

**Measuring the Effect of
State Income Tax Incentives
on Land Conservation**

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Abstract

Ten states offer income tax credits as incentives for landowners to donate conservation easements on their property. Such credits might be expected to increase easement donations; however, easement donations have also risen dramatically in states without such credits. This paper examines data on conservation easements held by land trusts, and evaluates the impact of various types of incentives on the growth in easements held between 2000 and 2005. Econometric results indicate that credits result in more easements, but only if they have high potential payouts. Transferable credits, which provide benefits to any landowner regardless of state tax liabilities, have an even larger impact on acreage under conservation easements. State dummy variables are used to confirm that the impact of credits is large and statistically significant only in Virginia and Colorado, the only two states with a credit system that offered both high value and transferability during the study period.

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Measuring the Effect of State Income Tax Incentives on Land Conservation

Introduction

Undeveloped land can create many types of public benefit, such as the protection of locally or even nationally important scenic views and watersheds. In some cases, these benefits (often termed “conservation values”) may exceed the benefit to the public from developing the property for more intensive commercial or residential use. However, the private benefit of development may easily exceed the owner’s benefit from keeping the land in its current state. In such cases, it may be socially beneficial for government agencies, or publicly-minded private organizations, to purchase property in order to ensure the continued provision of the public benefits associated with open space.

This happens frequently in many areas of the United States through direct government acquisitions. The overwhelming success of local, county and state conservation referenda designed to raise money for this purpose indicates that there is significant voter interest in land protection.¹ Private efforts to protect these conservation values have also resulted in rapid growth in the number of private not-for-profit conservation groups commonly referred to as land trusts.² Government purchases can occur through private negotiations, market transactions or condemnation proceedings, while land trusts may either purchase property using donated or borrowed funds, or accept donated parcels.

Direct acquisition is just one possible way to protect the conservation values. Many parcels can continue to provide public benefits by preserving scenic views, watersheds, wildlife habitat and other valuable attributes while still being used as home sites, working timber lands, farms or ranches. In these cases, transferring the land to government agencies or land trusts could conceivably reduce the combined public and private benefits generated by the parcel.

Conservation Easements

Conservation easements can be used in these cases to keep the land in private ownership, and often in private use, while preventing those types of development that might harm the conservation values. A conservation easement is a contract that separates some of the rights associated with a given parcel from other rights. Typically the easement will allow many or all of the current uses of the property, and may allow the landowner the option to add specified uses in the future, while preventing further development and other uses that would reduce the conservation values provided by the property.

The easement is then transferred to an organization that has legal standing to hold such rights.³ By accepting the easement the organization agrees to monitor the use of the property to make sure that proscribed uses do not occur. If a violation is discovered, the organization is obligated to enforce the terms of the easement. Easements must be

¹ Kotchen and Powers (2006) and Sundberg (2006b) analyze these results.

² For more information on land trusts and land trust membership, see Brewer (2003) and Sundberg (2006a).

³ Code of Federal Regulations (2005).

perpetual in order to qualify for federal tax deductibility, and they apply to any and all subsequent owners of the property, as does the easement holder's obligation to monitor the property and enforce the terms of the easement, if necessary.⁴

Impetus for the easement may come from the property owner or an interested organization. Landowners may wish to protect land they currently own from development by future owners, or take advantage of financial incentives for the creation of easements; in these cases, the owners may seek out organizations that might be willing to hold the easement. In other cases, public or private groups interested in conservation may identify specific parcels with particularly high conservation values and encourage the owner to consider creating an easement.

Government agencies and land trusts can acquire easements in one of two ways. An easement can be purchased from the property owner, or the owner could agree to donate the easement to the organization. The creation of the easement and resulting transfer of the development rights reduces the value of the property. The fair market value (FMV) of the easement should equal the difference between the value of the property before the easement is granted and the value after the imposition of the restrictions. In the case of a purchase for FMV, the owner can convert a portion of the property's ownership rights into financial assets while keeping the ability to use the property and to sell the remaining ownership rights at a later date.

