

LANDOWNER CONSIDERATION OF CONSERVATION EASEMENT UTILIZATION IN THE ADIRONDACK PARK OF NEW YORK

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Abstract

A survey regarding the granting of conservation easements was administered to private, non-commercial Adirondack Park landowners with a residence on their property. The theory of planned behavior (Ajzen, 1991) and a conceptual model for easement adoption proposed by Kabii and Horwitz (2006) served as a framework for the study. Analyzed constructs included attitudes, subjective norms, perceived behavioral control, nature conservation equity, nature conservation ethic, economic dependence on property, private property rights, confidence in permanent easement mechanisms, and demographic variables: gender, age, and years owned property. Significant relationships between constructs were identified and policy implications addressed.

1.0 Introduction

Conservation easements are less than fee ownership interests in a parcel of land, designed to accomplish specific land management goals by limiting the allowable development on a property and often defining management standards (Bick & Haney, 2001). Specific terms of easement deeds differ greatly, with each deed drafted to meet individual property and conservation objectives. The easement adoption process involves a grantor (the landowner) who voluntarily grants an easement on their land to a grantee (nonprofit organization or government agency), relinquishing a portion of their property rights through donation or sale (Bick & Haney, 2001). Conservation easements are often viewed favorably because the conserved land remains privately owned, and activities for which the land is currently used such as agriculture and forestry are frequently allowed to continue (Salkin & Cintron, 2001).

Conservation easements have grown greatly in popularity in recent years. Annually, 70% of the land area protected and half of all financial investments for land conservation are now related to conservation easements (Fishburn et al., 2009). The amount of land encumbered by conservation easements within New York by the state and local land trusts has increased from 2.3 million acres in 2000, to 6 million acres in 2005, and 8.8 million acres in 2010 (Land Trust Alliance, 2010). Conservation easements address private lands, an area of great importance to forestland conservation. Approximately two thirds of the 620 million acres of forestland in the lower 48 states are privately owned (Butler & Leatherbury, 2004). Within the Adirondack Park 3.4 million acres (roughly 57% of the park) are privately owned (NYDEC, 2012).

The purpose of this study is to examine private, residential landowner considerations in granting conservation easements within New York's Adirondack Park. A conceptual model for voluntary easement adoption proposed by Kabii and Horwitz (2006) and the theory of planned behavior (Ajzen, 1991) were used to create the study model. Study objectives were to quantify constructs identified by Kabii and Horwitz (2006) as well as those from the theory of planned behavior (1991), to identify important relationships between constructs, and to identify policy implications. This research is particularly important due to its assessment of existing theory, value for practical application, and specificity to the unique area of the Adirondack Park.

2.0 Literature Review

An overall lack of empirical research has been conducted concerning landowner motivations for granting conservation easements (Kabii & Horwitz, 2006), with existing studies largely focusing on agricultural land in areas outside the northeastern United States. Koontz (2001) identifies the subject of property protection for non-agricultural land used for non-extractive activities as largely absent from the current literature. Several studies have demonstrated that motivations for granting an easement may differ by location and land use (Farmer, 2009; McGaffin & Graham, 2009). Research that has addressed forestland easements in the northeast region including Bick (1996) and Feinberg (1997) does not focus specifically on potential grantor motivations, rather addressing this issue as a secondary objective.

Two models were used to create the framework for this study: a conceptual model for conservation easement adoption (Kabii & Horwitz, 2006) and the theory of planned behavior (Ajzen, 1991). Kabii and Horwitz (2006) identify nature conservation equity, nature conservation ethic, economic dependence on property, perception of private property rights, and confidence in permanent covenant mechanisms as the five constructs, which influence permanent easement adoption. The theory of planned behavior (Ajzen, 1991) identifies attitudes, subjective norms, and perceived behavioral control as constructs influencing behavioral intention, which in turn influences the behavior itself.

In this study, constructs are combined from the model for conservation easement adoption proposed by Kabii and Horwitz (2006) and the theory of planned behavior (Ajzen, 1991) into a single operationalized framework (Figure 1). Each of the five constructs identified by Kabii and Horwitz (2006) to directly influence adoption of a conservation easement are included, as are the demographic characteristics of gender, age and years of property ownership. These items were hypothesized to influence attitudes, subjective norms, and perceived behavioral control towards easements, which in turn affect intention to grant a conservation easement (Ajzen, 1991).

