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# Landowners' Perceptions of Conservation Easements: Implications for Effective Persuasive Communication

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Landowners' Perceptions of Conservation Easements: Implications for Effective Persuasive  
Communication

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Master of Science in Agricultural and Extension Education

by

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University of Georgia  
Bachelor of Science in Agriculture in Agricultural Communication, 2021

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This thesis is approved for recommendation to the Graduate Council.

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## **Abstract**

Conservation easements are one of the most popular voluntary, legally binding programs that allow individual landowners to use their property to protect the environment. There is a definite need for educational and persuasive messaging targeted towards landowners regarding adopting conservation easements. There is currently little to no existing literature specifically related to the attitudes and behaviors landowners possess towards conservation easements. This study aimed to fill a gap in literature by gathering information from landowners in Northwest Arkansas and Northeast Oklahoma, using a quantitative survey. Respondents were asked to identify their awareness-level knowledge about conservation easements, as well as rank incentivizing and disincentivizing factors that would influence their decision to adopt conservation easements. Respondents were also asked questions regarding their communications preferences. Researchers identified that there is a strong need for regional easement organizations to increase their awareness-level educational communications efforts. In addition, participants noted a strong desire for more personalized digital and unstructured in-person communications methods to be used by easement organizations.

**Keywords:** conservation easement, landowner, land conservation, sustainability, theory of planned behavior, communication, conservation marketing

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## CHAPTER 1

### Introduction

The solution to land conservation and environmental improvement lies somewhere between the sole responsibility of the individual and society as a whole. Private landowners are in the unique position to become an essential part of environmental protection, especially non-farm, residential landowners (Drescher, 2014). Conservation easements (CEs) are voluntary, legally binding agreements that landowners adopt to limit the use of their land as a means of protecting or improving the environment (National Conservation Easement Database, 2022). Landowners still maintain the rights to own, use, or sell the land, but the easement restricts ways in which the land can be used. A CE represents an individually designed legal agreement between a landowner and the easement holder (i.e., land trust or government agency). It is designed to maximize both public and private interests in a property (Vizek, 2016). CEs are tied to the property deed, meaning that a piece of land can be permanently protected, applying to all future owners of the land (Byers et al., 2005). CEs are enforced by the easement holding organization. The concept of CEs can be represented by the metaphor of landowners' rights equaling a bundle of sticks. The landowners' total rights to the land are the collection of sticks, representing the landowners' rights to construct buildings, harvest timber, keep livestock, subdivide the land, etc. By adopting a conservation easement on their property, a landowner retains some rights (sticks), and gives up others by deeding them to a qualified holder (Byers et al., 2005). The landowners generally are not giving the easement holder the sole rights to their land, but rather giving the holder the right to enforce the restrictions, as determined by the CE.

CEs remain one of the most prominent ways of protecting privately owned land. While CEs can vary in structure, they must provide benefits, such as water quality, wildlife habitat,

historic preservation, etc. Intrinsic motivations, as well as monetary benefits, are reasons landowners may elect to adopt a CE on their land. However, monetary benefits may be a limited motivator, as these individuals are generally not reliant on their land for generating income (Drescher, 2014).

Anecdotally, Leif Kindberg, executive director of the Illinois River Watershed Partnership reports an extremely low participation rate in current CE funding programs (personal communication, January 27, 2022). The Illinois River Watershed covers a portion of Northwest Arkansas, as well as extending into Northeast Oklahoma. While there is little known about the success of CEs along the watersheds in Northwest Arkansas and Northeast Oklahoma (Illinois River and Beaver Lake Watersheds), there have been several documented successes of CEs providing meaningful environmental improvements in other areas of the US. The Whychus Creek Watershed in Deschutes County, Oregon is primarily surrounded by privately owned land. The Deschutes Land Trust has helped to conserve over 2,000 acres surrounding the creek (Vizek, 2016). This contiguous string of conserved land speaks to the commitment of the community within the watershed to the natural environment, which has been cultivated and strengthened over time (Vizek, 2016). Results from the Vizek study indicate that communities who, as a collective, work towards environmental improvements have greater success.

### **Background of the Study**

Historically, the use of land easements has struggled to gain popularity in the watersheds of the Midwestern United States, due to lack of flexibility in term length, underpayment in consideration of land valuation, and administrative complexity, among other reasons (Raeker, 2016). This study aims to identify the most common reasons landowners are resistant to adopting CEs on their properties and how easement holding organizations can most effectively reduce

those barriers. The study will also aim to identify the motivations landowners hold regarding conservation easements, as well as attitudes held with respect to general land conservation.

Minimal literature is available surrounding CEs along the watersheds specific to Northwest Arkansas and Northeast Oklahoma. Previous research has been done regarding North American landowners' communications preferences and personal opinions on CEs (Cross et al., 2011; Farmer et al., 2015; Leonard, 2020; Raeker, 2015; Reeves et al., 2020; Vizek, 2016). This research will expand upon the previous studies by further identifying trends in the region of Northwest Arkansas and Northeast Oklahoma. This study will focus more on the communications preferences and methods to reaching landowners, as well as their motivations to adopt CEs. Once their communication and education preferences are established, targeted communications efforts can take place. This will increase the likelihood of those landowners adopting a CE on their land.

Another study (Cross et al., 2011) analyzed the motivations driving landowners' adoption of CEs. This project, conducted in Northwest Arkansas, will be able to use that previous research to formulate survey questions that best answer questions about motivations and about the best communications and education practices to encourage landowners to participate in CEs.

### **Statement of the Problem**

Landowner attitudes towards CE adoption in the Northwest Arkansas and Northeast Oklahoma watersheds are not currently described in academic literature. In general, research literature explains that, across North America, discouraging factors to adopting CEs primarily include disjointed communication efforts and personal biases held by the landowners. Easement holding organizations in Northwest Arkansas and Northeast Oklahoma need to learn more about

landowner attitudes in order to educate landowners, promote CE program options to them, and persuade them to adopt CEs for their land.

Little is known about specific landowner attitudes towards the adoption of CEs.

Motivations can be easily determined – the landowner is going to act in their best personal interest. Attitudes, however, are the evaluation of a behavior (Vizek, 2016). More information needs to be gathered in order to determine how landowners’ motivations inform their attitudes. Based generally on the literature, landowner attitudes towards adopting CEs differ based on how they personally perceive the easement holding organization, as well as the level of community involvement in conservation efforts.

### **Statement of Purpose**

Little to no data is available describing easements specifically along the Northwest Arkansas and Northeast Oklahoma watersheds. Collecting geographic-based data will allow for targeted communications efforts to be made by regional easement holding organizations. The largest expected benefit will be seen in the form of gathering landowner attitudes and motivations regarding CEs and easement holding organizations. Survey results will provide a quantitative scope of landowners’ attitudes and behaviors regarding CEs, as well as identify self-reported motivations to participation. Respondents will be asked to rate both motivating and discouraging factors. This will allow for recommendations to be made based upon the most highly motivating factors. Survey results will guide recommendations for efficient and effective communications efforts to be made by local easement holding to encourage CE participation.

### **Research Objectives**

This research effort, which will be preceded by a review of literature regarding existing CE programs in North America, includes two objectives, beginning with characterizing

landowners' perceptions of CE programs, followed by identifying their current and preferred methods of communications regarding CE programing. Both objectives for this study are based upon gathering information on landowners specifically in Northwest Arkansas or Northeast Oklahoma.

**Objective 1:** Characterize landowners' perceptions of easement programs, including:

- a. Perceived benefit to participating in CE programs
- b. Perceived incentives and disincentives related to participating in CE programs
- c. Awareness and knowledge levels related to easement holding organizations
- d. Association between the reason for owning land and length of CE considered

**Objective 2:** Identify landowners' current and preferred methods of learning about easement options.

- a. Media are landowners using to learn about conservation efforts
- b. Methods of persuasive messages that would likely resonate with landowners
- c. Perceived credibility of conservation information sources

### **Overview of Methodology**

The landowners participating in this study were contacted via a technical advisory committee, created by the executive director of the Illinois River Watershed Partnership. Criteria for this study were landowners who own or manage land in the watersheds, with a preference for those who own floodplain land. A target of 90 survey responses was sought from a randomly selected pool of landowners who met the criteria. The survey aimed to determine current perceptions of easements, landowners' willingness to participate, factors limiting participation (internal or external), and landowners' communication preferences. Survey data was analyzed initially by demographic information, and then correlational analyses were conducted to

determine the degree of correlation between responses. The statistical data and themes from the survey responses constituted the findings, which led to practical recommendations for regional easement holding organizations.

### **Limitations**

This study was limited by the number of landowners surveyed. Their responses were not fully representative of the demographics of landowners in the watersheds in Northwest Arkansas and Northeast Oklahoma. There was also no guarantee that participation would be evenly spread across the counties in the target area, meaning the data gathered may not proportionately represent the geographic area. Additionally, participants who responded to the survey, likely already had prior positive experiences or knowledge with CE programs and organizations.

### **Key Terms**

***Conservation:*** the act of protecting land's natural resources for current and future generations (National Geographic, 2023).

***Conservation easement:*** A voluntary legal agreement between a landowner and a qualified easement holding organization, such as a non-governmental land trust or watershed protection/conservation organization, or a government agency, that limits uses of the land to protect its ecological, agricultural, and/or historical value (National Conservation Easement Database, 2022).

***Easement holding organization:*** a land trust, governmental agency, or historic preservation organization (Byers, et al. 2005).

***Easement structure:*** length of easement, as determined by both the landowner and the easement holder (Natural Resource Conservation Service, 2022).

*Permanent Easements:* conservation easements in perpetuity.

*30-year Easements:* expire after 30 years.

*Term Easements:* are for the maximum duration allowed under applicable State laws.

***Watershed:*** A watershed is an area of land that drains all the streams and rainfall to a common outlet such as the outflow of a reservoir, mouth of a bay, or any point along a stream channel. Sometimes used interchangeably with drainage basin or catchment (United States Geological Survey, 2019).

## CHAPTER 2

### **Review of Literature**

This chapter presents a review of literature and previous research on landowners' participation in CE programs across North America, education and communication methods used to reach participants, as well as motivations that guided their participation. The first section, Conceptual Framework, represents concepts emanating from recent literature on these topics. Recent research exists (in varying abundance) on adoption likelihood and landowner perceptions of CEs, methods of communicating about CEs, and landowner motivations to adopt CEs. The Theory of Planned Behavior, described in the second section, Theoretical Framework, is a human decision-making theory on which research on public perceptions and landowners' potential to adopt CEs can be built.

