Tax and Property Value Effects of Conservation Easements

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Abstract

A variety of tax incentives encourage property owners to place conservation easements on their property. This paper calculates sample tax effects for a range of tax incentives and shows that many easements can qualify for subsidies that more than pay for the value of the easement, taking into account appropriate tax rates and converting into present value. Future growth in property values will increase the deferred tax savings; in some cases the aggregate savings may be as much as twice the original value of the donation. The common use of deductions strongly favors donations by property owners with substantial tax liabilities, while property owners with low tax liabilities, who may have property with equal or greater conservation values, often have much less incentive to donate easements. The existence of such substantial tax incentives make it more important that the public benefit created by easements be carefully assessed.
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Tax and Property Value Effects of Conservation Easements

Introduction

Undeveloped land, frequently referred to as open space, generates a wide variety of benefits to the public, including use, existence, and amenity values. The provision of these benefits frequently ends, or is greatly curtailed, when the property is developed for more intensive use. Regulatory approaches are used to prevent development of property under some circumstances, but there is considerable interest in programs that give landowners incentives to keep their property in an undeveloped state, rather than require them to do so.

These programs frequently take the form of actions by government agencies, which negotiate to purchase or lease privately-held open space. There has also been a dramatic increase in the amount of land protected by private organizations, notably land trusts. Between 1998 and 2003, the amount of land protected by local and regional land trusts increased from 4.7 million to 9.4 million acres (Land Trust Alliance 2005). The Nature Conservancy controls development rights on another 15 million acres in the U.S. (The Nature Conservancy 2005).

One of the most significant tools used to prevent the development of open space is the creation of conservation easements. Conservation easements represent a transfer of property rights from the property owner to another body. At its most basic, a conservation easement represents a contract in which the owner of the property agrees to give up particular development rights and transfer them to someone qualified to hold those rights. The holder then agrees to not use the right, but to monitor the property and enforce the agreement for the duration of the contract. The property remains available for any use not proscribed by the easement, and it may be sold to new owners, who are similarly bound by the terms of the agreement. These are voluntary agreements; governmental powers of condemnation do not apply to the creation of easements.

Land protection via easements offers many advantages for land trusts and government agencies compared to fee-simple ownership. If landowners require compensation for giving up all or partial interest in their land, easements are much cheaper to purchase (Bowles et. al. 1998, 214). In addition, landowners often wish to retain use of their property, in which case easements are the only way of acquiring any control over future development. Landowners also appear to be much more willing to donate easements on larger parcels, rather than donating the parcels themselves (Brewer 2003, 153-4).

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1 There is some variation among state names for what are similar programs; the term “conservation easement” is used here to generically refer to these programs.


3 Land protected by easement is not, however, typically protected from condemnation by other government agencies. At least one state has agreed not to condemn parcels under easement for its own use, but that does not prevent possible condemnation by agencies of the federal government.
responsibility for maintenance also remains with the landowner, rather than moving to
the holder of the easement.4

Congress and numerous state governments have created special tax incentives to
encourage donations of easements to government agencies and conservation
organizations. The number of easements held by land trusts has skyrocketed in recent
years.5 In the ten years between 1988 and 1998, the amount of acreage protected by local
and regional land trusts via easements grew by over 370% (Brewer 2003, 148); the
subsequent five years saw additional growth of more than 360% compared to the 1998
figure. Easements now account for more than 50% of the acreage protected by local and
regional land trusts, up from just under 30% in 1998 (Land Trust Alliance 2005). The
dramatic growth in conservation easements in recent years is often cited as evidence of
the benefits being preserved for future generations, and has led to calls for widespread
international use of easements to achieve conservation goals (Bowles, et. al. 1998, 240).

This paper assesses the various tax incentives that have been created to encourage the
donation of conservation easements. It begins by providing a general overview of the
requirements needed to meet federal standards for a charitable donation and thereby
qualify for tax incentives. It then provides a model of the relevant tax incentives,
examines the possible dollar benefits created by easements under several sets of
assumptions, and discusses the likely efficiency consequences of such a system.

Conservation Easements as a Charitable Contribution

While a conservation easement is the result of a voluntary negotiation between a
landowner and an agency or land trust, the terms of those negotiations are dictated by
certain legal requirements. Each state has enabling legislation that defines the
requirements for easements.6 The easement must meet these terms. While many states
have adopted language identical or equivalent to that found in the Uniform Conservation
Easement Act,7 others deviate in meaningful ways. Variations include the type of
conservation purposes that easements are allowed to protect, the allowable or mandatory
duration of the agreement, and the definition of organizations allowed to hold and enforce
the easements in individual states (Mayo 2000, 26-42).

In order to qualify for federal tax incentives, the easement must also meet the
requirements of the Internal Revenue Service. An easement might have legal standing in

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4 There are significant concerns about future problems arising because of the uncontrolled and basically
unmonitored growth in easements in many states. Pidot (2005) provides an excellent discussion of many of
these issues.
5 Government agencies hold easements on a substantial amount of acreage, according to various reports.
However, no specific information is available on the number of easements held by government agencies, or
the acreage controlled via easements. It has been suggested that some agencies may not even have a
register listing the easements for which they are responsible (Pidot 2005, 12).
6 Mayo (2000) provides an excellent discussion of the broad differences in enabling legislation across
states, and subsequent chapters in the same volume [Gustanski and Squires (2000)] provide specific detail
about individual state statutes.
7 For a discussion of the UCEA, see Gustanski (2000), pp. 11-12.
a particular state, but not qualify for federal tax incentives. The focus of this paper is on tax incentives, and the federal incentives are the most valuable ones in most states. In addition, those states with their own incentive programs typically require that easements satisfy the requirements for federal tax incentives in order to qualify for the state programs. As a result, IRS standards will be the main focus of this discussion.8

IRS regulations for the donation of an easement are found in Title 26, Section 1.170 of the U.S. Code (U.S. Code 2005(a)), with further explanation and examples provided in Section 1.170A-14 of the Code of Federal Regulations (26CFR1.170A-14). The requirements refer to a “qualified conservation contribution,” which must have three characteristics. First, the contribution must consist of a qualified real property interest; this could be a donation of either real property or an easement. If the donation consists of an easement (termed a restriction of use), the easement must be perpetual.9 An easement of this type is the only case in which the donation of a partial interest in an owned asset qualifies as a charitable contribution for federal tax purposes, as specified in Section 170(h)(2)(C). The appropriate state’s enabling legislation for easements defines the circumstances under which an easement can transfer a partial interest in property.

The second requirement, Section 170(h)(3), is that the easement be donated to a “qualified organization.” This includes government agencies and 501(c)(3) organizations that have made a commitment to protect conservation purposes, and have sufficient resources to permit monitoring and enforcement of the easement. This is one area in which state laws are sometimes more strict than IRS regulations, as when states require the easement holder to be organized primarily for conservation purposes (Mayo 2000, 39). Land trusts typically satisfy both the commitment to conservation purposes and 501(c)(3) requirements. Other potential easement holders, including homeowners associations and private trusts, may satisfy state requirements for legal holders of easements, but fall short of IRS rules.