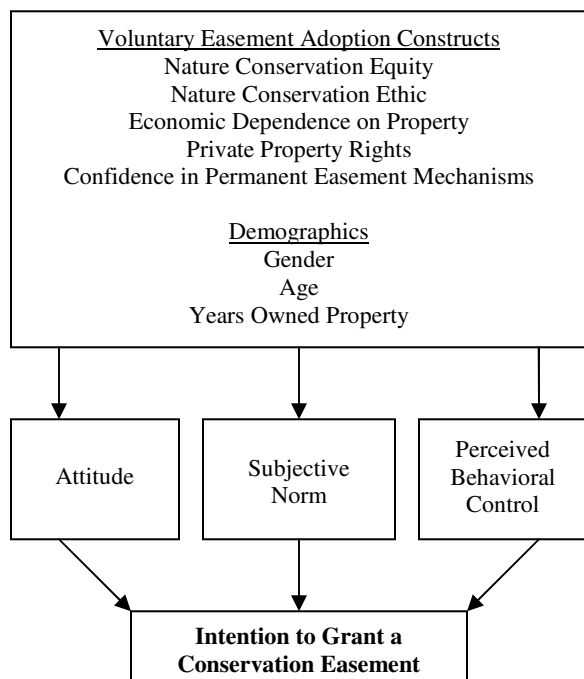


Figure 1. Model showing hypothesized relationships (adapted from Ajzen, 1991; and Kabii & Horwitz, 2006)

3.0 Methods

Private, non-commercial Adirondack Park landowners with a residence on their property were surveyed using four mail contacts as suggested by Dillman et al. (2009). Tax parcel data records were used to identify a sample of landowners with the following: a property centroid within the Adirondack Park; a parcel size of at least 50 acres; and a property class code of 210, 215, 240, 250 or 270. Properties that were studied represent land, which may be desirable to grantees due to unique features, for providing connectivity between existing conserved lands, and/or for use as an access point to other lands. Survey questions were based on constructs from Kabii and Horwitz (2006) and Ajzen (1991), as well as demographics (gender, age, years they had owned their property, plans to place a conservation easement on their land, and timeframe for granting an easement). The study survey instrument quantified variables using a five-point Likert-type scale (strongly disagree (-2), disagree (-1), neutral (0), agree (1), and strongly agree (2)). Confirmatory factor analysis was conducted to confirm the grouping of variables into factors based on constructs from Kabii and Horwitz (2006) and Ajzen (1991). Factor means were calculated and hypotheses tested using multiple regressions. A follow-up questionnaire (containing six items from the original survey) was sent to 70 non-respondents following the completion of the original survey. T-tests were used to identify significant differences between respondents to the full survey and respondents to the follow-up survey.

4.0 Results

Out of the 500 full surveys initially mailed, 28 were undeliverable. Of the resulting 472 respondents in the qualified sample, 188 completed the full questionnaire for a response rate of 39.8%. The follow-up questionnaire was returned by 23 individuals (32.9% response rate). No significant differences were found between respondents to the full and follow-up surveys.

Four variables were removed during confirmatory factor analysis in pursuit of Comparative Fit Index (CFI) and Root Mean Square Error of Approximation (RMSEA) values identified by Byrne (2006). A CFI of 0.931 and RMSEA value of 0.053 were achieved, indicating adequate fit (Byrne, 2006). All constructs had a satisfactory level of internal consistency (alphas were above 0.70; Hair et al, 2010).

Overall, 80% of respondents (n = 184) had no current plans to place a conservation easement on their land; 1% had plans to do so within the next year, 3% had plans to do so within 5 years, 2% had plans to do so within 10 years, and 0% had plans within the next 25 years. Fourteen percent had plans to grant a conservation easement but no timeframe. Of those who did have plans to grant a conservation easement, 70.3% had no specified timeframe for this plan.

Factor means and mean distribution are shown in Table 1. While means provide an overview of respondent convictions, they are not a description of any one Adirondack Park landowner. Considerable variation was observed in some factors. Sample means indicated that the average respondent had a strong nature conservation ethic (M = 1.4), viewed private property rights as an issue of personal importance (M = 1.0), valued nature conservation equity (M = 0.5), and expressed confidence in conservation easements as effective for land conservation purposes (M = 0.5). Perceived social support for conservation easements was low (M = -0.4), suggesting that peers are perceived to differ in values from the respondents themselves. Respondents had neutral views concerning economic dependence on land (M = 0.1), attitude towards granting a conservation easement (M = 0.0), and perceived behavioral control (M = 0.1). The average respondent did not intend to grant a conservation easement (M = -0.7).

