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USING THE TRAVEL COST METHOD TO VALUE ENVIRONMENTAL EDUCATION IN THE STATE OF OKLAHOMA

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For all my ancestors who came before me, you made me who I am and I am forever grateful.

For all my children who will come after me, I hope I leave the world better than I found it.

To my son Ewin, the light you brought to my life has helped me shine, and every day your presence encourages me to be my best for you. I love you, baby boy.

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Table of Contents

Table of Figures

List of Tables

Abstract

As a society, an integral part of improving environmental stewardship is accomplished through environmental education and training. Although public and private entities supported by grants and public funding provide a range of benefits, determining the economic value of the environmental education delivered is essential in quantifying the scope of its benefit. Data on this subject are limited; this study aims to address this gap. As a non-market good, evaluating education requires a non-traditional economic approach. One of the approaches offering a methodological value to evaluate environmental education is the Travel Cost Method (TCM), which belongs to the groups of non-market valuation approaches in the field of environmental economics. Traditionally, TCM has been used to assess the economic value of recreational sites. For the purpose of this study the TCM is applied to indirectly value environmental education by using the costs associated with travel as a proxy for what consumers pay to travel to educational events/trainings and what they would be willing-to-pay (WTP) in addition for the same educational experience if higher travel costs were to be incurred. Data collected via the distribution of surveys at environmental education and training events within the state of Oklahoma were incorporated into an econometric model and used to observe demographic predictors associated with a willingness to travel farther to access environmental education. To quantify the value of environmental education, the difference between the actual costs and WTP was assessed. This expressed valuation of environmental education is intended to assist in informed decision-making on allocation of monetary resources for agencies supported by grants and public funding.

Preface

The following is a thesis for the purposes of a Master in Science in Environmental Studies and concerns the use of the travel cost method, an environmental economic approach, to assess the value of environmental education in the state of Oklahoma. Environmental Studies is an area of broad subject matter that concerns the intersectionality of the natural environment, environmental sciences, social sciences and the humanities. This thesis research was designed to address this broad and diverse area of study by addressing the social aspect of environmental stewardship, namely, environmental education, and its quantified value through social and scientific methods.

The format of this thesis is structured as follows: the first chapter addresses the background of the research in addition to the literature review regarding environmental education and the conventional use of the travel cost method to value ecosystem services; the second chapter is formatted as a stand-alone journal article for the purposes of publication in the *Journal of Contemporary Water Research and Education*. The third chapter addresses the larger scope of this research, which includes how this research contributes to body of knowledge surrounding environmental studies, the interdisciplinary proficiencies needed to address mounting environmental issues, lessons learned in research, as well as potential directions for future research.

Chapter 1: Research Background and Introduction

1.1 Background

Environmental education and literacy have substantial potential to provide tangible results benefitting the state of the natural environment. However, scholars have observed that environmental education lacks priority in policy, resulting in underfunding of environmental education programs in the United States (Ernst, 2007; Ham and Sewing, 1988; Huston, 2016; Stohr, 2012). Although there are estimates of the economic benefit derived from environmental stewardship, implying a value of environmental education and literacy, research quantifying the economic demand for environmental education is largely absent in the literature (Roman et al., 2018). This research seeks to address this gap by quantifying the value of environmental education from a “consumer”, i.e., or participant perspective using the cost of travel as a proxy for what participants pay and would potentially be willing to pay in addition to access environmental education. This research is intended to serve as a means to inform decision-makers at the organizational, local, and state level on the economic impact environmental education has on the state of Oklahoma.

Education in and of itself has long been considered valuable both economically and societally, and much of societal progress and economic development can be attributed to increased access to education (Hall and Matthews, 2008). As economic development and progress in society is perceived as constructive, this advancement has also created issues between human civilization and the state of the natural environment. With the increasing global population and exploitation of natural resources, pressures on the natural environmental have increased. Increased production from the agricultural sector, land use changes, increased consumption as economies transition in developing countries, and the impacts of urbanization have resulted in environmental degradation. These are just some examples of the pressures placed on the environment by social and economic progress, with the impacts becoming increasingly apparent in the recent decades.

The challenges of access to clean water intensify, changes in atmospheric chemistry alter global climate, and urbanized areas experience enhanced flooding through increasing environmental pressures. The cycle of population growth has yielded added consumption, and thus, added waste. How can human interaction with the natural world be modified to both continue to benefit society, and protect the natural environment from which valuable resources are derived? In addition to empowering society to address the complexity of social and environmental problems, educational attainment has been found to serve as a primary factor encouraging a population to “do the right thing” (Hall and Matthews, 2008). Furthermore, education focused on environmental stewardship has the potential to alter attitudes and behavior of the public, further benefitting the state of the environment. Environmental education may take many forms and includes, but is not limited to encouraging sustainable agricultural practices such as runoff management, teaching individuals how to minimize waste and energy use in their homes or encouraging developers to adopt low impact development practices.

What is the value of this education? It may be argued that environmental education is intrinsically valuable from an ethical standpoint, or that its ability to increase cognitive levels and improve individual behavior are of value (Bogner, 1998). From a policy perspective, because environmental education is viewed as economically consumptive in nature, a more tangible economic value of environmental education is necessary to continue progress in sustainable development. Considering the perception that suggests that environmental preservation and economic growth are at odds with each other, it is essential to integrate the concept of sustainable development as defined by the United Nations World Commission on Environment and Development (1987): “Sustainable development seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future.” This concept specifically cites economic growth as one of many goals in sustainable development.

Scaling down the concept of sustainable development and its relationship to regional or state economies, the intersection between the state of the natural world and the economy should be reflected upon. The state of Oklahoma relies on its natural resources in both industry and tourism and preservation of the natural world is paramount to the state’s economy. An approach to preserving and sustaining Oklahoma’s natural environment is environmental education focused on environmental stewardship and best management practices for both the public and professionals in a variety of fields. Public and private entities exist that provide a wide range of benefits to the public through environmental education and training. The value of this education is generally viewed in the context of the benefit it produces through environmental awareness, management and its contribution to an improved state of the environment. For example, there is a tangible value indicating the savings a household generates from water conservation, the economic value of better harvests provided by marine conservation, or the value improved water quality adds to waterfront properties (Poor et al., 2007; Roman et al., 2018). Furthermore, the value of environmental education may be measured in the amount of grant money allocated in support of programs that provide environmental education. Providing the monetary value of environmental education via the valuation of an improved state of the environment, or by reporting the total grant funds allocated for environmental education is an approach to valuing environmental education, but determining the economic value of environmental education from a consumer or participant perspective is essential in quantifying the scope of its benefit. There is limited scholarly literature or data on a consumer-based economic valuation of environmental education available and this study aims to address this gap through the application of a non-market valuation method known as the Travel Cost Method (TCM). Given the lack of a quantified value of environmental education to the state of Oklahoma, this approach will facilitate analysis on the economic demand for environmental education in the state of Oklahoma.

1.2 Goals and Objectives

The purpose of this study is to estimate the economic value of environmental education from a training/workshop participant perspective within the state of Oklahoma through a non-market valuation method known as the travel cost method (TCM). In this study, the term “value” has a specific definition concerning the monetary value that participants spend and are willing to spend to access environmental education (offered in the form of educational trainings/workshops), and this research specifically uses their travel costs as a proxy for this estimate. This research does not encompass the monetary benefit of environmental education through changed behavior and environmental stewardship nor does it imply the worthiness, usefulness, or ethical value of environmental education. Quantifying the far-reaching monetary value of environmental education would require research methods outside of the scope of this study.

The Environmental Protection Agency’s (EPA) definition of environmental education encompasses a broad definition: “*Environmental education is a process that allows individuals to explore environmental issues, engage in problem solving, and take action to improve the* *environment. As a result, individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions"* (epa.gov). There are many government and non-governmental organizations within the state of Oklahoma that provide environmental education that conforms to this definition, and this research seeks to quantify the value of individual education and training events in addition to environmental education in the state of Oklahoma at large.

For the purposes of this research, "environmental education" will encompass the same principles but be more narrowly defined as environmental education aimed at adults in a formal or non-formal classroom setting, at an event in which participants travel to for the primary purpose of obtaining environmental education. The objective was to target events within the state of Oklahoma that provide environmental education and training within the scope of the definition for this research and distribute surveys to the organizers and participants at these events for the purpose of indirectly valuing environmental education through the analysis of data collected. Data analysis will largely be through the adaptation of a nonmarket valuation method, known as TCM, a method largely used to evaluate the economic value of recreational sites. The primary goal is to contribute to the limited amount of literature available on valuing environmental education, none of which addresses environmental education in the state of Oklahoma. The secondary goal of this research is to provide tangible economic valuation data for the use of informed decision-making regarding environmental education. Ultimately, quantifying the value of environmental education in the state of Oklahoma will enable policymakers to make informed decisions on the provision of public funds for agencies facilitating these environmental education events.

1.3 Non-Market Valuation

Traditional economics as a social science can assess valuation of goods through analysis of market data on the consumption of these goods and services, yet valuation of the environment engages differing approaches within the discipline of environmental economics. Environmental economics is a subdiscipline of economics that employs an interdisciplinary approach along with the principles of macro- and microeconomics to study the relationship between the environment and economic development in addition to the allocation of natural resources such as ecosystem services in the context of human choice (Environmental Economics, 2019). An approach to valuing the environment is called non-market valuation, which employs techniques that consider choices made regarding non-market goods such as ecosystem services and assigns value implicitly (Segerson, 2017). Valuing non-market goods and services may employ one of two approaches, stated and revealed preference methods. Due to the non-market nature of the environmental services such as outdoor recreation and environmental education, there has been difficulty in quantifying the value of environmental goods and services, which has historically contributed to the neglect of the environment in policy decision making (Sousa, 2018). In addition to supporting natural resource management, non-market valuation is useful in assisting governments and policymakers on all levels in making informed decisions regarding the environment and provision of resources, and the use of specialized methods in environmental economics mitigates the difficulty in assessing the value of the environment.

1.4 Travel Cost Method

The Travel Cost Method (TCM) is a standard non-market valuation approach and is considered a revealed preference method based on demand theory. Revealed preference methods for economic valuation of the environment rely on compiling data on individuals' behavior to infer the value of goods or services through statistical analyses and provides estimations of the value placed by individuals on the presence or absence of environmental goods or services (Boyle, 2003). This contrasts with stated preference methods such as contingent valuation or choice modelling, which ask participants to explicitly state their willingness to pay. For the purposes of this research, the approach will primarily encompass revealed preference methods while employing elements of stated preference methods in the form of specially devised survey questions that will prompt responses that imply the consumers' or participants' willingness to pay for environmental education.

TCM is also known as the Clawson Method and was proposed by Hotelling in 1949 and written about extensively in *Economics of Outdoor Recreation* (Clawson and Knetsch, 1966). The TCM approach initially focused on data obtained from geographic zones and the visitation rates, or observed visits divided by the zonal population, the basis for the zonal travel cost method (ZTCM) (Parsons, 2003). By the 1970's TCM evolved to employ more detailed data from the observed individuals, increasing the amount of specific behavioral elements that could be included in the analysis, serving as the foundation for the individual travel cost method (ITCM) (Parsons, 2003). The valuation of recreational sites using TCM was primarily used for decision-making surrounding preservation versus development projects. In addition to valuing preservation versus development, TCM was eventually applied to research valuing improved quality of recreational sites (Parsons, 2003). Researchers applied the principles of these approaches to recreation outside of national parks, including hunting fishing, swimming, and other areas of recreation such as lakes and beaches (Parsons, 2003). Additionally, application of TCM has been expanded to include not only natural areas, but valuation of environmental damage, cultural heritage and geological assets (Torres-Ortega et al., 2018). These multiple applications of TCM has allowed this environmental valuation approach to be applied to research outside of the traditional applications, such as environmental education.

The TCM approach implicitly reveals the value of environmental goods and services such as recreational sites or concentrated environmental amenities by quantifying the consumers' willingness to pay (WTP) for the good or service (Graves, 2013). It is assumed that the costs incurred by visitor to access a site are inversely related to the demand for the recreational site (Torres-Ortega, 2018). TCM is applied by using data on the number of trips to recreational sites to estimate a demand function and utilizing this demand function to derive the individuals' WTP (Riera et al., 2012). Because distance is a proxy for travel cost, the generation of the demand function is dependent on the distance the consumer is from the recreational site, and the distance they are willing to travel to "consume" recreation. To obtain the relevant data on out of pocket expenses related to travel to and from a particular site of outdoor recreation, surveys can be distributed to participants with a variety of specially-devised questions that act as individual variables that fit into the ITCM econometric model. The applications of this method include determining what consumers are willing to pay for recreational sites such as national parks and can also help park managers regulate visitations in order to preserve the natural state of the location by raising the entrance fee based on data obtained from the demand curve.

Based on Parsons (2017) the most common equation for "price" of travel per individual is estimated as follows (Equation 1.1):

$$p_n = \left\{\left(0.33 \times \left(\frac{y_n}{2{,}040}\right) \times t_n\right) + (c_n \times d_n)\right\} + fee_n + tolls_n + other_n$$

Equation 1.1
Where y_n: individual yearly income, t_n: round trip travel time, c_n: vehicle operation costs per unit mile, d_n: round trip travel distance, fee_n: access or registration fee, $tolls_n$: tolls paid on the journey to the site, $other_n$: other reported expenditures (often set to zero). Annual income is divided by 2040, or estimated hours worked within a year (Parsons, 2017).

These values are used to quantify the cost of travel and are incorporated into the demand curve to derive the consumers' willingness to pay.

There are two primary approaches to TCM, one of which is the individual travel cost method (ITCM) and zonal travel cost method (ZTCM). The ITCM employs extensive individual survey data and evaluates the related costs to access the recreational site. This produces a more specific analysis of individual behavior. The ZTCM approach primarily relies on the number of trips taken to the recreational site and related access costs while considering the population of geographic zones surrounding the site. This approach provides a more generalized analysis of the rates of visitation for a site and is well-suited when limited visitation data is available. Each approach is associated with its own strengths and limitations, and for the purposes of this research, the focus will be on the ITCM approach. The primary reason for use of the ITCM is the nature of the research question which aims to quantify the value of environmental education in the state of Oklahoma based on individuals' travel costs and their WTP. This method for gathering data for this research will involve working with a variety of entities facilitating environmental education in the state of Oklahoma, allowing extensive information to be gathered via surveys on each individual travelling to each educational event. If this research only accessed limited visitation data or were comparing the values of environmental education in different regions within the state, the ZTCM would be considered as a primary approach to the research question.

This research is not focused on the value of recreational sites and in the case of TCM, a non-traditional approach will be employed to value environmental education in the state of Oklahoma. The environment as a good does not function as a commodity, but instead as a service, and for the purpose of this research, environmental education will be considered a “cultural” ecosystem service (Sander and Haight, 2012). A modified approach to TCM will be utilized to indirectly value environmental education through the participants’ WTP as determined through analysis of data collected via distribution of surveys to organizers and participants at environmental education and training events throughout the state of Oklahoma. Survey design addressed measuring trip cost as well as gathering demographic data. Because a primary goal of this research was to develop an understanding the predictors that indicate an individual’s WTP for environmental education, the surveys will also be designed to account for the variables necessary for the use of the econometric model.

1.5 Literature Review

The following will review the existing literature surrounding environmental education and literacy as it pertains to the state of Oklahoma in addition to the literature surrounding the use of TCM to various applications. This will provide justification for examining Oklahoma and the significance of environmental education to the state in addition to justification for the research methods used to approach quantifying the value of environmental education to the state of Oklahoma.

1.5.1 Environmental Education and Literacy

Environmental education is paramount to improving the state of the environment through changed behavior and environmental stewardship on a societal level. Although environmental education fosters environmental stewardship, which is shown to have tangible benefits and positive outcomes for both the environment and society, environmental education and literacy are also valued through public perception (Roman et al., 2018). Understanding how these public perceptions differ demographically and regionally may reveal the motivations for why individuals seek out and participate in environmental education.

Environmental education is a broadly used term that describes education that aims to introduce the public to "environmental issues, engage in problem solving, and take action to improve the environment." The primary goal of this education is to foster skills that allow these individuals to make "informed and responsible decisions," or engage in environmental stewardship (epa.gov). For the purposes of this study, this definition solely includes adult-based education in a formal or non-formal classroom environment where the individuals are travelling specifically to that locale to access the education. Individuals may have environmental concern or choose to engage in environmental education for a variety of reasons that vary by demographic and region.

There are several common reasons why individuals in the general public seek to engage in environmental education. One common reason is to learn the skills to engage in environmental stewardship. This form of education promotes action in environmental stewardship through fostering a sense of place, and aims to “strengthen the link between knowledge and action” for participants through individual conservation practices, volunteer cleanup, citizen science, or residential outdoor stewardship (Kudryavtsev et al., 2012; Merenlender et al., 2016; Stern et al., 2008). Another form of environmental education is educator training, which has become prioritized in recent years as educators have become increasingly aware of their role in helping youth conceptualize the environmental challenges society faces, and have come to understand their role in educating the general public on environmental issues (Bromley et al., 2013; Van Petegem et al., 2007). This kind of environmental education aims to train educators, school teachers, nature guides or citizen volunteers to effectively teach others about environmental issues. Lastly, there are a variety of professions that entail environmental subject matter, and the environmental education and training for these individuals is broadly referred to as professional development for environmentally related professions. The professions may include those directly involved with the environment, such as environmental law, or others, that may not necessarily identify with being in an environmentally related profession, such as development and construction. Many professional fields outside of conventional environmental fields have begun to recognize the importance of awareness of their impact on the environment, and have engaged in making sustainable development a part of the training curriculum, thus creating an increased demand for environmental education (Martin and Hall, 2002; Rider and Elliott, 2007).

Outside of individuals seeking to attain environmental education for professional reasons, there is a variety of individuals seeking environmental education for personal reasons. There are some predictors associated with individuals who exhibit environmental concern, thus prompting them to engage in pro-environmental behavior, such as seeking environmental education, which have been explored by social researchers. Environmental concern is a precursor to pro-environmental behavior, and research in gender has found that women commonly exhibit environmental concern, leading to advocacy and pro-environmental behavior (Arnocky and Stroink, 2010; Milfont and Sibley, 2016; Zelenzy et al., 2000;). Other predictors included indicators of socioeconomic status such as income and educational attainment, and since the positive relationship between higher educational attainment and increased income is known, these two demographic variables may be expected to similarly predict pro-environmental behavior (Torpey, 2018). There are several studies that indicate that individuals who exhibit environmental concern or pro-environmental behavior are generally of higher socioeconomic status (Gifford and Nilsson 2014; McMillian et al., 1997; Morrison and Dunlap, 1986). Despite this, there are other studies that suggest that the relationship is more complex, and may be more influenced by cultural, ideological, and psychological factors more than socioeconomic status (Eom et al., 2018; Pearson et al., 2018).

Examining environmental concern by region may justify the need for environmental education in a state such as Oklahoma that relies heavily on the natural environment for major industries such as tourism. In the 1990's, a survey spanning the United States showed that the consensus of a majority of Americans was that measures should be taken to protect the environment, regardless of cost (Schultz, 2002). Although public attitudes and opinions may shift over time, culturally, Americans are not necessarily pro- or anti- environmental, but instead fall on a spectrum of environmentalism. Relationships with the environment may vary by region due of climate, industry, and personal reliance on nature. Geographically, research has found that environmentalism is mostly found in the northeast U.S. and West Coast, whereas the least environmentalism is found in The Dakotas, the intermountain West and the Deep South (Mazur and Welch, 1999). Political ideology, educational attainment and industrial affluence in a region seemed to be predicting factors for pro-environmental behaviors regionally in the U.S. (Ringquist, 1993; Elliott et al., 1997).

In relation to the rest of the U.S., Oklahoma ranks relatively low when considering environmental value indicators such as members of environmental organizations, percentage of public opinion regarding government spending on the environment, pro-environmental voting in Congress, and the number of state-level environmental policies (Mazur and Welch, 1999). Concerning environmental education, environmental literacy in Oklahoma is also a significant consideration for Oklahoma's need for access to environmental education. Environmental literacy is a combination of knowledge and concern, and it refers to the intersection between the holistic understanding of environmental issues and an individual's cognitive ability to synthesize this information to make informed decisions about their relationship with the environment (Ramadas and Mohamed, 2014). Research on environmental literacy in the state of Oklahoma showed that a low percentage of students in the state had overall environmental literacy (Williams, 2017). This may be the result of the state's educational curriculum not having a course in science dedicated to environmental concepts to graduate per the Oklahoma Academic Standards in science (2015). Instead, environmental concepts are integrated into other main curriculum standards such as biology and earth systems, putting the depth of education surrounding the environment in the hands of individual educators or school districts. A lack of priority for environmental education in Oklahoma schools translates into a need for adult environmental education. For example, although Oklahoma's water is a key environmental issue in the state, a study surveying the perceptions and attitudes adults regarding water issues in Oklahoma concluded that there was a need for education and outreach on the topics of groundwater quality, pollution, and water quality, all topics that are connected to environmental literacy (Eck et al., 2019). Factors in regional culture, public education policy, and adult environmental literacy demonstrate a need for environmental education in the state of Oklahoma.

1.5.2 The Travel Cost Method

Although there are many works involving the evaluation, use, and application of non-market valuation methods such as TCM, there is limited literature available applying TCM to the economic valuation of education. The dearth of literature in the field of environmental economics surrounding the proposed approach of valuing environmental education means that some methods used in the following works will be applied and adapted to the current research question. This section will explore literature involving non-market valuation involving elements applicable to the purposes of this research.

A primary application of TCM in terms of recreational management has been for the purposes of financial planning or reducing the impact of tourism on the natural environment. TCM can be used to value site attributes through varying the parameters and making visitation rates depend the quality of the site, which creates an application to site quality under environmental degradation. Some studies have approached this through linking a site's value to positive attributes, and have sought a demand for a metric of water quality such as dissolved oxygen (DO) (Cropper and Oates, 1992). Some research has addressed reducing environmental degradation of recreational sites such as lakes and beaches by applying TCM and understanding factors contributing to visitation rates. This has been applied to sites worldwide, as the impacts of visitation have been of concern for natural sites for recreation in addition to cultural resources, which includes sites such as museums, heritage assets, and historical sites. TCM has assisted site managers in controlling visitation to lessen the environmental impact such as entrance fees, increasing difficulty to access a site, demarketing, and placing a cap on visitation (Fleming and Cook, 2008). TCM was specifically applied to aid in the management of the cultural heritage site, the Cave of Altamira, and produced a tool for decision-makers to predict the changes in visitor numbers when access fees or transportation costs change. It was found that cave visitors responded to price changes, such as total travel cost increases, which resulted in reduced visitation rates (Torres-Ortega et al., 2018). This is another example of using TCM to reduce the environmental degradation resulting from excessive tourism.

An example that includes financial and environmental planning includes the research by Hanauer and Reid (2017). TCM was applied to the valuation of urban open space, and a primary research goal was to evaluate the bias of welfare estimates encountered in utilizing traditional methods of travel time estimation and costs. The area of study was the Taylor Mountain Regional Park, a natural area adjacent to a highly populated urban area, Santa Rosa, California. The benefit derived from urban open space in addition to the high opportunity cost of preserving the space to stakeholders served as the justification for providing a value of Taylor Mountain Regional Park for efficient development of urban land use for recreation (Hanauer and Reid 2017). These types of valuation of recreational sites can serve as a representation of what would be lost if the site did not exist, or if it was not accessible to visitors. For example, and ITCM was applied to valuation of lake in Bangladesh, and the findings suggested that individuals got a surplus of $73.44 per trip, generating a total surplus of $40 million dollars. Valuation at this scale is explicitly meant to serve as justification for continued government support of these sites, and as a means to inform future decision making regarding the site (Alam et al., 2017).

In terms of the two main approaches to TCM, there is not a consensus in the literature on which of the two, ITCM, or ZTCM returns more accurate results. Essentially, the choice to use either ITCM or ZTCM is dependent on the research question and the resources at hand. ITCM is appropriate when there are more resources to distribute individual surveys, and the process tends to be more detailed and tedious to complete. Although one method is not considered more valid than the other, some contend that because the ITCM requires more data and a slightly more complicated analysis that it produces more precise results (Institute of the Republic of Slovenia for Nature Conservation, 2010). Many studies employ ZTCM due to a lack of extensive individual data or justify the use of the ZTCM because of its appropriateness for addressing sites that are visited from travelers originating from long distances (Fleming and Cook, 2008; Hutcheson et al., 2018). For the purposes of comparison, the research by Torres-Ortega et al. (2018) applied both the ITCM and ZTCM to the research on the economic valuation of the National Museum and Research Center of Altamira, a cultural heritage center, a center for research and preservation of the Cave of Altamira in Spain. The application of both the ITCM and ZTCM allowed the researchers to compare the approaches' effectiveness in obtaining a demand curve and economic value of the National Museum and Research Center of Altamira. This particular study did not state whether ITCM or ZTCM is more effective for obtaining a result and the findings did not produce a definitive answer on which was a more effective approach due to the difficulty of obtaining a consistent result (Torres-Ortega et al., 2018).

Data is gathered for TCM in two primary modes. Some of the existing research has relied on using travel data from either travel databases, or from the recreational sites' reporting of visitation rates (Hutcheson et al., 2018; Torres-Ortega et al., 2018). For more detailed data, many studies use surveys to gather data from attendees on distance and mode of travel in addition to socioeconomic data (Fleming and Cook, 2008; Hanauer and Reid, 2017). Another means of gathering data ouside of detailed surveys includes mapping methods as a means of gathering data to apply travel cost methods to the valuation of open urban space (Hanauer and Reid 2017).