When a donation is involved, no money is directly transferred to the owner. In that case, any reduction in the cost of the donation should be expected to increase the owner's willingness to donate.⁵ This reduction could come in the form of some compensation for the reduction in property value, or through a reduction in the transaction costs involved in making the donation.

Federal tax law characterizes the donation of a conservation easement as a charitable contribution of a real interest in property, as long as certain conditions are met.⁶ As a result, the donor is entitled to deduct the FMV of the donation from their adjusted gross income, subject to various limits, with the ability to carry unused deductions forward for a number of years. There is also a provision that can often be used to reduce the taxable value of estates that include parcels restricted by conservation easements.⁷

⁴ See Sundberg and Dye (2006) and Boyd, Caballero and Simpson (1999) for a much more detailed description of conservation easements and their legal requirements. Mayo (2000) provides descriptions of state-level variations in the requirements for easements.

⁵ A third alternative, the so-called "bargain sale", is a blended case in which the property owner sells the easement for an amount that is less than its fair market value. In these cases, the owner is considered to have made a donation equal to the difference between the FMV and the bargain sale price.

⁶ Code of Federal Regulations (2005).

⁷ The rules are presented in the US Tax Code (2005a) and (2005b). Lindstrom (2007) presents a legal discussion of the federal tax laws that apply to easements; Sundberg and Dye (2006) present an economic analysis of the combined impact of these laws. Small (2000, 2002) offers tax-planning suggestions for donors.

These federal tax incentives are considered to be important factors encouraging property owners to donate easements. The present value of these tax incentives was temporarily increased for donations made in 2006 and 2007 by legislation that increased the fraction of AGI that could be offset by easement donations, and lengthened the carryforward period during which the donations could be used. Conservation advocacy organizations such as the Land Trust Alliance have lobbied to make these changes permanent, and argued that tax incentives are very important spurs to private conservation efforts.⁸

In addition to these federal incentives, there are state income tax incentives that vary in both amount and form. One way to assess the importance of tax incentives for easement donations, and the relative importance of different types of incentives, is to examine how easement donations vary across states with differing tax treatment for donated conservation easements. The following section describes the different incentives in place in various states.

State Tax Incentives for Conservation Easements

State income tax treatment of easement donations varies widely.⁹ Eight states do not have a personal income tax; another twelve have an income tax, but do not allow charitable contribution deductions (or specifically exclude deductions for donated conservation easements). In these cases, the donation of an easement does not affect the amount of state tax liability, so no state income tax incentive exists.

The remaining thirty states have an income tax and allow deductions that are based on the federal code, so easement donations result in a state deduction that depends on the marginal tax rates of the state. The value of this deduction could potentially be as high as the FMV times the marginal tax rate of the donor, if the donor were able to use the entire deduction in one year without reducing the marginal tax rate.¹⁰ A deduction that reduces the marginal tax rate in a given year, or one that must be spread out over a period of years, will decrease the present value of the deduction.

As of 2005, ten states offered an additional form of income tax incentive for donated easements.¹¹ These all used tax credits, making their value to taxpayers with tax liabilities significantly higher than deductions. As shown in Table 1, nine of them offered tax credits for a specified fraction of the appraised FMV of the easement at the time of the donation. In eight of them, credits were available to both corporate and personal taxpayers. One state, Mississippi, offered a credit of up to 50% of the costs associated with the transaction. In each state, donors were allowed to take a deduction equal to the fraction of FMV which did not qualify for the credit. North Carolina

⁸ Land Trust Alliance (2007).

⁹ This paper only considers state income tax incentives. Several states offer property tax reductions in the case of parcels with donated easements. These are very challenging to assess, since in many cases the property in question will qualify for a similar property tax reduction even without the creation of an easement. In other cases, the value of the reduction fluctuates from year to year.

¹⁰ The top rates in California, Oregon, Rhode Island and Vermont exceeded nine percent in 2005.

¹¹ This number has increased by two since 2005. Several other states are considering the introduction of a tax credit. In addition, the value of the reduction often fluctuates from year to year.

increased the tax incentive for the donation by allowing all of the FMV to be deductible, including the portion that qualified for a credit.

