on both revenues and expenditures.

Impacts on Revenues

The revenues collected through local taxes, such as the real property and realty transfer taxes, depend directly on the land uses in a jurisdiction. High-value uses, like industrial and commercial enterprises or expensive homes, can generate much tax revenue.

Other local taxes depend less directly on land uses but are still affected by them. Revenues from the earned income tax, occupation tax, and per capita tax are heavily influenced by how many people live in the jurisdiction and what their economic status is.

The ways people use land also affect the nontax revenues of municipalities and school districts. These include license

and permit revenues, sewer and public service fees, highway aid, the amount of money school districts receive from the Commonwealth's Equalized Subsidy for Basic Education, and payments in lieu of taxes made by the Commonwealth and federal governments.

Impacts on Expenditures

How much revenue can be raised is only part of the overall fiscal impact of different land uses. The costs of providing local governmental and school district services for different land uses are also important.

Such services can include sewer, water, fire protection, police, refuse collection, streets, libraries, and recreational facilities. School services can include adult enrichment and high school equivalency courses, as well as children's education.

Net Impact

The overall fiscal impact of a land use depends on both its revenue and its expenditure impacts. A land use may generate a lot of revenue for the local government, for example, but if the services it requires cost the municipality and school district even more, it will end up costing the local taxpayers. Only by considering the revenues and expenditures associated with a land type can you identify its overall impact.

THE PENNSYLVANIA EXPERIENCE

The experiences of eleven Pennsylvania townships illustrate the potential fiscal impact of land uses. Among these are three townships from the southcentral part of Pennsylvania: a township with several large agricultural processing firms (Bethel Township, Lebanon County); an agricultural township that increasingly is becoming a bedroom community for Harrisburg (Carroll Township, Perry County); and a rural township with a large commercial area (Straban Township, Adams County).

Studies also were done in two neighboring rural townships in Berks County, both located just north of Reading. Maiden Creek Township has been experiencing residential growth pressures, while neighboring Richmond Township has had a fairly active agricultural zoning program.

Two townships are located just outside Philadelphia, in Bucks County. These are an agricultural township of 4,602 residents that is facing development pressures (Bedminster

Township) and a township of 9,364 residents that already has experienced significant residential development (Buckingham Township). One township is located in Westmoreland County, in western Pennsylvania (Allegheny Township).

Finally, three of the townships, all from Potter County in the northcentral part of Pennsylvania, include a growing township with 581 residents (Sweden Township); the most agricultural township in the county (Bingham Township); and a township with only 66 residents and in which the state owns almost 96 percent of the land (Stewardson Township).

The fiscal impacts of different land uses appear in Table 1. These ratios, which compare revenues to expenditures, were calculated using the townships' and school districts' budgets. Note that homes on farms were considered residential properties in these ratios, and that farm- and open land was just the land itself without buildings.

In these townships, residential land on average contributed less to the local municipality and school district than it required back in expenditures. In Bethel Township, for example, for every dollar in revenue from residential land, \$1.08 was spent on services for that land (see Table 1). In

all the townships, residential land required more from the school district and township government than it contributed. Much of this negative fiscal impact occurred because of school expenses.

By contrast, commercial, industrial, and farm- and open land provided more than they required back in expenditures. In Bethel Township, for example, for every dollar of revenue from commercial land, only \$.07 was spent on services for that land. Commercial, industrial, and farm- and open land contributed more to the local municipality and school district than they took, thus helping to subsidize the needs of residential land.

In other words, residential land generally costs local taxpayers, while commercial, industrial, and farm- and open lands help taxpayers by paying more than they require back in services. These results are consistent with other states' experiences.

The results occur largely because school-related revenues and expenditures far outweigh township government revenues and expenditures. All land uses contribute revenue to the school district, even though all school district expenses are directly related only to residential land. Schools accounted for 84 percent of all local spending in

Table 1. Cost of community service ratios by land use.