In addressing the data provided for TCM calculations, the accepted convention for opportunity cost of time for leisure as between ¼ and ½ a visitor's wage rate (Fleming and Cook 2008). Some research rejects the use of opportunity cost of time in the model used to approach valuation of natural sites, and instead, annual zonal visitation rates were calculated and travel costs per person were estimated by dividing the costs per party by the number of adults in the party (Fleming and Cook, 2008). The data was used to generate a trip function where the visitation rate per zone was regressed against the average zonal travel cost and socio-demographic variables such as age, education, and income (Fleming and Cook, 2008).

For addressing bias in study results, there may be several sources of bias. For example, when a site requires travel from a proximal origin to urban areas, these distances may either be reported directly by participants in surveys or they may be interpreted based on reported point of origin. One study gathered distance data that was derived from mapping methods from the reported point of origin (Hanauer and Reid 2017). This created a source of bias in the research because there was the use of Euclidean distance from visitors' zip code centroids to the area of study and average speed assumptions in addition to the measurements of travel distance and time based on Google Maps, both of which significantly underestimated the recreational value of the site (Hanauer and Reid, 2017).

In understanding what economic values may be acceptable, or expected in valuing environmental education, it was difficult to locate comparable studies in the literature, because most research in TCM addresses natural recreational or cultural heritage sites. The ranges for individual values using both ITCM and ZTCM were found to be anywhere from $13.70 per person trip, to $2043 per individual visit (Fleming and Cook, 2008; Hanauer and Reid, 2017, Torres-Ortega, 2018). Annual values for these sites generally ranged in the millions with some generating between $1.5 million to $267.4 million yearly (Hanauer and Reid, 2017; Torres-Ortega et al., 2018). Applying these same expectations for recreation and cultural heritage sites to the value of environmental education would be invalid comparisons, because the differences in participant motivation for travel is so vast.

There was a singular study discovered in the literature that applied TCM to environmental education and measured the value of a singular site at the Hudson River Park environmental education programs in New York City for schoolchildren. Although the methods used differ from the methods used in this research on the value of environmental education in the state of Oklahoma, the economic value produced was more conservative than the values estimated for natural recreational sites and may provide a better comparison for the expected economic value of environmental education. The methods of the study will be overviewed for the purposes of understanding the similarities and differences in approaches to this study.

Hutcheson et al. (2018) describe environmental education in the context of being an ecosystem service, akin to the environmental classification of recreational sites, making TCM a viable approach for valuing environmental education. The work more specifically references environmental education as a cultural ecosystem service and utilizes TCM to estimate the economic value of the Hudson River Park environmental education programs in New York City. This approach differs in that it focuses on schoolchildren as consumers rather than the adult-based environmental education this research encompasses. Although the approach includes similar elements, the number of visits are measured in bulk, or by school groups, and better employs the use of the ZTCM rather than ITCM due to the lack of individual travel data via individual surveys. This approach provides a more generalized quantification of environmental education and is limited to one site, rather than many locations. With the available data from the NYC Department of Education "Demographic Snapshot" for 2015, this method provides an estimate of the value of environmental education for the 2014-2015 year by determining the average cost per student, per trip. Because most groups traveled by foot, bus or subway, the travel cost was based on round trip costs for use of the bus or subway in addition to the opportunity cost of time, and the time spent at the site (Huchenson et al., 2018). According to the method employed by Huchenson et al. (2018), the opportunity cost of time was estimated by use of the budget in the "School Allocation Memorandum" and the common practice of using one-third of this time as a labor-leisure tradeoff rate was used. The results provided what is described as conservative estimates of the value being $11,500 per year, in the range of $7,500 to $25,000 per year, exclusive of the value provided to visitors outside of student groups to the park (Huchenson, et al., 2018). This work provides a similar framework for the approach of using TCM for the purposes of valuing environmental education, yet it employs ZTCM, relies on more generalized data, and is focused on one site, rather than the valuation of multiple educational events, as compared to the approach of this research.

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Chapter 2: Using the Travel Cost Method to Value Environmental Education in the State of Oklahoma

2.1 Introduction

As the link between human activity and environmental degradation has been acknowledged throughout the latter half of the 20th century, environmental education and training has become a central element in providing a social solution to anthropogenic environmental issues. Environmental education has served as a means of improving environmental literacy and stewardship amongst the public and professionals in environmental fields and may take place in a variety of settings including traditional classrooms, or at public parks, waterways, and other outdoor venues. Although there are a variety of audiences and settings involved with environmental education, the primary goal of environmental education is to encourage individuals to *"explore environmental issues, engage in problem solving, and take action to improve the environment"* (EPA, 2012). Environmental education and resultant changed behaviors of participants may broadly affect the state of the natural environment on a variety of fronts including improved water quality, natural resource conservation, and biodiversity. Additionally, there are several economic indicators of an improved state of the environment, particularly with the desirability of recreational sites and other natural resources, which may be related to the public engaging in environmental stewardship.

The state of Oklahoma relies on its natural resources for both industry and tourism, making preservation of the natural world paramount to the state's economy. According to a report by the Oklahoma Tourism and Recreation Department, tourism is Oklahoma's third largest industry, generating billions of dollars for Oklahoma's economy (OmniTrak et al., 2018). The direct and secondary travel-generated earnings in Oklahoma for accommodation, food services, arts, entertainment and recreation exceeded $1.9 billion dollars in 2017 alone (Dean Runyan Associates, 2018). With 11,611 miles of shoreline, a major attraction for tourism and recreation is Oklahoma's numerous waterbodies, making surface water quality an important element of Oklahoma's economy (Oklahoma Water Resources Board, 2011; Boyer et al., 2016). As of the late 2000's Oklahoma has experienced a decline in state park visitation, with some studies linking recreational demand to factors affecting water quality such as lake level (Daniels and Melstrom, 2017). Oklahoma has experienced impaired waters due to blue-green algae blooms as a result of nutrient runoff, which was found to affect recreational demand, with recreationists willing to pay $12.40 per person per trip for a reduction in probability of an algal bloom at Lake Tenkiller in eastern Oklahoma (Roberts et al., 2008). Mitigating the consequences of environmental degradation may be dependent on the provision of environmental education concerning protection of Oklahoma's water resources and general environmental stewardship for the public.

Access to environmental education is often funded by grants and public funding, yet there is little information available on the public demand for environmental education. Among its many benefits, environmental education may be considered intrinsically valuable from an ethical perspective or in its capacity to strengthen cognitive abilities and involve elements of social capital among youth and adults (Bogner, 1998; Krasny et al., 2015). Some have estimated the economic and social benefits of environmental stewardship, such as ecological restoration or the economic value of an improved state of the environment (Iftekhar et al., 2017, Poor et al., 2007). Despite past evaluations of environmental education, existing literature on the economic value of environmental education based on participant data is limited, creating a need for a participant-based, data-driven, economic value of environmental education.

In economic terms, environmental education is considered a “cultural” ecosystem service. The accepted definition of cultural ecosystem services is “non-material and/or socio-ecological benefits people obtain from a contact with ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experiences” and includes educational values that stem from ecosystems, their components and processes, which may include environmental education (La Rosa et al., 2016; Sarukhán, and Whyte, 2005). The intangible nature of cultural ecosystem services has led to a lack of quantified values or integration in management plans for these services and a lack of economic indicators for these services (Milcu et al., 2013). Although there are some studies that address recreational, aesthetic, and cultural heritage values, there is a gap in the literature for a quantified economic value of environmental education. Because there is not an established market for assessing the economic value of environmental education, this means that traditional economic market valuation approaches are not applicable to quantifying the economic value of environmental education to the state of Oklahoma. An approach to valuation of a non-market good such as environmental education is the travel cost method (TCM), which utilizes data gathered regarding the distance participants travel to access a site of interest. Conventionally, TCM has been applied to the valuation of recreational sites such as national parks with the travel costs incurred by the visitor, including opportunity cost of time, lodging costs and other associated trip costs. Although TCM is generally applied to recreational sites, theoretically, it can be applied to any destination that is considered an amenity, making environmental education events a candidate for the application of TCM (Graves, 2013).

The principal assumption of TCM is that the cost of travel acts as a proxy for the value of the site and the participants’ willingness to pay (WTP), thus inferring the value of the site itself.

TCM works under several additional assumptions including that the trip is single purpose only, with participants making the journey specifically to access a site, rather than the journey being a multi-purpose trip (Mayor et al., 2007). Also, it is assumed that the journey itself holds no value to the participant, and that the value is held by the destination. Economically and behaviorally, TCM assumes that individuals will respond to changes in explicit travel costs in a similar way, despite differences in composition. An example of this is the differences in perception regarding implicit costs such as time as compared to explicit costs such as mileage and access fees (Graves, 2013).

Environmental education focused on environmental stewardship and best management practices for both the public and professionals in a variety of fields is a necessary component in preserving and sustaining Oklahoma's natural environment, a driver of Oklahoma's economy. This study focuses on understanding the demand and value of this education in the state of Oklahoma based on what participants pay and are willing to pay to obtain environmental education. Additionally, determining demographic predictors for participants' willingness to travel farther to access environmental education will imply individuals' willingness to pay more. This study builds on existing methods surrounding non-market valuation methods, particularly TCM, to gather data on the costs participants incur via travel to and from environmentally-based trainings and workshops within the state and utilize this data as a proxy for the valuation of environmental education in the state of Oklahoma. In contrast to previous studies employing TCM for valuation, this study adapts existing methods to pertain to environmental education, rather than traditional valuation of recreational sites, resulting in the first study applying TCM to environmental education in the state of Oklahoma.

2.2 Methods

The following will overview the methodology used to implement TCM for the purposes of the research objective. The survey design choices and data collection via survey distribution as well as the adapted calculations used in implementing ITCM estimates and the binary probit outcome model will be outlined.

2.2.1 Target Population and Survey Design

The approach to gathering data involved identifying the potential partners, which include government agencies, non-governmental organizations (NGO) and others willing to assist in distributing surveys at their events. The sample population of interest included participants at events in a formal or non-formal classroom setting providing environmental education specifically to mainly included workshops, lectures, informational sessions, meetings and hands-on learning experiences, and excluded convention booths or children's events. Participants were expected to be above the age of 18 at the time the survey was given. The events may or may not have registration fees and may be located at any location within the boundaries of the state of Oklahoma. Individuals who reported to have come from out-of-state were not excluded from the study.

Table 2.1: ***Variable Definitions***

Dependent and independent variables included on the survey given to participants. Each variable accounts for either a component of the TCM calculation or is for reporting demographic information.

Dependent Variable	*Definition*
Actual Travel Cost	Costs of travel to environmental education events incurred by participants. Calculated by summing the travel costs from individual participants' reported origin to location of environmental education event.
Willingness to Pay	Expected cost of travel calculated based on participants' travel costs and reported willingness to travel farther to access environmental education.

Independent Variable	*Definition*
Residence	City and County of Residence. Serves as indicator of distance traveled if distance traveled is illegible or not reported.
Actual Round Trip Distance	Reported actual travel distance multiplied by two to represent round trip travel distance. In miles (m)
Actual Round Trip Travel Time	Reported actual travel multiplied by two to represent round trip travel time. In hours (hr)
Willingness Round Trip Distance	Reported willingness to travel farther to attend the event added to actual travel distance multiplied by two to represent round trip travel distance. In miles (m)
Willingness Round Trip Time	Estimated round trip time based on willingness to travel farther and the rate at which the participant actually traveled. In hours (hr)
Total Travelers	Reported additional travelers plus one to represent the total travelers in carpool.
Weighted Cost Per Mile	U.S. General Services Administration Privately owned vehicle automobile rate per mile for January 1, 2019 of $0.58, divided by total number of carpoolers.
Registration Fee	Reported fee in U.S. Dollars.
Time at Event	Reported time of event. In hours (hr)
Other Reported Expenditures	Other reported expenditures such as toll fees, lodging costs etc. In U.S. Dollars.
Work Related	If yes = 2, if no = 1
Gender	If male = 1, if female = 2, other = 1.5
Age	Estimated age in years based on reported age range.
Education	Reported level of education. If no high school diploma = 0, high school = 1, associate's degree = 2, bachelor's degree = 3, graduate degree = 4.
Income	Estimated annual income in U.S. dollars based on the participants' job classification chosen. Job classification is matched with labor data specific to the field and average income for the location.

A one-page 13-item participant survey was designed to allow the researchers to gather as much data without being too long for the participants, and with respect for the time constraints of organizers. The questions account for the independent variables and dependent variables involved in the study (Table 2.1). Each question was worded to assist in gathering data on both what the participant actively paid to attend an event and what the participant would be willing to pay to attend the event in terms of travel costs, time costs and access fees. To estimate each participants' income in order to calculate opportunity cost of time, an income metric is necessary information to include in the survey. Collecting income data via surveys has been considered problematic in the literature because of high rates of non-response due to the sensitivity of the subject (Turrell, 2000). Some have suggested alternative methods to elicit higher response rates on income, such as including closed category options for answering income-based questions rather than open-ended income questions (Galobardes and Demarest, 2003). To obtain accurate responses on individual income, in addition to information on occupation, the income question was excluded to avoid non-response. Instead, a question on job occupation was asked, and the income of that individual was estimated based on labor data from the Oklahoma Department of Commerce for most occupations, the Oklahoma State Department of Education for public school educators, and for occupations not listed from those sources, data from the U.S. Bureau of Labor Statistics for the state of Oklahoma was used. Data from the Oklahoma Department of Commerce provided specific average incomes for various regions and counties throughout the state (Workforce Data, 2019; Oklahoma Department of Education, 2019; Bureau of Labor Statistics; 2019).

2.3 Implementation

To implement the distribution of the surveys at environmental education events throughout the state of Oklahoma, the Oklahoma Water Survey partnered with participating government agencies, NGOs and other willing entities within the state of Oklahoma providing environmentally related adult-based education to the public or professionals in the field. Because this research involves human subjects, the first survey was distributed after obtaining Institutional Review Board approval (#10220). Each organization was given a timeline for the research and each agreed to distribute participant surveys (See Appendix A) to participants at events fitting the research criteria scheduled before the conclusion of the study. In addition to the participant surveys, organizers were provided with the instructions for organizers and one organizer survey (See Appendix A) meant to quantify the funding that was put into planning and organizing the event in addition to the travel costs associated with the organizers facilitating the event. For research purposes, the most important instruction given to the organizers was to ensure that the surveys are given prior to, or at the beginning of the educational event. The reasoning for this was to ensure that the perceived quality of the education obtained did not interfere with the participants’ answers to the question regarding how far they would be willing to travel to the event. It is possible that giving surveys at the beginning of the event, directly following participants’ travel may have an unintended effect based on the distance, and quality of the journey to reach the event in addition to the participant’s individual mood or disposition. The purpose of the organizer survey is to estimate the costs incurred by organizers to facilitate environmental education events throughout the state of Oklahoma and allow for cost benefit analysis.

2.3.1 The Travel Cost Method

A modified TCM approach was be used to generate the econometric model for this study. Rather than estimating the probability of a number of visits to a specific location over time, as in a basic TCM, this study will be estimating what participants pay and are willing to pay to access environmental education with the components of a TCM as the fundamental framework. Because there are multiple sites in which environmental education occurs throughout the state of Oklahoma, occurring on differing occasions, with visitors not necessarily making multiple trips to an event, each participants' costs associated with travel will be incorporated into the calculation for what they pay and are willing to pay. The equation for cost of travel (pt_{actual}) for individuals traveling for reasons outside of work, or what each individuals' costs are including opportunity cost of time for the journey (Equation 2.1). There was also a separate calculation for individuals' willingness to pay based on their answer to the survey question, "how much farther would you be willing to travel to attend this event?" (Equation 2.2).

$$pt_{actual} = \left\{ \left(0.33 \times \left(\frac{y_n}{2{,}080} \right) \times t_n \right) + \left(\frac{c_n}{c_p} \times d_n \right) \right\} + tolls_n$$

Equation 2.1
Where y_n: individual yearly income, t_n: actual round trip travel time, c_n: vehicle operation costs per unit mile = \$0.58 (Vehicle Rates, 2019), c_p: number of carpoolers, d_r: actual round trip travel distance, $tolls_n$: tolls paid on the journey to the site. Annual income is divided by 2080, the estimated standard hours worked within a year.

$$pt_{willingness} = \left\{ \left(0.33 \times \left(\frac{y_n}{2{,}080} \right) \times t_n \right) + \left(\frac{c_n}{c_p} \times d_n \right) \right\} + tolls_n$$

Equation 2.2
Where y_n: individual yearly income, t_n: willingness round trip travel time, c_n: vehicle operation costs per unit mile = \$0.58 (Vehicle Rates, 2019), c_p: number of carpoolers, d_r:

willingness round trip travel distance, $tolls_n$: tolls paid on the journey to the site. Annual income is divided by 2080, the estimated standard hours worked within a year.

For individuals who were traveling for work-related reasons as reported in the survey, there was a change to the equation for cost of travel. The opportunity cost of time was the individual's full hourly wage rate rather than 1/3 of it based on the assumption that the individual was either traveling during work hours or was being paid for the time they took to obtain environmental education relative to their job field. The equation for cost of travel (pt_{actual}) is for individuals traveling for work-related reasons and includes what each individuals' costs are including opportunity cost of time for the journey (Equation 2.3). A second calculation was performed for those traveling for work based on their answer to the question, "how much farther would you be willing to travel to attend this event?" (Equation 2.4).

$$pt_{actual} = \left\{\left(\left(\frac{y_n}{2{,}080}\right) \times \ t_n\right) + \left(\frac{c_n}{c_p} \ \times \ d_n\right)\right\} + tolls_n$$

Equation 2.3
Where y_n: individual yearly income, t_n: round trip travel time, c_n: vehicle operation costs per unit mile = \$0.58 (Vehicle Rates, 2019), c_p: number of carpoolers, d_r: round trip travel distance, $tolls_n$: tolls paid on the journey to the site. Annual income is divided by 2080, the estimated standard hours worked within a year.

$$pt_{willingness} = \left\{\left(\left(\frac{y_n}{2{,}080}\right) \times \ t_n\right) + \left(\frac{c_n}{c_p} \ \times \ d_n\right)\right\} + tolls_n$$

Equation 2.4
Where y_n: individual yearly income, t_n: round trip travel time, c_n: vehicle operation costs per unit mile = \$0.58 (Vehicle Rates, 2019), c_p: number of carpoolers, d_r: round trip travel distance, $tolls_n$: tolls paid on the journey to the site. Annual income is divided by 2080, the estimated standard hours worked within a year.

These individual costs are then included in the aggregate travel cost for each participant based on the adapted calculation as referenced in Parsons (2017), it includes all the actual travel costs associated with travel to an environmental education event (Equation 2.5). A second equation addressed the willingness to pay for each individual and encompassed the aggregate costs (Equation 2.6).

$$TC_{actual} = pt_{actual} + lc + af + ex + tc$$

Equation 2.5
Where pt_{actual}: participant cost of travel, lc: reported lodging costs, a_f: reported access fee, ex: other reported expenditures, tc: time cost at event (time cost is the participants' hourly wage multiplied by the number of hours spent at the educational event.)

$$TC_{willingness} = pt_{willingness} + lc + af + ex + tc$$

Equation 2.6
Where $pt_{willingness}$: participant cost of travel, lc: reported lodging costs, af: reported access fee, ex: other reported expenditures, tc: time cost at event (time cost is the participants' hourly wage multiplied by the number of hours spent at the educational event.)

The individual costs of travel, *pt*, were calculated twice: First for what the participant actually paid to access environmental education, based on the round trip distance and time actually travelled, which is then input into the aggregate travel cost, TC, equation for each individual. The second calculation represents what the participant is willing to pay, based on the reported distance that the individual is willing to travel past the actual distance they travelled. This is then input into the aggregate travel cost equation and represents the participants' WTP. It should also be noted that for those travelling for work-related reasons as reported, the hourly wage for travel time was not divided by 3 as it was for those who did not report travelling for work-related reasons.

To calculate the total costs for all participants n=358 in the study, the individual costs of travel were totaled for both what participants paid (Equation 2.7) and were willing to pay to access environmental education in the state of Oklahoma (Equation 2.8).

$$Total_{actual} = \sum_{i=1}^{n} TC_{actual}$$

Equation 2.7
Where TC_{actual}: Individual actual aggregate travel costs, n=358 participants

$$Total_{willingness} = \sum_{i=1}^{n} TC_{willingness}$$

Equation 2.8
Where $TC_{willingness}$: Individual willingness aggregate travel costs, n=358 participants

Surveys were also given to organizers to gather data on how much is spent on providing environmental education to the public and professionals in environmental fields. For each event, organizers reported the direct expenditures such as venue costs, refreshments and educational materials, in addition to the planning time and event time, which would account for the opportunity cost of time for each organizer based on their suggested wages. If there was no reported wage for an organizer or volunteer, the opportunity cost of time for the work and travel related to the event was calculated using the median hourly wage from the county in which the host organization is located based on Oklahoma Department of Commerce data (Workforce Profiles, 2019).

For each individual organizer, the round-trip cost of travel and other associated expenses were calculated using a modified travel cost equation (Equation 2.9). These values were all summed to quantify the cumulative cost of organizing the environmental education event (Equation 2.10).

$$o_t = \left\{(r_w \times t_r) + \left(\frac{c_m}{n_p} \times d_r\right) + (r_w \times p_t)\right\}$$

Equation 2.9
Where r_w: reported wages, t_r: round trip travel time, c_m: vehicle operation costs per unit mile = \$0.58 n_p: number passengers, d_r: round trip travel distance, p_t: preparation time

$$OC = \sum_{i=1}^{n} o_t + \sum_{i=1}^{n} c_t + e_x$$

Equation 2.10
Where o_t: costs of travel for organizers, e_x: reported expenditures, t_c: time cost at event and, n: number of organizers

Once the cumulative cost of organizing the event was quantified, the amount spent per participant was calculated by dividing the cumulative organization costs by the organizer-reported number of registrants for the event. Furthermore, a benefit-cost ratio for each environmental education event was calculated by assessing the amount generated through registration fees to the quantified costs associated with organizing the event.

Although basic TCM utilizes approaches such as variants of the Poisson count data model to estimate the probability of the visits to a singular site over an interval of space or time, this study involves multiple sites with singular visits, making this an unviable approach (Parsons, 2003). Outside of what participants pay and are willing to pay, the dependent variable of interest is participants' willingness to travel farther. The additional distance participants were willing to travel served as a proxy for additional travel costs, which implied their willingness to pay more to access environmental education. Using a binary probit outcome model, unwillingness to travel farther to attend an event was coded 0, and willingness to travel farther to attend an event was coded 1. The model was used to predict the probability of membership to a target group based on a set of predictor variable. According to the binary probit outcome model (Equation 2.11), the probability p_i of observing a participant Y_i willing to travel farther is:

$$p_i = Prob\ (Y_i = 1|\boldsymbol{X}) = \Phi(\boldsymbol{x}_i'\beta)$$

Equation 2.11
where Φ is the cumulative distribution function of a standard normally distributed variable which ensures $0 \leq p_i \leq 1$, *β is a vector of coefficients to be estimated, reflecting the effect of changes in x on the probability of participants willingness to travel farther, and x is a vector of independent variables that explain the variation in outcome, including actual round trip distance, estimated age, and estimated annual income*

2.4 Results

The following will discuss the results of this study in addition to the demographic qualities of the three educational categories which include environmental stewardship, educator training and professional development. Furthermore, the calculated economic value, the outputs of the binary probit outcome model for participants' WTP, and statistical representativeness of the sample based on a chi-square goodness of fit test will be reported.

2.4.1 Collective Sample Results

There were eight organizations that participated in distributing surveys at environmental education events throughout the state of Oklahoma between May of 2019 and January of 2020 (Figure 2.1). There were n = 358 respondents at 25 total events across the state, all adults over the age of 18 with a response rate of 76% (See Appendix B). Most of the respondents, 69% identified as female, 30% identified as male, and 1% identified as "other" or did not respond. A majority of the respondents, 63% were present for reasons outside of work and the remaining 37% were obtaining environmental education for work-related reasons (Table 2.2). There were 39 occupational categories represented by the 358 participants in this study. 25 occupations had more than two representative participants (**Error! Reference source not found.** or Table 2.3).