The credit programs varied in many ways. In some states the amount of credit was capped, either per transaction or per year (or both). Maryland allowed a credit of 100% of FMV, with the provision that no property owner could claim a credit of more than \$5,000 per year, and credits had to be used within a fifteen-year carryforward period. If the property was owned by more than one person, each qualified for the same credit, as long as the total credit did not exceed 100% of FMV. South Carolina's 25% tax credit was subject to two caps. The total credit was not allowed to exceed \$52,000, nor was it allowed to exceed \$250 per acre.

Finally, a very important variation existed in Colorado, South Carolina and Virginia, where credits were transferable to other taxpayers. Donors with significant amounts of tax credits that they could not use, or did not wish to carry forward, were allowed to sell them to taxpayers with tax liabilities. This meant that even low-income landowners who paid little or no tax had a financial incentive to donate conservation easements. These programs were particularly valuable in Colorado, where the tax credits were equal to as much as \$260,000 per parcel, and Virginia, where the credits could amount to \$600,000. No market for credits appears to have developed in South Carolina, presumably because the amount of credit available from a single donor was so small as to make the cost of the transaction prohibitive.

Effectiveness of State Income Tax Credit Programs

Given the high value of credit programs compared to a standard deduction or no deduction at all, it is reasonable to assume that credits result in substantial increases in the number and acreage of donated easements.¹² Pentz (2007) offers an argument to this effect by showing that there is a large increase in easements in states after credit programs are initiated, and increases are also seen when credits become transferable. Such changes are associated with substantial growth in the amount of acreage under conservation easements. However, such growth has occurred in recent years across the country, and is not limited to states offering improved tax credits. One source states that the easement acreage held by land trusts increased by nearly 150% between 2000 and

¹² Large incentives for easement donations also create incentives for fraudulent donations, or for the over-valuation of otherwise legitimate donations. Pentz (2007, p. 15) reports that those involved in credit programs have expressed concern about "a small percentage of donations" that appeared to violate the eligibility requirements or had excessive valuations for FMV. The Internal Revenue Service appears to share these concerns. Over three hundred conservation easement donations are under audit in Colorado as of 2007. The Land Trust Alliance acknowledges that "there are significant numbers of highly abusive transactions taking place, particularly in states that have provided transferable state income tax credits to easement donors" and encourages land trusts to apply high standards to easements (Land Trust Alliance, 2007c). Virginia has taken steps to check the legitimacy of large easement donations and limit the amount of potential tax revenue lost by the generation of the credits. No more than \$100 million of easement credits will be authorized in 2007, with the total cap in subsequent years adjusted for inflation. In addition, any donation valued at \$1,000,000 or more must be approved by the state Department of Conservation and Recreation; this is in addition to the scrutiny that each donation already receives from the Department of Taxation. (Virginia Department of Taxation, 2007).

2005.¹³ Any evaluation of state policy must necessarily involve a comparison across different tax regimes.

The remainder of the paper evaluates several hypotheses about the impact of state tax credit programs. If the incentives for easement donation are significant, the acreage under easement should grow faster in states with tax incentives compared to those without. In addition, the effect of credits should be larger when the available credit is large, and when credits are transferable so that the program is valuable to more landowners. The tax incentives do not apply to easements purchased by the trust, so the presence of state tax incentives suggests that the percentage of all easements that are donated should be higher if the incentives are important to landowners. Finally, these programs add another layer of complexity to what is already an unusual legal transaction, so their presence may also change the type of organizations best able to work with potential donors. Land trusts with more employees may be better able to steer donors through the process. The following section describes the data that are used to address these hypotheses, present some calculations, and offer some analysis.

Description of Data

Ideally, one would approach this question by analyzing the number, size, and value of easement donations at the state level. Unfortunately, no such data exist; only a few states track easements in any form. Those that do have information about donated easements are usually states with credit programs, and even in those states information about pre-credit easement holdings is typically nonexistent.¹⁴ Pidot (2005) lists a number of problems with easement records, including the lack of information organizations themselves sometimes have about their own easement holdings.¹⁵

Some data do exist, primarily in the form of a survey taken every two to three years by the Land Trust Alliance, a national organization that promotes conservation by assisting land trusts in a variety of ways. The survey, known as the Census of Land Trusts, collects a wide variety of data on a voluntary basis from land trusts across the country. The Census presents data on land protection¹⁶ activity by regional, state and local land trusts. This is the only known source of published data on easements for most states.

