

Preferential Assessment for Open Space

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Abstract

Land with little or limited development, often referred to as open space, can provide environmental and amenity benefits to society. Twenty-three states offer an incentive to keep land open in the form of preferential assessment, which reduces property taxes on qualifying parcels. This reduction in revenue is a form of property tax expenditure. The programs vary in many ways, including the amount of expenditure, the conditions needed to qualify, and the penalty for developing the land after receiving the preferential assessment. This review examines some of these differences, and argues that while the tax expenditure is relatively easy to justify on equity grounds, the efficiency of the programs is difficult to assess. A set of calculations using data from Georgia finds that the tax expenditure ranges between 0.003% and 0.2% of the tax levy for different taxing districts.

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Preferential Assessment for Open Space

Introduction

Land can generate a variety of benefits to society without being intensely developed for industrial, commercial, agricultural or residential use. Such areas are often referred to as open space, and under certain circumstances can provide use, existence, and amenity values to the public.¹ Neighbors may enjoy the view of a forest or field; downstream residents may benefit from watershed protection; regional residents may value the preservation of at least some of the rural character that attracted new residents there originally.

A variety of public programs at the federal and state level create incentives for landowners to keep open space in an undeveloped condition. In particular, twenty-three states have authorized property tax expenditures in the form of preferential assessment programs for open space that create incentives for landowners to keep open space undeveloped. The programs vary widely across many characteristics, including the type of property eligible for the program, the method used to determine the expenditure for a specific parcel, restrictions landowners face while enrolled in the program, and other ways. Most state programs have striking differences from each other. It might be a slight exaggeration to say that no two are alike, but it is a reasonable approximation of the truth.

This paper discusses the ways in which these programs vary and provides examples of how the tax expenditure is used. It describes the potential benefits from such a program, and provides a sample calculation to determine the cost of the tax expenditure. Finally, it examines data from the state of Georgia to show the effect of the tax expenditure on tax liabilities.

Property Tax Expenditures for Open Space Preservation

Preferential assessment programs for open space must define the type, size, and uses allowed for qualified parcels; how parcels are certified for inclusion; the method or methods used to determine the assessed value; and the length of term for enrollment and penalties, if any, for removing a parcel from preferential status. Several states offer more than one program, each with differing requirements that must be met in order to qualify for preferential assessment. This section discusses the general form of provisions used to determine the requirements for qualification and provides examples.

Eligibility for Property Tax Expenditure

Open space is typically defined as land that is undeveloped or lightly developed. States offering tax expenditures that result in tax reductions for owners of these parcels have defined eligibility in many different ways. A first step is defining the physical characteristics of land that must exist

¹ Open space for the purposes of this paper refers to undeveloped land which is not used for agriculture or commercial forestry. States typically have separate preferential assessment programs for parcels in those uses.

in order to be eligible for the program. At one extreme, a parcel might qualify simply by being undeveloped; the language used in this case might refer to land “in its natural state”, “predominately in a natural, scenic, open or wooded condition”, or “unimproved” as possible expectations. There may also be more certain types of what might be considered development that are allowed, in addition to prior agricultural use; for example, several states allow land that has been landscaped to qualify, as long as the building density doesn’t exceed requirements.

The physical requirements may be defined in more detail in one or more ways, though the requirements usually remain relatively easy to meet. For example, Washington allows land to qualify as open space if it meets at least one of eleven very general requirements, including the protection of streams or water supplies, conservation or enhancement of natural or scenic resources, preservation of visual quality along roads, or enhancement of recreational opportunities (Washington State Department of Revenue 2011). States also frequently identify land with wildlife habitat as a priority. The existence of any of a broad set of possible criteria is usually enough to qualify a parcel for consideration.

The Open Space Valuations program, one of three preferential assessment programs available for undeveloped land in Illinois, provides a good example of the broad language that is frequently used to describe the criteria for eligibility:

- Land is considered used for open space purposes if it:
- (a) is actually and exclusively used for maintaining or enhancing natural or scenic resources,
 - (b) protects air or streams or water supplies,
 - (c) promotes conservation of soil, wetlands, beaches, or marshes, including ground cover or planted perennial grasses, trees and shrubs and other natural perennial growth, and including any body of water, whether man-made or natural,
 - (d) conserves landscaped acres, such as public or private golf courses,
 - (e) enhances the value to the public of abutting or neighboring parks, forests, wildlife preserves, nature reservations, sanctuaries, or other open spaces, or
 - (f) preserves historic sites. (Illinois General Assembly 2012)

While these criteria as listed are very general, states have other ways to limit access to the program. Vermont requires that property enrolled in its Conservation Land program be owned and managed by a qualified conservation organization (Significant Features of the Property Tax 2012).² Some states require that landowners have a property management plan approved by a relevant state agency, often the department tasked with protecting natural resources. This plan might specify habitat restoration or protection techniques that will be used on the property, perhaps with additional expectations about particular improvements intended to benefit local wildlife. Idaho requires that property either be owned by a qualified organization, or that the landowner signs a conservation agreement with such an organization. That agreement must provide detailed information about the wildlife species that will benefit and the management activities that will be undertaken to protect those species, as well as to prevent the spread of noxious weeds on the property (State of Idaho Legislature 2012).

² The great majority of specific details about preferential assessment programs reported here are available from this database. Future citations will only refer to information found elsewhere.