Township	Residential ¹	Commercial ²	Industrial ³	Farm and Open Land ⁴	Camps and Forest Land ⁵
<i>Southcentral</i>					
Bethel Township (Lebanon County)	1 : 1.08	1 : 0.07	1 : 0.27	1 : 0.06	—
Carroll Township (Perry County)	1 : 1.03	1 : 0.06	—	1 : 0.02	—
Straban Township (Adams County)	1 : 1.10	1 : 0.17	1 : 0.05	1 : 0.06	—
<i>Southeast</i>					
Bedminster Township (Bucks County)	1 : 1.12	1 : 0.06	1 : 0.04	1 : 0.04	—
Buckingham Township (Bucks County)	1 : 1.04	1 : 0.16	1 : 0.12	1 : 0.08	—
Maiden Creek Township (Berks County)	1 : 1.28	1 : 0.14	1 : 0.07	1 : 0.06	—
Richmond Township (Berks County)	1 : 1.24	1 : 0.11	1 : 0.06	1 : 0.04	—
<i>Northcentral</i>					
Bingham Township (Potter County)	1 : 1.56	1 : 0.26	—	1 : 0.15	1 : 0.15
Stewardson Township (Potter County)	1 : 2.11	1 : 0.37	—	1 : 0.12	1 : 0.31
Sweden Township (Potter County)	1 : 1.38	1 : 0.07	—	1 : 0.07	1 : 0.08
<i>Western</i>					
Allegheny Township (Westmoreland County)	1 : 1.06	1 : 0.15	1 : 0.14	1 : 0.13	—

¹ Residential land: contains dwelling units (single-family houses, apartments, townhouses, mobile homes, etc.)

² Commercial land: used for commercial purposes (typically retailing, such as stores, gas stations, and offices)

³ Industrial land: used for industrial purposes (typically wholesaling and factories)

⁴ Farm and open land: agricultural property with 10 or more acres

⁵ Camps and forest land: forest acreage of 10 acres or more. Any buildings on the property are not year-round residences.

the eleven townships, for example, while the township governments spent the remaining 16 percent. From local taxpayers' perspective, schools have a much greater impact on their taxes.

Note that these estimated fiscal impacts are an average across all land in a community. Residential housing populated by the elderly, for example, will have a much different fiscal impact from similar housing units occupied by families with school-aged children. The mix of local services required by these different populations varies greatly, with subsequent effect on the impacts. If a specific housing development or shopping center were examined, the ratio of revenue to cost may be widely different for that specific parcel of land.

IMPLICATIONS FOR TAXPAYERS

Homeowners benefit from industrial, commercial, and farm- and open land in the local tax base because these other land uses help to subsidize school expenses. This subsidy's relative amount depends, in part, on the composition of the tax base. The more nonresidential land in a municipality's tax base, the more these land uses help to subsidize school expenses, and thus the less homeowners must pay.

IMPLICATIONS FOR GROWTH

These results demonstrate that the types of land uses in a community have implications for taxes and the cost of local government services. The ratios estimated in these townships are not direct measures of the cost of development (because they are based on existing land-use patterns), but they suggest that careful examination be given to proposed land development.

The fiscal impacts of development depend on what type of development is to occur and the ability of existing public services to absorb that development. Different kinds of development have dissimilar effects on local governments, school districts, and taxpayers. Development that increases the tax base without increasing demands for services, such as some white collar research office parks, can have positive impacts. Land development that dramatically increases service demands without significantly increasing the tax base, such as construction of inexpensive three- to four-bedroom townhouses (which typically are purchased by families with school-aged children), can have negative fiscal impacts. Typical impacts of development are illustrated by a hierarchical listing of land uses, arranged by their usual fiscal impacts (see Table 2).

The ability of local governments and school districts to meet new service demands also is critical for how a specific development will affect taxpayers. If existing services can meet new service demands, the fiscal impact will be less than if existing services need to be expanded. If the existing sewage treatment plant has enough surplus capacity to handle waste from a new development, for example, impacts will be very different than if the treatment plant already is at capacity and needs to be expanded. This "surplus capacity" can involve classroom space, roads,

police, water treatment, parks, and road maintenance, among other services.