While valuable, the data represent just a portion of the easements that have been created. The data only provide figures reported by those land trusts that are contacted by and respond to the Land Trust Alliance. In addition, the Census data does not include easements held by government agencies, or by national conservation organizations such as The Nature Conservancy.

¹³ Land Trust Alliance (2007b).

¹⁴ Pentz (2007), p. 11.

¹⁵ Pidot (2005), p. 12.

¹⁶ Land protection as used by the Census refers to acreage that is owned by trusts, under easements held by trusts, transferred to other conservation organizations, and protected by other methods.

This study uses data from the 2000, 2003, and 2005 censuses on the absolute amount of acreage controlled by conservation easements, at the level of individual land trusts. This allows a comparison of those figures in states with different types of income tax incentives for easement donation. The study only includes trusts which reported information in the 2005 Census.

A number of issues complicate use of the census data. For example, some trusts do not participate in every census; in these cases, the data from the survey returned during a previous census are carried forward. While this plausibly is the best way to represent the minimum amount of land protected, it does not distinguish between trusts which did not report current data and those which had no change during the period between censuses. In order to control for this, each record in the database was compared with the record from the previous census. In cases where no information was different, it is assumed that the previous year's data was carried forward, and the record was removed. There were a significant number of cases in which some records, such as the acreage under easement, remained the same while other records, such as budget, changed. In these cases, the assumption is that the survey was completed in both years, and the record was retained in the data set.

A small fraction of the land trusts in the census data operate in multiple states. Trusts were included in the data set if all the states in which they operated had a similar tax credit status, and removed if they served one or more states with and one or more without tax credit programs.

Land trusts occasionally merge, change names, or become inactive. A number of sources, including the Land Trust Alliance, were consulted to identify cases in which this occurred in order to determine instances in which what appeared to be a new respondent was actually a trust providing data in previous years.

Land trusts sometimes accept easements or land, then transfer those holdings to other groups.¹⁷ In those cases, easement holdings do not accurately reflect easements accepted. This data set eliminates land trusts which show a decline in easement holdings during the study period. In other cases, the change in easement holdings may underestimate the actual growth in easement acreage.

Finally, approximately 90% of the conservation easements created in Virginia are held by one organization, the Virginia Outdoors Foundation (VOF). Several other trusts in Virginia reported significant easement acreage, presumably including easements which were created by their organization that are held by the VOF. To remove this possible source of double-counting, VOF is the only trust from Virginia included in the study. Because of the large size of this organization and the relatively small sample of trusts in states that have both high credit caps and transferable credits, the results are presented for both the full sample and for the sample with this organization removed.

¹⁷ One justification for such a transfer is the case of a landowner who will not enter into a transaction with a government agency, but does not object to the eventual transfer of the easement from a land trust to such an agency.

Empirical Analysis and Discussion

The data set includes the activities of 591 land trusts, active in both 2003 and 2005. In 2005, these trusts collectively controlled over 5.25 million acres via easements and owned over 870,000 acres of land. The trusts studied here were active in a total of forty-eight states. While most of them confined their activity to a specific town or county, statewide and regional trusts are also well-represented. A subset of the sample consisting of 407 land trusts has data for 2000 as well. The missing land trusts are a combination of new trusts and trusts that did not participate in the 2000 Census.

In order to test the hypotheses mentioned previously, states are grouped into cohorts with identical income tax treatments for conservation easement donations. The three cohorts consist of states with no special tax treatment (19 states); states that allow donations to be treated as a charitable deduction only (22 states); and states that offer tax credits to easement donors (9 states). Comparisons are made between 2000 and 2005 for the subset, and 2003 and 2005 for the full sample.