Finally, the easement donation must be made for “conservation purposes,” as defined by Section 170(h)(4)(A):

For purposes of this subsection, the term “conservation purpose” means—
(i) the preservation of land areas for outdoor recreation by, or the education of, the general public,
(ii) the protection of a relatively natural habitat of fish, wildlife, or plants, or similar ecosystem,
(iii) the preservation of open space (including farmland and forest land) where such preservation is—
(I) for the scenic enjoyment of the general public, or
(II) pursuant to a clearly delineated Federal, State, or local governmental conservation policy,

8 This discussion is intended to provide a general discussion of the nature of the requirements. It should not be construed as legal advice.
9 As of 2005, all fifty states allowed perpetual, or effectively perpetual, easements under their enabling legislation. Many states do not require that easements be perpetual, though term easements do not qualify for the federal charitable contributions deduction (Mayo 2000, 42).
and will yield a significant public benefit, or
(iv) the preservation of an historically important land area or a certified historic structure.

The conservation purposes are broad, though additional guidance is offered in Section 1.170A-14. If (i), outdoor recreation and education, is used to provide the justification for conservation purposes, there must be access provided to the general public. The code requires that the easement must allow “for the substantial and regular use of the general public” (26CFR1.170A-14, 151). Examples given include hiking trails and boating areas.

The second purpose, habitat preservation, does not require any public access in order to satisfy the conservation purposes test. The discussion in 1.170A-14 indicates that qualifying areas include, but are not limited to, habitats for endangered, rare, or threatened species. Good examples of relatively undisturbed ecosystems and areas that improve the viability of other protected natural areas, such as a wildlife corridor that connects two existing protected areas, could also qualify for this conservation purpose. Watershed protection could also satisfy this conservation purpose. If the property meets this purpose, no public access is required.

Open space preservation can qualify as a conservation purpose if it is:
(A) Pursuant to a clearly delineated Federal, state, or local governmental conservation policy and will yield a significant public benefit, or
(B) For the scenic enjoyment of the general public and will yield a significant public benefit. (26CFR1.170A-14, 152)

While physical access for the public to the eased property is not required, there must be significant visual access in order to meet this conservation purposes test. A scenic view from a highway could meet this test; a vacant downtown lot would not meet the test, but a downtown lot maintained as a garden would be satisfactory (26CFR1.170A-14, 154). In addition, the terms of the easement must prevent development that would reduce the scenic value of the area.

There are several ways to satisfy the test for conservation purposes via historic preservation, including inclusion in an historic district or preservation of a structure deemed historic under several possible criteria. Public access to the property is again required. The access may be visual; in the event that the property is not visible from public areas, there should be regular public access to the historic features of the property. However, this requirement is greatly weakened by reference to various conditions that might affect the need to offer access, including the possibility of intrusion into the lives of those living on the property. An example indicates that in the case of an historic home that is occupied, the access test for exterior and interior easements would be met by a practice of allowing scholarly study of the property by appointment, and two annual opportunities for visits by the general public each year (26CFR1.170A-14, 156).
Section 170(h)(5)(A) specifies that the conservation purpose must be protected in perpetuity. While easements are subject to negotiation between the donor and the donee, the terms agreed to in the negotiation must be adequate to protect the conservation values. Building sites could be reserved; however, any buildings could not disrupt the scenic view or reduce the value of wildlife habitat, if those were the conservation purposes used to meet the requirements of 170(h). Under certain circumstances, commercial practices (including agriculture or timber-cutting) could be allowed if such practice does not harm the conservation purposes specified in the easement. For example, timber removal might enhance the habitat for a particular animal or plant species at risk, while agriculture might provide scenic value by maintaining the rural character of an area.

There is a second set of incentives, Section 2031(c) (U.S. Code 2005(b)), that entitle the donor to a potentially substantial increase in estate tax benefits. This section was created in 1997 and amended in 2001 (Masland 2005, 1). Qualification for these benefits is predicated on meeting the requirements for Section 170(h). However, qualification under the historic preservation clause of the conservation purposes does not meet the requirements of 2031(c). There must also be a prohibition on commercial recreational activity within the parcel.

In addition, Section 2031(c)(8)(A) also requires that the parcel must have been owned by the deceased, or a member of the deceased’s family, for the continuous three-year period ending in the date of death. Finally, 2031(c)(8)(C) specifies those individuals allowed to grant the easement, which includes the deceased, a member of their family, or the executor of the estate. This last condition allows the estate to qualify for a post-mortem tax reduction, since the easement can be donated after the death event, reducing the value of the taxable estate.\textsuperscript{10}

The original legislation placed a geographical restriction on parcels qualifying for the 2031(c) benefit by requiring that they be near urban areas or specific categories of natural areas, such as national parks. The 2001 legislation removed that requirement, so that location is no longer a criterion in determining eligibility for the benefit.

**Tax Effects of Easement Donations**

Numerous sources provide sample calculations to demonstrate the tax benefits of either donating or selling a conservation easement. Daugherty (1977) provided examples of the benefits available from federal tax incentives during a period when the top marginal rate in the U.S. was 70%, but did not address state tax incentives. Davenport (2003) offered examples demonstrating the impact of federal income tax deductions and state tax credits for taxpayers under various marginal rates, but the analysis is incomplete and contains assumptions that appear to vary from actual IRS guidance. Parker (2005) reports some sample calculations using tax incentives available to residents of North Carolina. Many other examples, often developed by land trusts, exist to provide guidance to potential

\textsuperscript{10} A post-mortem easement only allows a reduction in the estate tax. While the easement must meet the requirements of Section 170(h), it does not qualify for any income tax benefits (Small 2000, 62-3).
property donors, but they provide sample calculations of an incomplete set of possible benefits. In addition, the calculations typically ignore the timing of the savings from various types of tax incentives by assuming that all tax savings, including estate or capital gains savings, occur in the year of donation. This excludes the impact of discounting and the potential impact of changes in the value of the donation when such tax savings are determined.

This section of the paper provides a general model of tax incentives that allows a comprehensive examination of the impact of an easement on federal, state, and local tax liabilities under a variety of assumptions. The resulting burden of the easements, in the form of forgone tax revenue, can then be assigned to different groups of taxpayers. There are substantial variations among state programs; several examples will be offered to show the impact of such variation. Income, capital gains, estate, and property tax effects will all be evaluated.

One of the contributions of this section is the distinction between tax savings that are determined at the time of the donation of the easement versus tax savings that are determined at the time of the disposition of the property. If disposition occurs simultaneously, or nearly so, with donation, the distinction is unimportant. For example, in the case of a post-mortem donation the donation and disposition, in the form of a bequest, typically occur near each other. However, in many cases an easement may be donated many years before the property is sold or passed on as a bequest to another party. In these cases, the distinction is likely to be very important, as will be seen below.