Demographic		*% (n)*
Work Related?	Yes	36.9 (132)
	No	63.1 (226)
Gender	Female	68.7 (246)
	Male	30.4 (109)
	Other	0.8 (3)
Age Range	18-25	15.8 (61)
	26-35	14.5 (56)
	36-45	15.6 (60)
	46-55	14.0 (54)
	56-65	12.5 (48)
	>65	20.5 (79)
Education Level	Some high school	0.6 (2)
	High school graduate	14.2 (51)
	Associate's degree	12.6 (45)
	Bachelor's degree	39.4 (141)
	Graduate school	33.2 (119)
Estimated Income	$1 to $9,999	<1.0 (1)
	$10,000 to $14,999	0.0 (0)
	$15,000 to $24,999	20.9 (75)
	$25,000 to $34,999	6.0 (21)
	$35,000 to $49,999	31.3 (112)
	$50,000 to $64,999	23.7 (85)
	$65,000 to $74,999	4.2 (15)
	$75,000 to $99,999	6.4 (23)
	$100,000 or more	7.3 (26)

Table 2.2: ***Demographics for n=358 Participants***

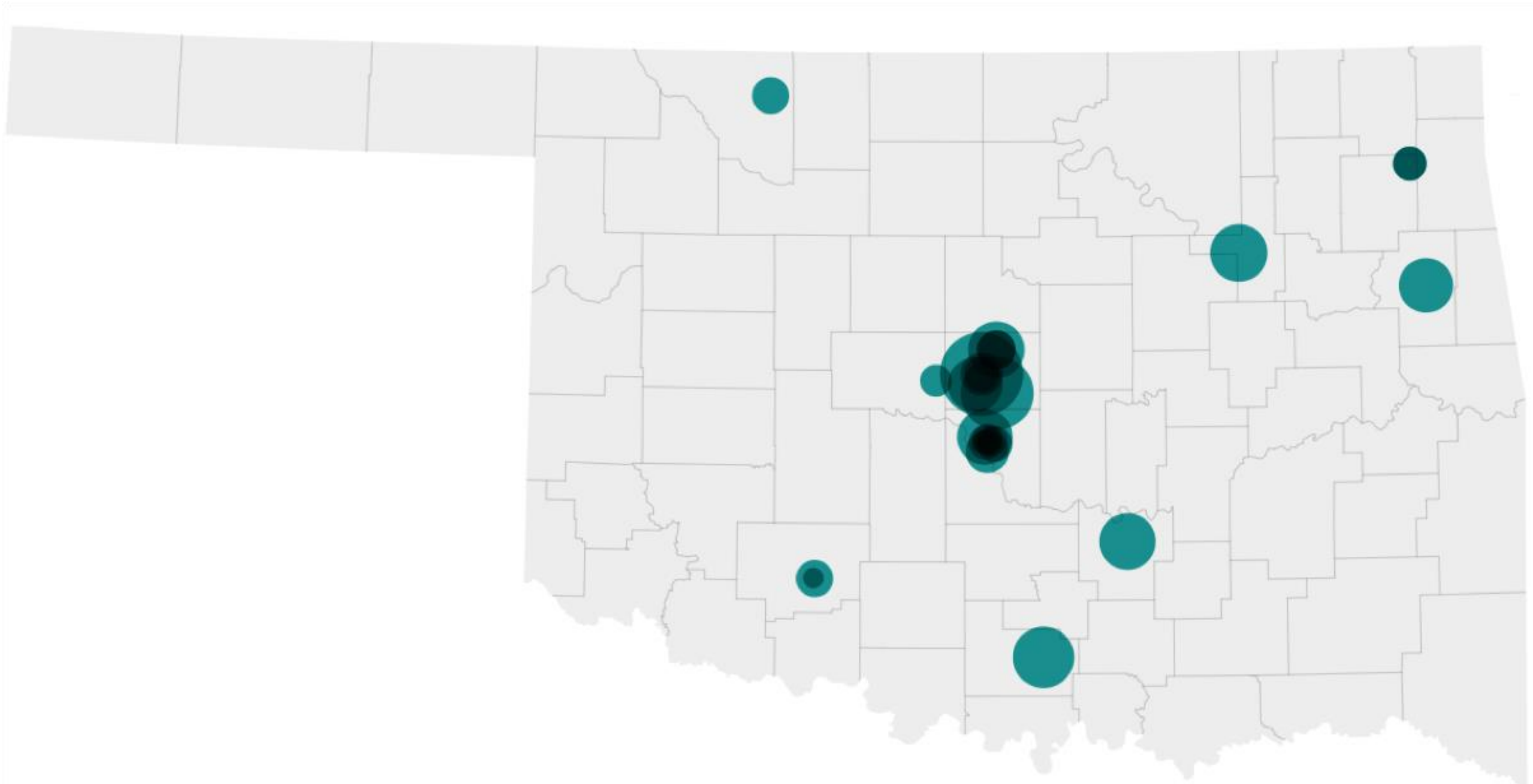

Figure 2.1 ***Oklahoma Map of Event Locations***

Map of n=25 events across the state of Oklahoma that participated in the study. Larger circles represent larger attendance numbers.

Occupation	Frequency
Retired	79
Student	60
Educator	53
Engineer	47
Attorney	21
Management, Administrative, Clerical	15
Not Currently Employed	11
Self-Employed	10
Science and Technology	10
Medical Professions	9

Table 2.3: ***Participant Occupations***
The top 10 professions and occupations represented by the participants in the study

2.4.2 Educational Category Results

In the state of Oklahoma there was a diverse array of environmental education events that were offered to the general public and professionals in environmental fields, and among these events, there were 3 main categories of environmental education events observed. They included environmental stewardship, educator training and professional development. Because opportunity cost of time is based on hourly wage rates, and has an effect on the participants' travel costs, income differences across the environmental education categories influenced travel costs and willingness to pay. Additionally, trends and similarities in estimated age, job-relatedness and gender influenced the division of these three categories.

Environmental Stewardship involves education intended for the general public and those who are interested in learning how to incorporate pro-environmental behavior in their everyday lives. There were n=191 individuals in this category (Table 2.4). Environmental stewardship education is taught in a variety of settings including the outdoors, a formal classroom structure, discussions, and workshops. Environmental Stewardship education may cover a range of topics such as environmental STEM, water conservation, citizen science, residential stewardship, including best management practices for the general public. Some specific examples include rainwater harvesting for the home, educating the general public on the water cycle, or best management practices for landscaping and gardening.

Variable	*Units*	*Mean*	*Standard Deviation*
Actual Travel Cost	U.S. $	116	138.9
Willingness to Pay	U.S. $	192	143.1
Actual Round Trip Distance	miles	36	85.2
Actual Round Trip Travel Time	hours	0.8	1.46
Willingness Round Trip Distance	miles	82	113.9
Total Travelers		1.6	0.70
Weighted Cost Per Mile	U.S. $	0.4	0.16
Registration Fee	U.S. $	26	41.4
Time at Event	hours	4.97	4.2

Table 2.4: ***Environmental Stewardship Results***
There were 12 total events with n=191 participants that were a part of the environmental stewardship category.

Educator Training is environmental education focused on helping teachers and educators provide well-informed and engaging environmental education for their students. There were n=83 participants in this category (Table 2.5). Many educator training events are aimed at public school teachers, but there are instances in which this training is intended to train educators and volunteers to deliver environmental education to the public. Educators focusing on adult-based environmental education are also included. Some specific examples include teaching educators to bring recycling to their schools and classrooms, developing environmentally related STEM education, nature guide training, or involving environmental education in literacy education curriculums.

Variable	*Units*	*Mean*	*Standard Deviation*
Actual Travel Cost	U.S. $	134	78.8
Willingness to Pay	U.S. $	182	137.3
Actual Round Trip Distance	miles	66	66.4
Actual Round Trip Travel Time	hours	1.3	1.14
Willingness Round Trip Distance	miles	144	166.0
Total Travelers		1.9	1.37
Weighted Cost Per Mile	U.S. $	0.4	0.18
Registration Fee	U.S. $	17	7.5
Time at Event	hours	6.1	0.33

Table 2.5: ***Educator Training Results***
There were 6 total events with n= 83 participants that were a part of the educator training category

Professional Development is education aimed at private and public sector professionals who work in environmentally related fields including those that may be subject to environmental regulation. There were n=84 participants in this category (Table 2.6). Education for professional development is taught in a variety of settings including the outdoors, a formal classroom structure, trainings, and workshops. Topics are intended to educate professionals in environmentally related fields with continuing education, introducing new techniques, develop in ethical decision-making, and may or may not result in certification in a given topic. Some examples include low-impact development education, environmental policy and law, and water quality monitoring for professionals in the field.

Variable	*Units*	*Mean*	*Standard Deviation*
Actual Travel Cost	U.S. $	384	312.8
Willingness to Pay	U.S. $	486	388.6
Actual Round Trip Distance	miles	91	103.4
Actual Round Trip Travel Time	hours	1.7	1.61
Willingness Round Trip Distance	miles	249	236.5
Total Travelers		2.1	1.11
Weighted Cost Per Mile	U.S. $	0.4	0.19
Registration Fee	U.S. $	108	89.9
Time at Event	hours	7.2	5.80

Table 2.6: ***Professional Development Results***
There were 7 total events with n= 84 participants that were a part of the professional development category.

Demographics and socioeconomic characteristics of the participants for the three main categories of environmental education events; environmental stewardship, educator training and professional development were observed. The percentages of participant membership to demographic categories such as whether participants were traveling for work (Figure 2.2), gender identity (Figure 2.3), age (Figure 2.4), income (Figure 2.5), and educational attainment level (Figure 2.6). The percentages for each educational category were compared to the total sample of n=358 participants.

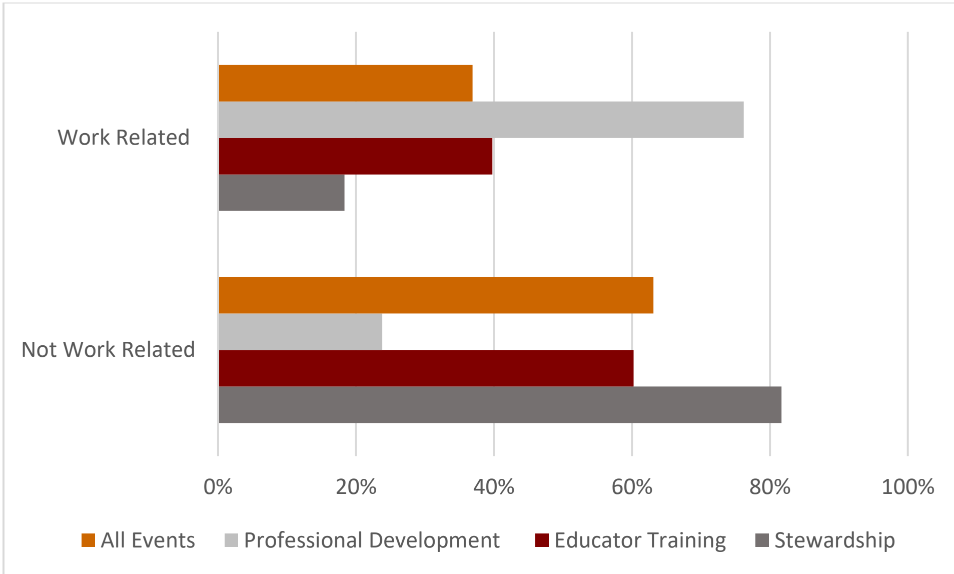

Figure 2.2: ***Educational Categories and Work-Related Travel***
Percentage of participants from each environmental education category in addition to the entire sample attending for job-related purposes or for other reasons.

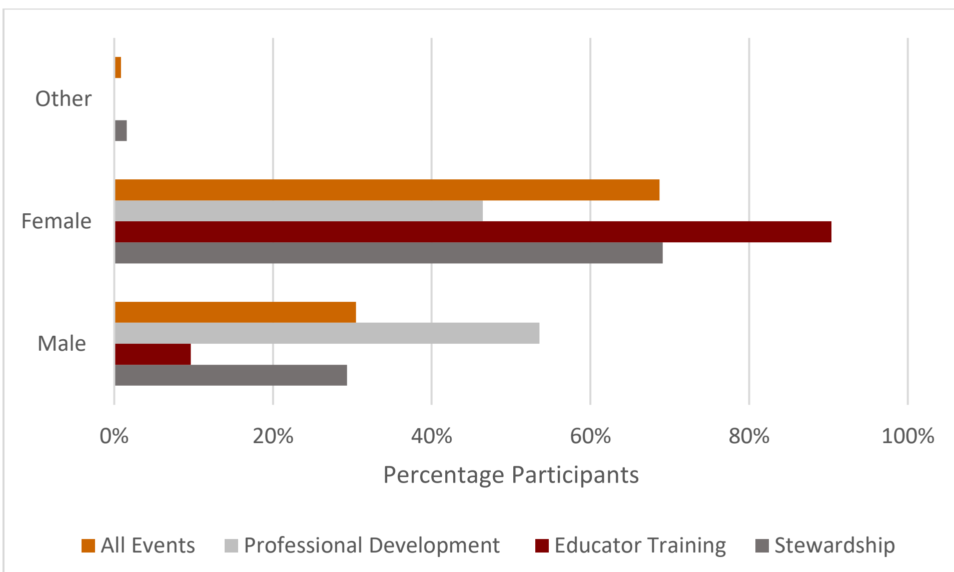

Figure 2.3: ***Educational Categories and Gender Identity***
Percentage of participants from each environmental education category in addition to the entire sample and reported gender identification

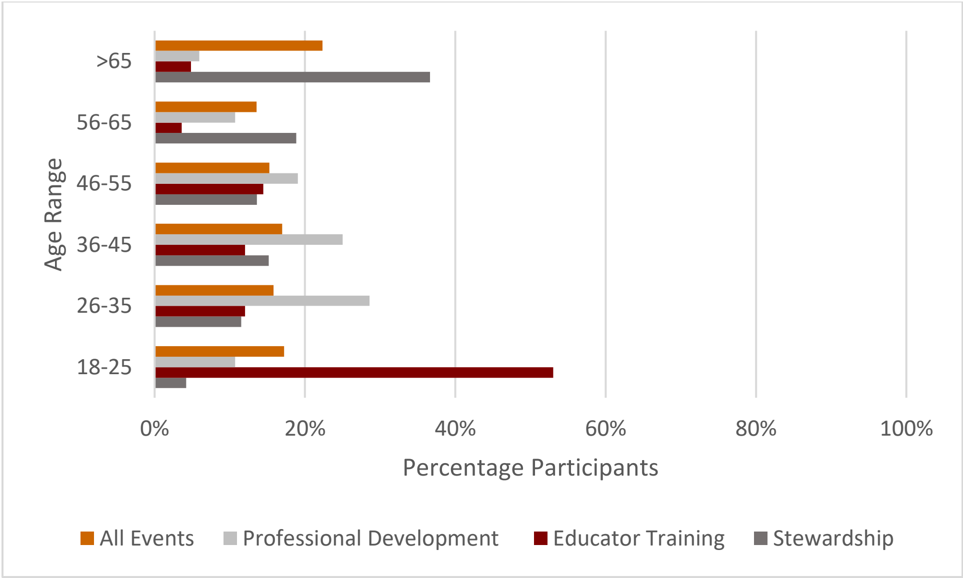

Figure 2.4: ***Educational Categories and Age***
Percentage of participants from each environmental education category in addition to the entire sample and reported age range

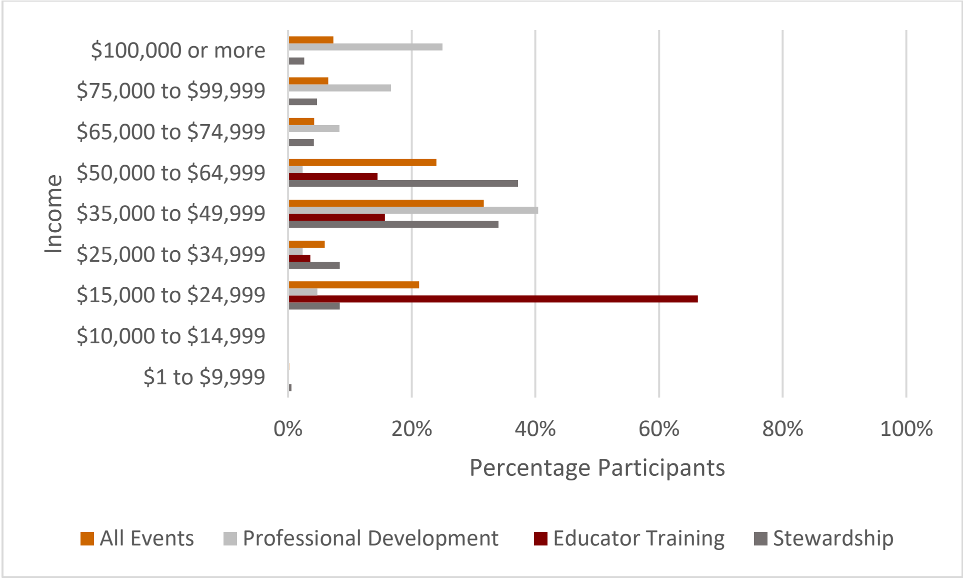

Figure 2.5: ***Educational Categories and Income***
Percentage of participants from each environmental education category in addition to the entire sample and estimated income range.

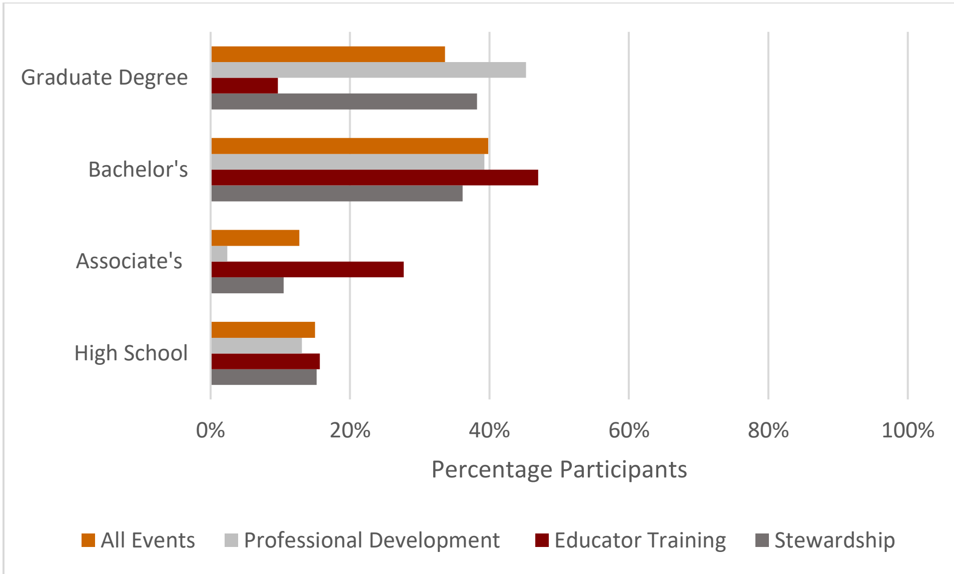

Figure 2.6: ***Educational Categories and Educational Attainment Level***
Percentage of participants from each environmental education category in addition to the entire sample and reported educational attainment.

2.4.3 Economic Value

The distributions for what n = 358 participants paid (Figure 2.7) and were willing to pay (Figure 2.8) to access environmental education were both right skewed with actual costs ranging between \$12 to \$1301 and WTP ranging between \$18to \$2358. The resultant economic value of environmental education to the state of Oklahoma was calculated and it was found that the collective value of environmental education for n = 358 respondents at 25 events was \$75,300 based on the costs of travel such as distance traveled, vehicle operating costs, lodging costs, opportunity cost of time for both the journey and time spent at the event, event registration fees in addition to other reported expenditures. Based on item 5 of the survey, "How much farther would you be willing to travel to attend this event?" and the respondents' answer to this question, the participants' willingness to pay was calculated. The collective WTP for total that n=358 participant respondents at 25 events across the state was found to be \$92,600. Descriptive statistics are shown for each of the independent variables that was used to calculate the actual travel costs and willingness to pay for travel for both individuals and the collective 358 participants. Furthermore, each individual on average paid $210 to access environmental education and was willing to pay $259 on average to access this education (Figure 2.7). Based on the paired data of individual actual cost of travel and individual willingness to pay for travel for each participant it was estimated that participants would be willing to pay approximately $16.85 plus approximately $0.15 for every dollar that was actually spent on accessing environmental education (Figure 2.9).

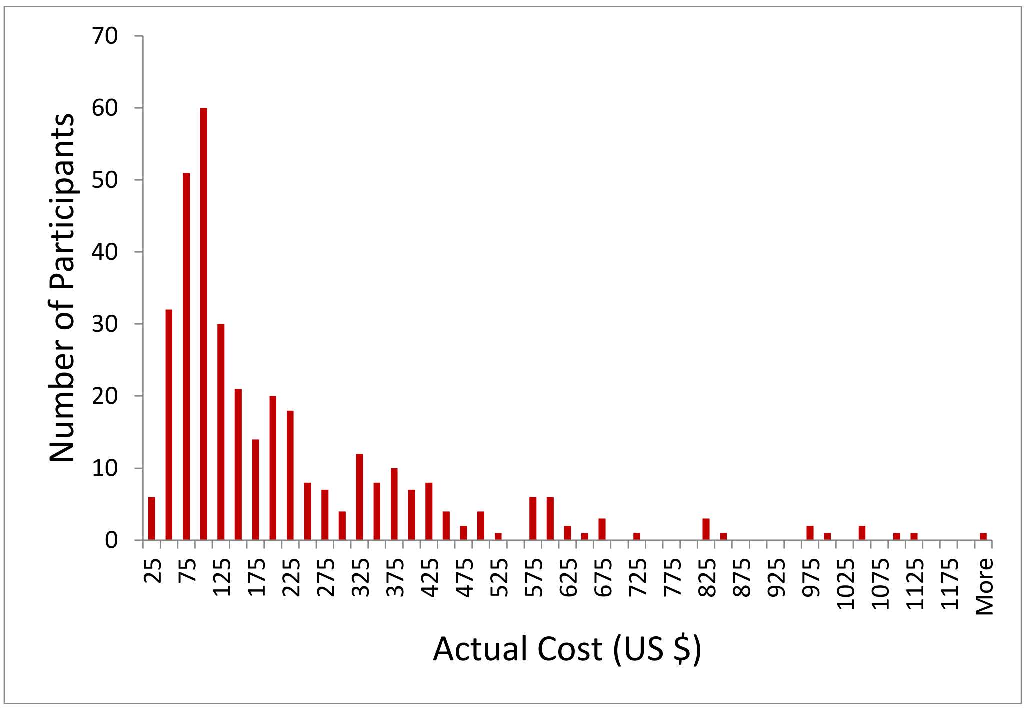

Figure 2.7: ***Distribution of Actual Travel Costs***
The right-skewed distribution for participants' actual costs.

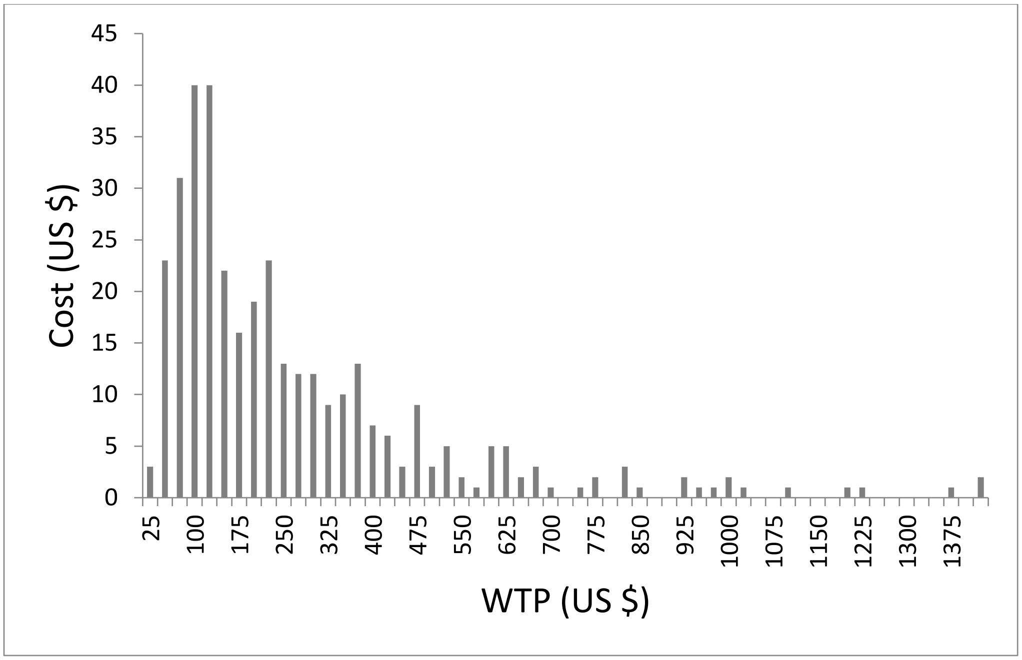

Figure 2.8: ***Distribution Willingness to Pay***
The right-skewed distribution forparticipant WTP.

Variable	*Definition*	*Mean*	*Std Dev*	*Min*	*Max*
Dependent Varaible					
Actual Cost	U.S. $	210	209.6	12	1301
Willingness to Pay	U.S. $	259	257.5	18	2358
Explanatory Variable					
Actual Round Trip Distance	miles	56	88.9	0.1	1000
Willingness Round Trip Distance	miles	136	175.6	0.1	1488
Actual Travel Time	hours	1.1	1.47	0.02	18
Carpoolers	number	1.8	1.01	1.0	6.0
Weighted Cost Per Mile	U.S. $	0.4	0.2	0.10	0.58
Registration Fee	U.S. $	43	64	0	200
Time at Event	hours	5.8	4.23	1.00	17.00
Other Expenditures	U.S. $	3	24	0	300
Work Related?	no=1 yes=2	1.37	0.48	1.00	2.00
Estimated Annual Income	U.S. $	48600	27200	0	18000

Table 2.7: ***Survey Variable Descriptive Statistics***
Variable descriptive statistics for factors (independent variables) used to calculate the actual travel cost and willingness to pay for travel costs (dependent variables) per individual.