The two sample periods chosen have very different tax regimes, and some assumptions are made to create these cohorts. Census data published in 2005 consists of data primarily collected in 2004; the same lag exists for data published in 2003 and 2000. The 2005 incentives detailed in Table 1 were all in place in 2004; the only important change that took effect in 2004 was the creation of the New Mexico program. Since that occurred during 2003, it is assumed that a significant fraction of easement donors waited until 2004 in order to take advantage of the credit. The California credit program was suspended until 2005. Thus, New Mexico is considered to be a state with a credit for purposes of the 2005 Census, while California is not. The remaining states in Table 1 all had credit systems in place in 2003 and 2004, so the distinction between credit and other states is very accurate for the 2003-05 comparison.

The definition of the credit cohort breaks down for years covered in the 2003-00 comparison. Only two of the states had active credit systems prior to 2000; two (Mississippi and New Mexico) did not have credits at all during this period, and the other five were without credits for part of the period covered between these censuses. The Delaware, South Carolina, and Maryland income tax credits were all instituted between 2000 and 2001. A portion of the easements donated in these states between the 2000 and 2003 censuses qualified for credits, but it is impossible to know how many. There were also significant changes in the two largest credit programs. The Colorado credit system began in 2000, and credits were transferable at that time. However, the cap increased from \$100,000 to \$260,000 in 2003, making it much more attractive. Virginia's credit system likewise began in 2000, but credits were not transferable until 2002. State dummy variables are used to test for effects in states offering credits at some point during this time period.

State income tax incentives apply to donated easements, while census statistics refer to acreage under easement, regardless of how it was acquired by the trust. The 2005 Census is the first to ask land trusts specifically about donated versus purchased acreage, so no

comparison data are available. In addition, the question was not answered by a substantial fraction of respondents, while others appear to have misinterpreted the question. Table 2 examines the fraction of easements that have been donated, restricting the sample to trusts whose answers for “percent donated” and “percent purchased” added to 100.

The vast majority of easements are donated rather than purchased, making the data set reasonably appropriate to testing the impact of state incentives. Donations account for nearly 86% of all easements acquired by land trusts in states without income tax credits or deductions, indicating that a combination of altruism, federal tax incentives, or other possible programs is adequate for donors in these states. The percentage of donated easements is actually lower in states offering an income tax deduction, but that difference is not statistically significant. As hypothesized, the fraction is even higher in states offering credits, where 96% of easements held by land trusts have been donated. That difference is statistically significant with respect to both deductible and nondeductible states.

Table 3 presents means and standard deviations for land trust statistics in 2000 and 2005. The substantial growth in acreage protected by land trusts during this period is evident; easement acreage held by the trusts in this sample rose by 159% during the period, very similar to the nationwide growth rate mentioned earlier. The most striking finding is that the average acreage under easement is highest by far for land trusts in states with deductions, but no credits, in 2005. However, testing for the difference between means finds that the difference is not statistically significant. The most statistically significant finding is that land trusts in states with tax credits had greater changes in their easement holdings between 2000 and 2005 than those in states with no credit or deduction. States with credits had higher 2005 holdings, and that difference was significant. This is true even if the extremely large Virginia Outdoors Foundation is excluded from the sample. While trusts in states with deductions but not credits had the highest average increase by far, that increase is not significantly different from the increases in either the nondeductible or the credit states.

Table 4 presents the same statistics for 2003 and 2005, for a larger group of land trusts. The average figures for easements and total acreage are smaller here, because the shorter time period includes a number of new land trusts founded since 2000. In 2003, trusts in credit states had significantly more acreage under easements than trusts in states without credits or deductions; this is a change from 2000, possibly because most of those states added credits between 2000 and 2002. As before, trusts in those states had larger and statistically significant increases in easement acreage, and the differences were evident in the 2005 totals.¹⁸

Tax credits might be expected to lead to easements accounting for a greater percentage of land protection activity by land trusts. While easements are a larger fraction of protected acreage in states with credits than in other states, that difference is not statistically

¹⁸ Analysis of the 2003-05 period using the land trusts in the subsample generates similar results.

significant during either period. Changes in easement acreage as a fraction of all protected land between 2003 and 2005 are similarly insignificant.