The following variables are used to develop the model of tax incentives.

1. \( M \) = full market value of parcel (with no conservation easements) at the time of the donation;
2. \( C \) = value of conservation easement at the time of the donation, determined by the value of the rights given up by the creation of the easement;
3. \( B \) = property owner’s basis in the parcel;
4. \( \alpha \) = fraction of market value represented by the easement, such that \( C = \alpha M \);
5. \( t_{FI} \) = marginal federal income tax rate of property owner;
6. \( t_{SI} \) = marginal state income tax rate of property owner;
7. \( t_F \) = effective property tax rate per dollar of market value of property.
8. \( t_{FK} \) = marginal federal capital gains tax rate of property owner;
9. \( t_{FE} \) = marginal federal estate tax rate of property owner; and
10. \( t_{SE} \) = marginal state estate tax rate of property owner.

It is assumed that the easement covers the entire parcel, and that the easement meets all the requirements of Section 170(h). In addition, the property owner is assumed to not have any nearby properties that would be defined for tax purposes as part of a “larger parcel.” This negates the possibility of an at least partially-offsetting enhancement effect, whereby the granting of restrictions on the use of one parcel creates a taxable gain in the value of a nearby parcel owned by the property owner or a near relative.
Income Tax Effects

Under the assumptions specified above, the value of the federal income tax deduction can be written as

\[ T_{FI} = t_{FI} \cdot C \]

assuming the value of the easement is less than thirty percent of the taxpayers Adjusted Gross Income (AGI).\(^{11}\) If \( C \) is worth more than thirty percent of AGI, the deduction must be spread out, over a maximum of six years.\(^{12}\) In that case, the present value of the tax savings will be less than the amount in [11].\(^{13}\) It is also likely that in some cases, the value of the easement will be large enough relative to AGI as to make it impossible for the property owner to use all the deductions. If the easement is worth more than 1.8 times the average AGI of the taxpayer over the six-year period, there will be an unused excess at the end of the six-year window.\(^{14}\)

Easement donations result in an immediate reduction in state income taxes in one of two ways.\(^{15}\) Twenty-eight states currently use the federal itemized deductions to determine deductions at the state level.\(^{16}\) In these states, a charitable contribution results in a reduction in taxable income. However, state income tax liabilities are also deductible, so the reduction in state tax paid as a result of the 170(h) deduction has a feedback effect that increases federal tax liability in the subsequent year. The value of the state income tax deduction is therefore

\[ T_{SID} = t_{SI} \cdot (1 - t_{FI}) \cdot C \]

If the taxpayer is subject to the Alternative Minimum Tax, the feedback effect does not exist, since under the AMT the charitable contribution is deductible, but the state tax liability is not.

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11 Equation 9 also assumes that the marginal tax rate is unchanged by the reduction in taxable income due to the donation of the easement.

12 An exception occurs for charitable deductions made in 2005. The Katrina Act allowed deductions up to the full amount of AGI, regardless of the nature of the charity receiving the contributions. The taxpayer may also elect to donate only the basis attributable to the easement, in which case the deduction may be as large as 50% of AGI. This is likely to be most valuable when donation easements on newly-acquired property, since the basis will be similar to the market value. Other donations may also count toward the 30% limit, depending on the nature of the donee organization.

13 There is also a total limit for all charitable contributions of 50% of AGI in all years other than 2005, which might further reduce the value of the easement donation for a particularly altruistic taxpayer.

14 As with any tax incentive, these restrictions may change. For example, the Senate version of the Tax Relief Act of 2005 increased the allowable annual deduction from easement donations to fifty percent of AGI, and extended the carryforward period from six to fifteen years. This version of the Act would also allow eligible farmers and ranchers to deduct the value of an easement donation up to their full AGI in any tax year.

15 Information on state treatment of easements was taken from state individual income tax forms and instruction packets.

16 Eight states do not have an income tax, one allows a credit but not a deduction, and another thirteen do not allow any reduction of income tax for a donation of a conservation easement.
Ten states currently have incentives that offer tax credits, rather than deductions, for easement donations. These credits can be used to offset existing state individual income tax liabilities on a dollar-for-dollar basis. The specific details of these programs vary widely. One program only offers credit toward 50% of the transaction costs associated with donating an easement (Mississippi). However, the next least generous programs offer a credit equal to 25% of the value of the easement (North and South Carolina); at a maximum, the credit can equal 100% of the value (Colorado, for the first $100,000 in value; 40% of any excess easement value over $100,000).

In some states there is a cap on the total credit that can be claimed by an individual taxpayer, which varies from $10,000 (Mississippi) to as much as $260,000 (Colorado). Most states that cap credits allow multiple transactions, each of which is allowed to receive the maximum possible credit. Two states (California and Delaware) cap the amount of aggregate credit paid out by the state in a given year, but apparently not an amount to any particular taxpayer. These states all allow taxpayers to carry credits forward if they cannot be used in the year of the donation; carryforward periods vary from five years to unlimited. Colorado allows taxpayers to use credits to claim tax refunds in years in which the state has a budget surplus, up to a maximum refund of $50,000 per year.

The requirements for qualification for a credit are often more stringent than those required for a 170(h) deduction. The 170(h) requirements must be specifically met in eight of the states, and must meet state requirements that are effectively the same in the other two. This ensures that donations made by taxpayers with low marginal income tax rates also meet the federal requirement, even though the state credit might be much more valuable to them than a federal deduction. Five states also require that the easement be approved by a state agency or review board.

The states usually give taxpayers the option of using the easement for either a charitable contribution deduction or a state tax credit, though it is not obvious that circumstances exist under which the deduction is preferable to the credit. Generally, the taxpayer must reduce the amount of the deduction by the amount of the credit, though one state allows full deduction for a charitable contribution in addition to a 25% tax credit (North Carolina). If the value of the donation exceeds the maximum size for a credit after the expiration of the carryforward period, the remainder can be taken as a charitable contribution deduction.

The use of a credit, rather than a deduction, creates an interesting discrepancy in federal treatment of state incentives for easements. If the easement is taken as a deduction, it reduces the amount of state income tax liability, and subsequently reduces the amount of deduction for state tax the taxpayer receives at the federal level. If the easement results in a credit, the tax liability is the same, but the taxpayer effectively receives dollars that

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17 In addition, governors in at least two states (Georgia and New York) have proposed similar programs recently.
18 Credits are allocated on a pro rata basis if the total credits claimed exceed the capped amount, with the unused credits carried forward into subsequent tax years.
are used to pay off that liability. The federal deduction for state tax remains the same, since the liability is unchanged. In addition, a 2001 memorandum from the IRS indicates that a state income tax credit is not considered a taxable capital gain, nor does such a credit program automatically create an expectation of a “quid pro quo” that could be considered to void the charitable intent.  