Another Illinois program, the Conservation Stewardship Program, offers preferential assessment to landowners who submit a management plan for conservation which has been approved by the Illinois Department of Natural Resources. Maryland will accept parcels into their program if they consist of woodlands that have an approved management plan. One of two Texas programs not only requires that the land provide habitat for wild animals, but also requires wildlife management, defined as:

- [A]ctively using land... in at least three of the following ways to propagate a sustaining breeding, migrating, or wintering population of indigenous wild animals for human use, including food, medicine, or recreation:
 - A. habitat control;
 - B. erosion control;
 - C. predator control;
 - D. providing supplemental supplies of water;
 - E. providing supplemental supplies of food;
 - F. providing shelters; and
 - G. making census counts to determine population. (Texas Comptroller of Public Accounts 2007)

Another way to qualify property for the property tax expenditure is through some other kind of previously-completed federal process. Parcels restricted by a conservation easement that meets the IRS requirements for a charitable donation automatically qualify for preferential assessment in several states, including Illinois and Oregon. Ohio will only qualify parcels that are under contract to one of four USDA programs (Conservation Reserve Program, Conservation Reserve Enhancement Program, Wetlands Reserve Program, and Grassland Preserve Program).

Parcels may also be required to meet certain minimum size requirements; the most common minimum is ten contiguous acres, though other programs allow properties as small as two acres to qualify and several have no stated requirements. A few states limit the total acreage that any individual landowner may enroll. For example, Tennessee limits eligibility to 1,500 acres per owner per county, including agricultural, forest land, and open space land combined (Chervin, Gibson, and Green 2009, 8). The stated use of the property may influence its acceptability; several states specifically prevent commercial property, including golf courses, from taking eligibility for the program, while at least two states have programs specifically designed for commercial properties that provide outdoor recreational opportunities, including golf courses.

Finally, states frequently leave the determination of criteria in the hands of local or county government officials, by authorizing a program and requiring only that parcels be “included within a plan for preservation approved by state or local planning agencies” (Chervin, Gibson, and Green 2009, 8), for example, or requiring that the appropriate governing body accepts the property via resolution. It is then up to local or county officials to choose the criteria for qualification, and in some cases to determine whether a specific parcel qualifies for inclusion. States with this requirement include California, Connecticut, Florida, Nevada, Oregon (for cases where the land is not automatically eligible because of a federal conservation easement), and Tennessee. In other cases the assessor’s office is charged with determining the eligibility, based

on the characteristics of the property and the assessor's judgment that the state criteria have been met.

Program Administration

The open space preferential assessment programs typically use one of three methods for determining the value of the tax expenditure. The income capitalization method that is traditionally used for agricultural properties is not directly relevant for open space, since the properties enrolled in these programs seldom generate any use-specific income for the property owner. Nine of the states discussed here instruct the assessor to value the property considering only its current use, not including the value of development rights. This is sometimes presented as requiring valuation equivalent to the market value of the property as if its future use were permanently restricted to its current use. There are occasionally rules limiting the growth rate of these "use values" in subsequent years. Assessors are typically not given guidance on how to determine appropriate use values in cases where comparables do not exist, other than in Maine.

Another nine states value the property that qualifies as open space as if it were enrolled in the state's agricultural or forestry program, despite it being used for neither activity. In these cases soil conditions and typical yields for the area are used in combination with commodity prices to determine an appropriate value based on the income capitalization technique used for land in agricultural use, even though that value is not relevant to the property's current use. This could also be considered use value, though it is based on a use other than the one currently in place on the property. Four states instruct the assessor to determine the fair market value as if it were ordinary property, and then apply a statutory formula to determine the preferential assessed value. Illinois has three programs for preferential assessment of open space, which vary by the criteria for eligibility; all offer statutory reductions that range between 75% and 85%. Nevada applies a lower statutory reduction of 26%.

States occasionally choose to define maximum or minimum values per acre for open space parcels; these can be defined in actual dollars, or in comparison to the value applied to farmland. For example, Maryland set a statewide value of \$187.50 per acre for 2009. Washington allows local governments to determine a use value for their region, depending on a public benefit rating system; if no such system exists, open space land may receive an assessment no lower than the lowest agricultural valuation in the county (Washington State Department of Revenue 2011). Massachusetts specifies that the preferential value be calculated as use value, but is not to exceed 25% of fair market value.

Programs are most frequently annual, usually with automatic renewal unless the landowner chooses to withdraw from the program. In some cases there is a predetermined length of contract, most frequently ten years, which generally carries forward upon the sale of the property unless the new property owner alters the use in such a way as to disqualify the property from the terms of the program. Landowners who withdraw from the program in order to alter land use, or who alter the land use without notification and are removed from the program, are generally required to pay a penalty. Such penalties tend to be equal to the value of the tax expenditure received for a specified number of years prior to the current year, and interest on that expenditure; in effect, the program is deferring rather than reducing taxes, at least under some

circumstances. In states that have use value assessment, this requires that assessors carry both the use value and the fair market value in order to determine penalties, if necessary. Several states require a payment of ten percent (or more) of the fair market value when the use of the parcel changes, or in some cases charge a conveyance or transfer tax when a parcel in the program is sold.

Penalties occasionally are reduced or even eliminated when parcels are withdrawn from the program after having been enrolled for a minimum number of years. For example, Rhode Island requires a penalty of 10% of the new fair market value if a property is removed from the program during the first six years after enrolling. That penalty declines until the sixteenth year after enrollment, after which there is no penalty. Vermont charges a penalty of 20% of fair market value if the property is withdrawn in the first ten years, and 10% of fair market value if withdrawn after more than ten years.

Table 1 lists the twenty-three states that have programs designed to offer tax expenditures to owners of open space.³ The variation in program focus mentioned previously is evidenced by the different program names, as is the tendency for states to adapt previously-existing agricultural tax expenditure programs for this purpose.