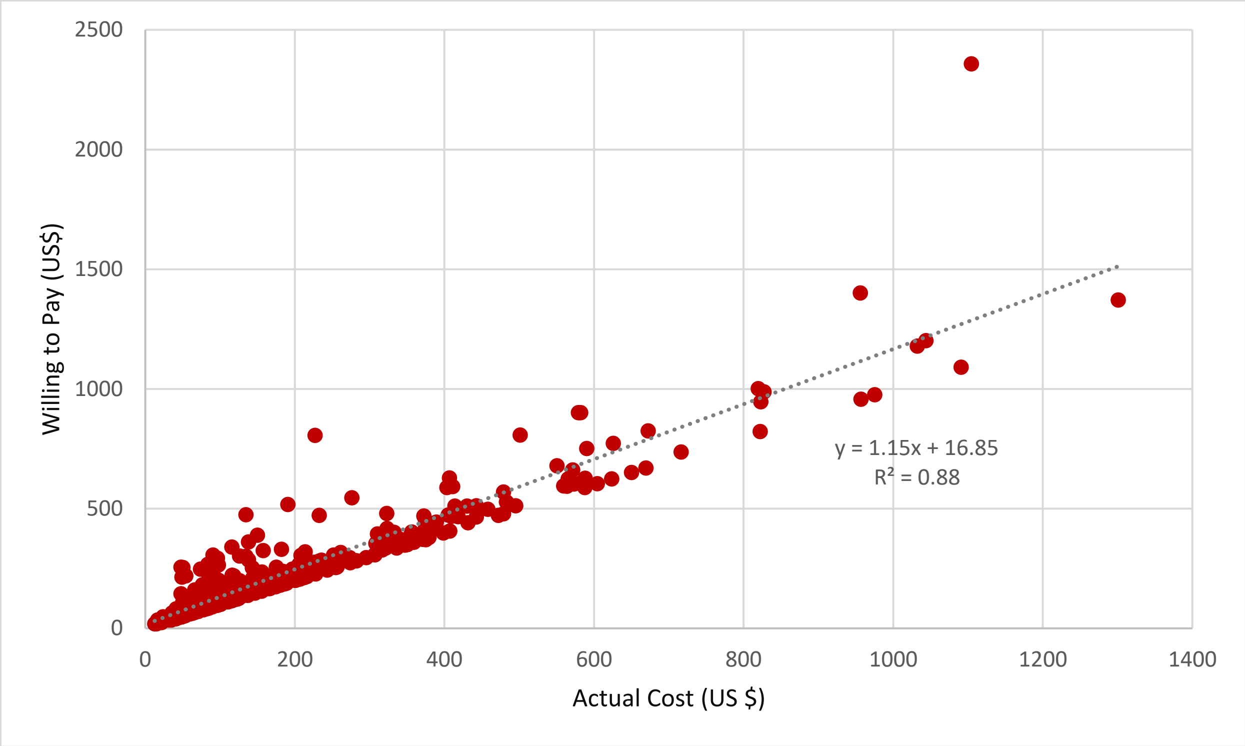

Figure 2.9: ***Paired Individual Actual Costs and Individual WTP***
Paired actual costs and willingness to pay for n=358 individuals.

Aggregate organizer costs were evaluated for 24 of the 25 environmental education events; the organizer spending per participants and the benefit cost analysis included n=297 participants (*Table* 2.8). Organizer data was missing for one event, so the participant data was not included in the organizer spending per participant and benefit-cost analysis. The average organizer spending per participant was $118, and 25% of the events have a $0 registration fee, the average registration fee for the 24 events was $69. Based on only registration fees obtained by organizers, the benefit-cost ratio was 0.58. Considering aggregate travel costs for the n=297 participants, the benefit-cost ratio is 1.74.

Variable	*Units*	*Mean*	*Standard Error*	*Median*	*Standard Deviation*	*Range*	
						Minimum	Maximum
Organizer Spending	U.S. $	1465	298.4	990	1461.9	129	5564
Registration Fees	U.S. $	856	302.1	390	1480.0	0	6900

Table 2.8: ***Organizer Aggregate Costs***
Descriptive statistics for organizer spending and aggregate registration fees per environmental education event.

Demand curves for individual actual aggregate cost of travel and individual aggregate willingness to pay are shown (Figure 2.10). The difference between individual willingness to pay and actual costs to access environmental education based on the curves was $49 per individual (Equation 2.12).

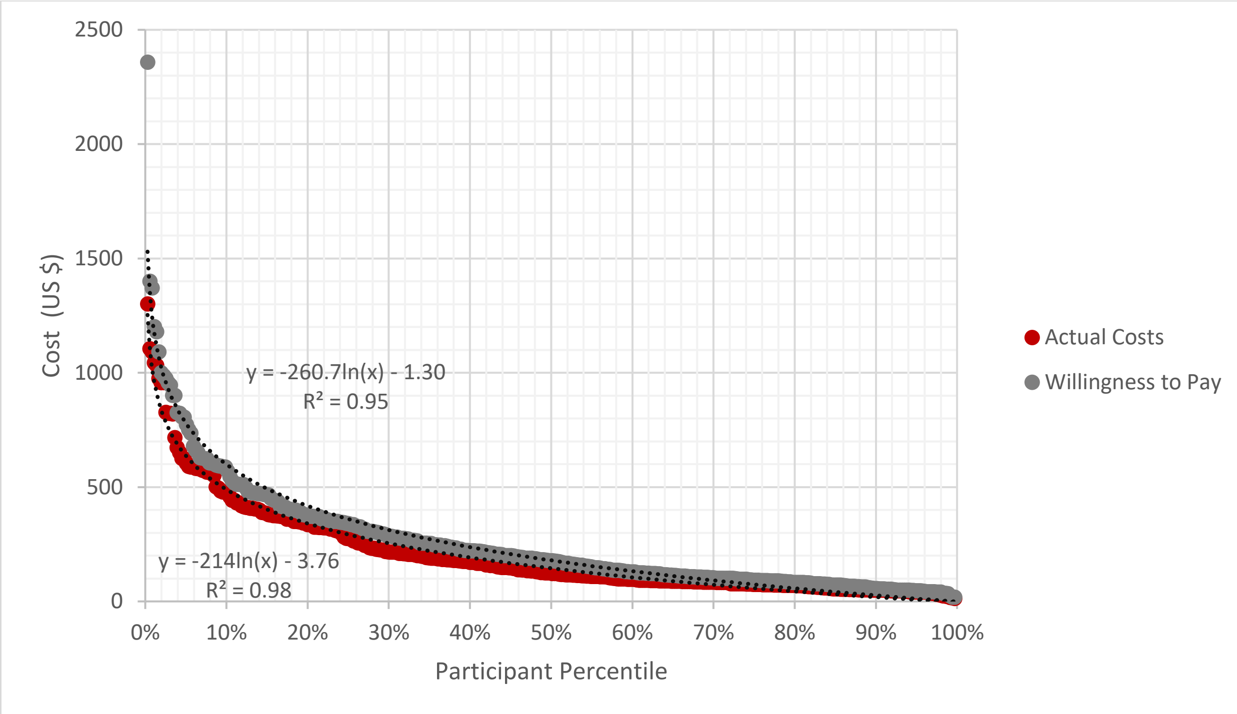

Figure 2.10: ***Aggregate Costs Demand Curves***
A set of demand curves for the n=358 sample shows both the calculated individual actual aggregate cost of travel and indivual aggregate willingness to pay for travel.

The difference between the individual aggregate willingness to pay and individual aggregate actual costs was calculated. Based on these curves, the difference was $49 per individual.

$$TC_{Individual\ Actual-WTP} = \int_0^1 (-260.7\ln(x) + 1.30)dx - \int_0^1 (-214\ln(x) - 3.76)dx$$

Equation 2.12
Where $TC_{Individual\ Actual\text{-}WTP}$: The difference between willingness and actual individual aggregate travel costs, n=358 participants.

In addition to the difference between individuals' WTP and their actual costs associated with accessing environmental education, the difference between the individual primary costs and trip costs were of interest for the purposes of planning (Figure 2.11). The primary costs are associated with up-front costs such as registration fees, lodging costs and time cost of event length, whereas trip costs are specifically associated with the journey, and included mileage, time cost of the journey, and reported tolls. For the total travel costs for all n=358 participants, the primary costs accounted for 80.8% of all the costs. On average, individuals were paying $172 in primary costs versus the $41 in trip costs. The average difference between the primary costs and trip costs was $132.

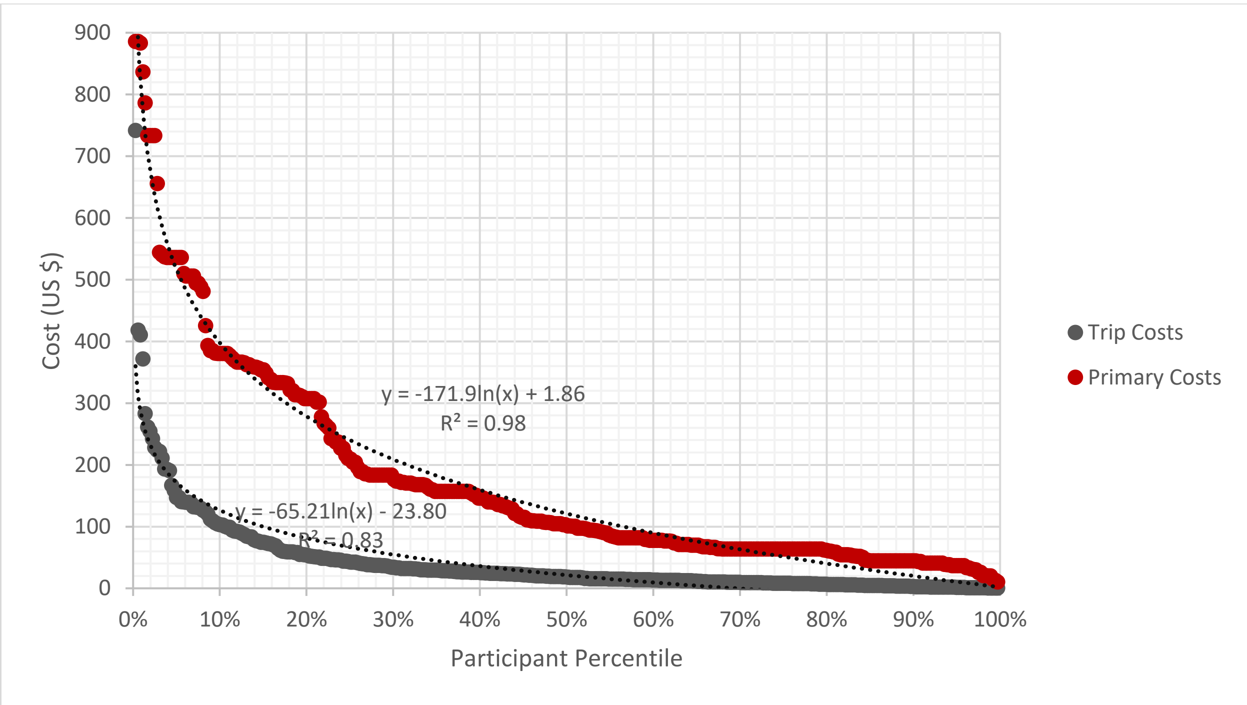

Figure 2.11: ***Primary and Trip Costs***
A set of curves for the n=358 sample shows both the individual primary costs, such as registration fees, lodging costs and time cost at the educational event itself and individual trip costs associated with the journey itself such as mileage, time cost of the journey, and reported tolls.

2.4.4 Willingness to Pay Model Outputs

Out of the n=358 participants, 75.97% stated a willingness to travel farther to access environmental education, thus implying a willingness to pay more. The results of a binary probit outcome model for describing the effect several predictor variables have on a participants' willingness to travel farther to access environmental education were obtained using the statistical software SPSS. Based on the likelihood-ratio chi-square test, the model showed an improved fit for the data over the unconditional null, or intercept model. The chi-squared statistic was at 24.39, above the critical value necessary for significance at the $p = 0.01$ level. The estimated coefficients and standard errors for independent variables found to significantly ($p < .05$) affect the willingness to travel farther are listed in (Table 2.9) and include actual round trip distance, estimated age, and estimated annual income (See Appendix C). The estimates for the effect of actual round-trip distance travelled were found to have a negative impact on participants' willingness to travel farther with significance exceeding the $p = 0.01$ level. An increase in estimated age was found to have a negative effect on participants' willingness to travel farther with significance at the $p = 0.001$ level. A higher estimated annual income was found to have a slightly positive effect on participants' willingness to travel farther with a significance at the $p = 0.05$ level. The equation for the model is shown (Equation 2.13).

Variables	Coefficient	Standard Error	Significance	95% Confidence Interval	
				Lower	Upper
Intercept	1.364	0.2702	<0.001	0.835	1.894
Actual Round Trip Distance	-0.004	0.0010	<0.001	-0.006	-0.002
Estimated Age	-0.017	0.0051	0.001	-0.027	-0.007
Estimated Annual Income	6.895E-06	3.295E-06	0.036	4.357E-07	1.335E-05

Table 2.9: ***Binary Probit Model Output***

Table showing the three independent variables that had a significant effect on the willingness to travel farther for all n=358 participants.

A Binary Probit Outcome Model equation for all participants shows the likelihood that individuals are willing to travel farther based on the predictor variables for actual round trip distance traveled, estimated age, and estimated annual income.

$$Prob(TravelWillingness_i = 1|\beta, x_i) = \Phi(\beta_1 + \beta_2 Distance_i + \beta_3 Age_i + \beta_4 Income_i)$$

Equation 2.13
Where β is the vector of estimated coefficients, x_i is the independent variable vector.

A binary probit outcome model for describing the effect several predictor variables have on a participants' willingness to travel farther to access environmental education in the environmental stewardship category were obtained. Based on the likelihood-ratio chi-square test, the model showed an improved fit for the data over the unconditional null, or intercept model. The chi-squared statistic was at 20.251 above the critical value necessary for significance at the $p < 0.001$ level. The estimated coefficients and standard errors for two independent variables found to significantly ($p < .05$) affect the willingness to travel farther are listed in (Table.2.10) and include actual round trip distance, and estimated age. The estimates for the effect of actual round-trip distance travelled were found to have a negative on participants' willingness to travel farther with significance exceeding the p = 0.01 level. An increase in estimated age was found to have a negative effect on participants' willingness to travel farther with significance at the p = 0.001 level. The associated equation is shown (Equation 2.14).

Variables	*Coefficient*	*Standard Error*	*Significance*	*95% Confidence Interval*	
				Lower	*Upper*
Intercept	2.326	0.4990	<0.001	1.348	3.304
Actual Round Trip Distance	-0.007	0.0023	<0.01	-0.011	-0.002
Estimated Age	-0.028	0.0083	0.001	-0.044	-0.011

Table.2.10: ***Environmental Stewardship Binary Probit Outcome Model Output***
Table showing the two independent variables that had a significant effect on the willingness to travel farther for n=191 participants in the environmental stewardship category.

A Binary Probit Outcome Model equation for Environmental Stewardship participants shows the likelihood that individuals are willing to travel farther based on the predictor variables for actual round trip distance traveled, and estimated age.

$$Prob(TravelWillingness_i = 1|\beta, x_i) = \Phi(\beta_1 + \beta_2 Distance_i + \beta_3 Age_i)$$

Equation 2.14
Where β is the vector of estimated coefficients, x_i is the independent variable vector.

For the educator training category, the results of a binary probit outcome model for describing the effect several predictor variables have on a participants' willingness to travel farther to access environmental education were obtained. Based on the likelihood-ratio chi-square test, the model showed an improved fit for the data over the unconditional null, or intercept model. The chi-squared statistic was at 14.125, above the critical value necessary for significance at the p = 0.003 level. The estimated coefficients and standard errors for independent variables found to significantly ($p < .05$) affect the willingness to travel farther are listed in (Table.2.11) and include actual round trip travel time, total travelers (carpoolers), and educational level. The estimates for the effect of actual round-trip travel time were found to have a negative on participants' willingness to travel farther with significance at the $p = 0.005$ level. An increase in total travelers, or carpoolers, was found to have a negative effect on participants' willingness to travel farther with significance at the $p = 0.05$ level. A higher educational attainment level was found to have a positive effect on participants' willingness to travel farther with a significance at the $p = 0.05$ level. The associated equation is shown (Equation 2.15).

Variables	*Coefficient*	*Standard Error*	*Significance*	*95% Confidence Interval*	
				Lower	*Upper*
Intercept	0.630	0.4726	0.183	-0.297	1.556
Round Trip Travel Time	-0.418	0.1486	0.005	-0.709	-0.127
Total Travelers	-0.229	0.1125	0.042	-0.449	-0.008
Educational Level	0.491	0.2032	0.016	0.093	0.889

Table.2.11: ***Educator Training Binary Probit Outcome Model***
Model output showing the three independent variables that had a significant effect on the willingness to travel farther for the educator training n=83 participants.

A Binary Probit Outcome Model equation for Educator Training participants shows the likelihood that individuals are willing to travel farther based on the predictor variables for actual round trip travel time, total travelers, and educational attainment level.

$$Prob(TravelWillingness_i = 1|\beta, x_i) = \Phi(\beta_1 + \beta_2 Time_i + \beta_3 Carpoolers_i + \beta_4 Education_i)$$

Equation 2.15
Where β is the vector of estimated coefficients, x_i is the independent variable vector.

For the professional development category, the results of a binary probit outcome model for describing the effect two predictor variables have on a participants' willingness to travel farther to access environmental education were obtained. Based on the likelihood-ratio chi-square test, the model showed an improved fit for the data over the unconditional null, or intercept model. The chi-squared statistic was at 9.464, above the critical value necessary for significance at the $p = 0.009$ level. The estimated coefficients and standard errors for independent variables found to significantly ($p < .05$) affect the willingness to travel farther are listed in (Table.2.12) and include actual round trip travel time, and educational attainment level. The estimates for the effect of actual round-trip travel time were found to have a negative effect on participants' willingness to travel farther with significance exceeding the $p = 0.029$ level. A higher level of educational attainment was found to have a positive effect on participants' willingness to travel farther with a marginal significance at the $p = 0.054$ level. The associated equation is shown (Equation 2.16).

Variables	*Coefficient*	*Standard Error*	*Significance*	*95% Confidence Interval*	
				Lower	*Upper*
Intercept	0.449	0.5561	0.419	-0.641	1.539
Round Trip Travel Time	-0.218	0.0997	0.029	-0.413	-0.022
Education	0.317	0.1649	-0.006	0.640	3.700

Table.2.12: ***Professional Development Binary Probit Outcome Model***
Model output showing the three independent variables that had a significant effect on the willingness to travel farther for professional development n=84 participants.

A Binary Probit Outcome Model equation for Professional Development participants shows the likelihood that individuals are willing to travel farther based on the predictor variables for actual round trip travel time and educational attainment level.

$$Prob(TravelWillingness_i = 1|\beta, x_i) = \Phi(\beta_1 + \beta_2 Time_i + \beta_3 Education_i)$$

Equation 2.16
Where β is the vector of estimated coefficients, x_i is the independent variable vector.

2.4.5 Representativeness

A chi-square goodness-of-fit test was performed to examine the representativeness the following demographics in relation to Oklahoma's population proportions: estimated age, gender identity, and educational attainment level. Categorical membership proportions were compared to proportions that represented Oklahoma's population demographics according to the U.S. Census Bureau for the entire group of sampled participants in addition to the three environmental education categories: environmental stewardship, educator training and professional development.

The age distribution hypotheses are as follows:

H_0: The distribution of the observed age does not differ significantly from the expected age distribution for Oklahoma's population.

H_1: The distribution of the observed age differs significantly from the expected age distribution for Oklahoma's population.

A chi-square goodness of fit test was used to determine whether the representativeness of the age distribution of participants for the entire study sample in addition to the three educational categories (environmental stewardship, educator training, professional development) was significantly representative of the age distribution of Oklahoma's population (18 to 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64, 65+).

Categories Tested	*Chi-Square Goodness of Fit Test*	*Representative of Oklahoma's Population?*
Entire Study	$\chi 2$ (5, N = 358) = 9.06, p = 0.11	yes
Environmental Stewardship	$\chi 2$ (5, N = 191) = 46.88, p < 0.001	no
Educator Training	$\chi 2$ (5, N = 83) = 120.65, p < 0.001	no
Professional Development	$\chi 2$ (5, N = 84) = 120.65, p < 0.001	no

Table.2.13: ***Chi-Square Goodness of Fit Table for Age Distribution***
Table showing the results of the chi-square goodness of fit test to determine the representativeness in age distribution of pariticipants across the educational categories in the study to the age distribution for Oklahoma's population.

The educational attainment distribution hypotheses are as follows:

H_0: The distribution of the observed educational attainment does not differ significantly from the expected educational attainment distribution for Oklahoma's population.

H_1: The distribution of the observed educational attainment differs significantly from the expected educational attainment distribution for Oklahoma's population.

A chi-square goodness of fit test was used to determine whether the representativeness of the educational attainment distribution of participants for the entire study sample in addition to the three educational categories (environmental stewardship, educator training, professional development) was significantly representative of the educational attainment distribution of Oklahoma's population (high school diploma or less, associate's degree, bachelor's degree, graduate or professional degree).

Categories Tested	*Chi-Square Goodness of Fit Test*	*Representative of Oklahoma's Population?*
Entire Study	$\chi 2$ (3, N = 358) = 588.17, $p < 0.001$	no
Environmental Stewardship	$\chi 2$ (3, N = 191) = 375.36, $p < 0.001$	no
Educator Training	$\chi 2$ (3, N = 83) = 70.98, $p < 0.001$	no
Professional Development	$\chi 2$ (3, N = 84) = 242.73, $p < 0.001$	no

*Table.2.14: **Chi-Square Goodness of Fit Table for Educational Attainment Distribution***
Table showing the results of the chi-square goodness of fit test to determine the representativeness in educational attainment distribution of pariticipants across the educational categories in the study to the educational attainment distribution for Oklahoma's population.

The gender distribution hypotheses are as follows:

H_0: The distribution of the observed reported gender does not differ significantly from the expected gender distribution for Oklahoma's population.

H_1: The distribution of the observed gender differs significantly from the expected gender distribution for Oklahoma's population.

A chi-square goodness of fit test was used to determine whether the representativeness of the gender identity distribution of participants for the entire study sample in addition to the three educational categories (environmental stewardship, educator training, professional development) was significantly representative of the gender distribution of Oklahoma's population (female, male, other).

Categories Tested	*Chi-Square Goodness of Fit Test*	*Representative of Oklahoma's Population?*
Entire Study	$\chi 2$ (2, N = 358) = 47.30, $p < 0.001$	no
Environmental Stewardship	$\chi 2$ (2, N = 191) = 27.45, $p < 0.001$	no
Educator Training	$\chi 2$ (2, N = 83) = 51.52, $p < 0.001$	no
Professional Development	$\chi 2$ (2, N = 84) = 0.69, $p = 0.71$	yes

*Table 2.15: **Chi-Square Goodness of Fit Table for Gender Distribution***
Table showing the results of the chi-square goodness of fit test to determine the representativeness in gender distribution of pariticipants across the educational categories in the study to the gender distribution for Oklahoma's population.

2.5 Discussion

The choice to use TCM as an approach for the valuation of environmental education is grounded in this specific application lessening some of the limitations that arise from the conventional use of TCM to value recreation. For example, the problem of multi-purpose trips on the way to a primary recreational destination of interest does not encounter the same limitations in this approach to applying TCM to environmental education. It has long been problematic in single-site recreational studies in addressing respondents who were also using their journey to attend other recreational sites on the way, thus, implying that the total travel costs were not solely attributed to the journey to the recreational site of interest. For this research, participants learning about the environment at convention booths or other multi-purpose locations were excluded from this study and survey were distributed to participants specifically seeking to spend time and money at an environmental education event.

Other limitations of the conventional application of TCM were addressed in this study. When valuing recreational sites, survey responses may be influenced by changes in quality of the site, whereas this factor was controlled for by seeking responses before the educational event to avoid allowing the perceived quality of the event to influence the willingness to travel farther. There were some limitations that were difficult to control for; although it is assumed that the journey for those travelling for work held little to no value, it is impossible to know if the approximately 63% of travelers seeking environmental education for personal reasons did not find some value in the journey, or made specific choices on what environmental education events to attend based on scenic qualities of the journey to the educational event. In terms of survey responses, it may be problematic from a behavior standpoint to infer actual behavior on the stated willingness to travel farther, because there is not a scenario related to this study in which participants can be expected to prove that they would actually travel farther. Finally, behaviorally, it cannot be assumed that participants would respond in a similar manner to explicit registration fee increases as they would implicit changes to the opportunity cost of time for the journey length. This assumption may affect the way willingness to pay can be used to plan for registration fee changes versus venue location changes, which would affect a more implicit factors associated with the journey itself.

Assessing the uncertainties in the survey data and how this has affected the collective economic value of environmental education to the state of Oklahoma and the collective willingness to pay are important to understanding the accuracy of the quantified values. Since not all environmental education events in Oklahoma were able to participate in the study, and the research was conducted over the course of nine months, the participants travel costs represented only a portion the annual value of environmental education to the state of Oklahoma. These values are likely conservative and may be much greater than reported by this study. Additionally, the values may be conservative due to most of the events occurring within larger communities in Oklahoma, with a greater likelihood that most attendees would not have had to travel extensive distances and spend more to reach these locations as compared to events in more remote communities. Some of the choices in the analysis that would prevent an extreme overestimation of the values are described as follows.

Survey responses on open-ended questions were problematic at times due to participants misunderstanding the intended response. The issues encountered by open-ended survey questions have been previously studied, and it is known that open-ended questions sometimes result in responses not intended by the researchers, as compared to closed form questions (Schumann and Presser, 1979). For example, there was some difficulty with survey responses pertaining to the question of how far one traveled, and how much time it took to travel to the environmental education event. Some participants answered the distance question with a metric of time, rather than distance, essentially providing the same answer twice. Obtaining the distance data in miles was then dependent on the city of origin question, which was creating an assumption that the participant was travelling from a city center. Google Maps was then used to estimate the distance travelled based on the information given. This may have created some biases in the calculation, but there were minimal participants that answered the distance question in this manner.

The question of income is considered a sensitive subject, and sometimes elicits a lowered response rate on surveys (Galobardes and Demarest, 2003). This issue was circumvented by asking participants about the job they worked, rather than their annual income. Data based on income averages from the participants' location of residence then inferred their estimated annual income, then was divided by the accepted 2,080 annual work hours to obtain hourly wage rates. Labor research has noted the range of full-time annual work hours to be in the range of 1,750 to 2,080 hours (Smith, 1983). To control for excessive hourly wage rates, which would increase the value of opportunity cost of time in quantifying travel costs, the upper limit was chosen, resulting in more conservative calculations.