Three states (Colorado, Virginia, and South Carolina) have made credits transferable, so that taxpayers who are unable to use all their income tax credits, or who may be unwilling to carry them forward into subsequent years, can sell them to other taxpayers. Those taxpayers can then use the credits to offset their liability. This ensures that taxpayers will be able to use the full credit, less a discount to the buyer, and should make such programs particularly attractive to property owners with very low income tax liabilities.

The value of the tax credit, when available, to the taxpayer is equal to

\[ T_{\text{SIC}} = \beta \cdot C \]

assuming the donation does not exceed the maximum allowable value and that all the credits are used (or sold) in the year after the donation, where \( \beta \) = fraction of the easement entitled to receive the credit. Potential complications include using present value in cases where some of the credit must be carried forward to subsequent years, using [12] to value any charitable deductions that remain once any cap on credits has been reached, and factoring in any discount resulting from the sale of transferable credits.

**Property Tax Effects**

A minority of states offer reductions in property tax liability on parcels protected by conservation easements. As with so many aspects of easement policy, variations among states are substantial. In some cases, assessors are directed to reassess the property, taking into account the reduction in value resulting from the easement. Illinois offers owners of eased parcels a 75% reduction in their property tax, through a reduction in the assessment fraction of the market value of the property. Maine offers owners a reduction of either 50% or 70%, depending on the conservation purpose of the easement.

Several other states have use value assessment for agricultural lands, and allow parcels under conservation easements to qualify for the same benefit, even if the parcels are not used for agricultural purposes. Maryland grants a 15-year exemption from property tax on eased parcels; after the exemption period, the land under easement is taxed as if it were in agricultural use. A general description of the possible annual property tax savings can be written as

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19 Wherry (2002) provides this information and suggests that the IRS might be reconsidering its position. However, no further guidance appears to have been issued as of this time.
20 The number was 17 in 2002, according to one study (Defenders of Wildlife 2002).
21 There are numerous programs that offer differential assessment or use value assessment on farmland, forest, or other undeveloped parcels. In many cases, an easement is a sufficient, but not a necessary condition for enrollment. For example, Indiana offers a wildlife habitat incentive which reduces the assessed value of the property to $1 per acre; however, an easement is not required to qualify for the program. Youngman (2005) presents an extensive discussion of such programs. This analysis only addresses property tax reductions for which an easement is required.
\[ T_{p1} = t_p \ast (C) \] in cases where the post-easement market value is used, or

\[ T_{p2} = t_p \ast \gamma \ast M \] in cases where \( \gamma \) represents the easement-generated reduction in the assessment fraction of the market value used to calculate the tax liability.

In the latter case, the fraction might be determined as a statutory percentage of market value, as in Illinois, or it might be a fraction based on moving from market value to use value, defined according to a state-specific formula. This fraction can be as high as 1.0, given Maryland’s full exemption; some use value calculations also result in a very large fraction. The present value of these tax savings can then be calculated. If the property tax reduction is permanent, the stream of future savings may be treated as a perpetuity.

While the actual assessed value of the parcel for tax purposes will vary annually, higher assessments will result in lower property tax rates, \textit{ceteris paribus}. This analysis assumes that, for the calculation of the property tax savings alone, property values and the cost of services provided remain the same in real dollars, and that the property tax remains the same as a result. Under these assumptions, the present value of the property tax savings can be written as

\[ PV(T_{p1}) = \frac{t_p \ast (C)}{r} \quad \text{or} \]

\[ PV(T_{p2}) = \frac{t_p \ast \gamma \ast M}{r}, \] as appropriate for the state in question

where \( r \) is the real interest rate and the payments are assumed to come due at the end of each year.

The tax savings discussed above create benefits that are defined at the time of the donation. Subsequent tax treatment depends on the disposition of the property; it could be sold by the owner, in which case a capital gains tax could apply, or it could become part of an estate upon the death of the owner and create possible estate tax consequences. The present value of these tax effects also depends on the length of time between the donation of the easement and disposition of the property.

Without an easement, the market value of the property in year \( n \) is \( M^n \). If an easement has been donated, the market value of the property will be equivalent to the value without an easement, less the value of the easement at the time of the donation \( (C^n) \). This analysis also assumes that the present value of future property tax savings is capitalized into the market valuation of the property. As a result, the post-easement value of the property is

\[ M^C = M^n - C^n + PV(T_p) \]

in any given year \( n \). This value is used to determine the tax effects of an easement donation upon the disposition of the property.

\textbf{Capital Gains Tax Effects}

If the property had been sold without any conservation easement in place, the entire difference between the market value and the owner’s basis would be taxable at the
appropriate capital gains rate. For a sale that occurs n years after the donation, that amount at the federal level is equal to

$$[19] \quad t_{FK}^* (M^n - B)$$

If a conservation easement is donated, the owner’s basis must be adjusted downward by the fraction of market value lost at the time of the easement donation. The tax due then becomes

$$[20] \quad t_{FK}^* [(M^n - C^n + PV(T_P) - (adjusted B)]$$

where the adjusted basis = (1 - $\alpha$)*B and $\alpha^n = C^n / M^n$; thus, [20] can be rewritten as

$$[20'] \quad t_{FK}^* [(C^n / \alpha^n) - C^n + PV(T_P) - (1 - \alpha)*B]$$

Subtracting the actual tax owed from the tax owed without an easement shows the federal capital gains tax savings from donating an easement:

$$[21] \quad T_{FK} = [19] - [20'] = t_{FK}^*[C^n - PV(T_P) - \alpha*B]$$

Most states treat realized profits from capital gains as identical to earned income, so the tax savings from the reduction in property value can be addressed by applying the state income tax rate to the federal capital gains savings equation. As with income taxes, any reduction in the capital gains tax paid at the state level will have a feedback effect that reduces the federal deduction for state tax liability, as in [12]. The capital gains tax savings at the state level can be written as

$$[22] \quad T_{SK} = t_{SI}^*(1 - t_{FI})*[C^n - PV(T_P) - \alpha*B]$$

**Estate Tax Effects**

If the property becomes part of an estate that is taxable at the federal level, the two possible tax effects are quite different. Using only the first level of estate tax benefits discussed in section II, the donation of the easement will reduce the value of the estate by the value of the easement at the time of the disposition, and increase it by the present value of the perpetual property tax reduction. This results in federal estate tax savings of

$$[23] \quad T_{FE1} = t_{FE}^*[C^n - PV(T_P)]$$

If the easement also meets the requirements of Section 2031(c), the tax benefits may increase substantially. In addition to the reduced value due to the donation of the easement, the estate is also allowed to exclude up to 40% of the remaining market value of the parcel from the taxable portion of the estate, capped by a maximum allowable reduction (the maximum is $500,000 in 2005). If the value of the easement is less than 30% of the market value of the parcel (in other words, $\alpha' < 0.3$), this benefit is reduced by 2% below 40% for each 1% drop in the easement value below 30%. For example, if the easement represents 24% of the value of the property at the time of death, the estate can exclude $(40\% - 2*(30\% - 24\%))$, or 28% of the parcel value from the estate.