Benefits, Costs, and Distributional Consequences of the Property Tax Expenditure

Open space provides a wide variety of social benefits beyond what the owner of the parcel receives. These include environmental benefits, amenity benefits, and reduced growth in the demand for municipally-provided services. The protection of these benefits is the usual justification for property tax expenditures for open space. The programs have distributional effects that are complicated by the difficulties faced in trying to calculate the value of these benefits.

Benefits of Open Space Preservation

There is a substantial literature discussing the potential environmental benefits of open space. These benefits may include the preservation of scenic views from particular neighborhoods or roadways; access to outdoor recreation and educational opportunities; and ecosystem services such as flood control, protection of air and water quality, and carbon sequestration.⁴ Biologists frequently point to private lands as an important and to a large degree neglected opportunity to protect biodiversity through the development and enhancement of natural habitats important for wildlife, especially when that open space is adjacent to large preserved areas. Small, privately-

³ Table 1 does not include four states that only support tax expenditures for open space if it is directly related to agricultural or forestry purposes. For example, Iowa only offers preferential assessment for undeveloped land if it is “wasteland” within a farm. There are also tax exemptions targeted for certain types of land use that might not be considered open space by some analysts. Oklahoma offers preferential assessment for buffer strips that are used as conservation practices in an agricultural setting. The table includes two programs (Minnesota (a) and Virginia) that specifically cater to open space in commercial use.

⁴ Irwin (2002) provides one of many good discussions on the topic.

owned parcels can also provide critical corridors between larger habitats, increasing the chances of genetic exchange (Merenlender, et al. 2004; Rissman, et al. 2007 ; Shaffer, Scott, and Casey 2002). In addition to protecting existing benefits, some programs actually improve the provision of certain benefits by requiring management plans, offering incentives for habitat restoration, or in other ways.

The language used in the legislation and description of many of the programs indicates that states use these environmental benefits as an economic justification for the preferential assessment. For example, the California Department of Conservation describes the purposes behind the open space provisions of the Williamson Act as:

The preservation of land for open space encompasses merits that are less tangible than the significance of agricultural land as an economic resource. Open space lands, which include California's oak savanna, offer immeasurable scenic and recreational values. Perhaps just as important, open space lands form portions of upland watersheds whose protection from unnecessary subdivision and development is important to water and stream quality, wildlife habitat, downstream flood management, and provision of buffers between agricultural and other uses. The benefits of the Land Conservation Act in protecting open space land are of considerable significance, and not necessarily less than the benefits of protecting prime lands. (State of California Department of Conservation 2012)

The benefits captured will depend in part on the eligibility criteria for the program, especially the extent to which they are broadly or narrowly defined, as discussed earlier. However, a single parcel may jointly produce several or more environmental benefits, so the value of protection depends not just on what makes a parcel eligible, but what the associated values are. A parcel that provides a scenic view could also result in watershed protection, improved air quality, wildlife habitat, and recreational access, depending on its circumstances. The potential benefits predicted by the literature will also depend on the specific criteria of the program. Requiring a conservation plan approved by a state agency, or requiring local control that evaluates each parcel according a comprehensive conservation plan, rather than simply enrolling any property that meets a single criterion, might more likely result in the expenditures going to these high-value parcels that provide multiple benefits.

Determining the value of these benefits is very difficult in the case of ecosystem services such as clean air or water, or conservation values such as wildlife habitat. The benefits to neighbors are potentially easier to estimate. There is a large literature discussing the impact of environmental amenities on surrounding property values, and it is plausible that preventing or at least delaying development on a parcel will result in higher values for neighboring parcels. However, the studies find quite a few complicating factors that make it difficult to predict changes in value. The type of amenity, distance from it, amount of other open space provided, building density, and local income are just a few of the variables that influence the degree to which open space might affect property values.⁵

⁵ Anderson and West (2006), Bark-Hodgins and Colby (2006), Irwin (2002), and McConnell and Walls (2005) provide excellent examples and discussions of the valuation of open space and other environmental amenities.

The following findings provide a sample of the complications that arise when trying to assess the impact of open space on nearby property values. One study finds that open space programs (in this case primarily affecting agricultural land) have very different effects on the value of property in three different counties in Maryland, probably due at least in part to variations in the amount of open space present (Geoghegan, Lynch, and Bucholtz 2003). Numerous studies indicate that the value of open space for individual homeowners declines with distance from the protected parcel (Chamblee, et al. 2011). Type of habitat or green space, rather than just its existence, is also likely to be important; one analysis finds that the presence of broadleaved trees in a neighborhood is associated with positive values, but the presence of spruce trees has a negative effect on property values (Garrod and Willis 1992). An analysis of home prices in Tucson, Arizona finds a preference for homes in areas with green space including native riparian habitat (Bark, et al. 2009; 2011).

Combining these findings suggests that state control of the criteria for program enrollment is appropriate if the goal is to protect ecosystem services such as watershed protection, or wildlife habitat for endangered species. The wide variation in local conditions indicates that if the goal is to provide public benefits to a particular municipality or county, allowing the smaller governmental unit to determine the appropriate criteria for enrollment should encourage protection of the most appropriate parcels for the area.

Public access to privately-owned open space for recreation or educational purposes would likely provide substantial benefits in many cases; however, states almost never require public access as a condition for the tax expenditure. The literature frequently emphasizes that there is no requirement whatsoever for public access, in order to reassure homeowners who do not want public use of their property. The only typical exception is in the case of parcels specifically intended for recreation, such as golf courses. Maine and New Hampshire both encourage public access by offering an additional reduction in assessed value of 25% and 20%, respectively, for property owners who agree to allow such access.