Addressing the wage rates of the unconventional occupations, such as homemakers, the self-employed or retired, and the unemployed to account for opportunity cost of time was based on policy and economic research arguments in the literature. Some primary arguments for wage rates for homemakers was the equivalent value of wages for employment fields such as housekeeping, childcare, meal preparation and home caretaking for sick family members. Additionally, it has been argued that wage rates for homemakers are based on household production time, or the lost wages a homemaker endures for not entering the workforce (Sharpe and Abdel-Ghany, 1997; Ireland, 1999). The arguments and values were varied by field of study, region and choice in approach, that the wage rates for those who reported homemaker as their occupation were assigned an annual income equivalent to the county averages for their place of residence according to the Oklahoma Department of Commerce data. For the purposes of consistency and representativeness, wage rates for the self-employed and retired were also addressed in a similar manner. For adults who graduated high school but reported that they were unemployed, Oklahoma's minimum wage rate was assigned for their opportunity cost of time according to the National Conference of State Legislatures (2020) state minimum wage data. There were very few participants who were over the age of 18 but had not yet graduated high school and reported that they were unemployed. Because there is limited literature addressing this, it was assumed that they were still living at home, and their opportunity cost of time was lumped with an assumed attending parent, making their cost of time $0 per hour. These approaches to unclear opportunity cost of time for various levels of employment were intended to minimize excessive opportunity cost of time for travel cost calculations quantify more conservative estimates of travel cost. Aside from retirees, participants that fell into these categories were minimal.

Aside from participants costs, organizer costs were addressed in this research as well. Although the benefit cost ratio indicates that the average cost of providing environmental education to the public outweighs the average income generated from registration fees, it should be noted that the travel costs function as economic generators in terms of fuel and mileage costs, lodging costs and other associated travel costs. Additionally, the benefit of environmental education to the state is not limited by what participants pay and are willing to pay for environmental education. In addition to the social and psychological benefits provided to those engaging in environmental education such as sense of place and the feeling of hope, there are actionable behaviors that result from environmental education that may provide economic benefits as well (Kudryavtsev and Krasny, 2012; Imbur, 2009). Environmental education cultivates awareness, which potentially translates into environmental action and changed behaviors, which could positively affect water quality or increase biodiversity (Ardoin et al., 2020). These ecological indicators, signaling environmental improvement, may provide economic benefit to citizens as well as local, state and federal government in terms of reducing the costs of remediating environmental degradation. Additionally, the value of an improved environment may translate to market value of homes. A tangible example of this effect is a hedonic pricing analysis indicating that ambient water quality variables such as total suspended solids and dissolved inorganic nitrogen significantly affect residential property values from both waterfront and non-waterfront properties (Poor et al., 2007). Although this study on the economic value of environmental education to the state of Oklahoma did not encompass the additional economic value of changed behaviors that result from environmental education, future studies building on this may provide a more comprehensive economic value of environmental education.

Three significant predictor variables indicating a participants' willingness to pay more to access environmental education included actual round-trip distance travelled, age, and estimated annual income. Participants who traveled longer distances were less likely to answer that they were willing to travel farther if the environmental education event was farther away. This may be an economic choice; individuals who travelled longer distances may have already spent what they were willing to spend in time and money or may also be a perception factor; with individuals who travelled shorter distance having a perception of time affluence. According to the younger participants were more likely to be willing to travel farther for environmental education. This may be related to the age distributions for the three environmental education categories. Younger participants were more prevalent in educator training and professional development categories, where the event may or may not be a requirement for work, making it more imperative to attend despite distance. Participants over the age of 65 accounted for a high percentage of the environmental stewardship category, which was a generally non-job-related category, potentially making it less of a mandatory priority to attend. A higher income increased the likelihood of a participant's willingness to travel farther, which was expected due to the availability of income to be able to afford to travel farther.

For the three educational categories, there were similarities and differences amongst the predictors for willingness to pay more to access environmental education in comparison to the entire group of participants. The environmental stewardship group bore the most similarity to the entire group, with actual round-trip distance and age being two predictors that negatively impact participants' willingness to travel farther. This can be explained by the fact that this was the largest group out of the three, influencing the results of the model for the whole group. Educator training had three significant predictor variables indicating a participants' willingness to pay more to access environmental education and included actual travel time, number of carpoolers, and educational attainment level. A longer travel time indicated a lesser likelihood of a participant wanting to travel farther, and because travel time is related to travel distance, it may be assumed that this is for similar reasons that distance negatively impacted participants' willingness to travel farther for the whole group. A higher number of carpoolers made a participant less likely to want to travel farther. This may be due to a perceived requirement to attend these trainings, as carpooling may have been arranged by an employer, or the journey may have been uncomfortable for some. Higher educational levels indicated a higher likelihood that an individual would be willing to travel farther, this may be due to higher educational levels being positively correlated with a higher salary according to the Oklahoma Public Schools Local Salary Schedules (2019), although not everyone in this category was a public educator. In the professional development category, there were two significant predictor variables indicating a participants' willingness to pay more to access environmental education, which included actual travel time and educational attainment level. Actual travel time negatively impacted the likelihood that an individual would be willing to travel farther, most likely for the same reasons actual travel distance did for the entire group surveyed. For this group, a higher educational attainment level positively impacted a participants' willingness to travel farther and may be positively correlated with more income readily available to spend on travel.

Demographics of participants and their representativeness of Oklahoma's population demographic features was of interest mainly for the purposes of planning and budgeting for environmental education in the state of Oklahoma. The demographic features of interest were age, gender identity, and educational attainment were observed, and estimated annual income was excluded because U.S. Census data related to income was for household income, not individual income. Despite this, income representativeness may be inferred by educational attainment because of the positive relationship between higher educational attainment and increased income has been the subject of scholarly research (Torpey, 2018). The age distribution for the respondents at the environmental education events was representative of Oklahoma's population age distribution. This indicates that individuals seeking environmental education for a variety of reasons not only represent Oklahomans of all ages, but this also indicates that there is an intergenerational demand for environmental education in the state. Gender distribution for the entirety of the participants in this study was not representative of Oklahoma's gender distribution, which was expected because there have been numerous studies indicating that environmental concern, advocacy and pro-environmental behavior is generally exhibited by women (Arnocky and Stroink, 2010; Milfont and Sibley, 2016; Zelenzy et al., 2000). Despite this being the case for the entirety of the participants in this study, when grouped by educational event, the gender distribution for participants in the professional development category was statistically representative of Oklahoma's population gender distribution.

The demographic category that was not representative of Oklahoma's population in neither the entire sample nor the educational subcategories was the educational attainment demographic. Although some studies such as Pearson et al. (2018) have disputed that environmentalism is positively correlated with educational attainment by controlling for gender and political identity, environmental education-seekers in Oklahoma in this study tended to have some college education or hold college degrees. This is reflective of some studies that have associated environmentalism with higher educational attainment (McMillan et al., 1997). Because this study encompasses a sample of Oklahomans who pursue environmental education and may only represent certain groups in Oklahoma's population, the lack of representativeness in the educational category does not diminish the validity of this study. It simply provides insight on the demographics of those who attended the events of organizations that participated in the study, and understanding more about the demographics of Oklahomans who attend environmental education events would require more widespread sampling over a larger span of time. Based on the findings of this study, there is a need for generating interest and tailoring adult environmental education to suit the concerns of this social demographic that represents over one million Oklahomans. Because this group of Oklahomans accounts for a large proportion of the state, it can be inferred that the behaviors of this group have significant influence Oklahoma's water quality, biodiversity, energy consumption and other environmentally relevant behaviors. Based on the results of this study, it is recommended from an economic and policy standpoint that there are budget allocations to provide environmental education to a wide range of social and demographic groups in Oklahoma, especially among adults who are not college educated, to continue to encourage environmental stewardship in the state of Oklahoma.

2.6 Conclusion

There have been numerous research studies surrounding the many benefits of environmental education to both society and the environment itself, but there is limited quantitative research providing an economic value specific to environmental education. This research addresses this gap by providing an expressed value of environmental education to the state of Oklahoma from a consumer, or participant perspective based on travel costs. In using the TCM, it was found that the average individual value of environmental education was $210, with an individual WTP of $259 Collectively, these 358 individuals at 25 events valued environmental education at $75,285 and there was a collective WTP of $92,559. While being one of the few studies utilizing TCM to value a cultural ecosystem service, this conservative estimate suggests the importance of environmental education not only for its benefit to the state of the environment, but also the economic benefit it provides to the state of Oklahoma. Based on the estimates of this study, if only 1% of Oklahoma's adult population engaged travelling to access environmental education, the collective value would be approximately $6.3 million dollars with a collective WTP of $7.8 million dollars. Although the research does not cover the entire scope of economic benefits derived from environmental education, it is anticipated that this expressed value of environmental education and the sociodemographic factors associated with Oklahomans who seek environmental education will assist in informed decision-making for policymakers involved with the allocation of monetary resources for supporting environmental education programs. Furthermore, the results of this study are expected to inform the entities providing environmental education to the public on planning and managing environmental education curricula to reach a range of Oklahomans. Principally, support for environmental stewardship has the potential to improve Oklahoma's natural environment through practices that improve water quality and biodiversity, thus supporting the multi-billion dollar Oklahoma outdoor tourism industry. Evaluating the reach of environmental education and its economic impact offers a clear focus for future research in this growing field in environmental economics.

2.7 Chapter II: References

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Chapter 3: Broader Perspectives on this Research

This thesis was completed as a requirement of the Master of Science in Environmental studies at the University of Oklahoma. The goal of the Environmental Studies program is to "*provide a balance between the Sciences and Humanities in order to prepare the future environmental problem solvers with the ability to communicate the importance of taking action and the continued appreciation for the natural world we depend on."* I began the graduate program in Environmental Studies at The University of Oklahoma as the only member of the inaugural graduate level class for this program. As the graduate program in Environmental Studies no longer accepting applicants, with the fulfillment of this thesis and the required coursework, I am completing this degree program as the only student to earn a graduate degree in Environmental Studies from the University of Oklahoma to date. The following chapter will reflect on this research in the context of how it broadly relates to environmental studies, the significant lessons learned in this research, and how this research may be extended to future studies.

3.1 The Relevance of This Research in Environmental Studies

The purpose of this thesis was to demonstrate the culmination of scholarly knowledge obtained through the completion of a master's level curriculum in Environmental Studies. Environmental Studies is considered a field of broad subject matter that unifies the sciences and the humanities surrounding environmental issues. Given that is the case, it would be impossible for a single work to encompass all that is relevant to Environmental Studies. Nevertheless, this research, utilizing scientific and mathematical methods, employing approaches familiar to the social sciences, and providing recommendations in education and policy in the state of Oklahoma is intended to embody the spirit of the mission of Environmental Studies.

What is Environmental Studies? Some have argued that Environmental Studies cannot be defined, and that is not a singular discipline, but instead a multidisciplinary area of study aimed at preparing its scholars to solve environmental issues related to health, nature and quality of life (Soule and Press, 1998). The University of Oklahoma provides a description of the mission of the Environmental Studies program as the "*balance between the Sciences and Humanities in order to prepare the future environmental problem solvers with the ability to communicate the importance of taking action and the continued appreciation for the natural world we depend on*." Scholars in education have contended that students completing programs in Environmental Studies should possess competency in the following areas: quantitative ecology and biology; atmospheric physics and chemistry; contributors to pollution and degradation of the hydrosphere; the use of economic arguments to solve environmental problems; concepts of law, policy and regulation; field experience and connection with nature; and lastly, the ability to pursue continuing education such as graduate research (Soule and Press, 1998). These knowledge recommendations lend themselves to a broad curriculum that touches on each subject area. The research for this thesis encompasses the use of economic arguments to solve environmental problems, particularly those in funding and policy surrounding environmental education.

In using economic arguments to solve environmental problems, a majority of my proficiencies surrounding this aspect of environmental studies comes from the completion of the thesis research on Using the Travel Cost Method to Value Environmental Education in the State of Oklahoma, and from a graduate level statistics course. The research for this thesis utilized methods in the field of environmental economics to argue the need for continued support for environmental education in the state of Oklahoma. Economics, particularly econometrics, is rooted in statistical knowledge which can be applied to research questions in this field. The ultimate goal of this thesis research was to create a data-driven case for policy and budget surrounding environmental education in Oklahoma. The state is well-known for its natural beauty and abundant natural resources, but it is not necessarily known for being in a politically and culturally pro-environmental region of the United States (Mazur and Welch, 1999). Despite this, the research has found that there are many Oklahomans seeking environmental education, which is known to result in behaviors that improve the state of the environment and reduce degradation through environmental stewardship. The research also found that those in Oklahoma seeking environmental education generally have some college education, yet Oklahoma's population consists of over a million adults who have a high school education or less. This gap in environmental outreach to this demographic of Oklahomans is one that should be addressed. A quarter of Oklahoma's population is contributing to the environment in a significant way, yet there is a lack of these individuals present at environmental education events. It is my recommendation that the state look into garnering interest in environmental stewardship by appealing to this demographic. The work of some in environmental stewardship is necessary, but ideally, all Oklahomans should be working toward an improved environment.

3.2 Lessons Learned in Research

In reflecting on the lessons learned during the research process for this thesis, there was much that I learned that will prove useful in future research endeavors. In assessing the development of the project overall, it progressed relatively smoothly, yet there were some key elements and methods that may have been managed more efficiently. The following will overview the lessons learned throughout the timeline of this project.

The project, Using the Travel Cost Method to Value Environmental Education in the State of Oklahoma, had its beginnings in the Fall of 2018. Because the project encompasses the use of data from human subjects, this project was subject to Institutional Review Board (IRB) Approval. Although obtaining this data did not pose any direct harm or benefit to human subjects, the research was still subject to ensuring the participants and the privacy of participants was protected throughout the duration of the research. The surveys that were to be distributed had to be approved, and all members of the research team had to obtain training to ensure we all understood the regulations surrounding handling survey data. Obtaining approval can be a lengthy process, which it was, but in terms of project management, the time between the initial idea phase and the survey distribution phase was used for planning and literature review. Although this time was spent gaining a breadth of knowledge surrounding environmental economics, the travel cost method, and econometrics, it is not until the methods of research are applied, that the researcher really understands how the project will progress and coalesce.

Once IRB approval was obtained in the late spring of 2019, this was the time for reaching out to partners across the state to begin distributing surveys. Most of this occurred during the summer, and this was by far the most difficult portion of managing this project. Summer is a time for vacation, so obtaining immediate responses was not an easy task. I was able to create a database of the communication status with potential partners, and the key to obtaining cooperation was persistence. Managing a calendar of future environmental education events to distribute surveys at was a useful tool, and surprisingly, social media was the most reliable way to seek out and contact potential partners, aside from professional connections. This phase also enabled me to understand the importance of creating detailed instructions and maintaining good communication with partners to ensure that data collection was complete and consistent.

Once surveys began coming back, another obstacle was encountered. A fact of life in the social sciences seems to be that working with human subjects can produce incomplete data. A specific example includes those who misinterpreted the questions “how long (in hours)?” and “how far (in miles)?” it took for travel. This may be a cultural phenomenon; some answer “how far” in a metric of time, rather than distance. It is possible that I could have addressed these questions more clearly in the survey design, but it was not possible to anticipate this response from very few of the participants. This led me to further explore survey design literature, and there unfortunately was not a lot of information regarding this particular issue. In ensuring the data was complete, this led to me having to make assumptions about the distance travelled based on the metric of time given in conjunction with the given point of origin for the participants. Aside from this one issue, the survey design was relatively solid. A point of concern in the planning phase was the sensitive survey question regarding income, but this was solved by instead asking for occupation and education, which led to inferences about income based on this information and their area of residence.

A major part of completing this project was learning to manage relatively large amounts of data using excel. Although there may have been more efficient ways to manage the data, the job was still taken care of, despite it being tedious and time consuming. Data management, although daunting, is best done through being detail-oriented and consistent in data entry. For 358 observations with 13 variables each, keeping track of data as it came in from environmental education events was essential to keeping up with the project timeline. Throughout data analysis, there were few incorrect data entries discovered, but through this research, I have learned to spot questionable outcomes. Identifying misentered data usually occurred because of an extreme outlier, or an outcome that didn't make sense. Understanding how to quickly spot mistakes is one of the most valuable lessons learned from completing this research project.

Finally, one of the most applicable skills gained from this research experience was in learning how to independently manage a project, which is a skill that can be transferred to both a career in industry and academia. It is a personal goal to pursue a career in academia and managing this project has given me the skills needed to pursue a higher degree and complete a longer-term project. One of the most important areas of growth that resulted from this project was the transformation into "researcher." This project presented several concepts that were outside of what I had learned in the classroom, but to approach the research question and apply this method in a novel way, there were aspects that were not as straightforward. This was especially the case for developing an econometric model relevant to this application of TCM. Traditionally, TCM relies on visitation rates to a singular recreational site, and estimates predictor variables associated with visitation rates. Because this project did not concern a singular site, but rather sites throughout the state of Oklahoma, there were no visitation rates to work with. Applying an econometric model to this data was something that I took time to think about and solve. One of the major distinctions made in the data was the difference between what participants actually paid, and what they were willing to pay to access environmental education. This led me to the idea that the econometric model should encompass understanding the predictor variables associated with an individual's likelihood of a willingness to pay more for environmental education. The appropriate model to apply was the binary probit outcome model, which did find statistically significant variables associated with an individual's willingness to pay more for environmental education.

3.3 Future Directions for This Research

The following will discuss the desired outcomes and directions for continuation of this research. Although it is impossible to know how the results of this research project will inform policy, or make an impact on the amount of environmental education available to the public in the state of Oklahoma, as a researcher, there are goals for the influence a project will have in real world applications.

3.3.1 Environmental Education Budget and Policy in the State of Oklahoma

Environmental concern is a behavior often tied to the pursuit of environmental education, and environmental concern has been found to be tied to several sociodemographic predictors. One is gender; women tend to have higher levels of environmental concern, and another is higher socioeconomic status or education, although some studies dispute this (Arnocky and Stroink, 2010; McMillan et al., 1997; Milfont and Sibley, 2016; Pearson et al., 2018; Zelenzy et al., 2000;). Based on the results of this study, a majority of the participants in this study had at least some college, yet 44.46% of adult Oklahomans have a high school diploma or less. This means that the over one million adult Oklahomans who are high school educated or less, are not statistically represented as seeking environmental education based on this study. This is nearly a quarter of Oklahoma's population that may not be receiving the educational tools they need to engage in environmental stewardship. Although this study is only sample of those in Oklahoma who may be seeking out environmental education, understanding where environmental education is needed is important for addressing environmental issues as a society. This presents a need in budget, outreach, and policy in Oklahoma to provide to access environmental education events that appeal to the masses in Oklahoma, particularly those who have a high school degree or less.

Oklahoma's history illustrates past contentions between environmental degradation and human health, with the most famous of these instances being the Dust Bowl, primarily affecting the western portions of the state. Appealing to this rich history of Oklahomans overcoming these trials and engaging in more sustainable agricultural practices and soil conservation have renewed the state's environment from what it was during the Dust Bowl. Bridging these connections with Oklahomans, and expressing how environmental stewardship, and our interactions with nature can directly impact our health and well-being may be the first step in garnering interest from a wider demographic in environmental education and stewardship practices.

Fast forward to present-day Oklahoma. Oklahomans of all backgrounds enjoy the many lakes and waterways throughout the state, particularly during the hot summer days. Protecting these waterways is not only the job of a few, but of all that inhabit the state, because wherever a person goes, they are in a watershed. Tourism and recreation is a multi-billion dollar industry that all Oklahomans benefit from. By creating an understanding through environmental education and outreach to protect these waterways, the goal would be to get more Oklahomans to gain interest in environmental education. There has been some research suggesting that sense of place and place attachment may be a contributing factor to behaviors of environmental concern. Connecting this investment in a favorite recreational spot to environmental stewardship may be a way to make environmental education appealing to Oklahomans at large.

There have been several policy barriers to environmental education in the state of Oklahoma, some of which is derived from the political climate of the region (Mazur and Welch, 1999). Educational policy from the federal level has also impacted the level of environmental awareness Oklahomans have. Although the No Child Left Behind Act, a controversial federal education act, ended in 2015, the new policy, Every Student Succeeds Act replaced it, giving the states more dominion over academic curriculum (Fránquiz and Ortiz, 2016). Despite this change, the Oklahoma Academic Standards (2015) in science do not require a course dedicated to environmental science, or ecology as a need for graduation. This means that Oklahomans are graduating high school with formal environmental knowledge only based on whether an individual educator or school district decides to incorporate these concepts.

Because this research focuses largely on the economic aspect of environmental education in the state of Oklahoma, it is important to address the state budget. Some agencies that provide environmental education may be subject to fluxes in state budget allocations, potentially affecting their ability to provide environmental education in the state of Oklahoma. Based on the results of this study, there is a tangible economic demand for environmental education by the citizens of the state, which should influence policymakers in their future decisions regarding the budgets for state agencies that provide environmental education. Furthermore, the Oklahoma legislature should be enhancing environmental education in the state, not only because of the economic benefit and citizen demand, but also because of the far-reaching positive effects environmental stewardship has on the state of the natural environment. Maintaining a healthy environment in Oklahoma will produce many economic benefits, including but not limited to a robust outdoor recreation and tourism industry, the savings generated from preventing environmental degradation, and overall citizen health.

3.3.2 Future Research

As anthropogenic environmental impacts become more evident through energy and natural resource use, impaired water quality, and loss of biodiversity, fostering environmental stewardship is becoming more important to mitigating these issues. Environmental education is acknowledged as a factor that influences pro-environmental behavior and stewardship through increased awareness, knowledge and informed solutions (Merenlender et al., 2016). Through the positive impacts environmental education provides on a variety of fronts, it may be argued that environmental education is highly valuable, but what is the quantified value of this education from the consumer or participant standpoint? This value has been economically quantified in the state of Oklahoma using TCM, with the costs associated with travelling to adult-based environmental education events being a proxy for what people pay to access environmental education. Although this is a novel application of TCM and addresses a gap in the literature regarding the economic value of environmental education, it only provides a limited and conservative value of environmental education and its economic reach. There is still limited information surrounding the value of environmental education outside of its social and ethical value, its ability to increase cognitive levels and improve individual behavior.

To expand upon this research and holistically answer the question of the "valuation" of environmental education to the state of Oklahoma would require data outside of travel costs and the expenditures associated with attending environmental education events. A more complete valuation of environmental education is derived from the changed behavior and implementation of Best Management Practices (BMPs) by participants who attend these events. Because a primary goal of environmental education is to ultimately improve the state of the environment and reduce negative anthropogenic impacts, a measure of its value may be found in how participants altered their interactions with the environment based on what they learned at an educational event. The effect that environmental education has on the choices and environmentally conscious decision-making of participants should be included in a comprehensive valuation of environmental education. This valuation may be measured with a follow-up report from participants and how they implemented what they learned into their personal or work endeavors. This may translate into the monetary value of these behavioral changes well as a more intangible value of how environmental education effects the general well-being of society and the environment. Although it may be difficult to obtain follow-up reports from participants long after the completion of an environmental education event, perhaps an end-of-instruction survey could be given that could help identify the likelihood of changed behavior or implementation of what was learned by the participant.

This research also lends itself to becoming a point of reference for future studies that expand on the valuation of environmental education. The objective of a future study would two-fold; first, continue the previously mentioned study in a diverse array of states through partnerships with entities providing environmental education in a variety of localities. This will allow the researcher to understand how the value of environmental education may or may not be varied throughout different regions in the U.S. and will allow the researcher to draw more insightful connections regarding sociodemographic predictors for those who choose to pay to access environmental education. Second, the researcher will gather a group of environmental education participants to observe how the resultant changed behaviors has impacted the participant financially, and impacted the market value of goods such as property values and nearby recreation. Third, from a budget and policy standpoint, the value of these changed behaviors will be evaluated through the potential impact they have on state and locally funded entities such waterways, recreational sites, and other communal resources that provide ecosystem services. It is proposed that the non-use value of environmental education may be quantified through the money saved for a site not becoming an environmentally degraded site, such as a polluted river or toxic superfund site. Examining the costs of unbridled environmental degradation through modelling may give insight into a world without environmental education and stewardship, revealing its real economic value through the money saved by avoiding large-scale remediation projects.

To gain a more comprehensive assessment of the economic value environmental education it is proposed that a 3-year longitudinal expansion of the research surrounding quantifying the value of environmental education is the focus of future studies. A study of this nature is expected to provide benefit to society at large through providing budgetary justification for providing free or low-cost environmental education to the public because of its quantified economic benefits. This will in turn benefit the state of the environment through the changed behaviors resultant of access to adult-targeted environmental education.

3.4 Chapter III: References

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Appendices

Appendix A

The following shows an example of the survey questionnaires distributed to the organizers and participants at the 25 environmental education events as a part of this study.

Participant Survey

Date______________ Event & Location ________________________________

Thank you for taking part in this survey, please answer each question as accurately as possible.

1. What is your city and county of residence? ______________________________
2. How far did you travel to be here (miles)?________________________________
3. How much time did it take for you to travel here (hours/minutes)? _______________
4. How much farther would you be willing to travel to attend this event?_________
5. How many people did you travel with? (Please circle one)

   0 1 2 3 4 5 other________

6. What was the registration fee for this event? ____________________________
7. How many hours will you be here?_____________________________________
8. How much did you spend on lodging to attend this event? ___________________
9. Are you attending this event as a part of your job? (circle) Y N
10. What is your gender? (circle) M F
11. What is your age? (circle)

    <18 18-25 26-35 36-45 46-55 56-65 >65

12. What is your level of education? (circle)

    High School Associate's Bachelor's Graduate School Other___________

13. What is your job classification? (circle)

Student	Retired	Not Currently Employed (not retired)	General manager
Civil Engineer	Farmer/Rancher	Environmental Scientist	Geoscientist
Laborer	Hydrologist	Maintenance Worker	Other ___________

Figure A.1 ***Participant Survey***

Organizer Survey

Date:________ Event Name & Location:________________________________

Thank you for taking part in this survey, please answer each question as accurately as possible.