Assuming the easement represents at least 30% of the market value of the property, the additional estate tax savings due to 2031(c) will be the lesser of
This exclusion creates an unusual result, in that its value rises with the value of the property after taking into account the value lost because of the easement donation. In effect, it creates a greater subsidy for easements that are on parcels where the owners retain a greater fraction of the property’s value.

The cumulative estate tax savings for a donation that meets the 2031(c) requirements without hitting any maximum ceilings is therefore determined by the sum of the reduction in the value of the property and the amount of value excluded from the tax calculation, or

\[ T_{FE2} = T_{FE} + T_{SE} = t_{FE}^*[(C^n/\alpha^n) - C^n + PV(T_P)] + t_{SE}^*[C^n - PV(T_P)] \]

Aggregate Tax Effects

The range of possible tax effects of conservation easement donation determined by the model are summarized in Table 1. Different types of tax effects have different timing considerations. The appropriate discounting method will vary, depending on the assumptions used. The donation date determines the possible income tax deductions or credits in nominal dollars; however, some of those deductions might not be realized until subsequent years if the deduction is more than 30% of the taxpayer’s AGI, or if any other possible caps come into play. Those dollars must therefore be discounted by a nominal interest rate.

Values at disbursement can be measured in either nominal or real terms. As explained above, the property tax calculation assumes no real change in annual property tax burden; this must then be discounted in real terms. Given that assumption, the analysis for the value of tax deductions at disposition refers to the real change in property value since the donation date, and discounts these numbers in real terms as well.

In general, the tax savings can be calculated as follows, assuming that the donation occurs in year 0 and the disposition occurs in year n:
Total Tax Savings = Present Value of Federal Income Tax Deductions + PV of State Income Tax Deductions or Credits + PV of Property Tax Savings + PV of Tax Savings at Disposition

Note that the landowner only receives the property tax savings in the years the property remains in ownership; however, the present value of any unreceived savings is assumed to be capitalized into the value at disposition. The landowner then pays taxes on the associated increase in value. The sum of the present value of property tax savings before disposition and the present value of property tax savings after disposition must equal the present value of the perpetuity, regardless of when disposition occurs; only the present value of the capital gains or estate tax paid on the remaining property tax savings will be affected by the timing of the disposition.

A range of plausible magnitudes for these tax savings can be generated by using reasonable values for the variables and solving the terms in Table 1. After the individual tax effects are calculated, comparative static analysis is used to evaluate the impact of each variable on the tax effects, and scenario analysis is used to provide some samples of possible aggregate tax savings to individual easement donors.

The initial values are chosen as reasonable estimates of what could be expected by a wealthy donor in a state that has typical tax rates. It is assumed that the easement is constructed to be small enough to avoid hitting any caps, and that the taxpayer’s marginal tax rate does not change as a result of the donation. The stream of property tax savings is calculated in present value terms; all other figures assume that the savings occur in the appropriate year.

The initial values are listed below, with explanation as appropriate:

\[
M = M^a = 3 \quad \text{(property values are constant in real dollars);}
C = C^a = 1 \quad \text{(easement values are likewise constant in real dollars);}
B = 1.5;
\]
\[
t_{FI} = .35 \quad \text{(top marginal rate on income tax in 2005);}
\]
\[
t_{SI} = .05 \quad \text{(most states have a top marginal rate in excess of 5%, anywhere from 6 to 11%);}
\]
\[
\beta = .5 \quad \text{(credits range from 25% to 50%, with one state offering a credit of 100%);}
\]
\[
t_{FK} = .15 \quad \text{(top marginal rate in 2005 for long-term capital gains);}
\]
\[
t_{FE} = .45 \quad \text{(equivalent to the top marginal rate scheduled for 2007-2009);}
\]
\[
t_{SE} = .15 \quad \text{(most states use a top marginal rate of 15-16%); and}
\]
\[
t_{P} = .01 \quad \text{(similar to the rate of property taxes paid per dollar of market value across a broad sample of states).}
\]

Tax effects are calculated for each type of tax benefit generated by the easement donation. Each property tax method is used to calculate the present value of property tax savings. Given the start values used here, the savings are much more significant when the assessment fraction is at one-quarter of the market value then when the property is taxed at its post-easement value, since reassessment only reduces the taxable fraction by one-third, or the ratio of the easement value to the pre-donation market value. The latter
figure is used in the calculations of the potential capital gains and estate tax figures. Using the higher figure would result in a substantial net gain to the taxpayer.\textsuperscript{22}

Table 2 presents the tax effects calculated using the starting values and the impact of increasing income tax rates by ten percent. As would be expected, higher income tax rates result in a higher value for the tax deductions; the net impact of increasing the federal tax rate is mitigated somewhat, since that increases the value of the deduction for state income and capital gains taxes paid. The equivalent treatment of income and capital gains at the state level explains the increase in the state capital gain tax savings when state income tax rates increase. The appropriate tax effects have unitary elasticity with respect to both the credit given at the state level and the value of the easement.

Table 3 presents the results for the cases of the changes in the other tax rates. These effects are very straightforward; changes in the capital gains tax rate and estate tax rates result have unitary elasticity for the capital gains and estate tax effects, respectively. A change in the property tax has an inelastic total tax effect, since the increased property tax savings are assumed to result in a higher market value at disposition. This creates higher estate or capital gains taxes due at disposition.

The tax effects at disposition depend on the value of the easement, and potentially the value of the remaining property rights, at disposition rather than at donation. The tables presented so far have assumed no real change in the value of the property or of the easement over time. Table 4 examines the importance of real growth in property values on the disposition tax effects by changing one or both of the market value of the property (without the easement) at disposition and the easement value at disposition. The first column presents the original starting values. The second column shows the tax effects if the property has become more valuable, but the easement has not. In other words, none of the gain in value has been lost by the donation of the easement. If this is the case, the full gain in value is subject to the capital gains tax, and the only estate tax savings occurs if the 2031(c) conditions are met in order to allow 40% of the increase in value to be excluded from the estate tax calculation.

However, it is unrealistic in many cases to think that the easement will not reduce future growth in market value over what would have been achieved without restrictions on the use of the property. In fact, in many markets development pressure may be driving most or all of the real gains in property value. The third column examines the case in which all of the real growth in property value comes from real growth in the value of development rights. This means that the net appreciation to the landowner is zero. However, it makes the earlier donation of the easement that much more valuable. The capital gains tax effects nearly triple, since the net long-term gain has increased dramatically. The estate tax effects also increase dramatically because of the larger value now forgone. The value of the exclusion benefit arising from the 2031(c) status does not change, because the

\textsuperscript{22} Recall also that in some states there is no provision for a reduction in property taxes due to the existence of an easement. It may be expressly forbidden, it may be up to the individual assessor, or the land may already have a favorable status for reasons unrelated to the easement.
value of the parcel as restricted doesn’t change, but the higher value of the donated easement is still included in the tax effect.