Another reason sometimes given for local support for open space protection is that residents hope to avoid future development in their area because of the negative externalities additional development may create under some circumstances, such as heavier traffic or overcrowded schools. A growing literature on cost of community services indicates that the property taxes paid on developed land are often insufficient to cover the cost of services created to support that development, while open space frequently generates tax revenues well in excess of the cost of the services expended on the property. The American Farmland Trust reports results from 151 studies, covering counties and municipalities in twenty-five states, which reports revenue-to-expenditure ratios for residential property below 1.0, and frequently below 0.8, whereas ratios for working and open land are well above 1.0 and frequently above 2.0 (Farmland Information Center 2010).

Two common ways to evaluate tax policies are equity and efficiency. In these circumstances, there are both equity and efficiency reasons to suggest that open space should face a reduced property tax liability. Equity refers to some version of fairness; one type of equity requires that a property owner's tax liability be proportional to the cost of services provided to that property owner. Additional development in an area is likely to impose a heavier tax liability on current

residents, offering a justification for property tax reductions unless impact fees are significant enough to cover the additional costs of new development beyond expected tax collections. Even without additional development, equity would argue to reduce the tax liability on owners of open space and impose a greater fraction of it on owners of developed land who are likely to be consuming a higher fraction of provided services. Equity could be improved with a simple annual reduction in assessed value to compensate for the reduced cost of services used.

Efficiency requires that the tax expenditure create a new benefit (or ensure the future provision of a current benefit), rather than simply compensate property owners for benefits already provided. The significant penalty for conversion of use, usually requiring the repayment of several years' worth of tax savings plus interest, suggests that the larger goal is not to reduce the tax burden in a given year out of concerns about fairness, but is to provide a long-term incentive to keep the property in its current use because of efficiency concerns regarding the provision of public benefits. Irwin (2002) found support for this argument using a very different approach; the results indicate that the public demand for preserving open space is based on a desire to prevent development rather than a desire to preserve specific benefits provided by open space. Any evaluation of the efficiency of a program requires understanding the extent to which the program has prevented, or at least delayed, future development, not simply a calculation of the number of acres enrolled at a point in time.⁶

Unfortunately, there is very little literature evaluating the effectiveness of these programs in preventing future development on these parcels.⁷ Much of what evidence does exist is based on studies of farmland protection programs rather than evaluating the impact of property tax expenditures on open space. Two studies of Tennessee's Greenbelt Program evaluated a survey of woodland owners enrolled in the program, and found little support for the hypothesis that preferential assessment reduced the likelihood of development on these parcels (Brockett, Gottfried, and Evans 2003; Williams, et al. 2004).

The easiest cases to evaluate are those in which land receives long-term or permanent protection, either by the creation of a perpetual conservation easement or through a long-term contract with substantial penalties for withdrawal. In those cases the continued presence of open space may be predicted with some reliability. However, in many cases the existence of such agreements need not have been influenced by the property tax expenditure or may have even come into existence before the creation of the tax expenditure, resulting in a transfer of wealth that creates no additional benefit (though it may increase equity).

The creation and donation of conservation easements in particular have some significant tax incentives in addition to any kind of preferential assessment. The existence of permanent restrictions on the development of property should be expected to have at least some negative effect on fair market value, as long as the property would have any potential for future development and absent state laws requiring assessors to ignore the effect of easement

⁶ A program need not be measured purely by the number of acres enrolled; even small parcels can offer large benefits in some cases. Simpson (2002) offers the case of small parcels that provide important pieces of habitat or links to larger habitats as one possible example.

⁷ Malme (1993) suggested that based on the little available evidence at the time, the net reduction in development was likely to be small.

restrictions on property values.⁸ This will result in a reduction of property taxes absent any targeted tax expenditure program. In many cases, the presence of protected properties may be uncorrelated with the existence of such a program.

Costs of Preferential Assessment for Open Space

There are several potential costs to consider from these programs, in addition to the tax expenditure itself. Enforcing the program requires not just evaluating changes in the market value of the property but also the type of use. A particular new use might be consistent with leaving the property in an undeveloped condition, but still result in a reduction in the environmental benefits.⁹ Enforcement costs will be particularly challenging for programs that require an approved conservation plan; while such a plan could be developed and approved by a state agency, ensuring that conditions of the plan are met will be costly.¹⁰

Evidence suggests that open space preservation can shift development patterns, typically by resulting in the development of nearby properties (Irwin and Bockstael 2004; McDonald, et al. 2007). If preferential assessment prevents development on particular parcels, that development may shift to other parcels in ways that increase sprawl.¹¹ If a leapfrog pattern of development were to occur because of a program that prevented development on a parcel-by-parcel basis the negative effects could overwhelm any public benefits from the program, at least in theory. A worst-case scenario is that the voluntary nature of these programs and resulting changes in development patterns might result in lower-quality parcels receiving the preferential assessment, increasing development pressure on parcels that actually generate more public benefits. The inclusion of local government approval might reduce this problem, or it might simply result in an area trying to create buffers that push development farther away. It is also important to mention that preferences given to open space to some degree create a split-rate system with a higher rate on developed land and particularly on the improvements to land, an issue that concerns many property tax scholars and one that may also have significant effects on land use.