Tables 5 and 6 present the results of regression analysis to better estimate the impact of particular tax incentives on changes in easement acreage held by individual land trusts. Three scenarios are estimated in each table. Results are reported only for the 2003-05 period; no tax variables were found to be statistically significant in similar regressions covering the 2000-03 period. Easement acreage in 2003 and its squared value are used to adjust the equation for scale; small land trusts operating in small areas should be expected to have smaller increases in acreage protected.¹⁹ The widely-varying scope of land trusts provides a challenge for the analysis, though state dummy variables provide one opportunity to control for differences across states.

Scenario I uses dummy variables for deductibility and the existence of a credit system. These are not unique variables, since several states with credit systems allow the entire FMV to be deducted.²⁰ The coefficient for a credit system is statistically significant, as would be expected from Tables 3 and 4. Variables for the age of the land trust, the number of full-time employees, and the number of part-time employees are insignificant in every scenario and have been excluded from the final regression analysis.

Scenario II adds two additional dummy variables. Transferable Credit takes a value of one in Colorado, Virginia, and South Carolina. High-value Credit takes a value of one in states with particularly valuable credits, defined as states with at least \$100,000 in available credit (Connecticut, Colorado, New Mexico, North Carolina, and Virginia).²¹ As the results indicate, credits are only significant in determining the change in easement acreage if they are either transferable or high-value. Transferability is approximately twice as important, and the estimated coefficient has a higher level of significance.

Scenario III includes state dummy variables for Colorado and Virginia, the two states which offer credits worth more than \$100,000 and also allow them to be transferred. These states could even be referred to as “super-high” value states, since their caps during 2003 and 2004 were \$260,000 and \$600,000 (over six years) respectively. Once these state variables are included, none of the estimated coefficients on tax variables are significant, indicating that the two states mentioned have the only significant impacts from their tax incentives. Another scenario using only the scaling variables and state

¹⁹ Other techniques were also considered as ways of adjusting for differences in land trust scale. Equations using log transformations of the dependent variable performed much worse in terms of goodness of fit. Scaling by size of state is inappropriate, since land trusts cover differing regions within and across states. When easement acreage in 2003 is excluded, the sign and significance of the estimated coefficients on the tax variables remains unchanged. When the squared acreage variable is excluded, the signs of the other coefficients remains unchanged, and the significance is somewhat reduced.

²⁰ As mentioned earlier, most states allow taxpayers to deduct the portion of their easement donation that does not receive a credit. They also allow the taxpayer to use the deduction instead of the credit, but it is impossible to imagine circumstances under which a rational taxpayer would make that choice.

²¹ Pentz (2007) provides some evidence to suggest that \$100,000 is a meaningful break point for distinguishing high-value credit systems.

dummy variables similarly finds that the estimated coefficients for the other 7 states with credits are not significantly different from zero.

Table 6 presents results from the same estimations, excluding the data from the very large Virginia Outdoors Foundation. The findings are identical, other than the expected reduction in the size of the estimated coefficients on the credit, transferable credit, and high-value credit variables.

The results indicate that high-value credits and transferability result in the creation of more easement acreage, and that a higher fraction of that acreage is donated. Land trust experience, as measured by age and the number of employees, does not have a statistically significant influence changes in easement acreage. There is no evidence that low-value credits result in higher growth in acreage. In addition, none of the scenarios found any significant impact from tax incentives for the 2000-03 period, even in the two states that had pre-existing incentives.

Conclusion

Several findings come out of this study. First, the growth of easement acreage across the country makes the use of a comparison group crucial to the analysis of any state policy. Second, while it is clear that tax credits increase easement acreage held by land trusts, those credits appear to make a significant difference only when they offer at least \$100,000 of credits to donors or when they are transferable. A small credit, usable only by the donor, does not have a statistically valid impact on easement acreage. Credits do result in donated easements accounting for a higher fraction of easements held by land trusts.

These results suggest that transferability is more important, given an estimated coefficient that is double that of the high-value variable. Increasing the cap provides a greater incentive to some of the existing pool of donors (those with high tax liabilities even after the use of existing credits), while transferability offers a greater incentive to potential new donors (those with low tax liabilities).