### **Conceptual Framework**

#### ***Adoption Likelihood and Perceptions of CEs***

In general, studies have determined that CE adoption by landowners is driven by the advantages the CEs offer to the landowner, such as financial incentives, improved conservation value, and a defense from land development (Bastian et al., 2017; Hemby et al., 2022). According to findings by Hemby et al. (2022), landowners are also more likely to adopt CEs if others around them also have CEs on their land. This is likely due to landowners' desire for community involvement and a need for landowners to be compatible with community-based social norms (Hemby et al., 2022; Horton et al., 2017).

Stroman et al. (2017), found that landowners in Texas who were willing to adopt CEs may have inherently different attitudes concerning property rights than landowners who are opposed to CEs. CEs are, by definition, a restriction of property rights. Landowners who have



CEs on their property and have essentially transferred some of the “sticks” from the bundle of their rights to the easement holding organization, have intentionally given up some of the rights to their land. This alters the right of exclusivity that is contained within traditional property rights (Stroman et al., 2017). However, in the 2017 Stroman et al. study, landowners who did not have CEs on their property believed that their landowner rights have become increasingly restricted over time; this belief could contribute to their resistance to adopt CEs. Conversely, landowners who held stronger social responsibility and land stewardship beliefs were more likely to adopt CEs and other socially desirable land management practices (Stroman et al., 2017). These findings confirm that there are inherently diverse attitudes regarding land ownership and responsibilities held by individuals who choose to adopt CEs versus those who do not. At the crux of the diverse attitudes is landowners' willingness to relent property rights in the spirit of social responsibility and because of a desire to be compatible with locally accepted social norms (assuming adoption of CEs is the social norm).

Related to personal beliefs about both landowners' rights and social responsibility, Vizek (2016) suggested there are two distinct types of attitudes landowners hold toward CEs. Landowners have an internal attitude, which describes how they believe a CE impacts their *private* property. The other attitude is external. This is how landowners believe a CE impacts the *public* interest in the property (Vizek, 2016). These two attitudes work in tandem to determine the holistic belief a landowner has about CEs. Internal attitudes are more likely to be influenced by beliefs about financial incentives of CEs; this is an especially important influence for those landowners who have a strong monetary dependence on their land (Vizek, 2016). In contrast, external attitudes are typically developed based upon the perceived environmental benefits CEs provide. External attitudes are more subjective and malleable and can be influenced by public

opinions and social norms. Attitudes and beliefs towards CEs are complex and involve a myriad of moving parts, meaning landowners are continuously evaluating how these moving parts (including factors affecting both internal and external attitudes) connect in order to form their opinion on CE adoption (Vizek, 2016).

### ***Methods of Communication***

Within current academic literature, little is reported regarding landowners' communication preferences for learning about CEs and other environmental programs. In the literature that does exist, Vizek (2016) and Drescher (2014) suggested communication from peers and indirect community interactions are vital for landowners learning about CEs. Vizek's 2016 study identified those two methods of communication as strong determinants of the landowners' internal attitudes toward CEs. Landowners whose first exposure to CEs was from a peer source were five times more likely to have a strong positive internal attitude (Vizek, 2016). Drescher (2014) suggested that landowners who favor peer-to-peer communication have a deep appreciation for their land and the environment, but may be uncomfortable with strong government involvement in their land ownership. This is confirmed by the results of Hemby et al.'s (2022) research in Virginia: a strong barrier to CE adoption is linked to a perception of external control of private property.

Several recent, more broadly focused articles report on the value of conservation marketing, a concept that encompasses efforts to communicate about conservation easements. Conservation marketing is defined by Wright et al. (2015, p. 46) as “the ethical application of marketing strategies, concepts and techniques to influence attitudes, perceptions and behaviours of individuals, and ultimately societies, with the objective of advancing conservation goals.” Ryan et al. (2019) explain the need to conduct research to improve environmental marketing:

“To design successful conservation marketing campaigns that increase community engagement with biodiversity conservation, we need to focus on human psychology—how people feel, think about, or behave towards other species and the environment in general” (para. 2).

There is much to be learned about how to use media to engage landowners to persuade them of the value of CEs and to learn more about their perception of environmental stewardship approaches like CEs.

In the Hemby et al. (2022) study, there was a relatively strong negative correlation between landowners who have owned larger properties for longer periods of time and their willingness to adopt CEs. However, in the same Virginia study, the level of perceived effort by environmental organizations (EOs) to promote awareness, understanding, and adoption of CEs was the factor most frequently cited by respondents as influential on the likelihood of landowner adoption.

Additionally, locally embedded EO staff was impactful, because “people trust the people they know” (Hemby et al., 2022, p. 12). In support of this is also a study conducted by Kemink et al. (2020). Based on the Kemink et al. (2020) study, information provided to landowners by a technical advisor, or by someone in the same social network, is more likely to have a positive impact on the likelihood of an individual adopting a CE. The positive acceptance rate was even higher when the information was shared by an expert, who was also in the perspective adoptee’s social network (Kemink et al., 2020). Tanguay (2021) suggests that although financial incentives may be most heavily focused upon in the literature, landowners may prefer technical assistance/advice. Technical support, as opposed to financial support, is referred to as *capacity building*, measures that fortify landowners’ ability to be conservation stewards (Tanguay, 2021).

Capacity building may include an advisor's support, use of specialized equipment/tools, and/or direct technical assistance. Tanguay (2021) found that in existing literature, landowners showed a significant preference for capacity building over financial assistance, regardless of landowner values about conservation stewardship. Kemink et al. (2020) supports these findings, suggesting that financially incentivizing easement programs is a short-term solution for a long-term problem and can "crowd out innate social conservation values" (Kemink et al., 2020, pg. 8). Both studies suggest that technical support may better address landowner needs and conservation goals.

It is especially important to consider audience demographic characteristics when developing communications and education strategies to promote CEs, and some literature provides theoretical support for face-to-face communications with locally embedded representatives of EOs who also encourage peer-to-peer communications about CEs (Drescher, 2014; Hemby et al., 2022; Vizek, 2016). Generally, it has been shown that landowners overwhelmingly have a more positive attitude towards receiving information from their peers, and even more so towards environmental experts who also happen to be in the landowner's existing social circle. Additionally, there is a dearth of literature discussing effective communications media or tactics such as social media, websites, direct mail, or face-to-face communications. However, from findings that place a value on peer-to-peer communications and interactions with locally embedded CE representatives, there is an indication that face-to-face communications may be effective.

### ***Motivations to Adopt***

As Farmer et al. (2015) notes, variables including motive-values, in addition to other characteristics such as residency status and monetary and non-monetary benefits related to land ownership, can impact the decision to adopt a CE. Farmer (2015) cites studies by Brain et al.

(2014), Miller et al. (2011), and Petrzela et al. (2013) as examples of research supporting these variables as important. Regarding the development of motive-values, Farmer et al. (2015) listed the following influential factors: place attachment, environmental motives, witnessing land development, societal motives, motivation to protect open-space, family heritage (legacy property), cultural motivations, and financial motives. The identification of landowner characteristics such as these along with the collection of demographic information, then, can lead to the ability to characterize and identify landowners who could be most easily influenced to adopt CEs.

Leonard (2020) developed a modeling technique to predict Montana landowners' willingness to participate in CE programs. Targeting landowners using this probability model, which was based on a variety of variable landowner characteristics similar to those mentioned above, with a peer-to-peer communication approach, was found to be an effective approach at persuading landowners to adopt CEs. Leonard (2020) reported that the model can be utilized to plan for strategic communications about CEs to target landowner demographics most efficiently. In the study that tested the model, communities that already had some level of participation in CE programs were more likely to see an increase in landowner participation as a result of exposure to peer adoption and an EOs' communication efforts about CEs (Leonard, 2020). Commonalities among the perceptions of peers are referenced throughout the literature and represent *homophily*, or the human tendency to align with those who are similar in some ways to themselves. Leonard's (2020) findings supported Vizek's (2016) previous findings related to the power of homophily in persuasive communication and education, indicating that regions where CEs have already been adopted may be prime targets for pro-CE messaging. Prior personal experience with CEs as well as direct interactions with neighbors who have CEs on their

properties were weighty factors among landowners who had developed strong external attitudes in favor of CEs, a finding which also corresponded with Vizek's (2016) results.

In addition to developing effective communication strategies about CEs, monetary incentives also drive participation. The availability of supplementary financial incentives, including historic protection and county-level programs increase the likelihood of landowners adopting CEs (Farmer et al., 2015; Hemby et al., 2022). CEs are more likely to be adopted in communities and by individuals with a higher economic dependence on the land; however, this is also dependent on the attitudes held toward land stewardship by those communities (Farmer et al., 2015; Hemby et al., 2022). CE programs that build on existing pro-environmental attitudes and beliefs of private landowners, but that also offer a relatively small financial incentive, are shown to be viewed as favorable by the community (Drescher, 2014; Hemby et al., 2022). Effa's 2009 study conducted in Arkansas further supports these findings. She reported that only 37% of landowners saw a tax benefit as an encouraging reason to adopt a CE. While this percentage is obviously a minority, financial incentives were effective with some landowners. Still, Tanguay (2021) and Kemink et al. (2020) made strong cases that financial incentives can cloud the picture for some landowners, repositioning their motivations from being focused on altruism and stewardship to being focused on economic gain. Specific to Arkansas, survey participants typically reported feeling neutral toward most motivators meant to encourage CE participation. Effa's (2009) results suggest there is a need for further communications and education efforts to give landowners the confidence to make informed decisions about CEs.

and education efforts to give landowners the confidence to make decisions about CEs.

Therefore, the literature clearly supports conducting a demographic analysis of potential and current CE adopters to allow for more targeted messaging. There is some evidence that

adoption is predictable by examining these demographics in combination with perceptions and attitudes toward CEs. Important variables to identify include the macro-variable of homophily within regions and the specific variables of place attachment, environmental motivation, witnessing of land development, societal motivations, desire to protect open space, farm heritage or legacy, and motivations related to local culture. In addition, the current use of land and determining if the land provides monetary benefit or not, could be important information to consider as well.

### ***Current Regional Programs in Northwest Arkansas and Northeast Oklahoma***

While not much literature exists on the acceptability of CEs in the region, Effa's 2009 study is the only one, there are many easement holding organizations involved in the community. The following organizations were found on the internet and offer CEs to landowners in their respective area: Northwest Arkansas Land Trust, the Ozark Land Trust, The Nature Conservancy, Arkansas Natural Heritage Commission, the Grand River Dam Authority, Land Legacy, and the Humane Society Wildlife and Trust. All of the organizations listed are primary easement holders and produce communications and education efforts to local landowners.