There are also potential efficiency concerns created by the methods used for determining the amount of property tax expenditure on a particular parcel, since the value of the benefits are not compared to the tax expenditure cost as a condition of enrollment. This is partly because the challenges of estimating a monetary value for the benefits provided by open space makes it extremely difficult to determine the actual public benefit created. It is also a function of the way the tax expenditure is currently determined. The reduction in market value due to the forgone

⁸ For a full discussion of the possible tax incentives for the creation and donation of conservation easements, see Sundberg (2012) and Sundberg and Dye (2006).

⁹ For example, a property might become overrun with invasive plant species that not only degrade the quality of the habitat but also quickly spread to other parcels. Idaho is the only state that requires a plan to prevent the spread of noxious weeds; other states would benefit from considering similar requirements, though they would still need to be enforced.

¹⁰ The author might be biased by living in Illinois, a state that requires the Department of Natural Resources to approve and monitor these plans; the number of properties with these plans is rising as the number of DNR personnel is falling due to budget cuts.

¹¹ Wu and Plantinga (2003) present a model determining conditions under which preserving open space is likely to create sprawl. Lichtenberg and Hardie (2007) raise this possibility, but do not find evidence of the effect in their study.

option of development is not necessarily related to the amount of public benefit created when the parcel remains in its current use; for example, wetlands may provide significant public benefits, but have very low development value, resulting in less potential tax savings for the property owner, and a lower incentive to enroll in the program. Ideally, tax expenditures would go to prevent development on the parcels providing the greatest public benefit. Absent strict language in the regulations, properties with high market values are likely to receive much higher tax expenditures than properties with low market values, regardless of the relative amount of public benefit being protected by each.

Finally, the value of the public benefits is not static; it may increase or decrease depending on the condition of the property and the surrounding area, and the changes may be uncorrelated, or even negatively correlated, with future changes in assessed value. For example, more intense development pressure might increase the benefit of preserving a large parcel as open space, or might decrease the benefit from preserving a small “island” parcel. Both, however, are likely to see increased tax savings from preferential assessment as that pressure drives up local property values.

These factors indicate that while preferential assessment does offer landowners an incentive to preserve public benefits, the amount of the incentive may under-correct or even over-correct for the benefit being created. This will result in a program with an inherent lack of efficiency, though such programs may still result in significant net benefits compared to having no program at all.

Distributional Consequences

Property tax expenditures to prevent or delay development of open space will have distributional consequences. The immediate effect will be a revenue loss that requires a cutback in services, or a redistribution of tax burden onto other property owners in the same tax districts as governments change the mill rate in order to maintain the budgeted amount of revenue. Owners of developed properties will now constitute a larger share of the tax base, and will need to pay a greater fraction of the total tax bill as a result. The increment to their share is positively correlated to the percentage reduction in the assessed value of open space, and to the fraction of land in the relevant area that receives the preferential assessment.

Since the programs are primarily intended to maintain existing open space, the benefits generated by the enrolled parcels continue to exist, but do not necessarily increase. Thus the public benefits should be expected to continue to accrue as before. Residents alone will benefit from scenic views and the foregone external costs of development, while residents and nonresidents alike may benefit from protecting watersheds or habitat for endangered species (Anderson and West 2006). Further, benefits may be expected to increase if the program requires some sort of activity to improve the value of the open space, such as habitat restoration.

A complicating factor is the potential improvement in the value of neighboring parcels, if enrollment in the program is expected to prevent or significantly delay the development of those parcels and thereby increase the present value of the future stream of benefits to owners of nearby property. If surrounding property values rise because of the program, and assessments

keep pace, the tax rate may grow more slowly or even fall, with the burden placed on those properties whose values have increased the most. King and Anderson (2004) examined the impact of new conservation easements on tax collections in Vermont and found that there was no change in property tax rates in the first year, an increase in the second year, and declining rates in subsequent years, sometimes to levels below those in place before the easements were created. The authors concluded that permanent protection of open space through easements resulted in higher property values on surrounding parcels that more than offset the reduction in values on properties encumbered by easements; the higher total property values resulted in lower tax rates in some cases because of the net growth in tax base.

Several studies indicate that the property valuation effects of open space depend critically on the type of protection and its ability to prevent development in the future; for example, land acquired as a park or forest preserve, or land placed under a conservation easement, has a much more positive effect on neighboring property values than open space that is not permanently protected (Geoghegan 2002). Enrollment in the program might have little or no effect on surrounding property values if the protection is perceived to be temporary, resulting in either permanent reductions in revenue or permanently higher tax rates on the non-enrolled parcels.¹²

California has used general fund revenues to partially replace the foregone property tax revenues since 1972, distributing a fraction of the costs of the program across the entire state and reducing the share of costs borne locally. However, California's program was effectively suspended for budget year 2009–10, by reducing the amount of subvention funds to \$1,000 (a token amount to be allocated across the entire state due to a severe budget shortfall). That amount was increased to \$10 million for 2010–11, which is just over one-quarter of the historic budget average since 1972.¹³

Calculating the Cost of Preferential Assessment Expenditures

The methodology for calculating the tax expenditure resulting from the preferential assessment of open space is straightforward. The property owner will see a reduced tax burden based on the difference between the assessment without the program and the preferential assessment. This reduction in assessed value can result in a loss in tax revenue due to a reduced base. Alternatively, the lost revenue could be recouped by shifting the burden onto other property owners by increasing the tax rate. A combination of both outcomes is also possible. For example, Oregon reports both the loss and the shift in their tax expenditure report, as shown in Table 2. The report listed exemption values of \$126 million in fiscal year 2009–10 for the three open space programs. The estimated revenue loss over two fiscal years is \$3.2 million, while the estimated revenue shift during that period is \$0.7 million.

Data availability presents a major challenge when attempting to estimate the revenue effects. The aggregate data presented for Oregon is much more useful than what many other states present.