The fourth and fifth columns look at a higher growth in the market value of property without easements. The growth factor, 1.2, is equivalent to an annual real growth rate of 3.75% over five years, or 1.85% over ten years. The fourth column attributes 75% of that growth to appreciating development rights, while the fifth attributes all of it to such rights. The value of the donated easement rises as a result. The tax effects are increasing in direct proportion to the portion of gain in market value driven by the increased value of development rights.

The resulting tax savings are substantial. A sixty percent increase in the value of the property, all of which is lost because of the easement donation, results in a more than four-fold increase in capital gains tax savings over what would have been paid if the easement did not exist. While the percentage increases in estate tax savings is smaller, the absolute dollar amount saved on estate taxes is substantially larger than in the case of capital gains because of the higher marginal tax rates.

The cumulative effects of these assumptions are presented in Table 5, which examines the tax effects for taxpayers under a variety of scenarios. The calculations assume no real appreciation in property values. No taxpayer is able to receive all of the possible savings, in part because disposition can only be through either sale or bequest. Taxpayers will also typically qualify for either a state deduction or a credit, but not both.23 Finally, some taxpayers do not have enough income to be able to use the various deductions for the income tax, or may not have enough assets to be subject to the estate tax.24

For the purposes of these estimates, all income tax effects, including credits, are assumed to be used in the year of donation. All disposition of the property is assumed to take place five years after the donation of the easement. A 3% real discount rate is used to calculate the present value of capital gains and estate tax effects.

Scenario I examines the case of a taxpayer who pays no federal income tax, but is able to take advantage of a state tax credit (perhaps by transferring it to a higher-income taxpayer). The only other tax effect is the reduction in property taxes. The property is assumed to become part of an estate that is too small to be subject to any estate tax at either the state or federal level. Under these assumptions, the taxpayer is still able to achieve a savings of $0.83 for donating an easement worth $1. A similar magnitude of savings is available for taxpayers in Scenarios II and III, who are able to take the federal and state income deduction and in one case pay capital gains taxes.

Scenario IV considers the case of a taxpayer who is able to take advantage of both income tax deductions, and pays federal and state estate taxes. Under these conditions,

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23 One exception occurs in North Carolina, where donors are allowed to deduct 100% of the fair market value of the donation, in addition to receiving a tax credit for 25% of the value.

24 The analysis also recognizes that the estate tax may be eliminated permanently, though such an act would be virtually certain to result in higher tax rates and savings from non-estate tax effects.
the present value of a $1 conservation easement donation is greater than $1. If the
property also qualifies for the 2031(c) partial exclusion, the tax effect increases to $1.42.
Finally, if the state offers a 50% credit rather than a deduction, the value of the donation
increases to $1.89, in present value terms. In this last scenario, the combination of the
2031(c) estate tax and property tax effects are together almost enough to compensate for
the entire cost of the easement donation.

These figures will vary as assumptions are changed. In addition to changes in the tax
rates, as presented in Tables 2 and 3, the disposition date could be changed. If the
increment to value is identical but disposition occurs later, the present value of these
figures will be smaller. If the state allows an assessment fraction reduction for property
tax purposes, the savings may increase dramatically. Similarly, they will fall if property
tax incentives are not assured. Failure to use all the deductions, or use that decreases the
marginal tax rate, will reduce the value.

In cases where the present value of the tax savings is greater than $1, the donation should
make the taxpayer better off compared to not donating the easement. For example,
consider the case in Scenario IV. The value of the property in the estate will be $3
without an easement, or $2 if an easement has been donated (ignoring property tax
effects). If the estate has to pay a combined 60% federal and state estate tax, the value
after taxes will be $1.20 with no easement or $0.80 if the easement has been donated.
However, the donation created an income tax benefit worth $0.40, which occurred five
years earlier and makes the present value of the donation greater than the present value of
the property without an easement. Including the property tax effect would tilt the balance
even more in favor of the donation.

Table 5 indicates the relative burden of tax effects on various groups of taxpayers. For
example, the tax effects of an easement on a parcel owned by a low-income taxpayer who
receives a credit and property tax relief (Scenario I) will fall entirely on state and local
taxpayers. A wealthy taxpayer, subject to state and federal estate tax and receiving the
2031(c) exclusion (Scenario V), will create tax effects that are borne primarily by federal
taxpayers, and secondarily by local taxpayers. The existence of any state credit program
will shift a considerable share of the burden onto state taxpayers, since the state credits
are much more generous than the state income tax deductions.

Table 6 presents aggregate tax effects for the same scenarios under the same set of
assumptions about growth in property and easement values presented earlier. As shown
in Table 4, growth in property values, and particularly growth in the value of
development rights that correlate to the value of the easement donation, has a large
impact on the present value of an easement donation as long as the taxpayer will
eventually be subject to either a capital gains tax on a sale or an estate tax. In the most
extreme cases, involving the payment of estate taxes, tax effects range from more than
$1.20 to $2.20 of tax savings for a $1 easement donation, in present value terms. In these
cases, the donor also receives a net gain compared to the non-donor. Under the most
optimistic projection, the growth is all attributed to increasing values for development
rights, and the non-donor is able to capture that value. However, it is taxed as part of the
estate, and the loss of that tax revenue, the forgone income tax deductions, and the property tax savings (and subsequent capitalization into property value) combine to make the non-donor worse off compared to the donor. In these cases, the additional burden will fall much more heavily on federal than on state taxpayers, due to the higher federal rates for income, capital gains, and estate taxes.

The donation of an easement can have a very significant net present value for the property owner. For example, using the Colorado tax credit system one could easily create a plausible easement donation with a potential present value of more than $2.50 in tax savings (even taking into account the lack of any Colorado estate tax). While the expected present value would be very difficult to forecast at the time of donation, given the uncertainty of disposition time and method, growth in property values, and future tax rates, it is clear that the donation creates value for the property owner under a wide variety of reasonable assumptions and existing tax regimes.

Policy Implications and Conclusion

These findings raise a number of important questions with respect to the tax treatment of conservation easements. This section concentrates on several, proposing some possible improvements and topics for future research.

It is clear that the cost of accepting a donated easement, as measured by the tax consequences for the affected governments, will vary widely with the tax treatment easements receive in a particular state, the tax rates in that state, the income and estate tax brackets faced by the property owner, and the development pressure in a particular region. The sample calculations presented in the previous section varied by a factor of more than three, and it would be easy to find potential donors with even smaller tax effects than the ones presented. This creates two associated problems.