### **Theoretical Framework**

Several theories and theoretical models are useful in public perception research, and each has its strengths. When public perception research involves predicting behavior or targeting actors who are most likely to be persuaded to act, Ajzen's (1988) Theory of Planned Behavior (TPB) is often applicable as a means to predict how individuals' attitudes and perceptions inform their behavioral intent. This study will employ Ajzen's theory as its foundation.

According to Ajzen's theory, intentions and behaviors result from three basic determinant categories: personal attitudes, subjective social norms, and perceived behavioral control (Ajzen,

2005). These determinates work in a balance when an individual is forming an attitude, and then deciding to perform a behavior based on that attitude. According to the TPB, an individual's intent to engage in a CE program will not be solely determined by communication and awareness efforts. Rather, landowners' intent to act on their attitudes will be a function of the combination of the three basic determinates (Ajzen, 1988).

### ***Personal Attitudes Toward the Behavior***

Behavior performance is assumed to reflect past experiences as well as anticipated obstacles (Ajzen, 1988). In relation to CEs, if landowners already hold positive attitudes toward the environment and/or have previously participated in other environmentally conscious programs, they will be more likely to hold a favorable attitude toward CEs. General attitudes and personal behavior, however, do not always align. The personal behavior factor is the individual's positive or negative evaluation of the prospect of performing the particular behavior (Ajzen, 2005). So, while a landowner may hold a favorable attitude toward CEs because they have had positive experiences with other environmental programs, this motivation is affected positively or negatively by the landowner's perceived value or lack of value of agreeing to a CE on their land. This personal behavior determinant is only one aspect of what determines an individual's behavior.

### ***Subjective Norms***

Generally, when a favorable positive attitude is combined with a positive social norm, likelihood is relatively high for an individual to perform a behavior (Ajzen, 1988). Social pressure, positive or negative, affects an individual's intention to perform a behavior (Ajzen, 2005). As seen throughout the literature on CE adoption, societal pressures have a strong influence on a landowners' willingness to adopt CEs. This concept can be applied to groups as



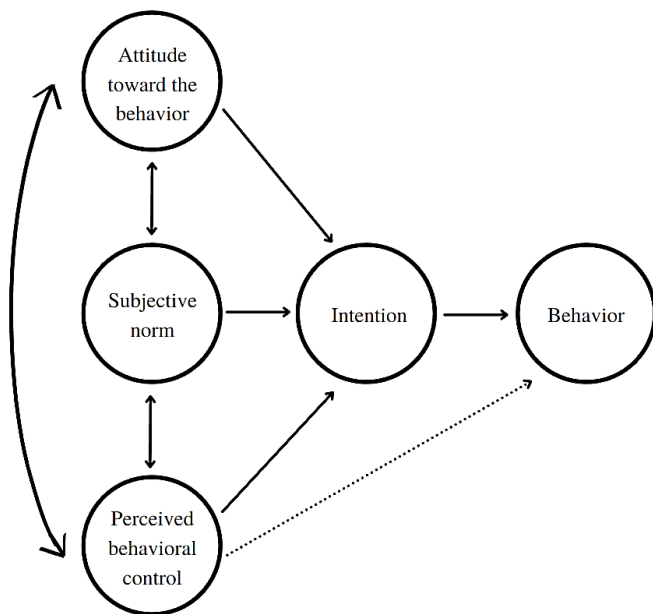
well as individuals. The more importance a community places on environmental improvements, the more willing residents are to participate in programs that benefit the environment. This concept is clear in the results of Vizek's (2016) and Drescher's (2014) studies.

***Perceived Behavioral Control***

Perceived behavioral control considers some of the realistic constraints that might inhibit an individual from acting on a behavior (Ajzen, 1988). The TPB model assumes that perceived behavioral control has a direct tie to implications for intentions. According to the theory, even if an individual holds a favorable attitude and experiences positive social pressures, if they have neither the resources nor the opportunity, they will likely form a weak behavioral intention (Ajzen, 1988). An example of this in relation to CE adoption, is if landowners feel they would not receive adequate financial and/or technical support, they may perceive a lack of resources as a reason not to act on their behavior intention. This supports findings by Farmer et al. (2015).

**Figure 1**

*Theory of Planned Behavior Model*



*Note.* Adapted from Ajzen, I. (1988). *Attitudes, personality and behavior*. The Dorsey Press.

Figure 1 highlights some important features of the TPB model. The theory assumes that perceived behavioral control has motivational implications for intentions (Ajzen, 2005). This leads to an expectation that perceived behavioral control in association to intention, is not mediated by attitude or subjective norm (Ajzen, 2005). In the figure, this is represented by the arrow linking perceived behavioral control to intention. Additionally, the dotted arrow indicates there is a link between perceived behavioral control and behavior that is expected to emerge only when there is some agreement between perceptions of control and the individual's actual control over the behavior (Ajzen, 1988).

### **Summary and Conclusion**

Several recent studies have examined the adoptability of CEs, and each of them has shed new light on the issue. Most importantly, the characteristics of landowners that indicate they are more likely to adopt become clearer with each social science research effort on this topic. Four key research efforts seem to stand out among the literature: Vizek's (2016) work, though focused on only one watershed in central Oregon, identified numerous key characteristics affecting internal and external attitudes toward CEs; Farmer et al. (2015) identified numerous important factors affecting motives to grant CEs; Hemby (2022) highlighted the importance of community views (homophily) toward environmental efforts, local land use planning, and the influence of change agents and leaders as key characteristics affecting adoption; additionally, Leonard's (2020) work to develop a model to predict the likelihood of CE adoption serves as a model to guide future social science research on this topic as well. All the CE adoption literature, some in small ways, others more obviously, fit within the realm of Ajzen's (2005; 1988) Theory of Planned Behavior, which provides an excellent framework to explain the context of CE adoption decisions.

Research on how best to communicate about CEs to and among landowners is not as prevalent as research on adoption, but within the adoption studies, two concepts are clear: communicators who are embedded in the community can be powerful influencers and peer-to-peer communications are impactful efforts to motivate adopters (Drescher, 2014; Vizek, 2016). Ultimately, the literature contains numerous pieces of key information that should guide future social science studies on CE adoption in terms of identifying key variables to include in survey instrumentation and interview questioning routes. These works will also be excellent references against which to compare results of future research efforts.

In this study, the TPB will be used to shape the survey instrument and the analysis of the results. This will allow researchers to determine the personal attitudes, social norms, and perceived behavioral control that landowners in Northwest Arkansas and Northeast Oklahoma have in respect to adopting CEs. From these results, local easement holding organizations can gain insights to their target audience and have better developed communications efforts.

## CHAPTER 3

### **Research Approach**

This study employed a quantitative survey approach to gain a comprehensive understanding of landowners' perceptions and attitudes towards CE programs. A researcher-developed Qualtrics survey was conducted with landowners in Northwest Arkansas and Northeast Oklahoma to gain regionally based information on this specific population of landowners (Bautista et al., 2020). Based on the literature, there is little knowledge on the specific factors that motivate landowners to adopt CE programs on their property. The main goal of this study was to identify those factors and use them, in conjunction with the demographic information, to guide recommendations for more effective communication efforts (Bautista et al., 2020). Objective surveys allow researchers to directly collect information from individuals on human behavior, perceptions, and attitudes (Bautista et al., 2020).

### **Subject Selection**

Participants for this study were contacted via assistance from a technical advisory committee created by the executive director of the Illinois River Watershed Partnership. The technical advisory committee was comprised of 10 members and represented the following organizations: Arkansas Farm Bureau, Arkansas Water Resources Center, Beaver Water District, Grand River Dam Authority, Illinois River Watershed Partnership, Natural Resources Conservation Service, and the Northwest Arkansas Land Trust. The original email link to the survey as well as a follow-up email two weeks later were both sent to the participant by the same member of the technical advisory committee. Generally, all email correspondence to participants should be sent from the same email address throughout the duration of the study (Stern et al., 2019).

Subjects were required to be current landowners in Northwest Arkansas (Benton, Carroll, Crawford, Madison, and Washington counties) and/or Northeast Oklahoma (Adair, Delaware, Cherokee, and Sequoyah counties). Subjects were selected from existing contact databases that the members of the technical advisory committee had. Each member of the technical advisory committee maintained a database of landowners in their respective region, and only landowners who met the qualifications of the study were contacted. The technical advisory committee members were the point of contact to the landowners and provided the link to the survey. The target response rate for the email survey was 90 participants. Seventy-seven usable responses were achieved from the survey.

Based on the stated requirements, and utilizing the technical advisory committee, participants were selected using a purposive non-probability sampling method. By using a criterion-based non-probability method, researchers aimed to gather information that accurately represented the targeted geographic area. To increase the breadth of responses, participants were recruited from a variety of sources (Vehovar et al., 2016). The members of the technical advisory committee spanned the entirety of the targeted geographic region, meaning participants selected also represented the location. All landowners in the technical advisory committee's contact database in the targeted nine-county region were eligible to participate in the survey. Preference was given to landowners who own floodplain and/or agricultural land. Subjects were selected anonymously, using only information about their land to determine their eligibility.

There were several factors that potentially limited the number of responses received from the subjects contacted. As noted by Dillman (2016), two of the major problems with internet-based email surveys are lack of reliable internet access, and lack of motivation of subjects to respond. The primary way this survey aimed to address these problems was by using a tailored

design and delivery. In the current age of the internet, it has become increasingly easy to ignore communications from unknown sources, as well as an increased skepticism of potential virus or malware resulting from that (Dillman, 2016). This survey was sent to subjects via email, from a person who they already knew and had previous communication with. Researchers chose this method of contact to increase the response rate. When a survey is done of people who have no connections to who is requesting a response, avoidance is the likely course of action (Dillman, 2016). Additionally, surveys from known sources and topics the subject recognizes tend to provide a substantial benefit (Dillman, 2016).

The survey was also designed in such a way that it was compatible with mobile or web completion, allowing participants more freedom in how they complete the survey (Bautista et al., 2020; Stern et al., 2019). When designing the survey questions, researchers tested both the mobile view and desktop view of the survey questions. This was to ensure all visual elements were not affected by the difference in modes and to reduce the potential for measurement error across modes (Stern et al., 2019).

### ***Human Subjects Protection***

All subjects participating in this study were protected from harm as a result of the study by the University of Arkansas Internal Review Board (#2207409710) (Appendix A). All identifying information collected from the participants was stored separately and then destroyed immediately following the conclusion of the study. At the conclusion of the survey, participants were given the opportunity to enter a drawing for one of 10 \$50 Amazon.com gift cards. The drawing was entirely voluntary and had no bearing on their survey responses. Winners were randomly selected from the participants who self-entered the drawing. Contact information

obtained for the gift card drawing was collected in a separate survey from the main response survey, so there was no way to connect identifying information to the responses.