¹² This statement may not be true if future development results in a need to increase additional property tax revenues from existing residents; in that case, taxes would be higher with or without the preferential assessment program.

¹³ State of California Department of Conservation (2012). These figures include subventions for farmland programs, which appear to constitute the large majority of the total acres included in the program.

States which do not calculate property tax expenditures frequently do not make such data available; at best they usually offer aggregate figures that combine the agricultural, forestry, and open space programs. Table 2 also indicates the relative scope of open space in that context. The exemption values for private forestry were over \$5 billion, and the exemption values for farmland and farm home sites were \$14.1 billion. The three conservation programs combined represent approximately one-half of one percent of the total exemption value, and less than one percent of the revenue lost or shifted.

Making such calculations also depends on other effects which may be very difficult to observe. It will be impossible to determine the extent to which revenue was shifted, without detailed information about local government's ability to respond by changing the mill rate. In that case, the estimate will only be of revenue foregone. It will also be necessary to ignore the possible existence of positive property value effects of the program on neighboring parcels.

Case Study: Georgia's Conservation Use Assessment Program

Georgia landowners have an opportunity to apply for conservation use assessment for agricultural, timber, and environmentally sensitive land. Qualification for the environmentally sensitive land program requires meeting at least one of several possible criteria. The criteria are:

- crests, summits, and ridge tops;
- wetland areas as determined by the United States Army Corps of Engineers in accordance with Section 404 of the federal Clean Water Act, as amended, or wetlands that are shown as such on maps compiled by the Department of Natural Resources of the United States Fish and Wildlife Service;
- significant ground-water recharge areas shown as such on maps or data compiled by the Department of Natural Resources;
- undeveloped barrier islands or portions of undeveloped barrier islands as provided for in the federal Coastal Barrier Resources Act, as amended;
- habitats certified by the Department of Natural Resources that contain endangered or threatened species as listed under the federal Endangered Species Act of 1973, as amended; and
- river corridors that are within the 100 year flood plain as shown on official maps prepared by the Federal Emergency Management Agency. (Georgia Department of Revenue 2011a)

The property must be certified by the Department of Natural Resources. A property owner may receive the preferential assessment on a maximum of 2,000 acres of land. The enrolled property is assigned a use value based on soil type and other local variables that determine agricultural productivity. The assessed value is 40% of the use value, rather than the 40% of fair market value figure at which other properties are assessed. The current use valuation may not change by more than 3% per year. The property owner must keep the land in a qualifying use (conversion to agriculture or forestry is allowed) for ten years. If the property is converted to a nonqualifying use before ten years have elapsed, the owner must pay a penalty equal to twice the amount of tax savings received by having the preferential assessment, taking the new value of the property and

recalculating the tax savings back to the beginning of the enrollment (Georgia Department of Revenue, Local Government Services Division 2011a).

Enrollment in the program is very low, perhaps because of the rigorous criteria mentioned above.¹⁴ Table 3 indicates the number of parcels certified as environmentally sensitive and receiving the preferential assessment in Georgia in 2010, as well as the number of acres associated with the parcels.¹⁵ The Tax Digest Consolidated Summary provides data on the number of parcels, number of acres, assessed value without enrollment in the program (40% of fair market value), and the value of the exemption. The assessed value after enrollment is calculated by subtracting the exemption from the 40% FMV figure. The final column shows the exemption value as a percentage of the 40% FMV that would be the assessed value without the program.

The percentage reduction in the taxable value is very significant for individual parcels (and their owners). For the property as a group, the reduction is almost 80%, and in three of the six counties the reduction is more than 90%. The total amount of exemption is just over \$3.1 million, with a single parcel receiving a reduction of just under \$900,000.

Table 4 provides data from the Consolidated Summary on the total tax base in the jurisdictions in which one or more of these properties are present, the millage rate, and the amount of tax levied for each jurisdiction.

Table 5 provides calculations of the foregone revenue, assuming the millage rate would be unchanged in the absence of the conservation use assessment program. The property tax expenditures are the product of the millage rate and the amount of exemption.

In this particular case, the small size of the program makes the cost of the expenditure rather trivial. However, it does demonstrate the wide variation possible in the reduction in tax revenues paid to particular taxing districts.

Table 6 calculates the total tax expenditure for each county and compares it to the tax levied in all jurisdictions that contain an environmentally sensitive property. The example does point out some interesting disparities in terms of the relative impact of the program on different jurisdictions. The exemption as a percentage of tax levied ranges from 0.2182% to 0.0027%, a factor of more than 80. Even a program that is small statewide could have important effects within certain localities, either through foregone revenues or through higher tax rates, when large parcels receive exemptions of 95% of their ordinary assessed value.

¹⁴ The agricultural and forest land enrollments in the Conservation Use program are far larger than the Environmentally Sensitive enrollment; the tax levied on environmentally sensitive land amounts to less than one-quarter of one percent of the tax levied on the agricultural and forest land that qualifies for use value assessment. This is similar to the comparison between open space and agricultural/timber land presented earlier for Oregon.

¹⁵ Newton County did not report data on enrolled acreage.

Conclusion

Designing a program for property tax expenditures for the protection of open space requires careful consideration. While open space does provide environmental and amenity benefits under many circumstances, the value of those benefits may vary dramatically with local conditions. If the goal of the program is primarily to provide local, rather than regional, benefits, one set of criteria for the entire state is unlikely to maximize benefits. Local determination of the enrollment criteria may provide the flexibility necessary to react to those varying conditions. State-level criteria are probably necessary to protect regional resources such as watersheds.