First, if land owners respond to financial incentives to donate easements, they will respond very unequally. Those land owners with the largest potential tax effects will be much more likely to donate easements, while those with low income and small estates will see very little financial benefit from making an equivalent donation, especially in states with no assured property tax relief. This is almost certain to be inefficient if the goal is to use tax revenue to ensure as much conservation value as possible; the parcels chosen are likely to have high tax effects, but some of them may have less conservation value than parcels owned by taxpayers who cannot take advantage of tax effects. Some potential donors are likely to be overcompensated, while others are certain to be undercompensated.

This suggests that a system of credits, which does not penalize landowners in low income brackets, will provide incentives for more property owners to consider donating easements. While these credits have been criticized by some (Pidot 2005, 30-31), the criticism is more about the size of the subsidy than about the form. Credits for contributions that provide public benefit equalize the incentive for provision for anyone with something to offer; that is equitable, and likely to be more efficient since parcels with high conservation values are not limited to landowners in high tax brackets.
A second concern is the raw size of the tax effects, which comes in part from the lack of coordination among levels of government. The IRS treatment of state credits also merits further consideration. At a minimum, tax credits paid by the state should reduce the subsidy available from the federal government until the donation is no longer profitable under reasonable conditions. The extraordinary subsidies that are available increase the incentives for landowners to make donations of property that of marginal conservation value, or even to act fraudulently. Such concerns led the IRS to announce an Abusive Transactions Settlement Initiative (Internal Revenue Service 2005), urging taxpayers to come forward and acknowledge inappropriate transactions and settle them, typically with a penalty, before being audited. The Initiative highlighted abusive conservation easement donations as an area of concern, following an earlier notification about pending action (Internal Revenue Service 2004). Reducing the scale of the tax effects to return it to the realm of an incentive would reduce some of these concerns.

Third, the wide variation among state incentives creates additional efficiency concerns. Equivalent easements in different states can receive income tax effects ranging from 100% of the easement value to effectively zero, and property tax treatments vary over almost as large a range. While it is reasonable to expect that different kinds of goods will have different prices, one problem is that the same federal standards apply in every state, and relatively few states apply their own standards or review the benefits of particular easements before granting them legal status. While all easements might meet a minimal standard, there is certain to be a mismatch between the size of the tax savings and the conservation value of the easement, because there is no requirement that those be even roughly comparable. Again, both overcompensation and undercompensation become more likely given state variations.

In addition, the wide variation in criteria that allow qualification under 170(h) allows very different kinds of public benefits to benefit from identical tax incentives.25 For example, an open space easement on an infrequently-traveled road would qualify for the same incentives as an easement protecting property that provided habitat for a critically endangered species or a property available for public recreation (whether or not that property was frequently used). Perhaps certain types of easements could qualify for tax incentives at the state or federal level, depending the size and distribution of those benefits among taxpayers. Federal tax dollars might be better spent protecting endangered species or important watersheds than in providing public recreation areas or scenic landscapes to a relatively small number of local residents.

Finally, the impact of increasing property values is seen to be very important in determining the tax effects resulting from the disposition of the property. Society is effectively granting a tax deduction at the time of the donation, and waiting to value that donation for certain tax purposes until the property eventually changes hands. There are two efficiency concerns here. First is the mismatch between the tax cost of accepting the

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25 There are some cases in which this is not true. For example, historical preservation easements do not qualify for the 2031(c) exclusion benefit, and states sometimes restrict the type of easements that can receive property tax reductions.
at the time of the donation, neither the eventual value of the deductions nor the conservation value of the parcel is known. Second is the mismatch in timing; some, perhaps even the majority, of the tax benefit will be determined not by the donation, nor at the time of the donation, but by the increase in property values in the area. While the increase in property values due to development pressure does suggest that the value of the rights given up by the landowner have increased, that does not necessarily indicate that the conservation value of the property has similarly increased in value. In fact, high development pressure could make the conservation value of a parcel higher because of the loss of substitute parcels, or make it much smaller if it merely protects an island of habitat of no use to wildlife or of no real scenic value.

Tax policy could be better used to provide conservation if policy makers had a better sense of the kinds of value generated by different types of conservation easements. Understanding sources of value would allow tax incentives to be better tailored to support those donations that are likely to generate the greatest public benefit, rather than those coming from taxpayers facing the highest tax liabilities. The economics literature on valuing environmental and natural resource amenities could be usefully applied in this area.

If data were to become available, a cross-sectional study of easement donations across states would provide valuable information about the importance of tax effects on willingness to donate. Results indicating that high credits are required to elicit significant donations might suggest that conservation could be provided more cheaply with other methods, while opposite findings would indicate that high credits may not be necessary to protect the future provision of conservation values.
References


<table>
<thead>
<tr>
<th>Tax Category</th>
<th>Federal Tax Savings</th>
<th>State Tax Savings</th>
<th>Total Tax Savings</th>
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<td>Income</td>
<td>$t_{FI} \cdot C$</td>
<td>$t_{SI} \cdot (1 - t_{FI}) \cdot C$</td>
<td>$[t_{FI} + t_{SI} - t_{FI} \cdot t_{SI}] \cdot C$</td>
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<tr>
<td>- state deduction or</td>
<td>$t_{FI} \cdot C$</td>
<td>$\beta \cdot C$</td>
<td>$[t_{FI} + \beta] \cdot C$</td>
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<td>- state credit</td>
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<td></td>
<td></td>
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<tr>
<td>Capital Gains</td>
<td>$t_{FK} \cdot [C^n - PV(TP) - \alpha \cdot B]$</td>
<td>$t_{SI} \cdot (1 - t_{FI}) \cdot [C^n - PV(TP) - \alpha \cdot B]$</td>
<td>$[t_{FK} + t_{SI} - t_{FI} \cdot t_{SI}] \cdot [C^n - PV(TP) - \alpha \cdot B]$</td>
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<td>Estate</td>
<td>$t_{FE} \cdot [C^n - PV(TP)]$</td>
<td>$t_{SE} \cdot [C^n - PV(TP)]$</td>
<td>$[t_{FE} + t_{SE}] \cdot [C^n - PV(TP)]$</td>
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<td>- reduced value or</td>
<td>$t_{FE} \cdot [.6 \cdot C^n - .6 \cdot PV(TP) + .4 \cdot (C^n/\alpha^n)]$</td>
<td>$t_{SE} \cdot [C^n - PV(TP)]$</td>
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<td>$[t_p \cdot C]/r$</td>
<td>$[t_p \cdot \gamma \cdot M]/r$</td>
<td>$[t_p \cdot C]/r$</td>
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<td>fraction</td>
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Table 2
Sensitivity of Tax Effects to a 10% Change in Income Tax Rates, Easement Value