These results must be qualified; the data examined here look only at easement acreage held by a sample of land trusts, and are not true state-level comparisons using aggregate data. Better data, including easements held by government agencies and aggregated to the state level, would allow a more accurate test of the various hypotheses examined here. Future work in this area will necessarily involve the collection of better data, though the lack of oversight in most non-credit states makes collecting easement data a daunting task.

One more state will join Colorado and Virginia in the high-value, transferable group in 2008. In April 2007, New Mexico increased the annual cap for credits from easement donation from \$100,000 to \$250,000, beginning in 2008. The maximum aggregate credit is still 50% of FMV, but this will increase the present value of the donation, and should encourage the donation of larger parcels. In addition, credits will be tradable, which

should encourage donations from landowners with low state tax liabilities. It is easy to predict that easement donations will be much higher in 2008 (and presumably much lower in 2007), but hopefully the resulting data will also provide more evidence about the value of transferability. Georgia started a program in 2006 that offers credits based on 25% of the FMV, capped at \$250,000. Georgia does not currently allow the credits to be transferred.

Tax credits are an effective tool for states that wish to provide incentives for the creation of conservation easements, if the credits are large and especially if they are transferable. One final concern to acknowledge is that such programs will need to include safeguards to increase the likelihood that the easements being created are legitimate sources of public benefit commensurate with the amount of subsidy offered.²²

²² Pentz (2007) offers a variety of examples of such safeguards already in place in some states.

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Table 1
State Income Tax Incentives, 2005 ²³

State	Credit Rate	Maximum Payment	Carryforward Years	Credits are Transferable?
CA ¹	55% of FMV	none	Eight	No
CO ²	100% of FMV, up to \$100,000; then 40%	\$260,000	Twenty	Yes
CT ³	50% of FMV	none	Ten	No
DE	40% of FMV	\$50,000	Five	No
MD	100% of FMV	\$5,000/yr. per owner	Fifteen (\$80,000 total)	No
MS	50% of transaction costs	\$10,000	Ten	No
NM	50% of FMV	\$100,000/yr.	Twenty (\$2,100,000 total)	No
NC ⁴	25% of FMV	\$250,000	Five	No
SC	25% of FMV	\$250/acre, total \$52,500/yr.	until full credit is used	Yes
VA	50% of FMV	\$100,000/yr.	Five (\$600,000 total)	Yes

¹ The California program was suspended in 2002, and restored in 2005. Thus it applies to part, but not all, of the sample period. There was a state cap on the number of credits, but no cap on individual donations.

² The Colorado program allowed taxpayers to cash in extra credits during years of budget surplus.

³ The Connecticut income tax credit only applies to the payment of state corporation income tax.

⁴ North Carolina allows taxpayers to deduct 100% of the FMV, in addition to the tax credit.

²³ Information taken from a variety of sources, primarily published instructions for state income tax forms, available for 2005 from the relevant states.

Table 2
 Fraction of Easements Donated, 2005

Variable; Mean and Standard Deviation	Land trusts in states with no deduction or credit (n=111)	Land trusts in states with deduction, but no credit (n=116)	Land trusts in states with a credit (n=56)
Fraction of easements donated	.859 (.271)	.815 (.321)	.960 ^{*†} (.147)

* indicates significantly different at 1% level from trusts in states with no deduction or credit

† indicates significantly different at 1% level from trusts in states with a deduction, but no credit

Table 3
Acreage Protected By Sample Land Trusts, 2000-05

Variable Mean and Standard Deviation	Land trusts in states with no deduction or credit (n=151)	Land trusts in states with deduction, but no credit (n=165)	Land trusts in states with a credit (n=91)	Land trusts in states with a credit, not including VA (n=90)
Acreage under easement, 2000	2,145 (7,267)	6,001 (38,221)	6,473 (20,945)	4,711 (12,575)
Acreage under easement, 2005	3,620 (10,036)	18,585 (106,892)	14,542* (45,324)	11,038* (30,783)
Change in easement acreage, 2000-2005	1,475 (3,351)	12,584 (92,569)	8,069* (26,426)	6,327* (20,659)
Total acreage protected, 2000	5,900 (20,498)	9,255 (44,018)	8,504 (24,603)	6,376 (13,982)
Total acreage protected, 2005	8,910 (24,979)	23,762 (113,025)	17,216 (46,761)	13,694 (32,713)
Easement acreage as a fraction of total, 2000	.523 (.365)	.565 (.354)	.571 (.382)	.568 (.383)
Easement acreage as a fraction of total, 2005	.527 (.354)	.571 (.329)	.583 (.384)	.578 (.384)