Table 1. Factor Means and Frequency of Negative, Neutral, and Positive Means

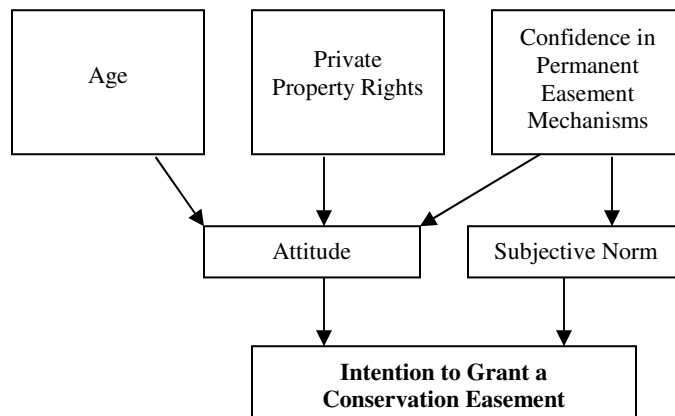
| Scale | Factor Mean (N) | Percentage Negative Towards Construct (-2.00 through -0.21) | Percentage Neutral Towards Construct (-0.20 through 0.20) | Percentage Positive Towards Construct (0.21 through 2.00) |
|---|-----------------|---|---|---|
| Attitude | 0.0 (171) | 36.3 | 17.5 | 46.2 |
| Subjective Norm | -0.4 (171) | 52.6 | 21.1 | 26.3 |
| Perceived Behavioral Control | 0.1 (165) | 30.9 | 27.3 | 41.8 |
| Intention to Grant an Easement | -0.7 (170) | 57.1 | 26.4 | 16.5 |
| Nature Conservation Ethic | 1.4 (171) | 0.6 | 5.8 | 93.6 |
| Nature Conservation Equity | 0.5 (169) | 17.2 | 21.3 | 61.5 |
| Economic Dependence on Property | 0.1 (173) | 35.8 | 22.0 | 42.2 |
| Private Property Rights | 1.0 (176) | 14.2 | 11.4 | 74.4 |
| Confidence in Permanent Easement Mechanisms | 0.5 (172) | 19.2 | 16.3 | 64.5 |

Significant multivariate regression results are shown in Table 2. Seven of the 35 tested relationships were determined to be statistically significant ($p \leq 0.05$). Attitudes and subjective norms were identified as significantly influencing intention for granting a conservation easement, and as such should be an area of focus for conservation easement advocates. Improving attitudes towards conservation easements at the community level is thus the main policy this study identifies as a likely aid to easement advocates. Perceived behavioral control was not found to significantly affect intention for granting a conservation easement.

Results show that confidence in permanent easement mechanisms significantly improved attitudes as well as subjective norms, constructs which, in turn, were found to significantly increase intention to grant a conservation easement. Increasing confidence is thus an important issue to address when seeking increased granting of easements. Age was also shown to significantly improve attitudes towards granting an easement, again with attitude being a significant indicator of intention for easement use; and represents an important factor when targeting potential grantors. Lastly, perception of private property rights was negatively related to attitude, and needs to be considered if seeking improvement of overall community attitudes towards conservation easement use. Figure 2 shows the study model with only significant results from regression analyses included.

Table 2. Significant Multivariate Regression Results

| Hypothesis | Overall | Dependent Variable | Independent Variable(s) | Beta | P-value | Partial Correlation Coefficient |
|------------|---|------------------------------|---|--------|---------|---------------------------------|
| 2-1 | F = 71.001 p < 0.001 R ² = 0.597 N = 147 | Attitude | Confidence in permanent easement mechanisms | 0.580 | <0.001 | 0.583 |
| | | | Private property rights | -0.254 | <0.001 | -0.299 |
| | | | Age | 0.133 | 0.013 | 0.205 |
| 2-2 | F = 96.737 p < 0.001 R ² = 0.397 N = 148 | Subjective Norm | Confidence in permanent easement mechanisms | 0.630 | <0.001 | 0.630 |
| 2-3 | F = 9.231 p = 0.003 R ² = 0.060 N = 146 | Perceived Behavioral Control | Nature conservation ethic | 0.245 | 0.003 | 0.245 |
| 2-4 | F = 125.403 p < 0.001 R ² = 0.645 N = 140 | Intention | Attitude | 0.635 | <0.001 | 0.577 |
| | | | Subjective Norm | 0.208 | 0.007 | 0.225 |