1. Please list a value for direct expenditures related to this event such as venue costs, lodging, rentals, etc? ____

2. How much time did this event take to plan and implement for each person involved with event organization? ____

3. How far (miles) did each organizer travel for this event (list each organizer separately)?

   ____

   ____

4. How much time (hours) did it take to travel to the event (list each organizer separately)?

   ____

   ____

5. What is the duration of the event (in hours)?______________________________

6. How many participants registered for and attended (if different) this event?

   ____

7. What was the registration cost for this event? ____________________________

8. Please list a recommended hourly rate for each organizer (optional).

   ____

Figure A.2 ***Organizer Survey***

Appendix B

There were eight organizations that participated in distributing surveys at their environmental education events. The following is a summary of the demographic and outcomes for the collective events for each of the eight organizations that participated in distributing surveys. Organization 2 co-hosted two of their events with Organization 1, which is why two events are represented twice between the results for Organization 1 and 2. For planning purposes, this kind of information may be distributed to assist organizers in understanding what participants pay and are willing to pay to access environmental education as well as how participants react to cost adjustments in primary versus trip costs.

Organization 1

This represents the 12 events hosted by this organization primarily in the Environmental Stewardship and Professional Development Categories. Of the n=115 participants, 55% were attending for personal reasons, and 45% were attending for work-related reasons. The figures relevant to these categories are included in the report for this organization.

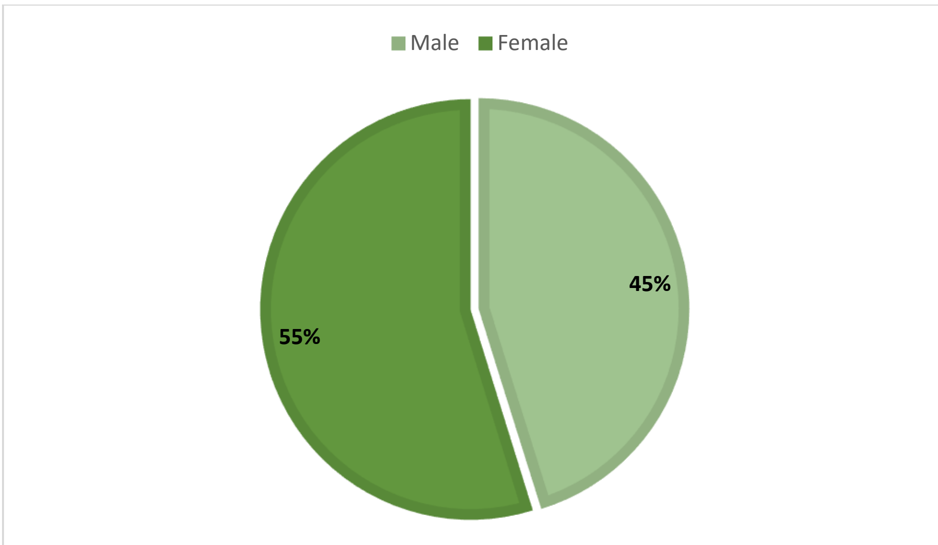

Figure B.1 Gender Demographcis for Organization 1 Events

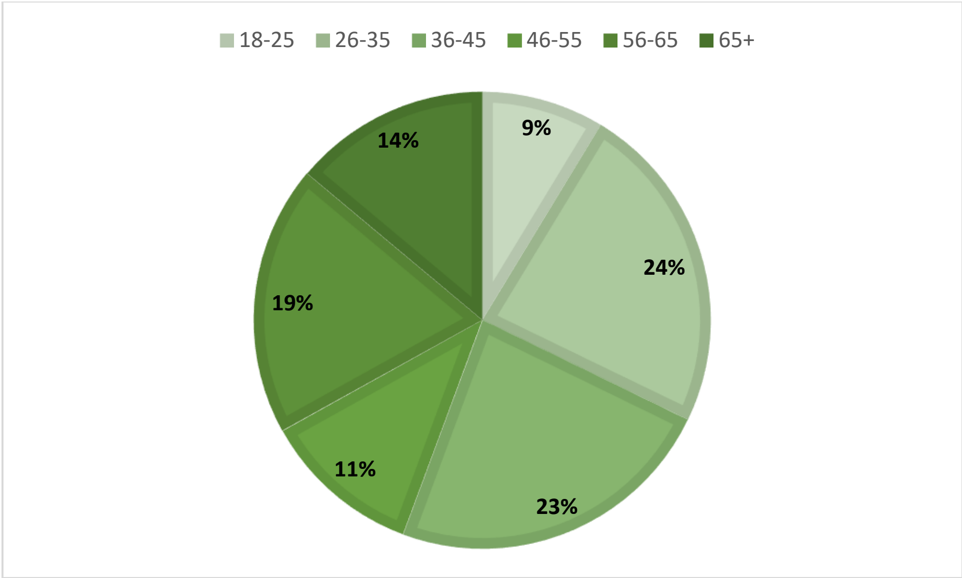

Figure B.2 Age Demographics for Organization 1 Events

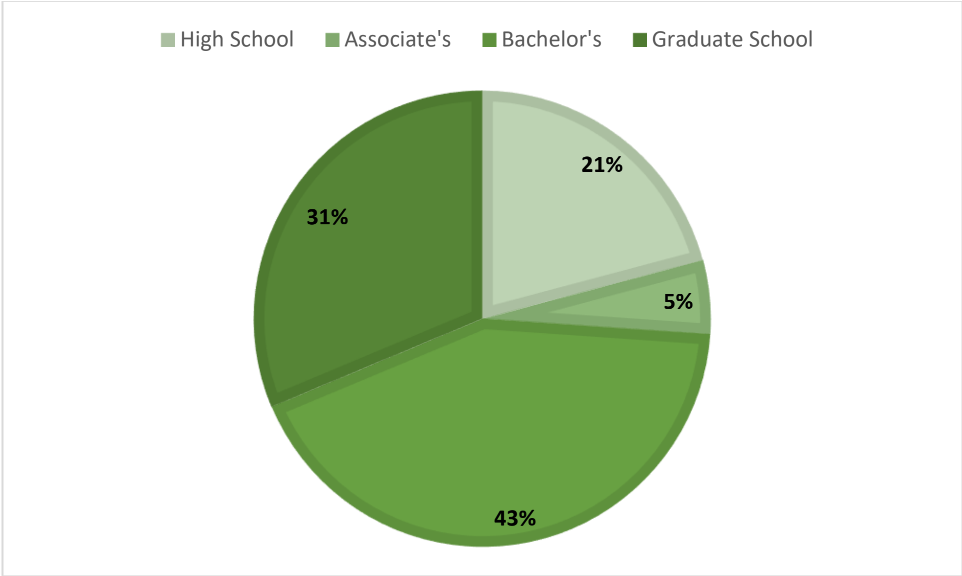

Figure B.3 Education Demographics for Organization 1 Events

Variable	Units	Mean	Standard Deviation
Actual Travel Cost	U.S. $	302	300.4
Willingness to Pay	U.S. $	366	382.2
Actual Round Trip Distance	miles	69	96.2
Actual Round Trip Travel Time	hours	1.36	1.5
Willingness Round Trip Distance	miles	177	266.6
Total Travelers		1.9	0.9
Weighted Cost Per Mile	U.S. $	0.38	0.2
Registration Fee	U.S. $	96	78.9
Time at Event	hours	5.8	5.4

Table B.1 Organization 1 Results

There were 10 events and 2 co-hosted events (with Organization 2) for a total of 12 events with n=115 participants.

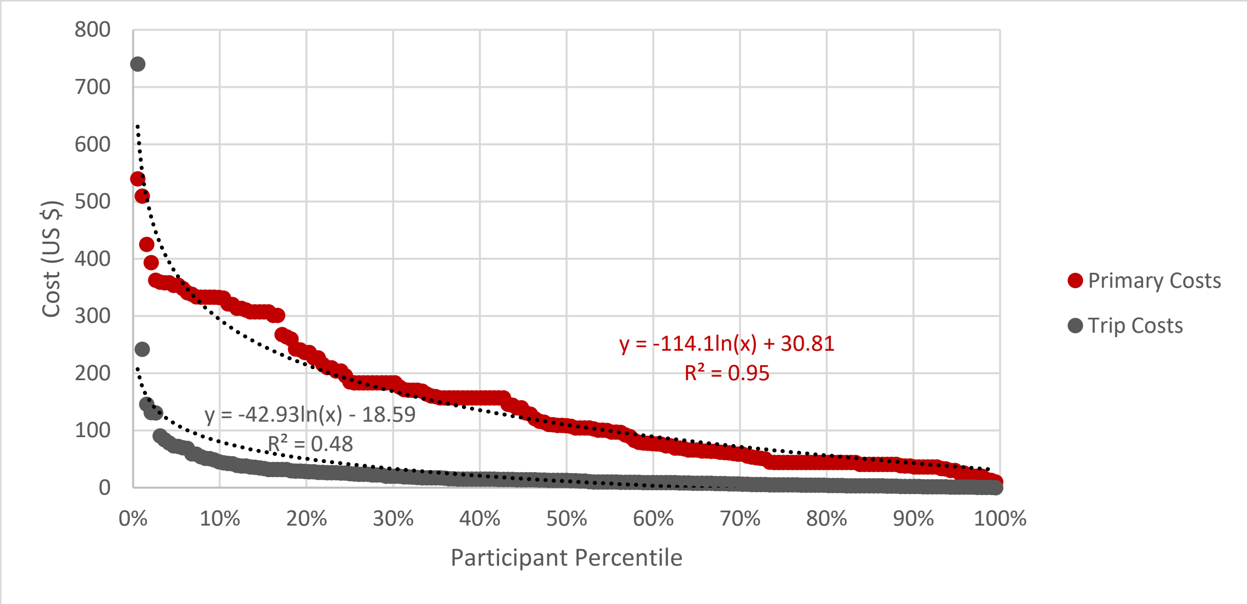

Figure B.4 Environmental Stewardship Primary and Trip Costs

For all participants in the environmental stewardship category of the entire study n=191 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 86% of the costs and the trip costs accounted for 14% of the costs for all participants in this category.

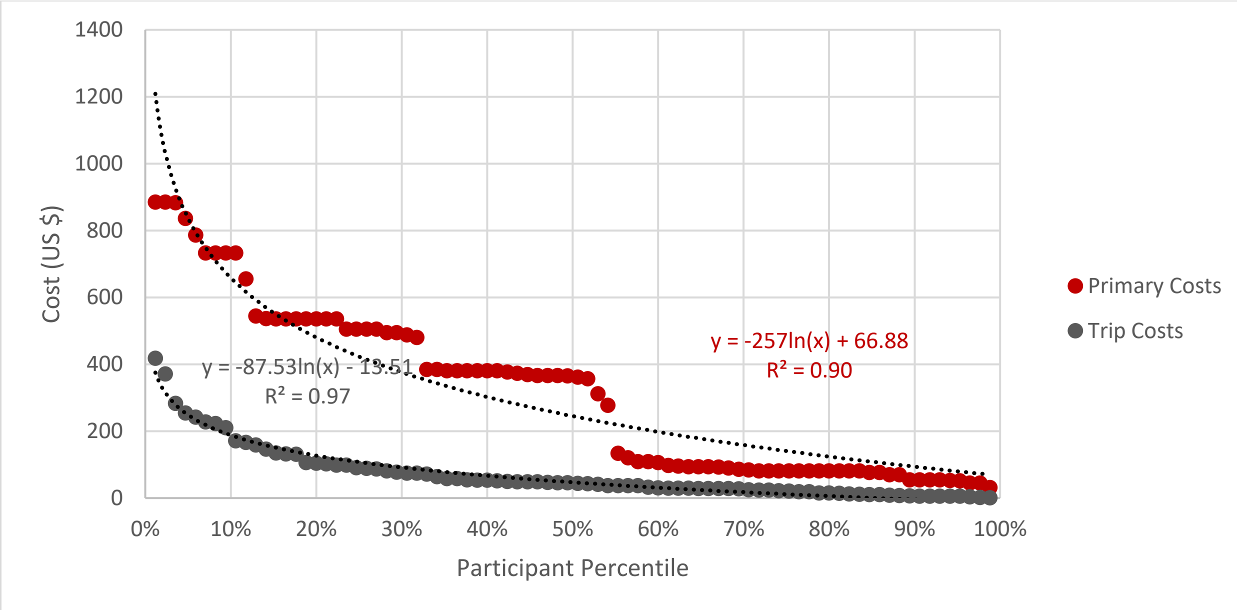

Figure B.5 Professional Development Primary and Trip Costs
For all participants in the environmental stewardship category of the entire study n=84 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 82% of the costs and the trip costs accounted for 18% of the costs for all participants in this category.

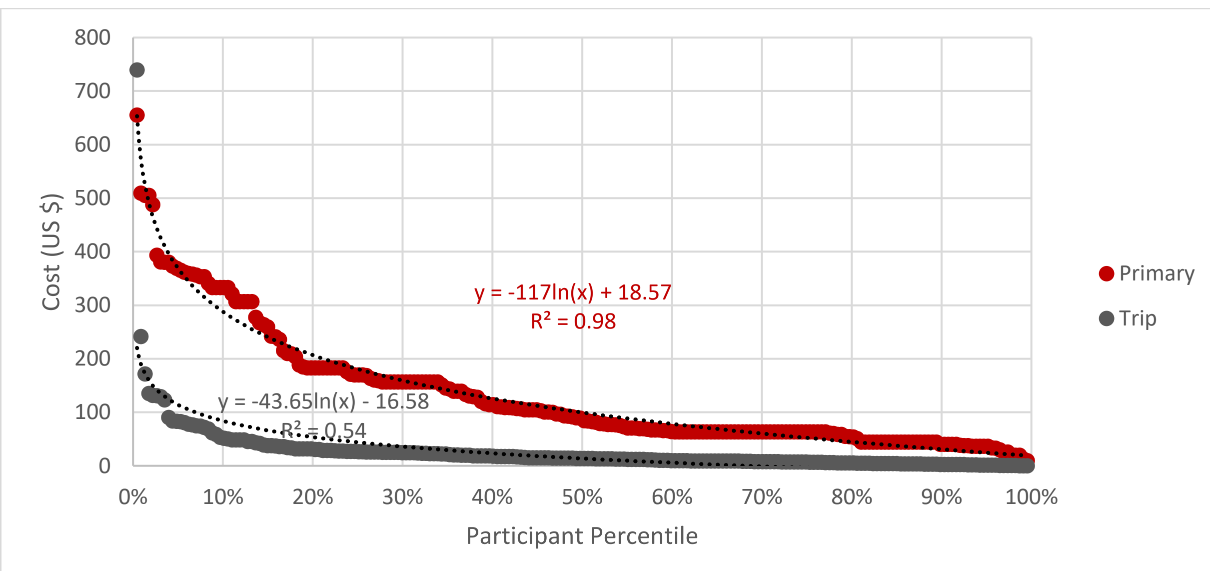

Figure B.6 Traveling for Personal Reasons Primary and Trip Costs
For all participants traveling for personal reasons in the entire study n=226 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 83% of the costs and the trip costs accounted for 17% of the costs for all participants in this category.

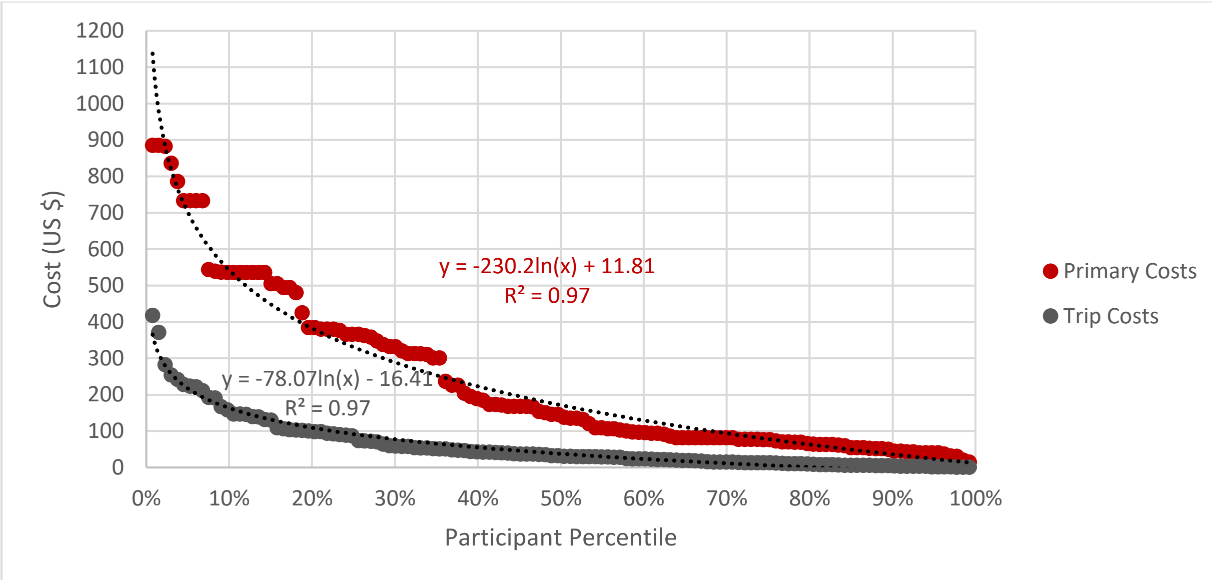

Figure B.7 Traveling for Work Primary and Trip Costs

For all participants traveling for personal reasons in the entire study n=226 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 80% of the costs and the trip costs accounted for 20% of the costs for all participants in this category.

Organization 2

This represents the 2 events hosted by this organization primarily in the Educator Training and Professional Development Categories. Of the n=14 participants, 29% were attending for personal reasons, and 71% were attending for work-related reasons. The figures relevant to these categories are included in the report for this organization.

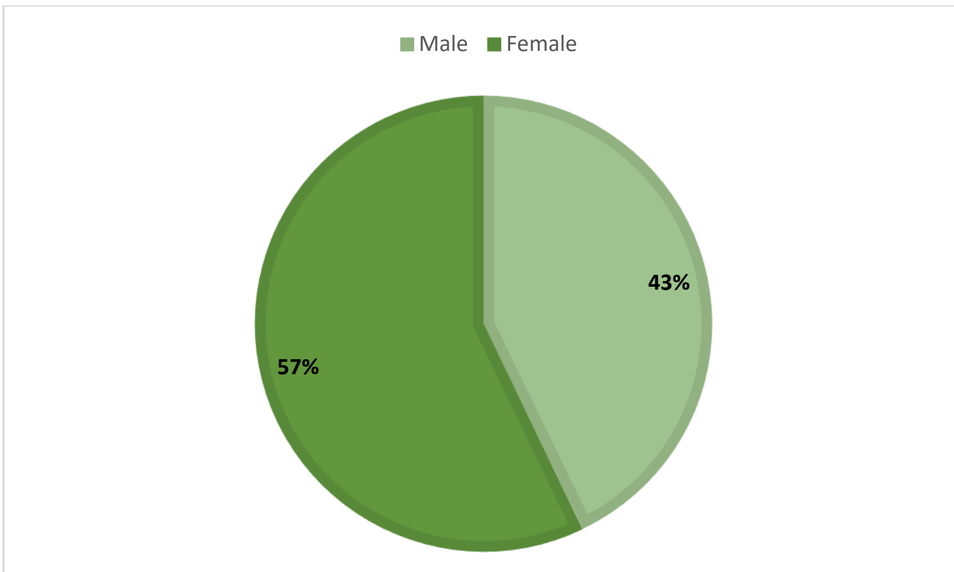

Figure B.8 Gender Demographics for Organization 2 Events

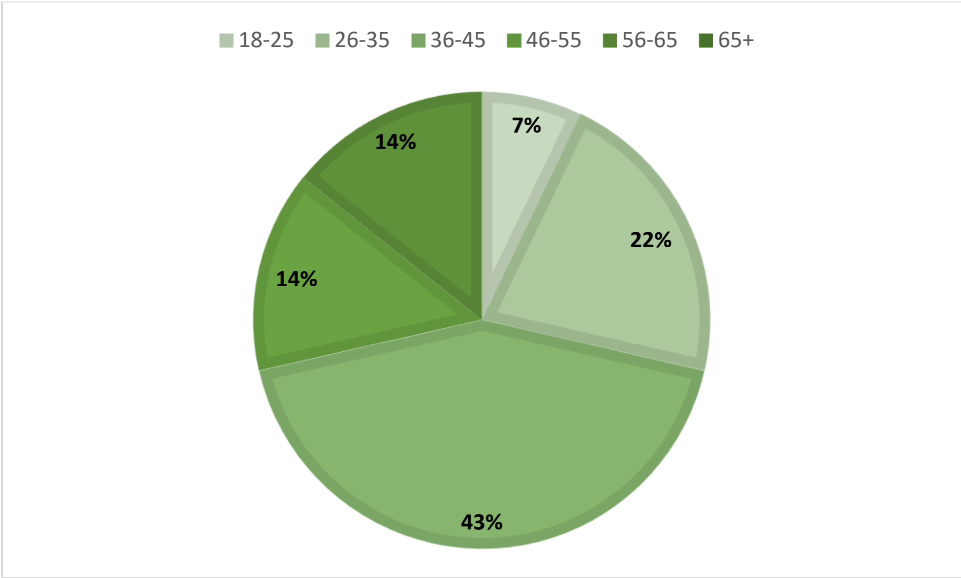

Figure B.9 Age Demographics for Organization 2 Events

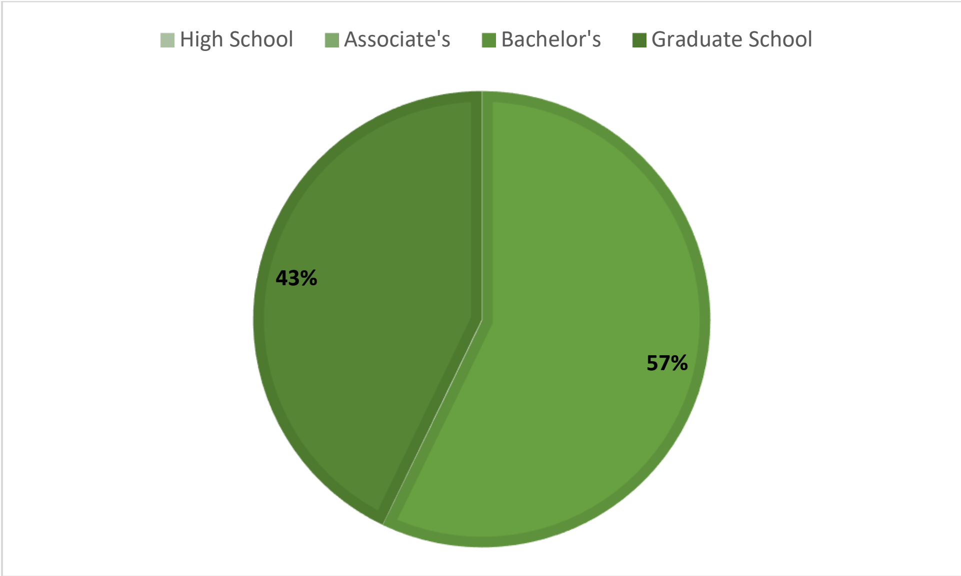

Figure B.10 Education Demographics for Organization 2 Events

Variable	Units	Mean	Standard Deviation
Actual Travel Cost	U.S. $	571	469.6
Willingness to Pay	U.S. $	778	662.5
Actual Round Trip Distance	miles	167	123.9
Actual Round Trip Travel Time	hours	2.9	1.7
Willingness Round Trip Distance	miles	415	373.6
Total Travelers		1.9	1.1
Weighted Cost Per Mile	U.S. $	0.4	0.2
Registration Fee	U.S. $	114	63.3
Time at Event	hours	9.0	7.3

Table B.2 Organization 2 Results

There 2 co-hosted events (with Organization 1) with n=14 participants.

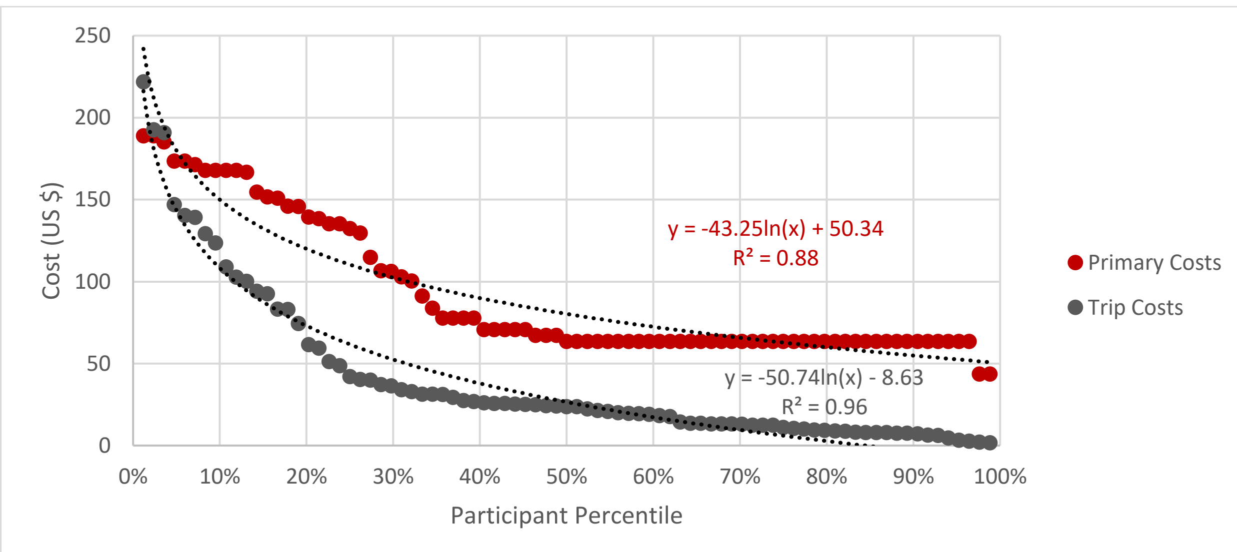

Figure B.11 Educator Training Primary and Trip Costs

For all participants in the environmental stewardship category of the entire study n=83 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 69% of the costs and the trip costs accounted for 31% of the costs for all participants in this category.