### **Instrument Development**

This study consisted of a traditional researcher-developed questionnaire survey distributed via email. When the content matter of a survey can cause the participant to have acquiescence bias, meaning they would prefer to provide responses in adherence to social norms, a self-administered survey is preferred to reduce the potential for this bias (Bautista et al., 2020). The questions addressed general demographics, as well as information regarding factors encouraging CE adoption, and current communication and education methods consumed by landowners regarding CEs (Appendix B). While the method of collecting the response was quantitative, a strong effort was made to draw nuanced responses from the participants. Attitudinal questions, devoid of any factual permanency, were asked to understand the respondents' feelings and attitudes towards local CE programs (Bautista et al., 2020). In addition to the attitudinal questions, behavioral questions were asked to collect more factual data pertaining to the respondents' personal or household behaviors based on their attitudes held (Bautista et al., 2020).

Passmore et al. (2002) identified several ways to increase the reliability of a researcher-developed instrument, including utilizing a study team, using the literature to inform the instrument, and conducting pilot testing to adapt the survey. The instrument for this study was developed through a collective effort by a research team, in addition to consulting the technical advisory committee to ensure the accuracy of the information. All questions developed for the survey were based directly on the literature and tied back to the listed research objectives. According to Passmore et al. (2002), researchers need to identify gaps in the literature to fill, as

well as note questions that have been previously answered, so as to not duplicate data. The survey developed for this study based its questions on previously conducted research, to further address those research problems, in addition to using questions that will fill a gap in the existing literature. Using previously validated surveys to guide the development of survey questions improves the likelihood that the survey results will be valid and reproducible (Passmore et al. 2002). For this study, the survey was critiqued and edited by the research team prior to pilot testing with the technical advisory committee. Using the research team to provide initial edits increased the face validity to the instrument before complete pilot testing took place (Passmore et al. 2002).

### ***Survey Design***

Before the survey questions began, participants were provided with introductory information that gave context for the questions that followed (Bautista et al., 2020). In the informed consent portion, participants were provided with an invitation to participate that gave a short overview of the purpose of the study, as well as why they were selected as a participant. In addition, the researcher's title and contact information were provided in the instance a participant had a question or concern with the content of the survey. All participants had to read and acknowledge that section of the survey before they were allowed to begin. Following the informed consent portion, they were directed to the demographics section, before being provided with a list of key terms to help in answering the questions (Bautista et al., 2020). However, before providing any definitions or probing information, participants were asked to identify their knowledge level of CE programs so that the risk of priming effect was reduced (Bautista et al., 2020).



The questions were quantitative in nature, and responses were based on a 5-point Likert scale (Bautista et al., 2020). Some of the questions had an open-ended response option in addition to the rating scale. Response options to the questions were listed as rating, as opposed to a check-all-that-apply style response type, to force participants to provide a response for all fields (Bautista et al., 2020). Based on extensive existing literature, the use of visual features such as numbers, arrows, and additional answer boxes circumvent potential issues from not having the researcher present during the survey (Stern et al., 2019). The survey had 17 questions, excluding demographic information. Questions were organized into approximately equal sections to address each of the two research objectives (Stern et al., 2019). Organizing the questions in such a way provided slight breaks to the participant and made the survey more manageable to reduce the potential for breakoff and respondent fatigue (Stern et al., 2019). Each section of the survey had questions relating back to the overarching objective: demographics, landowner perceptions of easement programs, and methods of preferred communication/education. Questions were developed based on the conceptual map for survey development identified by Bautista et al. (2020). This was intentionally done during the survey design process to help the researchers visualize how concepts connected with the survey questions and anticipated statistical analysis (Bautista et al., 2020).

When relevant to the questions, definitions were provided to the participants to give them a clear and accurate way to identify the sections of the survey (Bautista et al., 2020; Stern et al., 2019). Multiple screens were used to redirect participants when a new set of questions were being presented. Providing participants with navigational buttons allowed them to see how they were progressing through the survey, reducing the potential for breakoff (Stern et al., 2019).

Additional visual stimuli were provided in the form of bold and italicized words to draw the participants' attention to specific wording (Bautista et al., 2020; Dillman et al., 2014).

### **Pilot Testing**

Feedback from the pilot testing participants was considered during the process of editing to avoid confusing wording or redundant questions. The use of pilot testing helped provide an early indication of the reproducibility of the responses, as well as a predictor of the amount of time needed for analyzing responses (Huxley, 2020; Passmore et al. 2002). Completing pilot testing with the technical advisory committee allowed the researchers to ensure the questions were written in a way to mirror conversational norms for participants (Schwartz & Sudman, 1996). This was done by utilizing the four concepts identified by Schwartz and Sudman (1996): expressing the information clearly to the audience, and ensuring the contributions were all relevant, informative, and truthful. Due to the nature of the professional relationship between the members of the technical advisory committee and the target survey participants, they had direct knowledge of how to ensure the survey questions would be well-received by the participants.

Pilot participants were asked to provide feedback on the overall survey design, quality of questions, any other constructive feedback to improve the instrument. The technical advisory committee was asked to provide their feedback to ensure the survey aligned with the landowners in the target audience (Schwartz & Sudman, 1996). They were also asked to identify any gaps in the survey and suggest additional questions that may have been missed but need to be addressed. All responses gathered as a result of pilot testing were deleted before the subjects were contacted with the survey link.

Feedback from the pilot study indicated that the questions were valid and would elicit proper responses from the subjects. A few of the members of the technical advisory committee

recommended minor additions to the survey. From their feedback, two counties were added to fully represent the Illinois River watershed that spans into Oklahoma. Additionally, a definition of conservation was added to precede the questions regarding general conservation opinions. This was done to ensure all participants were answering the questions based on the same definition. Since information specific to floodplain land was needed, a question asking participants to identify if they owned floodplain land was added. Lastly, feedback from the pilot study on the question regarding CE programming services indicated that there were too many options for participants to choose from. Subsequently, options were consolidated to increase the conciseness of the survey.

### **Data Collection**

Data was collected using a self-administered Qualtrics survey questionnaire. Participants submitted their responses electronically, and all identifying information was stored separately from their responses. Survey responses were stored electronically through Qualtrics software, and the aggregated responses were exported to a spreadsheet for further analysis. Data from the survey responses were exported, organized, and analyzed based on the research objectives.

### **Data Analysis**

Data collected from the Qualtrics survey were analyzed first through descriptive statistics, mean and standard deviation (Bautista et al., 2020; Huxley, 2020). Information obtained from the demographic questions was organized nominally, and the data collected from the additional survey questions were organized ordinally, both of which allowed for a nonparametric analysis (Huxley, 2020). In addition to the descriptive statistical analysis, a bivariate correlational analysis was conducted to examine connections between certain demographics and survey responses (Bertani, et al., 2018). The level of significance for the

correlations was decided *a priori* to be  $p < .01$ . Additionally, Davis (1971) was used as the guide to determine the levels of correlation between variables.

### ***Data Coding***

Coding utilized a reviewed code sheet to ensure all members of the research team were in agreement on the coding methods (Huxley, 2020). Researchers decided upon clear variables that were evaluated and compared to one another, as well as a code sheet that outlined the data steps to be entered into the SAS program (Huxley, 2020). Data from the survey were exported as an Excel spreadsheet, before being entered into SAS programming software for coding. Using a computer-assisted coding method was done to increase the speed and accuracy of data analysis (Huxley, 2020). In the demographics section, utilizing descriptive statistics allowed for a generalized comparison to be made to the responses for the rest of the survey. Responses to all questions were compared across specific demographic information to produce a stronger understanding of how to target messaging to specific demographic groups and choose the most effective media channels for those groups. The limitations for using computer coding software include the time needed for the researcher to become adept in using it, and the lack of the program to understand context (Huxley, 2020). This was taken into account in coding survey responses, with the research team agreeing on the code sheet and correlational analysis variables. Any data gathered from the “other” open-ended response option on the survey was reported as anecdotal data to further support the quantitative study findings.

### ***Objective One: Landowners’ Perceptions of CEs***

The survey questions related to the first objective, characterizing landowners’ perceptions of CE programs, asked participants to rank factors that would encourage or discourage their participation in CE adoption. Additional questions in that section of the survey asked participants

to rank their level of agreement with several general land conservation-based questions. These responses were analyzed based on their mean and standard deviation. Incentivizing and disincentivizing factors were then ranked by the quantitative value assigned to them based on the results. This allowed researchers to compare the responses with specific demographic groups. Analyzing the responses in that way allowed researchers to generalize the responses to inform the recommendations for easement holding organizations.

### ***Objective Two: Preferred Methods of Communication***

The next section of the survey asked questions to address the second objective, identifying current and preferred methods of communications regarding CE programming. These questions asked participants to rank the credibility of various sources for gaining information about CEs. Participants were also asked to rank various media based on how frequently they use them to receive CE information/updates. Using the mean of the responses to both of these questions, respectively, allowed researchers to identify who the participants view as the most credible organizations, as well as their most frequently used media channel. This information was useful in determining the forms of media most effective for reaching the desired audience and determining what forms of messaging will likely resonate best with landowners in Northwest Arkansas and Northeast Oklahoma.

### ***Validity***

The validity of this study was established through pilot testing, where experts helped ensure the face validity of the survey questions. Validity can also be achieved by developing well-defined research questions or objectives, using a well-defined sampling frame, developing a codebook, and assessing reliability (Huxley, 2020). This study addressed the previously listed validity concerns. Internal validity, or how well the data collected measures what it intended to,

was confirmed by basing all questions in the survey in existing literature and the defined research objectives (Huxley, 2020).

### ***Limitations***

There are some limitations to be addressed in quantitative research, primarily in the form of potential lack of context and interpretation of responses (Huxley, 2020). In existing literature, it is argued that quantitative content analysis allows for a reductionist technique to be used and there is a danger of loss of meaning during the coding process (Huxley, 2020). In addition to the potential for lack of nuance in interpreting the data, there is also a risk for coding mistakes (Huxley, 2020). To address these risks, this study used computer-assisted coding methods to reduce the number of coding errors. An additional limitation of this study was the use of purposive non-probability sampling. The results of this study are limited to the participants, and not generalizable to those outside of the sample.

## CHAPTER 4

### Results

Findings from the survey ( $N = 77$ ) were analyzed to identify how landowners in Northwest Arkansas and Northeast Oklahoma perceive CE program options, communications preferences, and preferred easement structures. Responses were organized and analyzed by objective, preceded by demographic data. All information collected represents only the sample of participants from Northwest Arkansas and Northeast Oklahoma and cannot be generalized to the larger population.