Land uses do matter, so it is important to think carefully when development is proposed in a community. Particular attention should be paid to how the development will affect local services, and how well those existing services can accommodate new service demands.

IMPLICATIONS FOR DECLINE

When a community's major industry (such as the town steel mill) closes owing to economic difficulties, the assessed value of that property can decrease, reducing tax revenues. Water and sewer fee revenues can also decline drastically, making it difficult to operate the local systems without increasing usage fees for homes and businesses.

Because industrial and commercial land types in general help to subsidize homeowners, the loss of their revenue can be especially damaging. The school district and municipality may be forced to choose between cutting services or

Table 2. Hierarchy of land uses and typical fiscal impacts.

Land use	Fiscal impact on:	
	Municipality	School district
Research office parks	+	+
Office parks	+	+
Industrial development	+	+
High-rise/garden apartments (studio/1 bedroom)	+	+
Age-restricted housing	+	+
Garden condos (1-2 bedrooms)	+	+
Open space lands	+	+
Retail facilities	-	+
Townhouses (2-3 bedrooms)	-	+
Expensive single-family homes (3-4 bedrooms)	-	+
Townhouses (3-4 bedrooms)	-	-
Inexpensive single-family homes (3-4 bedrooms)	-	-
Garden apartments (3+ bedrooms)	-	-
Mobile homes	-	-

Note: This is a general listing and may not apply accurately to any one specific development. The fiscal impacts must always be viewed in the context of the specific community, existing surplus capacity of local services, and other development occurring in the jurisdiction. Source: Burchell and Listokin, 1993.

raising tax rates to make up for the lost revenue. If a school district or municipality relies too heavily on a large commercial or industrial property to fund local services, it leaves itself vulnerable to these kinds of shocks.

IMPLICATIONS FOR MUNICIPAL COOPERATION
The influence of school revenues and expenses on the fiscal impacts of different land uses has an important implication for how neighboring boroughs, townships, and cities cooperate. Land uses throughout a school district affect all taxpayers living in the school district, not just taxpayers in the host municipality. Intensive residential land uses in a neighboring municipality will affect your school taxes as much as if those land uses were within your own municipality, if that neighboring community is located within your school district. Commercial, industrial, and agricultural land uses in neighboring municipalities similarly can help benefit school tax bills in your own municipality.

These effects illustrate the benefits of cooperation among neighboring municipalities. What happens in a neighboring municipality influences what happens in your own. It makes sense for municipal officials and planning commissions at least to communicate among themselves so they can be aware of what is occurring in neighboring municipalities. Cooperation between municipalities can ease coordination of planning activities and provide better control over what happens within the region.

IMPLICATIONS FOR FARMLAND PRESERVATION
Some residents may not appreciate the smells, sounds, or other inconveniences of living near farms, but these things are reminders that all residents benefit from farm- and open land. The property tax revenue from these lands helps to keep residents' taxes low. Farm- and open lands in the eleven townships, for example, provided \$1,853,590 to their school districts. This is above and beyond the property taxes farmers paid on their buildings and homes.

When farmland is converted for residential purposes, these benefits are lost. If the number of children living in the new houses requires that the school district hire new teachers or build new schools, or that the local government increase service expenditures (for roads, sewers, water systems, etc.), the impacts of farmland loss can be especially

dramatic. The land will be converted from a net contributor to the municipality and school district into a net drain.

Some farmland protection programs, such as Act 319 (also known as "Clean and Green"), reduce the amount of real estate tax paid by farmers. This lessens the revenue that farmland contributes to the school district and municipality. The results in Straban Township, which had land enrolled in Act 319, demonstrate that even when these programs are in use in a township, farmland still contributes more than it requires. Even with preferential assessments, farmland ends up subsidizing the educational costs of residential land and plays a positive economic role in the community.

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