The shortage of empirical work in this area makes it difficult to assess the effectiveness of existing programs, but program design should consider the length of contract and penalty for early conversion if the goal is to truly forestall development on certain parcels. Short-term delays in development will primarily result in transfers to the owners of open space; that may satisfy equity goals, but program language seldom refers to equity concerns. Efficiency suggests the program will not be successful without generating any significant benefits in the form of either higher property values for other residents of the area or long-term environmental protection. Higher hurdles for inclusion in the program should be expected to reduce the amount of acreage enrolled; however, the number of acres should not be the primary goal of the programs unless residents intend it solely as a means to reduce the amount of development in the area. Our ability to make policy decisions are hindered by our lack of understanding of program impacts.

Use value assessment resulted in a very substantial reduction in assessed values for enrolled parcels in Georgia, on the order of 80%. Significant enrollment in the program could have important fiscal implications for local jurisdictions, especially if broad criteria and low conversion penalties make it easy for landowners to enroll and then develop the property later. Careful program design needs to be done to ensure a maximum of public benefit in exchange for the fiscal effects.

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Tables

Table 1: States Offering Tax Expenditures for the Provision of Open Space

State	Program Title(s)
California	Farmland and Open Space Program (Williamson Act)
Colorado	Agricultural Valuation Program
Connecticut	Rule of Valuation for Farmland, Forest Land, and Open Space Land
Florida	Environmentally Endangered Land and Conservation Easement Program
Georgia	Conservation Use Assessment Program
Idaho	Valuation of Agricultural Land
Illinois	a) Land Conservation Stewardship Program b) Open Space Valuations c) The Real Property Conservation Rights Act
Massachusetts	Recreational Land Tax
Maryland	Agricultural Use Assessment Law
Maine	Open Space Assessment
Michigan	Open Space Preservation
Minnesota	a) Private Outdoor Recreational, Open Space and Park Land Tax b) Rural Preserve Program
New Hampshire	Current Use Taxation Program
Nevada	Assessment of Open-Space Real Property
Ohio	Current Agricultural Use Value
Oregon	a) Conservation Easement Special Assessment b) Open Space Land Special Assessment c) Wildlife Habitat Conservation and Management Special Assessment
Pennsylvania	Farmland and Forest Land Assessment Act
Rhode Island	Farm, Forest, and Open Space Program
Tennessee	Agricultural, Forest and Open Space Land Act (Greenbelt Law)
Texas	a) Qualification for Agricultural Appraisal based on Wildlife Management Use b) Use Valuation for Recreational, Park or Scenic Land
Vermont	Agricultural Land, Forest Land, Conservation Land and Farm Buildings Value Appraisal Program
Virginia	Special Land Use Assessment
Washington	Open Space Taxation Act

Source: Significant Features of the Property Tax (2012).

Table 2: Oregon Tax Expenditures For Open Space

Program	2009-10 Assessed Value of Property Exempted ¹	2009-11 Revenue Impact: Loss ¹	2009-11 Revenue Impact: Shift ¹
Wildlife Habitat	\$51 million	\$1.1 million	\$0.2 million
Conservation Easements	\$14 million	\$0.4 million	< \$0.1 million
Open Space Land	\$61 million	\$1.7 million	\$0.4 million
Totals for open space programs (as rounded)	\$126 million	\$3.2 million	\$0.7 million
Private Forests ²	\$5.3 billion	\$104 million	\$19.9 million
Farmland ³	\$14.1 billion	\$303.9 million	\$58.2 million
Open Space, percent of total	0.6%	0.8%	0.9%

Source: Oregon Department of Revenue (2012), pp. 317–329.

¹ Numbers in the table are reported as listed in the report. The dollar values are rounded to the nearest million or tenth of a million.

² Private Forests includes preferential assessment programs for forest homesites, western private forestland, eastern private forestland, and small tract forestland. It does not include property tax exemptions for standing timber.

³ Farmland includes preferential assessment programs for farmland and for farm homesites.

Table 3: Environmentally Sensitive Preferred Assessment Properties, Georgia 2010

County	Parcels	Acres	40% Fair Market Value	Exemption	40% Use Value	Exemption as % of 40% FMV
Calhoun	1	1,254.0	\$ 449,368	\$ 222,861	\$ 226,507	49.6%
Gwinnett	7	71.0	\$ 707,520	\$ 681,450	\$ 26,070	96.3%
Habersham	1	1,945.0	\$1,306,952	\$ 893,048	\$ 413,904	68.3%
Harris	2	328.0	\$ 356,008	\$ 286,282	\$ 69,726	80.4%
Newton	2	NR	\$ 94,560	\$ 88,600	\$ 5,960	93.7%
Thomas	3	870.2	\$1,012,684	\$ 947,592	\$ 65,092	93.6%
Total	16	NR	\$3,927,092	\$3,119,833	\$807,259	79.4%

Source: Georgia Department of Revenue, Local Government Services Division (2011b, 2011c); author calculations.