### Participant Demographics

Overall, the study participants were well-educated and had a high average annual income, as shown by the demographics data in Table 1. Eighty-three percent of all survey respondents reported having a 4-year degree or higher. According to data from the United States Census Bureau, the counties involved in this study ranged from 10.6% (Adair County) to 34.6% (Benton County) of residents possessing a 4-year college degree or higher (U.S. Census Bureau, n.d.). Education information was collected on a 1-8 scale (1 = less than high school; 5 = 4-year degree; 8 = professional degree), with most respondents earning a 4-year degree or higher ( $M = 5.78$ ,  $SD = 1.88$ ). Information regarding annual household income was collected on a 1-12 scale (1 = less than \$10,000; 12 = more than \$150,000), with most respondents earning \$70,000/year or higher ( $M = 8.14$ ,  $SD = 3.49$ ). Respondents' average annual income was approximately \$20,000 higher than the average annual income for the population of the targeted counties. Based on calculations from data from the United States Census Bureau, the average annual income for the nine-county area is approximately \$51,247 (U.S. Census Bureau, n.d.).

The majority of respondents owned land in Northwest Arkansas, with Washington County ( $n = 49$ ) having the highest number of participating landowners. The response rate for each county equated to greater than 77, because several landowners owned tracts of land in multiple counties. The total represented landowners is 77, however, 88 total tracts of land were represented in the demographic data.

**Table 1**

*Survey Respondents' Demographics by Age, Gender, Income, Education, and Responses per County*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
Age <sup>a</sup>	77	55.63	14.15
Gender <sup>b</sup>	77	1.52	0.50
Education <sup>c</sup>	77	5.78	1.88
Income <sup>d</sup>	77	8.14	3.49
Arkansas <sup>e</sup>	79		
Washington	49		
Benton	18		
Madison	9		
Carroll	2		
Crawford	1		
Oklahoma <sup>e</sup>	9		
Cherokee	4		
Adair	3		
Delaware	1		



*Note.* <sup>a</sup>Age (self-reported numeric value); <sup>b</sup>Gender (1 = male; 2 = female); <sup>c</sup>Education (1 = less than high school; 8 = professional degree); <sup>d</sup>Income (1 = less than \$10,000; 12 = more than \$150,000); <sup>e</sup>Total county responses equate to greater than 77, due to multiple respondents owning land in more than one county.

Following the standard demographic questions, survey respondents were asked to rate their primary reason for owning land. This demographic question was important to gather, due to previous literature citing reason for landownership as potential effective audience segments for persuasive messaging. Table 2 presents the descriptive statistics for this survey question, and a correlational analysis is presented in Table 9.

A 5-point Likert-scale was used to gather this information (1 = not at all important; 5 = very important). Respondents generally rated ownership for land preservation reasons as higher than practical land uses. As seen in Table 2, *scenic value* was the highest rated reason for landownership ( $M = 4.46, SD = 0.89$ ). This was followed closely by *wildlife habitat* ( $M = 4.40, SD = 1.02$ ) and *primary residence* ( $M = 4.36, SD = 1.30$ ). A majority of respondents ( $n = 64$ ) owned 100 acres or less, and the average tract size was 54 acres. Primary residence was one of the most important reasons for owning land; this suggests that many of the respondents were residential landowners. The range of acres owned by respondents was 0.25 acres to 900 acres.

**Table 2**  
*Survey Respondents' Reason for Landownership*

Reason for ownership	<i>n</i>	<i>M</i>	<i>SD</i>
Scenic value	77	4.46	0.89

Wildlife habitat	77	4.40	1.02
Primary residence	77	4.36	1.30
Land investment	77	3.91	1.34
Family estate	77	3.40	1.48
Agriculture production	77	2.65	1.59
Hunting	77	2.09	1.42
Timber production	77	1.75	1.24

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*Note.* Responses reported on Likert-scale (1 = not at all important; 5 = very important.)

In addition to the Likert-scale, an “*other*” open-ended response option was included. Further supporting the 77 numeric responses, 18 respondents listed an additional open-ended response option for landownership. Overall, participants listed more specific reasons related to land conservation and protection, which aligns with the numerical responses. Some respondents elaborated on their reason for owning multiple tracts of land, stating “The reasons vary depending on the land in question. One is my primary residence the other is for conservation and recreation.” Other anecdotal responses include landownership reasons such as “lake access for recreation”, “mental health”, and “stewardship of land, watershed, and air quality for the community and future generations.” These reasons all align with and further support the listed descriptive statistics in Table 2.

### **Objective 1: Landowners’ Perceptions of Conservation Easements**

Findings related to the first objective of characterizing landowners’ initial perceptions of easement programs are shown below. Participants were first asked to rate their understanding of the definition of a CE, with no definition provided. This was to gather respondents’ unbiased

perception of CE programs. Following that question, a definition for a CE was provided before asking respondents to rate the benefit of having a CE on their land. Prompting the respondents to refer to the given CE definition, they were asked to rate their perceived incentivizing and disincentivizing factors regarding CE program options. Findings indicated landowners lacked an awareness-level knowledge of both CE program structures, as well as regional CE organizations. This is supported by the “*other*” open-ended disincentivizing factor responses of, “difficult to find partners” and “complexity of options.” In addition, responses indicated there was no strong correlation between reason for owning land and CE program structure preference. This indicates those landowners with existing strong positive perceptions of CEs would not need strong persuasion to act on their behavior of adopting a CE, once provided with the information to make the decision.

### ***Perceived Benefit to Participating in CE Programs***

Respondents were asked to rate their existing level of understanding of the definition of a CE. A definition was not provided initially because researchers intended to gauge subjects’ existing understanding of their definition of a CE. Responses were gathered on a scale of 1-5 (1 = strongly disagree; 5 = strongly agree) describing how well the respondent agreed with the statement, *I understand what a conservation easement is*. A majority of respondents, 70%, noted at least some level of agreement that they understood the definition of a CE (M = 3.78, SD = 1.30).

After survey respondents were asked to identify their confidence level of defining a CE, they were then provided with a definition, so that all respondents would have the same context of CEs to refer to. The definition used was obtained from the National Conservation Easement Database. Based on the definition given, respondents were asked to identify their level of

agreement with the statement *I feel that a conservation easement could benefit my land*. Subjects were provided with a 1-5 scale to rate their responses (1 = strongly disagree; 5 = strongly agree). As seen in Table 3, respondents in nearly all targeted counties had an overall positive perceived benefit of adopting a CE ( $M = 3.65$ ,  $SD = 1.20$ ).

While the total survey response rate was 77 landowners, because multiple respondents owned land in more than one county, 88 total tracts of land were represented across the region. Respondents from Arkansas ( $n = 70$ ) owned 79 total tracts of land and respondents from Oklahoma ( $n = 7$ ) owned 9 total tracts of land. This did not change the overall survey response rate, and responses for this question only were duplicated for respondents owning a tract of land in more than one county.

As seen in Table 3, responses did not differ greatly between states. A majority of respondents owned land in Washington County, Arkansas and held a slightly higher opinion of adopting a CE ( $M = 3.73$ ,  $SD = 1.04$ ), as compared to the overall opinion of all respondents ( $M = 3.61$ ,  $SD = 1.22$ ). Respondents from Cherokee County, Oklahoma reported the highest overall benefit of adopting a CE on their land ( $M = 4.75$ ,  $SD = 0.50$ ).

**Table 3**

*Mean Overall Perceived Benefit of CEs by County*

State/County	<i>n</i>	<i>M</i>	<i>SD</i>
Arkansas	79	3.61	1.17
Madison	9	4.00	1.22
Washington	49	3.73	1.04
Benton	18	3.22	1.44
Carroll	2	3.00	0.00

Crawford	1	2.00	0.00
Oklahoma	9	3.67	1.66
Cherokee	4	4.75	0.50
Adair	3	3.33	2.08
Sequoyah	1	3.00	0.00
Delaware	1	1.00	0.00

*Note.* Total county responses equate to greater than 77, due to multiple respondents owning land in more than one county. Responses reported on Likert-scale (1 = strongly disagree; 5 = strongly agree).

### ***Perceived Incentives and Disincentives Related to Participating in Easement Programs***

#### *Incentives*

Survey respondents were asked to rate perceived incentives to participating in an CE program on a 1-5 scale (1 = not at all important; 5 = extremely important). The incentivizing factors were selected for inclusion in the survey based on the existing literature as well as conversations with CE experts. As seen in Table 4, internal motivators, related to protecting the natural value of the land, were rated higher in overall importance than external motivators, such as reduction in taxes or payments. However, the average income of respondents ( $M = 8.14$ ,  $SD = 3.49$ ) was relatively high, which may have introduced some selection bias to these results.

As seen in Table 4, half of the respondents (50%) noted *protecting scenic value* as an extremely important incentive for adopting a CE on their property. This is directly supported by landowners rating *scenic value* as the most important reason for owning their land. Receiving a *lump sum payment up front* was the lowest rated incentivizing factor; only 12% of respondents

listed this as an extremely important factor. This suggested that landowners are less motivated by financial incentives than they are protecting the value and beauty of the land.

**Table 4**

*Perceived Level of Incentives for Adopting CEs*

Incentive	<i>n</i>	Not at all important (%)	Slightly important (%)	Moderately important (%)	Very important (%)	Extremely important (%)
Protect scenic value	77	1	5	20	24	50
Prevention of land development	77	9	9	14	24	44
Reaching conservation goals	77	5	3	31	33	28
Protection of family legacy property	77	25	9	20	21	25
Working with an accredited NGO	77	4	15	25	34	22
Reduction in state/federal income/estate tax	77	14	25	31	12	18
Technical assistance/advice	77	20	8	32	27	13
Lump sum payment up front	77	27	21	24	16	12

*Note.* Responses reported on Likert-scale (1 = not at all important; 5 = extremely important.)

When perceived incentives were compared to demographic information, very few strong relationships were apparent. As seen in Table 5, there was a moderate negative correlation ( $r = -0.30$ ;  $p < .01$ ) between age and rating reduction in income/estate tax as important, which suggested that younger landowners may be less swayed by financial incentives. This is supported by previous literature that noted younger generations as having stronger internal motivators as compared to older generations. There was no statistically significant correlation with any incentivizing factor and gender, which suggests there is not much difference in what motivates female versus male landowners' decision making.