**Figure 2. Model showing significant relationships ($p \leq 0.05$) (adapted from Ajzen, 1991; and Kabii & Horwitz, 2006)**

5.0 Discussion

Most respondents who planned to grant a conservation easement had not identified a timeframe to do so. These landowners present an opportunity for land conservation in their willingness to grant an easement; however, encouragement is necessary to prevent indefinite postponement. In improving attitudes towards and confidence in conservation easements within the Adirondack Park, title 3 of article 49 in the New York State Environmental Conservation Law must be understood. This legislation regulates conservation easement use throughout New York, and specifically addresses easements within the Adirondack Park. Among the issues included in the law pertinent to attitude towards and confidence in easements are ways in which a conservation easement may be severed, and address of third party enforcement rights which serve as a secondary monitoring and enforcement party to the grantee. Improving community attitudes and confidence in conservation easements may be achieved through promotion, and increased knowledge and awareness as suggested by Kabii and Horwitz (2006), as well as by providing fair compensation for relinquished property rights, drafting clear terms in easement deeds, and improving uniform interpretation of deeds.

Older landowners may be effectively targeted as grantors due to their more positive attitudes towards conservation easements. Many variables not included in this study are correlated with age, presenting potential explanations for this result. Older landowners may have a more favorable view of easements due to tax considerations, a desire to retain ownership of a property in their family, aspiration for land to perpetuate in its current state beyond their tenure, and/or desire to leave a legacy and be remembered. Promotion through the lens of lowered holding costs, estate planning, stewardship, and lasting admiration is likely to resonate with this demographic, and has potential to further improve attitude towards conservation easements and increase intention for granting an easement. Conversely, younger landowners should be targeted primarily to improve conservation ethic in anticipation of these individuals reaching an age where mortgages are likely paid off, property value appreciation is no longer a primary concern, and the fate of their land rests beyond their tenure.

In addressing conflicts with property rights, land conservation organizations may again work to spread knowledge and awareness in promotion of easements. It should be acknowledged that conflicts between property rights and conservation easements are valid concerns for some landowners, with the granting of an easement explicitly involving the surrender of a portion of one's property rights. Previous lack of clarity in easement deeds and inconsistent interpretation and enforcement of terms may lead landowners to additionally fear that some rights may be unintentionally surrendered. Only improvement in easement results can address this fear.

An important point related to all results is that conservation easements are most appropriate where they are beneficial to both the grantor and grantee. In order to most efficiently utilize funding for land conservation, properties should be evaluated according to merits identified by policymakers and individual land trusts. Encouraging the granting of a conservation easement on land that faces little threat of development takes away funding from other more threatened land and may shift property taxes to other landowners. Likewise, selling a landowner on the idea of a conservation easement that does not match his/her property objectives is likely to decrease grantor satisfaction and as a result may decrease community attitudes towards conservation easements. While improving landowner attitudes and subjective norms towards conservation easements may positively affect intentions to grant an easement, in practice this is only appropriate when the property meets grantee objectives as well.

6.0 Conclusions

This study serves to provide initial testing of the conceptual model proposed by Kabii and Horwitz (2006) for easement adoption, as well as the first use of the theory of planned behavior (Ajzen, 1991) in studying conservation easements. Overall, the tested model was shown to describe the conservation easement granting process of Adirondack Park landowners with moderate accuracy. It should be noted that the study model is not believed to be comprehensive, but is valuable in its testing of Kabii and Horwitz's (2006) conceptual model and application of the theory of planned behavior (Ajzen, 1991). Due to the fact that motivations for granting an easement may differ by location and use (Farmer, 2009; McGaffin & Graham, 2009), results should be interpreted for residential land in the Adirondack Park of New York only, and cautiously referenced in other northeast forest locations.

7.0 Citations

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