Table 4: Assessed Value, Millage Rate, and Tax Levied Jurisdictions Including Environmentally Sensitive Preferred Assessment Properties, Georgia 2010

County	Taxing Body	Type	Assessed Value	Millage Rate	Tax Levied
Calhoun	Unincorporated	M&O	\$82,803,014	12.21	\$1,011,025
Calhoun	School	M&O	\$115,536,264	17.436	\$2,014,490
Calhoun	State	M&O	\$112,982,717	0.25	\$28,246
Gwinnett	Unincorporated	M&O	\$20,643,758,755	11.78	\$243,183,478
Gwinnett	Unincorporated	Bond	\$22,041,720,501	0.47	\$10,359,609
Gwinnett	Recreation District	M&O	\$27,728,183,052	1	\$27,728,183
Gwinnett	School	M&O	\$27,715,379,831	19.25	\$533,521,062
Gwinnett	School	Bond	\$28,320,860,891	1.3	\$36,817,119
Gwinnett	State	M&O	\$28,251,189,508	0.25	\$7,062,797
Habersham	Unincorporated	M&O	\$972,112,137	8.4	\$8,165,742
Habersham	Hospital	M&O	\$1,332,540,482	0.51	\$679,596
Habersham	School	M&O	\$1,222,875,139	13.35	\$16,325,383
Habersham	State	M&O	\$1,206,874,330	0.25	\$301,719
Harris	Unincorporated	M&O	\$1,121,072,554	6.14	\$6,883,385
Harris	School	M&O	\$1,265,112,634	16.41	\$20,760,498
Harris	School	Bond	\$1,305,382,352	0.65	\$848,499
Harris	State	M&O	\$1,244,862,302	0.25	\$311,216
Newton	Unincorporated	M&O	\$1,722,725,530	10.91	\$18,794,936
Newton	Ambulance	M&O	\$2,365,902,279	0.451	\$1,067,022
Newton	Hospital	M&O	\$2,365,902,279	1.2	\$2,839,083
Newton	Fire Department	M&O	\$1,912,702,135	0.792	\$1,514,860
Newton	School	M&O	\$2,364,423,829	20	\$47,288,477
Newton	School	Bond	\$2,404,068,829	1	\$2,404,069
Newton	State	M&O	\$2,350,614,839	0.25	\$587,654
Thomas	Unincorporated	M&O	\$851,485,995	5.597	\$4,765,767
Thomas	EMS	M&O	\$1,607,049,485	1.545	\$2,482,891
Thomas	Fire Department District 2	M&O	\$211,324,102	2.274	\$480,551
Thomas	Fire Department District 3	M&O	\$475,780,694	1.55	\$737,460
Thomas	School	M&O	\$907,743,061	12.17	\$11,047,233
Thomas	State	M&O	\$1,528,612,211	0.25	\$382,153

Source: Georgia Department of Revenue, Local Government Services Division (2011c).

Table 5: Property Tax Expenditures on Environmentally Sensitive Preferred Assessment Properties, Georgia 2010

County	Taxing Body	Type	Exempted Value	Millage Rate	Property Tax Expenditures (Revenue Foregone)
Calhoun	Unincorporated	M&O	\$222,861	12.21	\$2,721.13
Calhoun	School	M&O	\$222,861	17.436	\$3,885.80
Calhoun	State	M&O	\$222,861	0.25	\$55.72
Gwinnett	Unincorporated	M&O	\$681,450	11.78	\$8,027.48
Gwinnett	Unincorporated	Bond	\$681,450	0.47	\$320.28
Gwinnett	Recreation District	M&O	\$681,450	1	\$681.45
Gwinnett	School	M&O	\$681,450	19.25	\$13,117.91
Gwinnett	School	Bond	\$681,450	1.3	\$885.89
Gwinnett	State	M&O	\$681,450	0.25	\$170.36
Habersham	Unincorporated	M&O	\$893,048	8.4	\$7,501.60
Habersham	Hospital	M&O	\$893,048	0.51	\$455.45
Habersham	School	M&O	\$893,048	13.35	\$11,922.19
Habersham	State	M&O	\$893,048	0.25	\$223.26
Harris	Unincorporated	M&O	\$286,282	6.14	\$1,757.77
Harris	School	M&O	\$286,282	16.41	\$4,697.89
Harris	School	Bond	\$286,282	0.65	\$186.08
Harris	State	M&O	\$286,282	0.25	\$71.57
Newton	Unincorporated	M&O	\$88,600	10.91	\$966.63
Newton	Ambulance	M&O	\$88,600	0.451	\$39.96
Newton	Hospital	M&O	\$88,600	1.2	\$106.32
Newton	Fire Department	M&O	\$88,600	0.792	\$70.17
Newton	School	M&O	\$88,600	20	\$1,772.00
Newton	School	Bond	\$88,600	1	\$88.60
Newton	State	M&O	\$88,600	0.25	\$22.15
Thomas	Unincorporated	M&O	\$947,592	5.597	\$5,303.67
Thomas	EMS	M&O	\$947,592	1.545	\$1,464.03
Thomas	Fire Department District 2	M&O	\$413,715	2.274	\$940.79
Thomas	Fire Department District 3	M&O	\$533,877	1.55	\$827.51
Thomas	School	M&O	\$947,592	12.17	\$11,532.19
Thomas	State	M&O	\$947,592	0.25	\$236.90
Total, All Categories			\$14,832,763		\$80,052.77

Source: Georgia Department of Revenue, Local Government Services Division (2011c); author calculations.

Table 6: County Expenditures on Environmentally Sensitive Land, Georgia 2010

County	Tax Expenditure, ES Land	Tax Levied	Expenditure as % of Tax Levied
Calhoun	\$6,663	\$3,053,761	0.2182%
Gwinnett	\$23,203	\$858,672,248	0.0027%
Habersham	\$20,103	\$25,472,439	0.0789%
Harris	\$6,713	\$28,803,598	0.0233%
Newton	\$3,066	\$74,496,099	0.0041%
Thomas	\$20,305	\$19,896,056	0.1021%
Total	\$80,053	\$1,010,394,201	0.0079%

Source: Georgia Department of Revenue, Local Government Services Division (2011c); author calculations.