**Table 5**

*Perceived Incentive by Gender and Age*

Incentive	<i>n</i>	<i>M</i>	<i>SD</i>	Gender ( <i>r</i> )	Age ( <i>r</i> )
Protect scenic value	77	4.16	1.01	0.15	0.08
Prevention of land development	77	3.84	1.33	0.01	0.10
Reaching conservation goals	77	3.75	1.06	0.12	0.12
Working with an accredited NGO	77	3.57	1.11	0.06	0.02
Protection of family legacy property	77	3.12	1.52	0.06	0.05
Technical assistance/advice	77	3.06	1.29	-0.15	-0.01
Reduction in state/federal income/estate tax	77	2.95	1.30	-0.02	-0.30*
Lump sum payment up front	77	2.63	1.35	-0.12	-0.14

Note. Responses reported on Likert-scale (1 = not at all important; 5 = extremely important.)

\* $p < .01$

### *Disincentives*

Survey respondents were asked to rate the importance of disincentivizing factors to participating in an easement program on a scale from 1-5 (1 = not at all important; 5 = extremely important). Results in Table 6 show *loss of privacy* as a disincentive to participating in a CE program was rated as very important or extremely important by 60% of respondents, and *financial obligation* was rated as either very important or extremely important by 58% of respondents. *Loss of property rights* was rated as very important or extremely important by nearly half of the respondents (47%), coupled with the high rating of *loss of privacy*, suggests that landowners may not have a full scope of knowledge of CE programs and their restrictions.

The disincentive with the least amount of importance to respondents was *changes in agricultural practices*, which was rated not at all important by 44% of respondents. This aligns with agricultural landownership reported as one of the lowest important reasons for the surveyed landowners owning their land ( $M = 2.65$ ,  $SD = 1.59$ ) (see Table 2).

**Table 6**

#### *Perceived Level of Disincentives for Adopting CEs*

Disincentive	<i>n</i>	Not at all	Slightly	Moderately	Very	Extremely
		important	important	important	important	important
		(%)	(%)	(%)	(%)	(%)
Loss of privacy	77	12	15	13	21	39
Financial obligation	77	8	9	25	28	30



Loss of property rights	77	21	21	11	18	29
Lowered property value	77	28	14	17	14	27
Inadequate compensation	77	14	18	23	20	25
Limiting heirs' decision making	77	17	20	21	20	22
Working with a governmental agency	77	28	15	37	4	16
Complexity of easement processing	77	13	15	33	25	14
Time obligation	77	15	16	37	19	13
Changes in agricultural practices	77	44	13	17	13	13

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*Note.* Responses reported on Likert-scale (1 = not at all important; 5 = extremely important.)

Similar to the perceived incentives, there was little difference in importance of various discouraging factors between the demographics of gender and age. As seen in Table 7, there was no statistically significant correlation found between any of the disincentivizing factors and gender or age. While not statistically significant, a weak negative correlation that was found was between age and importance of *financial obligation* ( $r = -0.22; p \leq .05$ ). This was important to mention due to the moderate correlation between age and the incentive of *reduction in state/federal income/estate tax*. As landowners' age increases, the more importance they tend to place on monetary motivations.

**Table 7***Perceived Disincentive by Gender and Age*

Disincentive	<i>n</i>	<i>M</i>	<i>SD</i>	Gender ( <i>r</i> )	Age ( <i>r</i> )
Financial obligation	77	3.63	1.23	0.02	-0.22
Loss of privacy	77	3.60	1.43	0.00	-0.19
Inadequate compensation	77	3.25	1.37	-0.03	-0.19
Loss of property rights	77	3.13	1.55	0.10	-0.21
Complexity of easement processing	77	3.13	1.23	0.06	-0.03
Limiting heirs' decision making	77	3.11	1.41	0.09	-0.12
Time obligation	77	3.00	1.22	-0.15	-0.16
Lowered property value	77	2.97	1.57	-0.03	-0.15
Working with a governmental agency	77	2.65	1.37	-0.17	-0.09
Changes in agricultural practices	77	2.39	1.48	0.06	-0.04

\**p* < .01***Awareness and Knowledge Levels Related to Easement Holding Organizations***

To identify landowners' knowledge levels of regional CE organizations, survey participants were asked to identify the number of CE organizations they were aware of in their area. Based on the responses, respondents lacked knowledge of regional CE organizations (see Table 8). Forty-five percent of respondents (*n* = 34) reported no knowledge of CE organizations in their area, while 40% reported knowledge of only 1-2 CE organizations (*n* = 30). This

suggests that even if landowners possess a positive perception of CEs, the majority lack the awareness-level of knowledge to act on the behavior.

**Table 8**

*Frequency of Respondents' Knowledge of Regional CE Organizations*

Number of CE organizations known	<i>n</i>
None	34
1-2	30
3-4	10
5+	2
No response	1

***Association Between Reason for Owning Land and Length of CE Considered***

Respondents were asked to rate their primary reason for owning their land on a 1-5 scale (1 = not at all important; 5 = very important). *Scenic value* ( $M = 4.46, SD = 0.88$ ), *wildlife habitat* ( $M = 4.40, SD = 1.02$ ), and *primary residence* ( $M = 4.39, SD = 1.30$ ) were rated as the top three most important reasons for the landowners to own their land. Responses from the reason for landownership question were then compared to multiple CE term length options (Table 9).

**Table 9***Inter-Correlations Between Reason for Landownership (R#) and Length of CE Favored (CE#)*

Variable	R1	R2	R3	R4	R5	R6	R7	R8	CE1	CE2	CE3	CE4	CE5	CE6	
Reason															
1. Land investment	1.00	-.05	.22	0.14	.52*	.001	-.04	-.05	-.17	-.07	.13	.15	.15	.14	
2. Wildlife habitat		1.00	.07	0.14	.08	.07	-.02	.40*	.18	.35*	.12	.24	.07	.18	
3. Agricultural production			1.00	0.54*	.18	.16	.32*	.08	-.03	.02	-.05	.08	.04	.12	
4. Timber production				1.00	.30*	.01	.39*	.18	-.03	.22	.07	.26	.07	.23	
5. Family estate					1.00	-.13	.24	.08	-.14	.01	-.02	.13	-.09	.08	
6. Primary residence						1.00	-.07	.12	-.15	-.09	-.20	-.06	-.03	-.03	
7. Hunting							1.00	.09	-.22	-.15	-.25	-.02	-.29	-.06	
8. Scenic value								1.00	.08	.16	.04	.14	.01	.09	
CE option															
1. All of land; permanent easement										1.00	.66*	.73*	.45*	.58*	.34*

2. Part of land; permanent easement	1.00	.64*	.77*	.54*	.62*
3. All of land; 30- year easement		1.00	.71*	.85*	.65*
4. Part of land; 30- year easement			1.00	.68*	.87*
5. All of land; < 30- year easement				1.00	.75*
6. Part of land; < 30- year easement					1.00

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\* $p < .01$

Owning land for the purpose of *wildlife habitat* ( $r = 0.35; p < .01$ ) showed a moderate positive correlation with the CE option of *part of the land on a permanent easement*. The other reasons for owning land showed weak or negligible correlations with the easement options given, meaning there is no significant relationship between the reason for owning land and the various easement program options, length of time or proportion of land.

All of the CE program options had moderate to very strong relationships with each other, meaning if a landowner would consider adopting a CE on their land, the variance between preferred term length and/or proportion of land was not significant.

**Objective 2: Preferred Methods of Communication**

Respondents were asked to provide their opinions on various communications methods, as well as their perceived credibility of communication sources. These responses were used to make recommendations to environmental organizations in Northwest Arkansas and Northeast Oklahoma to improve their targeted communications efforts.

***Media Landowners are Using to Learn About Conservation Efforts***

Respondents were asked to rate their current preferred communications methods used to learn about CEs and general conservation practices. Respondents were provided a list of eight possible communications methods and asked to rate their frequency of use on a 1-5 scale (1 = never use; 5 = use every time). Responses varied across all ages of landowners, and no singular communications method had a mean rating of 4 or higher on a 5-point scale.

As seen in Table 10, *email* received the highest frequency of use ( $M = 3.67, SD = 1.05$ ), followed by *individual conversations with experts* ( $M = 3.07, SD = 1.24$ ). The use of *social media* to receive information/updates regarding CEs was rated with a lower frequency, ( $M = 2.40, SD = 1.06$ ) which was to be expected as compared to the average age of survey respondents, which was 55.6.

**Table 10**

*Preferred Communications Methods (Presented with Mean Age)*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
Age	77	55.6	14.5

Communications method			
Email	77	3.67	1.05
Conversations with experts	77	3.07	1.24
Website	77	3.00	1.47
Peer-to-peer conversations	77	2.99	1.07
Printed items	77	2.89	1.20
In-person seminars/field days	77	2.67	1.15
Social media	77	2.40	1.06
Webinars	77	2.33	1.17

*Note.* Responses reported on Likert-scale (1 = use occasionally; 5 = use every time).

### ***Methods of Effective Persuasive Messages***

Based on the numerical data presented in Table 10, landowners prefer low-pressure, casual in-person communications versus formal educational sessions. *Conversations with experts* ( $M = 3.07$ ,  $SD = 1.24$ ) was rated higher as compared to *in-person seminars/field days* ( $M = 2.67$ ,  $SD = 1.15$ ). This suggests that landowners favor less structured conversations with experts, where the tone of the event is informal. These conversations could occur at public community events, such as county fairs or farmers markets. In addition to these findings, respondents were also given the opportunity to provide additional responses with an “*other*” open-ended response option. Anecdotally, the text responses supported the numeric findings, with the additional comment that “public radio,” was a desired form of communication. Overall, it appeared landowners preferred forms of communication and educational material which would allow them to remain a passive audience.

***Perceived Credibility of Conservation Information Sources***

In addition to questions related to communications methods, respondents were asked to identify the perceived level of credibility associated with a list of environmental organizations. Respondents were asked to rate the organizations’ credibility regarding receiving CE information from those sources, on a 1-5 scale (1 = not at all credible; 5 = no opinion). As seen in Table 11, overall, respondents identified the listed environmental organizations as having at least some level of credibility. *Watershed protection organizations* and *NRCS* were rated as the two most credible organizations for CE information, with 61% and 44% of respondents rating them as extremely credible, respectively.

While the provided organizations were rated as overall credible, it is important to note the high level of no opinion responses. When compared to the credibility values found in Table 8, it suggests that landowners may lack the awareness-level knowledge of many of the organizations, which may prevent them from forming opinions on their credibility, positive or negative.

**Table 11**

*Frequency of Credibility of Source of CE Information (n = 77)*

	Not at all credible (%)	Somewhat not credible (%)	Somewhat credible (%)	Extremely credible (%)	No opinion (%)
Watershed protection organizations	0	1	28	61	10
NRCS	1	0	19	44	36
Local land trusts	1	3	24	39	33
Cooperative Extension	1	7	37	39	16



Commodity groups	6	18	32	16	28
Peers	8	18	42	13	19

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## CHAPTER 5

### Conclusions and Recommendations

Recommendations for regional CE organizations were determined based on the survey results, and supported where relevant by the anecdotal text responses. Responses were organized by objective, and relationships were identified between survey questions and demographic information. Below are the conclusions related to each of the study objectives, which precede the practical recommendations for regional CE organizations. Recommendations are supported by the results of this study, in addition to previous literature.