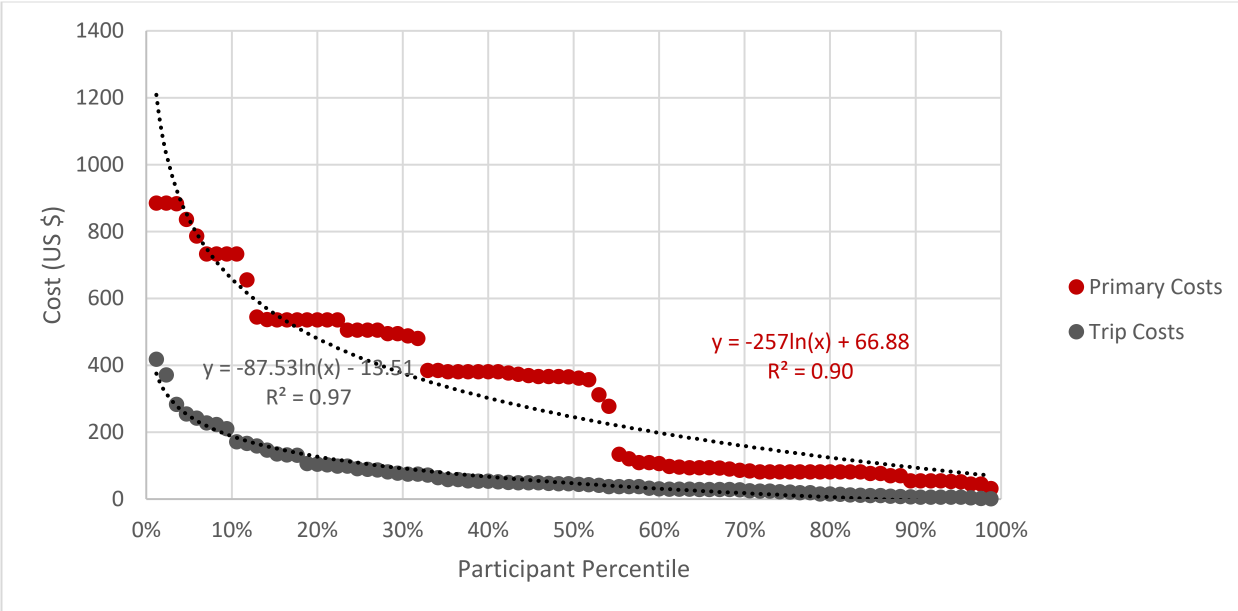

Figure B.12 Professional Development Primary and Trip Costs
For all participants in the environmental stewardship category of the entire study n=84 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 82% of the costs and the trip costs accounted for 18% of the costs for all participants in this category.

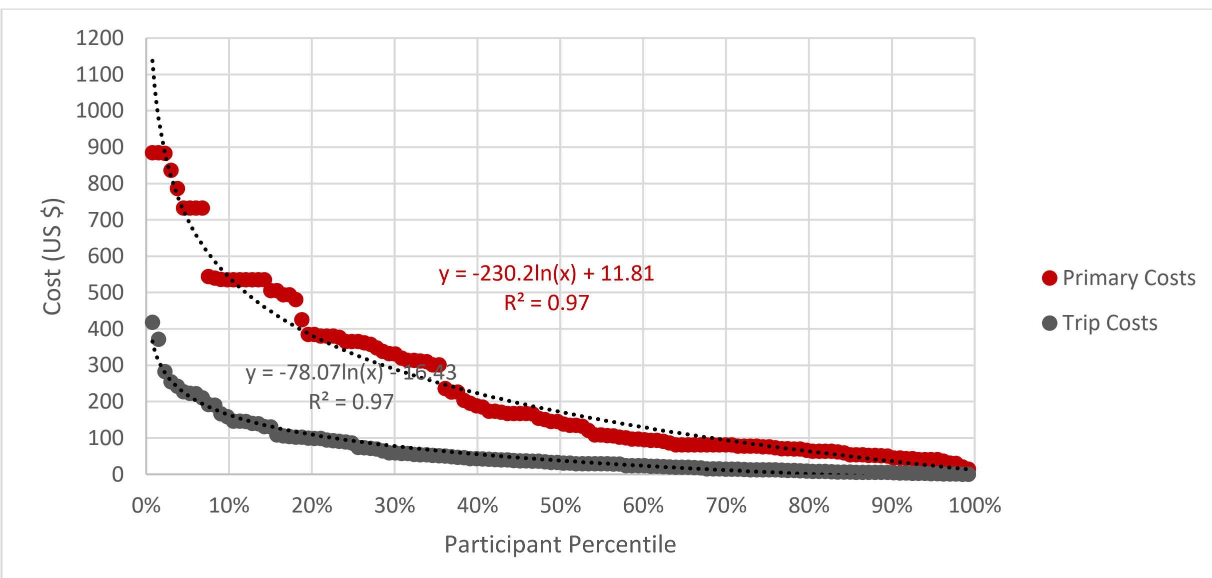

Figure B.13 Traveling for Work Primary and Trip Costs
For all participants traveling for personal reasons in the entire study n=226 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 80% of the costs and the trip costs accounted for 20% of the costs for all participants in this category.

Organization 3

This represents the 2 events hosted by this organization primarily in the Environmental Stewardship and Professional Development Categories. Of the n=17 participants, 41% were attending for personal reasons, and 59% were attending for work-related reasons. The figures relevant to these categories are included in the report for this organization.

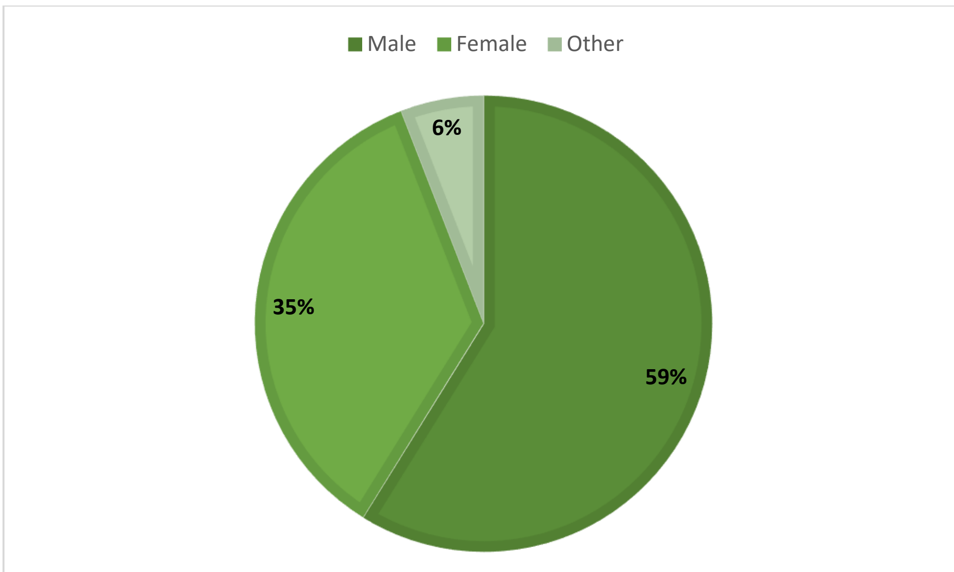

Figure B.14 Gender Demographics for Organization 3 Events

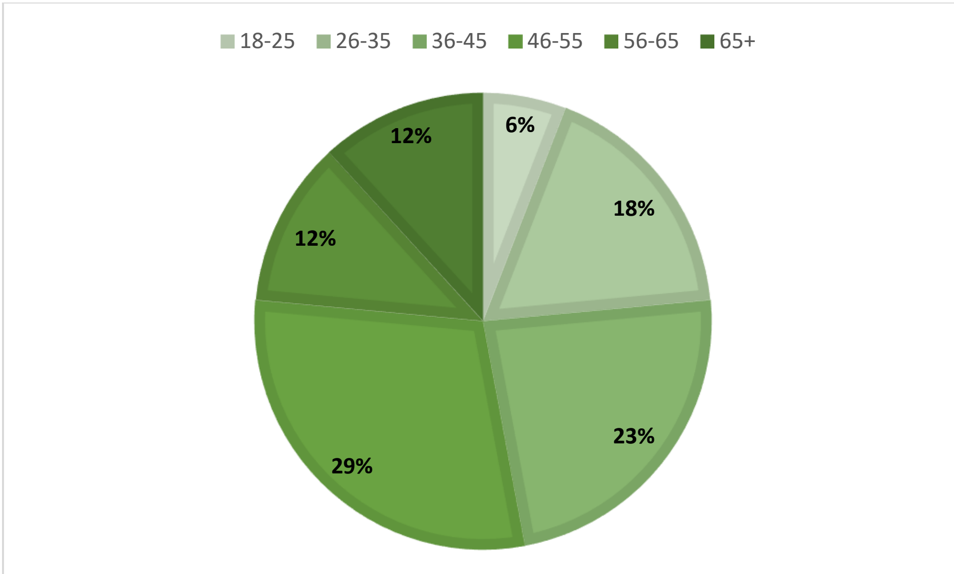

Figure B.15 Age Demographics for Organization 3 Events

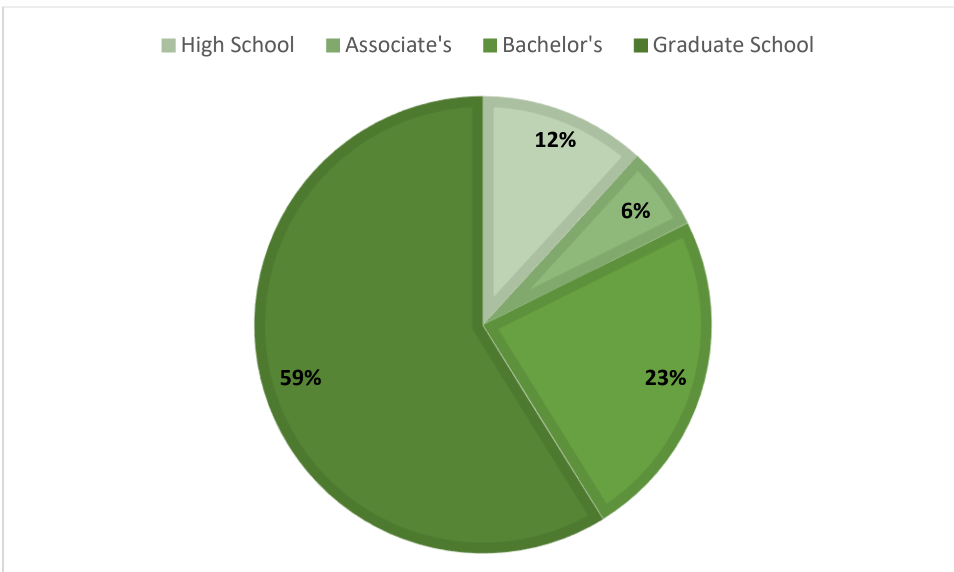

Figure B.16 Education Demographics for Organization 3 Events

Variable	Units	Mean	Standard Deviation
Actual Travel Cost	U.S. $	60	25.6
Willingness to Pay	U.S. $	92	58.2
Actual Round Trip Distance	miles	20	20.3
Actual Round Trip Travel Time	hours	0.6	0.3
Willingness Round Trip Distance	miles	80	92.7
Total Travelers		2.41	1.2
Weighted Cost Per Mile	U.S. $	0.3	0.2
Registration Fee	U.S. $	0	0.00
Time at Event	hours	1.59	0.51

Table B.3 Organization 3 Results
There were 2 events with n=17 participants.

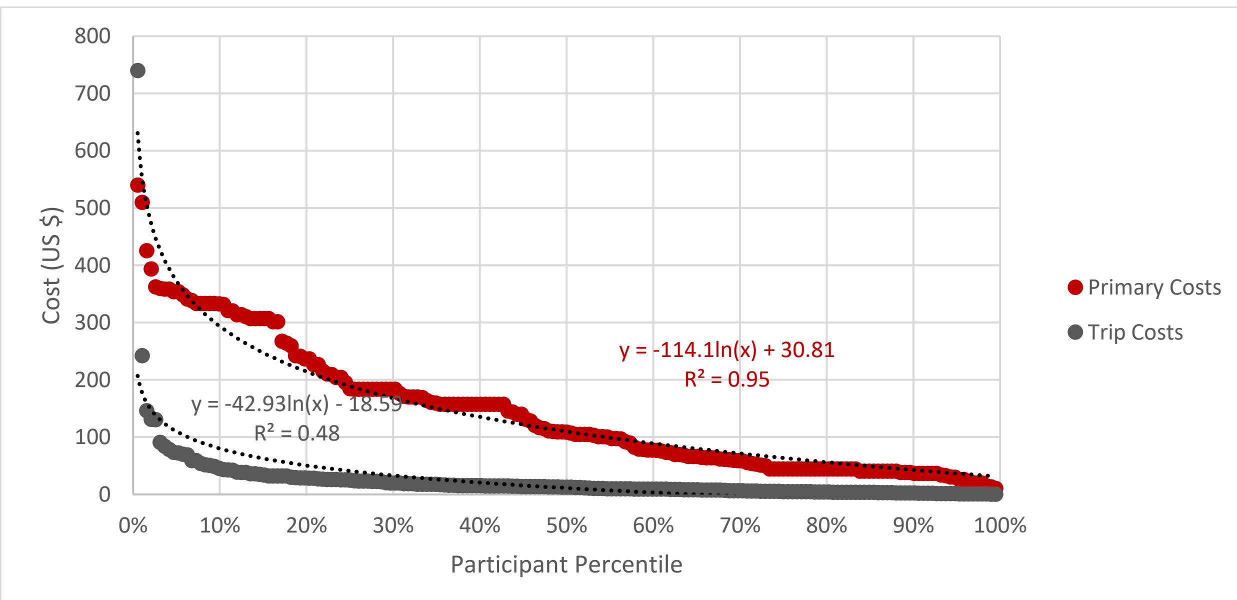

Figure B.17 Environmental Stewardship Primary and Trip Costs
For all participants in the environmental stewardship category of the entire study n=191 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 86% of the costs and the trip costs accounted for 14% of the costs for all participants in this category.

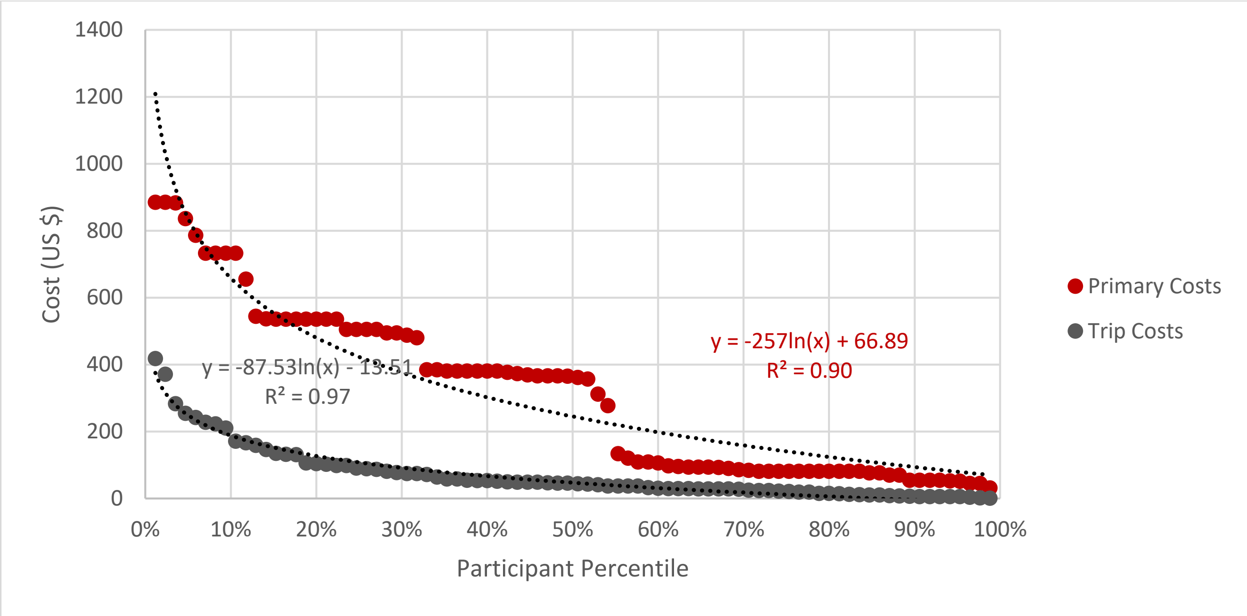

Figure B.18 Professional Development Primary and Trip Costs
For all participants in the environmental stewardship category of the entire study n=84 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 82% of the costs and the trip costs accounted for 18% of the costs for all participants in this category.

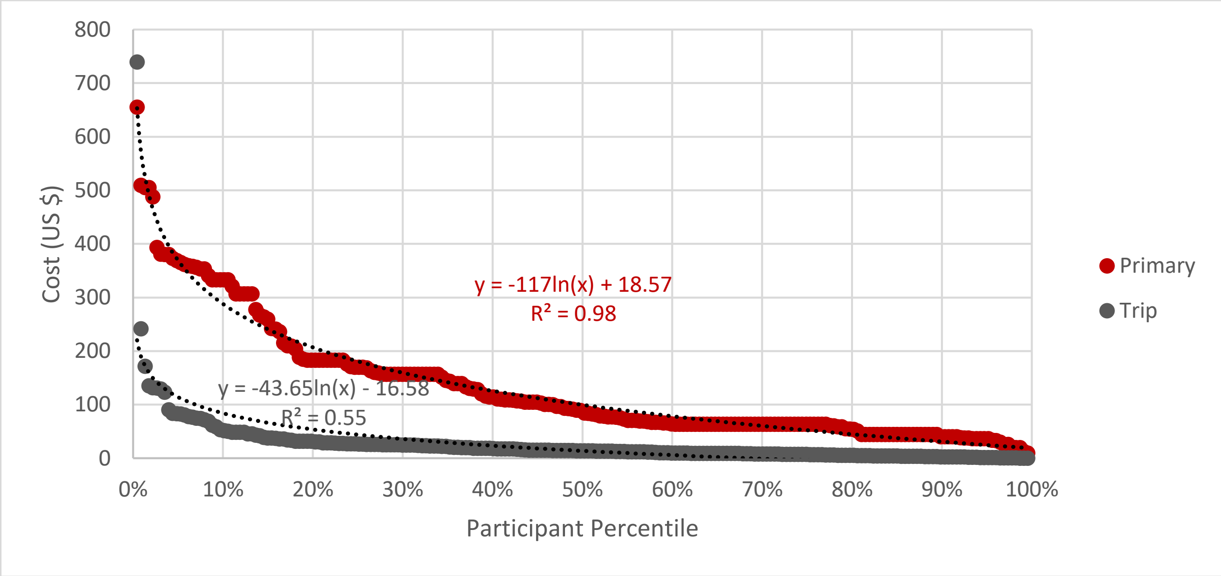

Figure B.19 Traveling for Personal Reasons Primary and Trip Costs
For all participants traveling for personal reasons in the entire study n=226 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 83% of the costs and the trip costs accounted for 17% of the costs for all participants in this category.

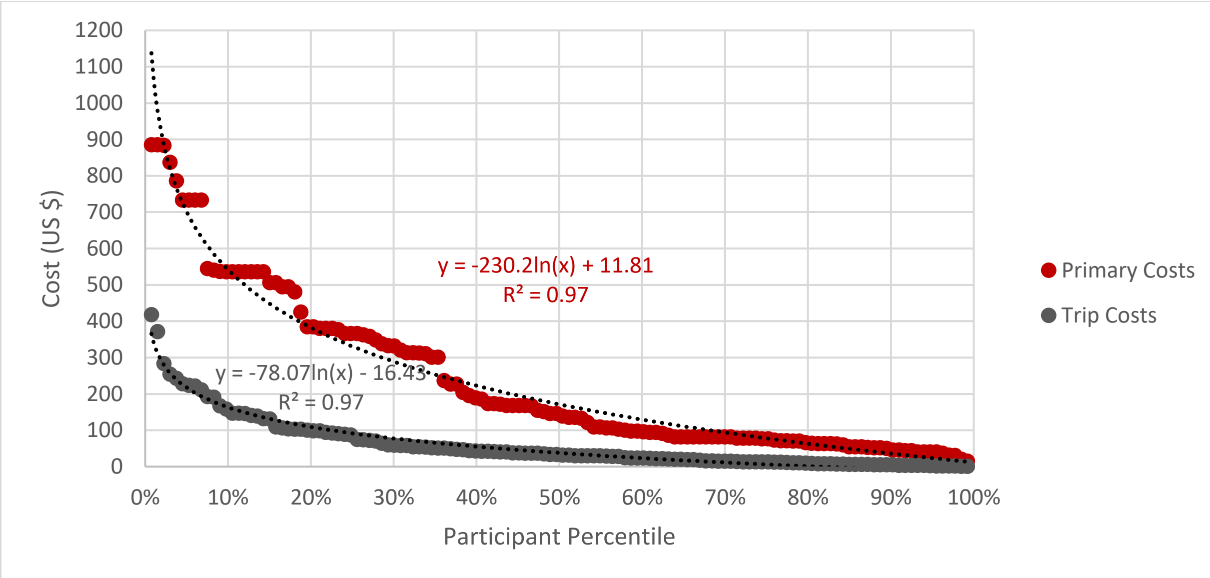

Figure B.20 Traveling for Work Primary and Trip Costs
For all participants traveling for personal reasons in the entire study n=226 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 80% of the costs and the trip costs accounted for 20% of the costs for all participants in this category.

Organization 4

This represents the 1 event hosted by this organization primarily in the Professional Development Category. Of the n=21 participants, 14% were attending for personal reasons, and 86% were attending for work-related reasons. The figures relevant to these categories are included in the report for this organization.