<table>
<thead>
<tr>
<th>Tax Effects (in dollars)</th>
<th>Starting Values</th>
<th>10% ΔtfI</th>
<th>10% ΔtSI</th>
<th>10% Δβ</th>
<th>10% ΔC</th>
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<td>Federal Income</td>
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<td>0.3850</td>
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<tr>
<td></td>
<td></td>
<td>(.0350)</td>
<td></td>
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<td>(.0350)</td>
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<td>State Income-Deduction</td>
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<td>0.0308</td>
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<td>0.0358</td>
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<tr>
<td></td>
<td></td>
<td>(-.0018)</td>
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<td>(.0033)</td>
<td>(.0033)</td>
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<td>(.0500)</td>
<td>(.0500)</td>
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<td></td>
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<td>(.0025)</td>
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<td>State Capital Gain</td>
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<td>0.0052</td>
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<td>(-.0003)</td>
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<td>Federal Estate (basic)</td>
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<td>Fed Estate 2031(c)</td>
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<td>Property, based on reassessment</td>
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<td>(.0333)</td>
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### Table 3
Sensitivity of Tax Effects to a 10% Change in Other Tax Rates

<table>
<thead>
<tr>
<th>Tax Effects (in dollars)</th>
<th>Starting Values</th>
<th>10% $\Delta t_{FK}$</th>
<th>10% $\Delta t_{FE}$</th>
<th>10% $\Delta t_{SE}$</th>
<th>10% $\Delta t_P$</th>
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<tr>
<td>Federal Capital Gain</td>
<td>0.0250</td>
<td>0.0275 (.0025)</td>
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<td>0.0200 (-.0050)</td>
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<td>State Capital Gain</td>
<td>0.0054</td>
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<td>0.0043 (-.0011)</td>
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<td>Federal Estate (basic)</td>
<td>0.3000</td>
<td>0.3300 (.0300)</td>
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<td>0.2850 (-.0150)</td>
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<td>Fed Estate 2031(c)</td>
<td>0.7200</td>
<td>0.7920 (.0720)</td>
<td></td>
<td>0.7110 (-.0090)</td>
<td></td>
</tr>
<tr>
<td>State Estate</td>
<td>0.1000</td>
<td>0.1100 (.0100)</td>
<td></td>
<td>0.0950 (-.0050)</td>
<td></td>
</tr>
<tr>
<td>Property, based on reassessment</td>
<td>0.3333</td>
<td></td>
<td></td>
<td>0.3667 (.0333)</td>
<td></td>
</tr>
</tbody>
</table>

### Table 4
Sensitivity of Tax Effects to Changes in Real Value at Disposition

<table>
<thead>
<tr>
<th>Tax Effects</th>
<th>$M^n = 3$</th>
<th>$M^n = 3.3$</th>
<th>$M^n = 3.3$</th>
<th>$M^n = 3.6$</th>
<th>$M^n = 3.6$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Capital Gain</td>
<td>0.0250</td>
<td>0.0700 (.0450)</td>
<td>0.0925 (.0675)</td>
<td>0.1150 (.0900)</td>
<td></td>
</tr>
<tr>
<td>State Capital Gain</td>
<td>0.0054</td>
<td>0.0152 (.0098)</td>
<td>0.0200 (.0146)</td>
<td>0.0249 (.0195)</td>
<td></td>
</tr>
<tr>
<td>Federal Estate (basic)</td>
<td>0.3000</td>
<td>0.4350 (.1350)</td>
<td>0.5025 (.2025)</td>
<td>0.5700 (.2700)</td>
<td></td>
</tr>
<tr>
<td>Federal Estate 2031(c)</td>
<td>0.7200</td>
<td>0.7740 (.0540)</td>
<td>0.8550 (.1350)</td>
<td>0.9495 (.2295)</td>
<td>0.9900 (.2700)</td>
</tr>
<tr>
<td>State Estate</td>
<td>0.1000</td>
<td>0.1450 (.0450)</td>
<td>0.1675 (.0675)</td>
<td>0.1900 (.0900)</td>
<td></td>
</tr>
</tbody>
</table>
Table 5
Aggregate Tax Effects Under Different Scenarios:
No Real Growth in Property Values
Present Value Based on Five Years Until Disposition

<table>
<thead>
<tr>
<th>Tax Effects / Scenario</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Income</td>
<td>0.3500</td>
<td>0.3500</td>
<td>0.3500</td>
<td>0.3500</td>
<td>0.3500</td>
<td></td>
</tr>
<tr>
<td>State Income – Deduction</td>
<td>0.0325</td>
<td>0.0325</td>
<td>0.0325</td>
<td>0.0325</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Income – Credit</td>
<td>0.5000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.5000</td>
</tr>
<tr>
<td>Federal Capital Gains</td>
<td></td>
<td></td>
<td></td>
<td>0.0216</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Capital Gains</td>
<td></td>
<td></td>
<td></td>
<td>0.0047</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal Estate (basic); present value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.2588</td>
<td></td>
</tr>
<tr>
<td>Federal Estate 2031(c); present value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.6211</td>
<td>0.6211</td>
</tr>
<tr>
<td>State Estate; present value</td>
<td></td>
<td></td>
<td></td>
<td>0.0863</td>
<td>0.0863</td>
<td>0.0863</td>
</tr>
<tr>
<td>Property, based on reassessment; present value</td>
<td>0.3333</td>
<td>0.3333</td>
<td>0.3333</td>
<td>0.3333</td>
<td>0.3333</td>
<td>0.3333</td>
</tr>
<tr>
<td>Aggregate Tax Effect</td>
<td>0.8333</td>
<td>0.7158</td>
<td>0.7421</td>
<td>1.0609</td>
<td>1.4232</td>
<td>1.8907</td>
</tr>
</tbody>
</table>
Table 6
Aggregate Tax Effects Under Different Scenarios: Real Growth in Property Values
Present Value Based on Five Years Until Disposition

<table>
<thead>
<tr>
<th>Disposition Values /Scenario</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
</tr>
</thead>
<tbody>
<tr>
<td>(M^a = 3, C^a = 1) (No Real Growth)</td>
<td>0.8333</td>
<td>0.7158</td>
<td>0.7421</td>
<td>1.0609</td>
<td>1.4232</td>
<td>1.8907</td>
</tr>
<tr>
<td>(M^a = 3.3, C^a = 1.3)</td>
<td>0.8333</td>
<td>0.7158</td>
<td>0.7893</td>
<td>1.2161</td>
<td>1.5784</td>
<td>2.0459</td>
</tr>
<tr>
<td>(M^a = 3.6, C^a = 1.45)</td>
<td>0.8333</td>
<td>0.7158</td>
<td>0.8129</td>
<td>1.2938</td>
<td>1.6794</td>
<td>2.1469</td>
</tr>
<tr>
<td>(M^a = 3.6, C^a = 1.6)</td>
<td>0.8333</td>
<td>0.7158</td>
<td>0.8365</td>
<td>1.3714</td>
<td>1.7337</td>
<td>2.2012</td>
</tr>
</tbody>
</table>