* indicates significantly different at 5% level from trusts in states with no deduction or credit

** indicates significantly different at 1% level from trusts in states with no deduction or credit

Table 4
Acreage Protected By Sample Land Trusts, 2003-05

Variable Mean and Standard Deviation	Land trusts in states with no deduction or credit (n=224)	Land trusts in states with deduction, but no credit (n=247)	Land trusts in states with a credit (n=120)	Land trusts in states with a credit, not including VA (n=119)
Acreage under easement, 2003	2,240 (7,531)	10,269 (66,824)	8,839* (29,043)	6,837* (19,115)
Acreage under easement, 2005	2,727 (8,519)	12,901 (87,754)	12,106* (40,003)	9,436** (27,402)
Change in easement acreage, 2003-2005	487 (1,254)	2,633 (23,343)	3,267* (12,001)	2,599* (9,552)
Total acreage protected, 2003	5,261 (18,453)	17,251* (81,764)	10,832 (30,402)	8,811 (20,921)
Total acreage protected, 2005	6,432 (20,872)	20,435* (100,546)	14,328* (41,344)	11,641 (29,152)
Easement acreage as a fraction of total, 2003	0.543 (0.364)	0.571 (0.346)	0.575 (0.382)	0.572 (0.382)
Easement acreage as a fraction of total, 2005	0.541 (0.362)	0.556 (0.342)	0.587 (0.385)	0.584 (0.384)

* indicates significantly different at 5% level from trusts in states with no deduction or credit

** indicates significantly different at 1% level from trusts in states with no deduction or credit

Table 5
Regression Results

	I	II	III
Constant	-30.23 (-0.07)	193.28 (0.46)	404.55 (1.01)
2003 Easement acreage	.0286 (1.73)	.0168 (1.03)	-.0323 (-1.93)
2003 Easement acreage ²	4.67e-07** (17.91)	4.84e-07** (18.82)	5.50e-07** (21.25)
Deduct	629.71 (1.15)	270.57 (0.48)	166.27 (0.31)
Credit	2,219.17** (3.27)	-2,235.32 (-1.66)	610.32 (0.40)
Transferable Credit		6,466.42** (4.96)	181.56 (0.08)
High-value Credit		3,224.92* (2.30)	-356.85 (-0.21)
Colorado			7,723.42** (2.81)
Virginia			56,163.65** (7.88)
\bar{R}^2	.8327	.8399	.8549

T-statistics are presented in parentheses

* indicates statistically significant at 5% level

** indicates statistically significant at 1% level

Table 6
Regression Results (excluding Virginia Outdoors Foundation)

	I'	II'	III'
Constant	97.91 (0.25)	291.06 (0.73)	527.49 (1.29)
2003 Easement acreage	-.0207 (-1.22)	-.0279 (-1.66)	-.0333* (-1.99)
2003 Easement acreage ²	5.33e-07** (20.27)	5.43e-07** (20.96)	5.52e-07** (21.29)
Deduct	687.36 (1.31)	358.36 (0.67)	-63.58 (-0.11)
Credit	1,992.07** (3.08)	-1,760.24 (-1.36)	726.00 (0.47)
Transferable Credit		5,644.79** (4.51)	177.65 (0.08)
High-value Credit		2,655.76* (1.98)	993.81 (0.49)
Colorado			6,382.92* (2.17)
Virginia			na
\bar{R}^2	.8413	.8468	.8488

T-statistics are presented in parentheses

* indicates statistically significant at 5% level

** indicates statistically significant at 1% level