#### Objective 1: Landowners' Perceptions of Easement Programs

##### *Conclusions*

##### *Perceived Benefit to Participating in CE Programs*

Based on the existing literature (Kemink, 2020; Stroman et al., 2017), landowners' existing attitudes towards conservation are more influential in their decision to adopt CEs than external motivating factors. Across the surveyed region, there was little difference in landowners' perceived benefit to adopting a CE on their property. Generally, the responses to the question *I feel that a conservation easement could benefit my land* were positive; only respondents in Crawford County, Arkansas and Delaware County, Oklahoma reported a negative opinion on CEs. However, there was only one respondent for each of those counties, so their response cannot be fully representative of the county. Aside from those two counties, there was little to no difference in attitudes toward adopting CEs from the nine targeted counties, meaning, for this sample, geographic location had little effect on landowners' personal motivating factors.

The overall positive responses suggest that surveyed landowners in the targeted region would respond positively to persuasive CE messaging. However, this conclusion could be biased

because of the fact landowners who were motivated enough to respond to the survey likely already possessed a positive opinion of conservation efforts. Therefore, they may already be more internally motivated to respond to persuasive messaging and adopt CEs than the entire population. According to the Azjen's (2005) TPB model, if the individual already holds a positive attitude toward the action, they will be more likely to act on the behavior. However, according to the theory, their likelihood to act on the behavior could be affected by the overall perceived benefit or risk of performing the action.

#### *Perceived Incentives and Disincentives Related to Participating in CE Programs*

In line with the general positive perception of CEs, the surveyed landowners also rated incentivizing factors directly related to land conservation as the highest motivating factor. Nearly three-quarters of all respondents rated *protecting scenic value* as the most incentivizing factor to adopting a CE. This is also directly supported by respondents identifying *scenic value* as the most important reason for them owning their land. It appeared landowners surveyed were most influenced by an existing intrinsic value to protect their land, which further supports the findings of Vizek's 2016 study. The results for this study may be partially influenced by the relatively high mean income range of respondents (\$70,000 - \$79,000); however, Tanguay (2021) and Kemink et al. (2020) also recommend focusing on these internal motivators more intently than financial gain to encourage landowner motivations more toward stewardship ideals.

When asked about disincentivizing factors related to adopting CEs, landowners identified *loss of privacy* as a highly disincentivizing factor. This could be attributed to misconceptions held about a CE requiring public access to the land it is associated with, as also seen in previous literature (Drescher, 2014; Hemby et al., 2022). Examining this conclusion through the lens of the TPB model, the perceptions of risks for adopting a CE (i.e., disincentives), even if they exist

in small amounts, could outweigh any positive intrinsic motivations landowners have. The top three disincentivizing factors identified by landowners were *loss of privacy*, *financial obligation*, and *loss of property rights*. This suggests perceptions of risk related to adopting CEs may be a stronger influence than positive intrinsic conservation values. Vizek (2016) also identified the relationship both external and internal motivating factors had with perceived risks of adopting CEs. Vizek (2016) found the reported level of risk decreased as awareness increased. Those findings, combined with the findings of this study, further suggest regional CE organizations should increase awareness-level communications to combat perceived risks.

#### *Awareness and Knowledge Levels Related to Easement Holding Organizations*

While the surveyed landowners held an overall positive perception of CEs, when asked to identify the number of CE organizations they are aware of, most respondents knew of less than two. Over one-third of all respondents reported being unaware of any CE organization entirely. This suggests even though landowners think positively of CEs, they lack the base-level knowledge to act on that intention. Without the knowledge of CE organizations, even if there are no strong negative influences, a landowner will not be able to act on the behavior of adopting a CE. Additionally, for those landowners who do have a high perceived level of risk associated with CEs, a combination of lack of awareness makes their intention to act on their behavior particularly volatile. Currently, it appears landowners lack the necessary scope of knowledge to fully inform their decision to act on their behavior.

#### *Association Between Reason for Owning Land and Length of CE Considered*

A correlational analysis was conducted to determine if the reason for land ownership had a significant relationship to structure of CE program preferred (length of time and proportion of land). Since no statistically significant correlations were found, it follows that landowners who

would be motivated to adopt any CE program option would not likely be influenced by any specific messaging related to the reasons why they own their land. In addition to the correlation between land ownership and CE program structures, a comparison was done to examine the relationship each of the CE program structures had with each other. All easement structures provided (both length of time and proportion of land) were moderately to very strongly correlated with each other. This suggests that if a landowner would consider adopting an easement on their property, they would not be heavily influenced by the program conditions.

In previous studies, a strong negative correlation between landowners who have owned larger properties for longer periods of time and their willingness to adopt CEs was found (Hemby et al., 2022). In this study, landowners' responses to the survey question *I feel that a conservation easement would benefit my land*, was compared with the responses to the length of time the respondents had owned their land. There were no statistically significant positive or negative correlations found. This suggests that these landowners' motivational factors were shaped by reasons independent of the length of time they had owned their land.

### ***Recommendations***

Based on the survey results, the first course of action for regional CE organizations would be to increase awareness-level communications. It appears that landowners would receive the content of communications from CE organizations well; they just lack the knowledge of the specific organizations. Landowners cannot make informed decisions regarding CE program options if they lack the base-level knowledge to do so. In combination with increasing awareness-level knowledge, regionally local CE organizations should aim to provide clear communications about the CE program options they offer, as well as the typical rules (and flexibilities) associated with them. This could help combat the potential disincentivizing factors

respondents identified. Based on the correlational analysis in Table 9, if landowners already held the internal motivation to adopt a CE, they would do so without the need for additional strong external persuasion. It is recommended that regional CE organizations initially provide awareness-level communications before pivoting to targeted persuasive messaging.

## **Objective 2: Landowners' Current and Preferred CE Communications Methods**

### ***Conclusions***

#### *Methods of Effective Persuasive Messages*

Previous research suggested that communications from peers and indirect community interactions are vital for landowners learning about CEs (Drescher, 2014; Vizek, 2016). This finding was further confirmed by the results of this study. *Conversations with experts* was a highly rated method of communication by landowners. In contrast to the lower rating for *in-person seminars/field days*, the findings that supported landowner conversations with experts suggest that landowners prefer more informal, casual conversations. A previous study also found that persuasive messaging from locally embedded easement organization staff was more well-received by landowners as a result of the personal relationships between the staff member and landowners (Hemby et al., 2022). In addition to these in-person communications methods, survey results identified email as the preferred method of digital communications. Overall, it appeared that landowners preferred forms of communication that allowed them to remain passive, where they did not have to initiate the conversation.

#### *Perceived Credibility of Conservation Information Sources*

This study also aimed to identify landowners' perceptions of the credibility of environmental organizations who might provide them with information regarding land conservation messaging. Generally, the types of environmental organizations listed in the survey

were rated with a high level of credibility from respondents, thus suggesting that the messaging produced by those organizations would be well-received from the landowners. Due to the positive association CE organizations have with some landowners, and their previously identified positive perception of CEs, both awareness-level and persuasive messaging from regional CE organizations would be well received by landowners.

### ***Recommendations***

This sample of landowners reported a lower-than-expected frequency of communications with peers about CEs, which suggests that more effort needs to be placed on building a network between the landowners who already have CEs on their property. This recommendation is also supported by the findings of Horton et al. (2017), which highlights the importance social pressures have on motivating landowners. Bolstering a landowner network could be achieved by regional CE organizations producing and distributing recurring personal profiles on landowners who have CEs on their property. This could reinforce the importance of the idea of homophily, identified by Hemby et al. (2022), and provide other landowners with a potentially relatable experience. In addition to bolstering the social norm for adopting CEs, increasing this network could encourage more residential and small acreage landowners to consider easements. Based on the large number of small acreage landowners and the large number of respondents who are unaware of any CE organization, residential landowners seem to be an audience segment that is not yet heavily targeted by CE organizations.

Survey results confirmed findings in the previous literature that landowners favor in-person communications from regionally local CE experts. Based on the findings from Hemby et al. (2022) and Kemink et al. (2020), locally embedded easement organization staff are most effective at providing persuasive communications to landowners. It appears that casual in-person

events will boost an organization's credibility and awareness without the landowner feeling pressured into any decision; however, more research is needed on this concept. Still, it is logical that if the CE organization makes the initial contact at an in-person interaction, it also allows the landowner to establish a connection with an individual and begin building a trusting, professional relationship. Based on the Kemink et al. (2020) study, information provided to landowners by a technical advisor or by someone in the same social network is more likely to have a positive impact on the likelihood of an individual adopting a CE.

In addition to increased personal communications, email and websites were rated as the most frequently used forms of digital communication. Because of this, CE organizations should take heed of this form of digital media which allows them to reach a large, passive audience. It is also recommended that CE organizations develop an integrated marketing communications plan, which encompasses both digital and in-person communications efforts. Developing a media mix, including a website, email campaigns, and organized community events, that all maintain a cohesive message would be vital for CE organizations to boost their awareness and credibility in their communities.

Additional research should be done to gather results that can be generalized to the entire population of the geographic area surveyed. It would also be beneficial to repeat this study again in the near future, using these findings as a baseline, to determine if efforts made by the regional easement organizations were successful, as well as to determine if landowners' perceptions have changed. In relation to community events, geographic-specific studies should be done to determine the best venues, events, and activities that would be most effective for reaching the pedestrian landowner audience in those areas. A similar future study could also assess how landowners value their children's/heirs' opinions regarding long-term CE commitments,



especially on heritage land. In addition, future studies should be done to identify changes in communication preferences as a new generation becomes landowners. Finally, this study could serve as a model for future studies in areas outside the Illinois River Watershed, including watersheds throughout Oklahoma and Arkansas.

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## Appendix A

### Human Subjects Protocol Approval Letter

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**To:** Jefferson D Miller  
**From:** Douglas J Adams, Chair  
IRB Expedited Review  
**Date:** 10/07/2022  
**Action:** **Exemption Granted**  
**Action Date:** 10/07/2022  
**Protocol #:** 2207409710  
**Study Title:** Landowner Perceptions of Conservation Easement Programs

The above-referenced protocol has been determined to be exempt.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval prior to implementing those changes. All modifications must provide sufficient detail to assess the impact of the change.

If you have any questions or need any assistance from the IRB, please contact the IRB Coordinator at 109 MLKG Building, 5-2208, or [irb@uark.edu](mailto:irb@uark.edu).

cc: Caitlin Cooper, Investigator  
Shane M White, Investigator  
Lauren Gwaltney, Investigator

## Appendix B

### Survey Instrument

#### *Demographic questions*

1. What is your age? \_\_\_\_\_
2. What is your gender?
  - a. Male
  - b. Female
  - c. Non-binary / third gender
  - d. Prefer not to say
3. What is your highest level of education completed?
  - a. Less than high school
  - b. High school graduate
  - c. Some college
  - d. 2-year degree
  - e. 4-year degree
  - f. Master's degree
  - g. Doctorate
  - h. Professional degree
4. What is your primary occupation (previous, if retired)?
  - a. Agriculture, forestry, or fishing
  - b. Managerial or professional
  - c. Construction
  - d. Finance, insurance, or real estate services
  - e. Manufacturing
  - f. Public administration, education, or government
  - g. Transportation, communications, or utilities
  - h. Retail trade
  - i. Wholesale trade
  - j. Other (please specify) \_\_\_\_\_
5. What is your annual gross income?
  - a. Less than \$10,000
  - b. \$10,000 - \$19,000
  - c. \$20,000 - \$29,000
  - d. \$30,000 - \$39,000
  - e. \$40,000 - \$49,000
  - f. \$50,000 - \$59,000
  - g. \$60,000 - \$69,000
  - h. \$70,000 - \$79,000
  - i. \$80,000 - \$89,000
  - j. \$90,000 - \$99,000

- k. \$100,000 – \$150,000
  - l. More than \$150,000
  - m. Prefer not to say
6. Do you own/manage land in any of the following counties (select all that apply)?
- a. *[If no counties are selected, the participant is taken to the end of survey message]*
  - b. Benton County, AR
  - c. Carroll County, AR
  - d. Crawford County, AR
  - e. Washington County, AR
  - f. Madison County, AR
  - g. Adair County, OK
  - h. Cherokee County, OK
  - i. Delaware County, OK
  - j. Sequoyah County, OK
7. Does the property you own/manage have a mortgage or lien?
- a. Yes
  - b. No
  - c. Unsure
8. How many acres of land do you own/manage in each county?
- a. Benton County, AR \_\_\_\_\_
  - b. Carroll County, AR \_\_\_\_\_
  - c. Crawford County, AR \_\_\_\_\_
  - d. Washington County, AR \_\_\_\_\_
  - e. Madison County, AR \_\_\_\_\_
  - f. Adair County, OK \_\_\_\_\_
  - g. Cherokee County, OK \_\_\_\_\_
  - h. Delaware County, OK \_\_\_\_\_
  - i. Sequoyah County, OK \_\_\_\_\_
9. How many years have you owned/managed your land in each county?
- a. Benton County, AR \_\_\_\_\_
  - b. Carroll County, AR \_\_\_\_\_
  - c. Crawford County, AR \_\_\_\_\_
  - d. Washington County, AR \_\_\_\_\_
  - e. Madison County, AR \_\_\_\_\_
  - f. Adair County, OK \_\_\_\_\_
  - g. Cherokee County, OK \_\_\_\_\_
  - h. Delaware County, OK \_\_\_\_\_
  - i. Sequoyah County, OK \_\_\_\_\_
10. How many years has your land been in your family in each county?
- a. Benton County, AR \_\_\_\_\_
  - b. Carroll County, AR \_\_\_\_\_

- c. Crawford County, AR \_\_\_\_\_
- d. Washington County, AR \_\_\_\_\_
- e. Madison County, AR \_\_\_\_\_
- f. Adair County, OK \_\_\_\_\_
- g. Cherokee County, OK \_\_\_\_\_
- h. Delaware County, OK \_\_\_\_\_
- i. Sequoyah County, OK \_\_\_\_\_

11. Please rate the following reasons for owning your land using the following 1-5 scale (1 = Not at all important; 2 = Somewhat not important; 3 = Somewhat important; 4 = Important; 5 = Very important):

- a. Land investment
- b. Wildlife habitat
- c. Agricultural production
- d. Timber production
- e. Family estate (inherited land or land to pass onto heirs)
- f. Primary residence
- g. Hunting
- h. Scenic value
- i. Other (please specify) \_\_\_\_\_

*Please refer to the following definition when answering the remaining questions:*

**Conservation:** the act of protecting land's natural resources for current and future generations

12. How strongly do you agree with the following statement?

I understand what a conservation easement is.

- a. 1 – strongly disagree
- b. 2 – disagree
- c. 3 – neither agree nor disagree
- d. 4 – agree
- e. 5 – strongly agree

13. Complete the following statement: I feel that conserving my land is \_\_\_\_\_.

- a. 1 – not at all important
- b. 2 – slightly important
- c. 3 - moderately important
- d. 4 – very important
- e. 5 – extremely important

*For the remainder of the survey, please refer to the provided definition of a conservation easement.*

**Conservation easement:** A voluntary legal agreement between a landowner and an easement organization, such as a non-governmental land trust or watershed protection/conservation



organization, or a government agency, that limits uses of the land to conserve its ecological, agricultural, and/or historical value.

14. How strongly do you agree with the following statement?

I feel that a conservation easement could benefit my land.

- a. 1 – strongly disagree
- b. 2 – disagree
- c. 3 – neither agree nor disagree
- d. 4 – agree
- e. 5 – strongly agree

15. Please rate which factors would **encourage** you to enroll your land in a conservation easement using the following 1-5 scale (1 = Not at all important; 2 = Somewhat not important; 3 = Somewhat important; 4 = Important; 5 = Very important):

- a. Reduction in state/federal income or estate tax
- b. Prevention of development/subdivision of land
- c. Protection of family legacy property
- d. Reaching conservation/stewardship goals
- e. Protect scenic value
- f. Technical assistance/advice
- g. Lump sum payment up front, based on acreage and term length
- h. Working with a non-governmental organization that has met accreditation standards
- i. Other (please specify) \_\_\_\_\_

16. Please rate which factors would **discourage** you to enroll your land in a conservation easement using the following 1-5 scale (1 = Not at all important; 2 = Somewhat not important; 3 = Somewhat important; 4 = Important; 5 = Very important):

- a. Lowered property value
- b. Loss of property rights (such as subdivision, development, etc.)
- c. Limiting heirs' decision-making ability
- d. Changes in agricultural practices
- e. Complexity of easement drafting and processing
- f. Time obligation
- g. Financial obligation
- h. Inadequate compensation
- i. Loss of privacy
- j. Working with a governmental agency
- k. Other (please specify) \_\_\_\_\_

17. Are you aware of others in your area who have conservation easements on their property?

- a. Yes
- b. No
- c. Unsure

18. How many conservation easement organizations are you aware of in your area?

- a. None
- b. 1-2
- c. 3-4
- d. 5+

19. How likely are you to have a conversation with another landowner in your area about conservation easements?

- a. 1 – extremely unlikely
- b. 2 – somewhat unlikely
- c. 3 – neither likely nor unlikely
- d. 4 – somewhat likely
- e. 5 – extremely likely

20. Rate the credibility of the following **sources** for conservation easement information using the following 1-5 scale (1 = not at all credible; 2 = somewhat not credible; 3 = somewhat credible; 4 = extremely credible; 5 = no opinion):

- a. Natural Resources Conservation Service (NRCS)
- b. Local land trusts
- c. Peers (friends, family, neighbors)
- d. County Cooperative Extension offices
- e. Local watershed protection organizations
- f. Agricultural organizations/commodity groups
- g. Other (please specify) \_\_\_\_\_

21. Rate your preferred **methods** of receiving conservation easement information/updates using the following 1-5 scale (1 = never use; 2 = use occasionally; 3 = no opinion; 4 = use regularly; 5 = use every time):

- a. Email
- b. Websites
- c. Social media
- d. Printed items via mail
- e. Peer-to-peer conversations
- f. In-person seminar/field days
- g. Webinars
- h. Individual conversations with experts
- i. Other (please specify) \_\_\_\_\_

22. How likely would you be to enroll in a conservation easement under the following terms?

- 1- Extremely unlikely
  - 2- Somewhat unlikely
  - 3- Neither likely nor unlikely
  - 4- Somewhat likely
  - 5- Extremely likely
- a. All of my land; permanent easement

- b. Part of my land; permanent easement
  - c. All of my land; 30-year easement
  - d. Part of my land; 30-year easement
  - e. All of my land; easement under 30 years
  - f. Part of my land; easement under 30 years
23. How interested would you be in the following services as part of a conservation easement program (assuming the easement organization may cover up to 70-100% of the associated costs)?
- 1- Not at all interested
  - 2- Somewhat uninterested
  - 3- No opinion
  - 4- Somewhat interested
  - 5- Very interested
- a. Livestock fencing
  - b. Soil sampling/treatment recommendations
  - c. Invasive species management
  - d. Tree planting funding/species selection
  - e. Riparian buffer installment
  - f. Streambank restoration
  - g. Prescribed burns
  - h. Other (please specify) \_\_\_\_\_
24. Do you own/manage any land in a floodplain?
- a. Yes
  - b. No
  - c. Unsure
25. *[If yes above]* What minimum payment amount (per acre per year) would cause you to consider placing an easement on the floodplain land you own/manage?  
Please select a dollar amount (\$) *[sliding scale from \$0 to \$200]*
26. *[If yes above]* For what term length would you consider placing an easement for on the floodplain land you own/manage? (select all that apply)
- a. Less than 30 years
  - b. 30 years
  - c. Perpetual
27. Do you own/manage any agricultural land?
- a. Yes
  - b. No
  - c. Unsure

28. *[If yes above]* What minimum payment amount (per acre per year) would cause you to consider placing an easement on the agricultural land you own/manage?  
Please select a dollar amount (\$) *[sliding scale from \$0 to \$200]*
29. *[If yes above]* For what term length would you consider placing an easement for on the agricultural land you own/manage? (select all that apply)
- Less than 30 years
  - 30 years
  - Perpetual

*Incentive Survey*

30. Would you like to be entered into a drawing for one of 10 \$50 Amazon gift cards? (If you select yes, you will be redirected to a separate survey to collect your contact information— your name and other personal information will not be linked to your survey responses)
- Yes
  - No

*[If yes above]*

31. What is your first name? \_\_\_\_\_
32. What is your last name? \_\_\_\_\_
33. What is your email? (gift cards will be mailed; contact information is to notify winners)  
\_\_\_\_\_
34. What is your phone number? \_\_\_\_\_
35. What is your address? \_\_\_\_\_

*End of Survey*

*We thank you for your time spent taking this survey.*

*Your response has been recorded.*