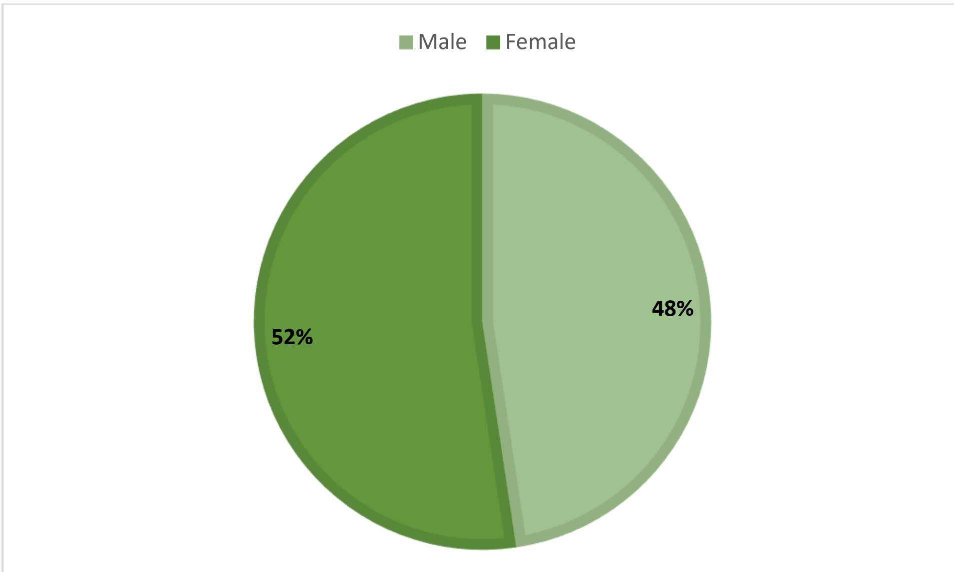

Figure B.22 Gender Demographics for Organization 4 Events

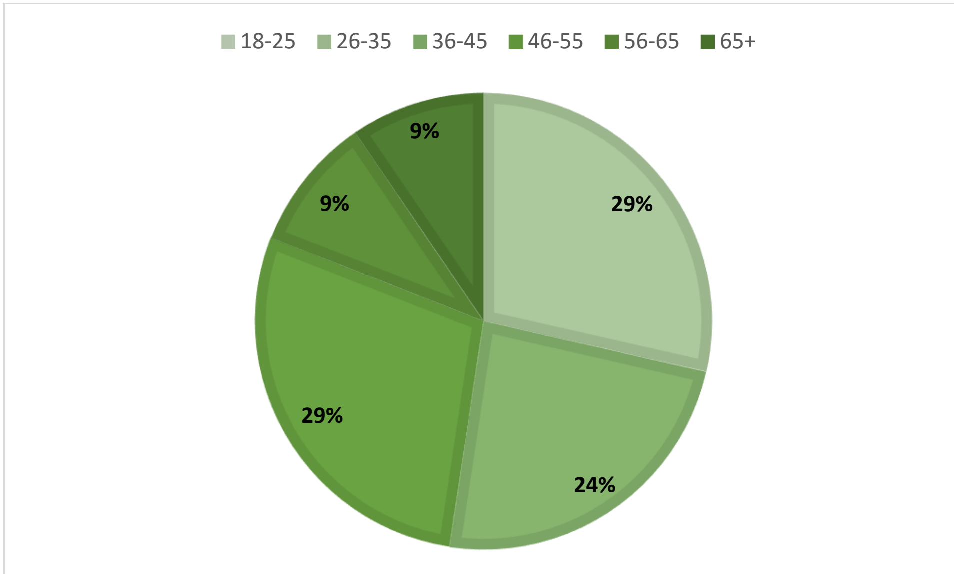

Figure B.23: Age Demographics for Organization 4 Events

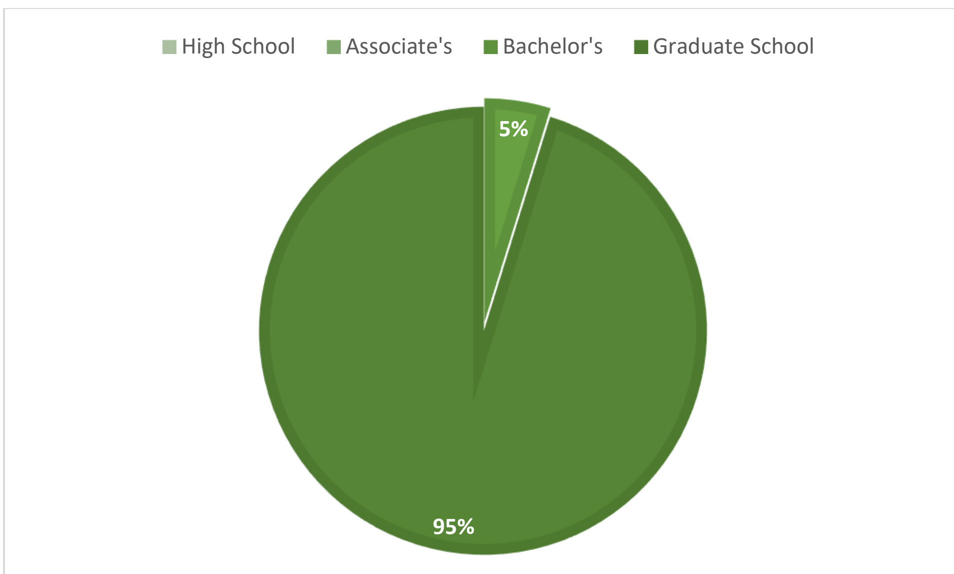

Figure B.24: Education Demographics for Organization 4 Events

Variable	Units	Mean	Standard Deviation
Actual Travel Cost	U.S. $	101	35.1
Willingness to Pay	U.S. $	190	106.0
Actual Round Trip Distance	miles	17	31.3
Actual Round Trip Travel Time	hours	0.5	0.65
Willingness Round Trip Distance	miles	144	131.4
Total Travelers		1.7	0.78
Weighted Cost Per Mile	U.S. $	0.4	0.17
Registration Fee	U.S. $	4	8.1
Time at Event	hours	1.5	0.29

Table B.4: Organization 4 Results
There was 1 event with n=21 participants.

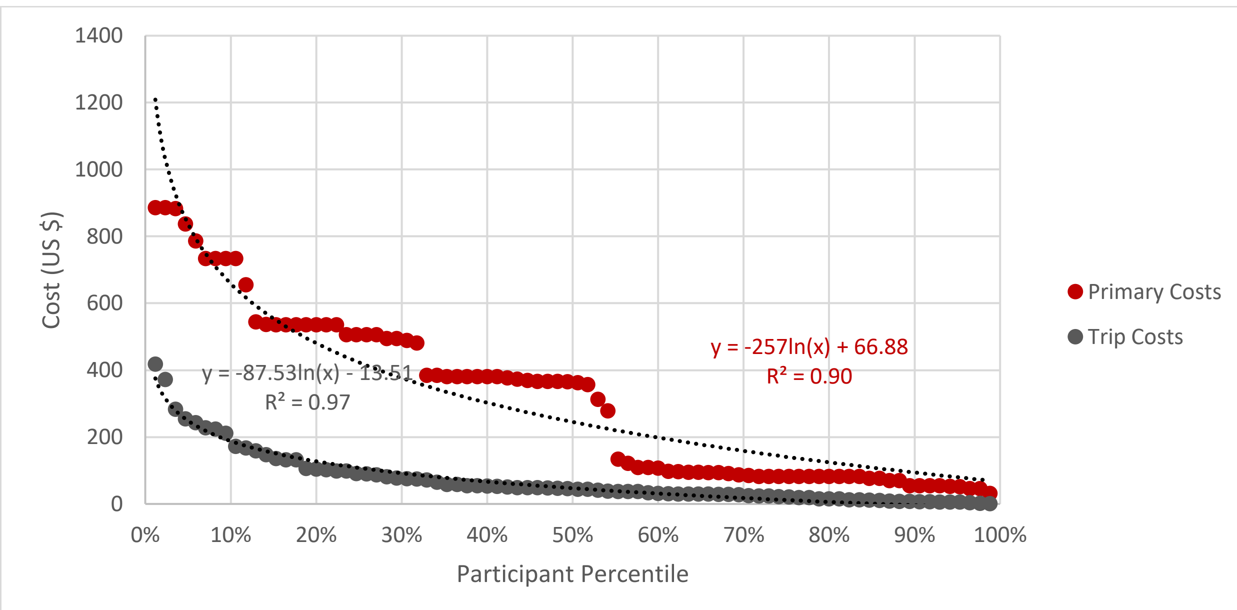

Figure B.25: Professional Development Primary and Trip Costs
For all participants in the environmental stewardship category of the entire study n=84 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 82% of the costs and the trip costs accounted for 18% of the costs for all participants in this category.

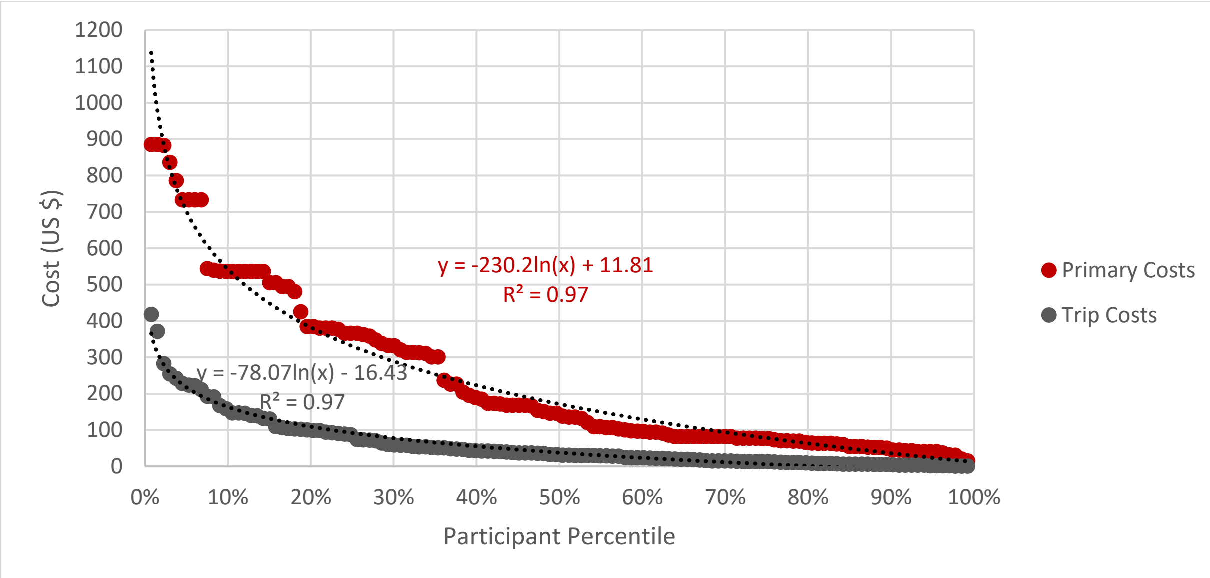

Figure B.26: Traveling for Work Primary and Trip Costs
For all participants traveling for personal reasons in the entire study n=226 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 80% of the costs and the trip costs accounted for 20% of the costs for all participants in this category.

Organization 5

This represents the 2 events hosted by this organization primarily in the Educator Training Category. Of the n=14 participants, 14% were attending for personal reasons, and 86% were attending for work-related reasons. The figures relevant to these categories are included in the report for this organization.

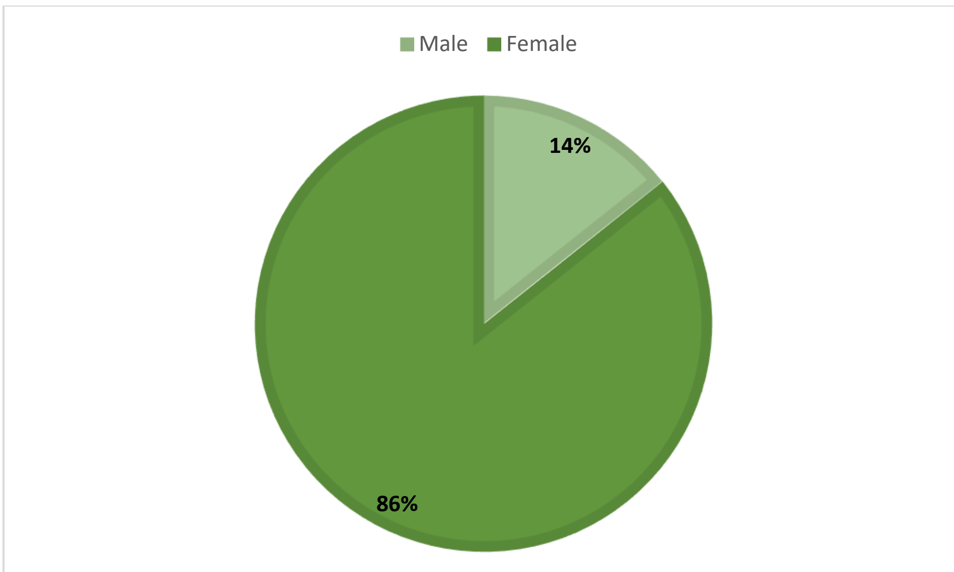

Figure B.27: Gender Demographics for Organization 5 Events

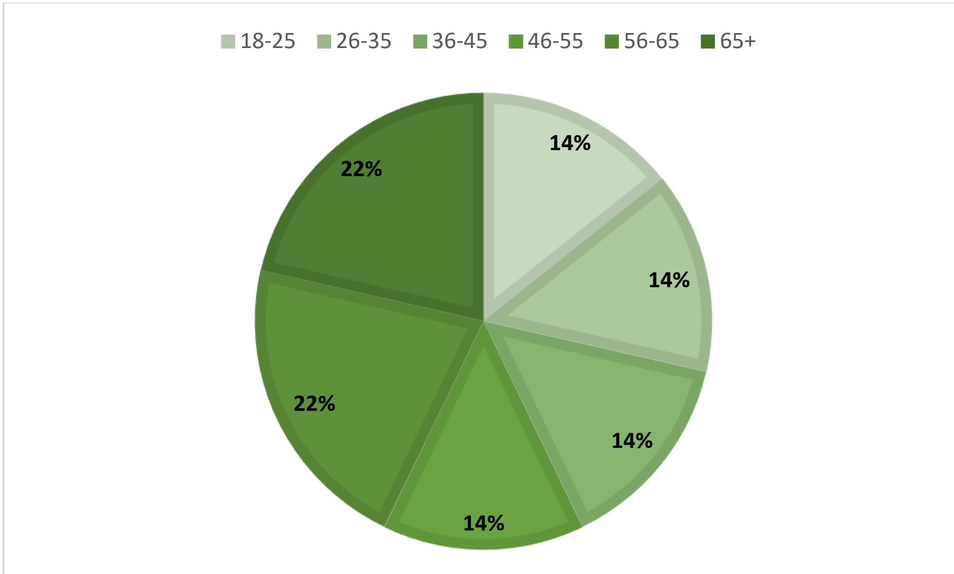

Figure B.28: Age Demographics for Organization 5 Events

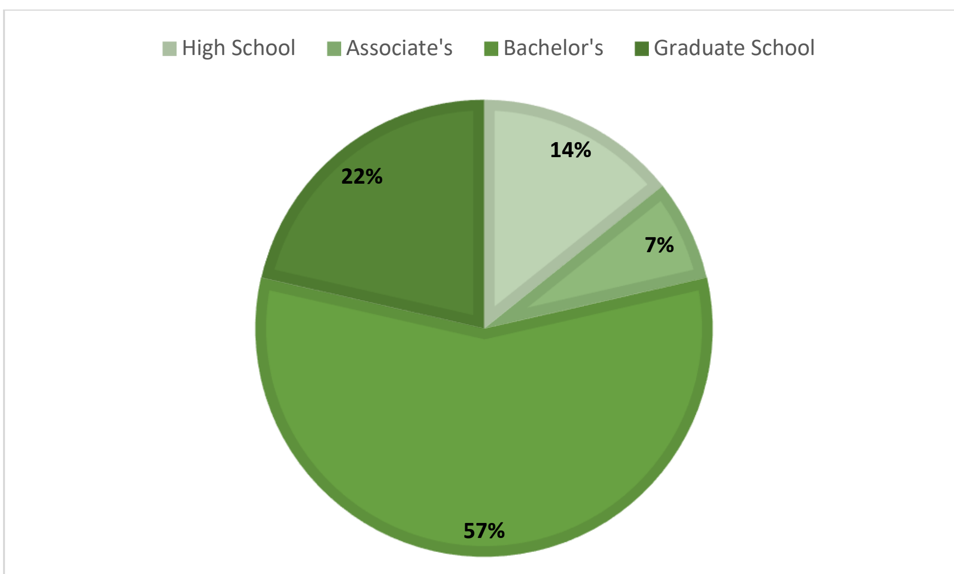

Figure B.29: Education Demographics for Organization 5 Events

Variable	Units	Mean	Standard Deviation
Actual Travel Cost	U.S. $	214	93.9
Willingness to Pay	U.S. $	288	160.5
Actual Round Trip Distance	miles	105	77.4
Actual Round Trip Travel Time	hours	2.1	1.35
Willingness Round Trip Distance	miles	206	192.6
Total Travelers		1.7	0.73
Weighted Cost Per Mile	U.S. $	0.4	0.16
Registration Fee	U.S. $	0	0.0
Time at Event	hours	6.4	0.50

Table B.5: Organization 5 Results
There were 2 events with n=14 participants.

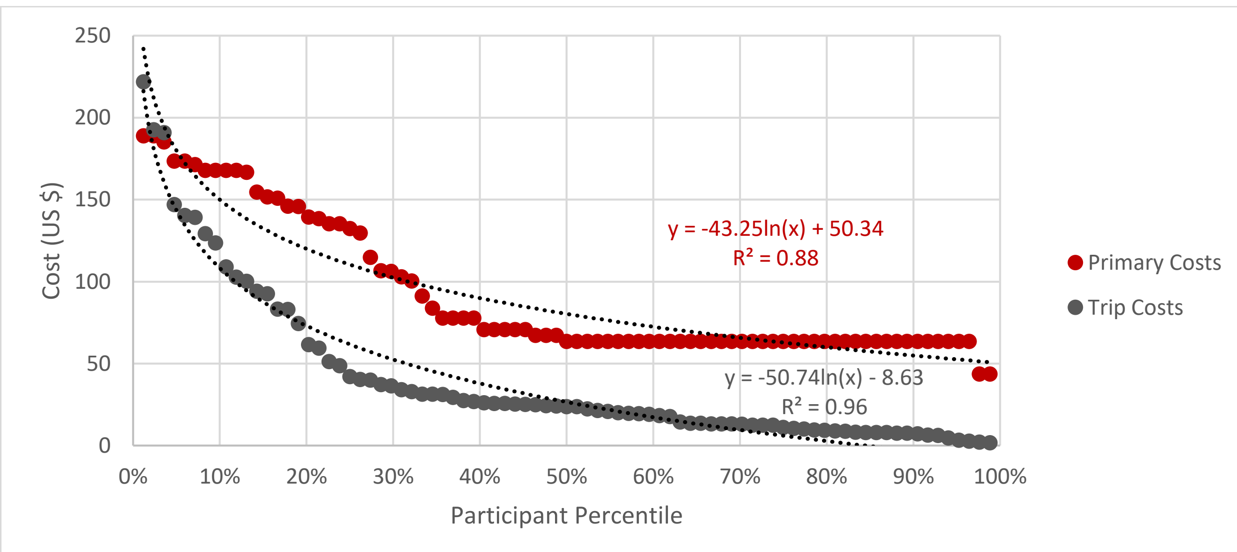

Figure B.30: Educator Training Primary and Trip Costs
For all participants in the environmental stewardship category of the entire study n=83 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 69% of the costs and the trip costs accounted for 31% of the costs for all participants in this category.

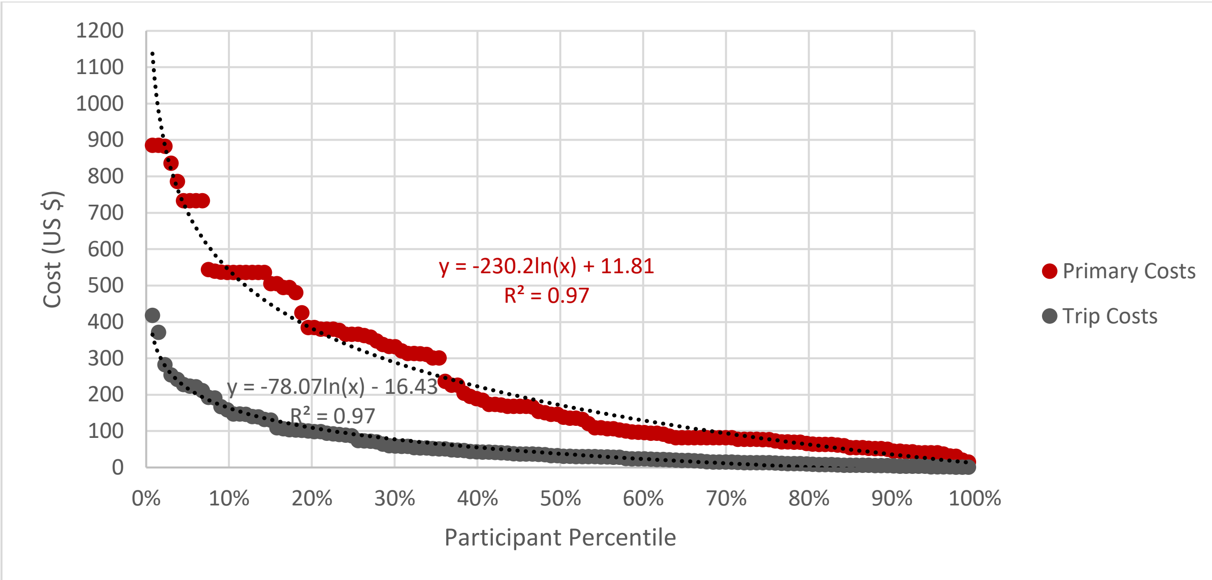

Figure B.31: Traveling for Work Primary and Trip Costs
For all participants traveling for personal reasons in the entire study n=226 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 80% of the costs and the trip costs accounted for 20% of the costs for all participants in this category.

Organization 6

This represents the 2 events hosted by this organization primarily in the Educator Training Category. Of the n=29 participants, 34% were attending for personal reasons, and 66% were attending for work-related reasons. The figures relevant to these categories are included in the report for this organization.

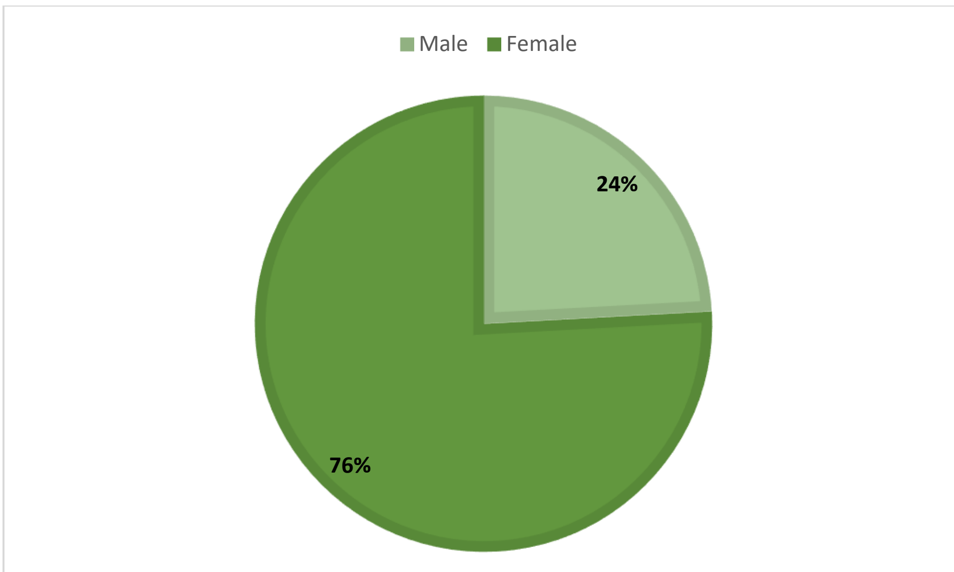

Figure B.32: Gender Demographics for Organization 6 Events

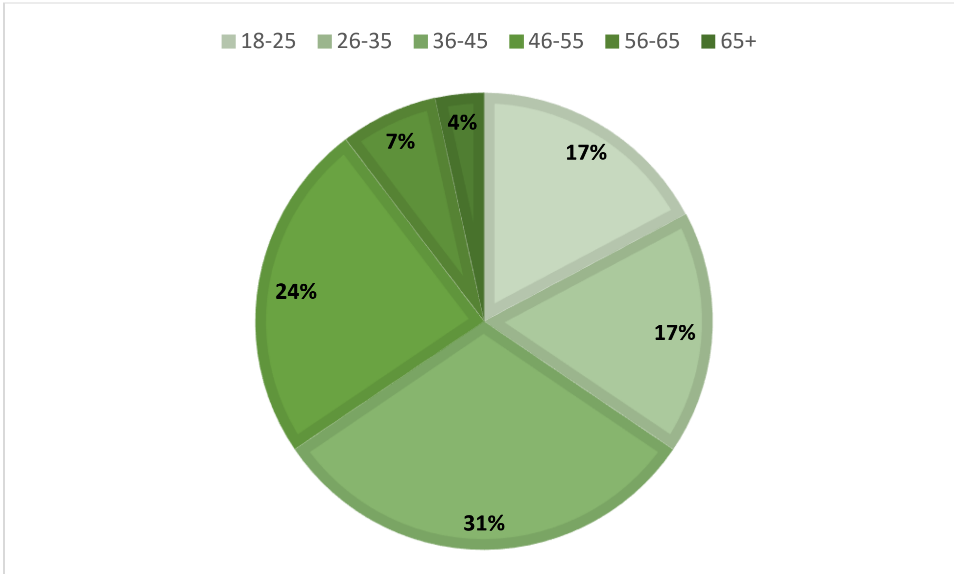

Figure B.33: Age Demographics for Organization 6 Events

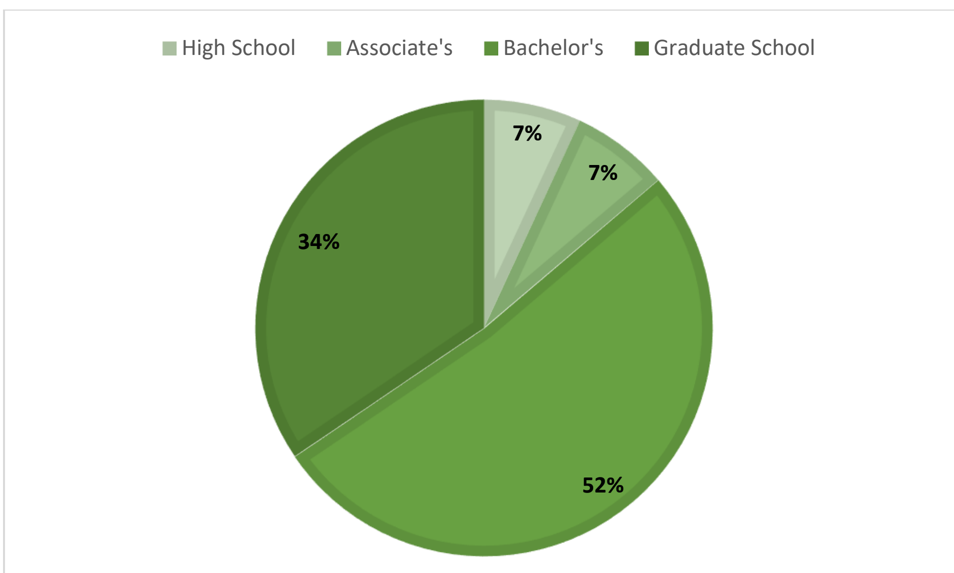

Figure B.34: Education Demographics for Organization 6 Events

Variable	Units	Mean	Standard Deviation
Actual Travel Cost	U.S. $	362	110.4
Willingness to Pay	U.S. $	390	109.9
Actual Round Trip Distance	miles	85	97.1
Actual Round Trip Travel Time	hours	1.4	1.4
Willingness Round Trip Distance	miles	140	97.8
Total Travelers		1.3	0.55
Weighted Cost Per Mile	U.S. $	0.5	0.14
Registration Fee	U.S. $	24	4.9
Time at Event	hours	12.8	3.92

Table B.6: Organization 6 Results
There were 2 events with n=29 participants.

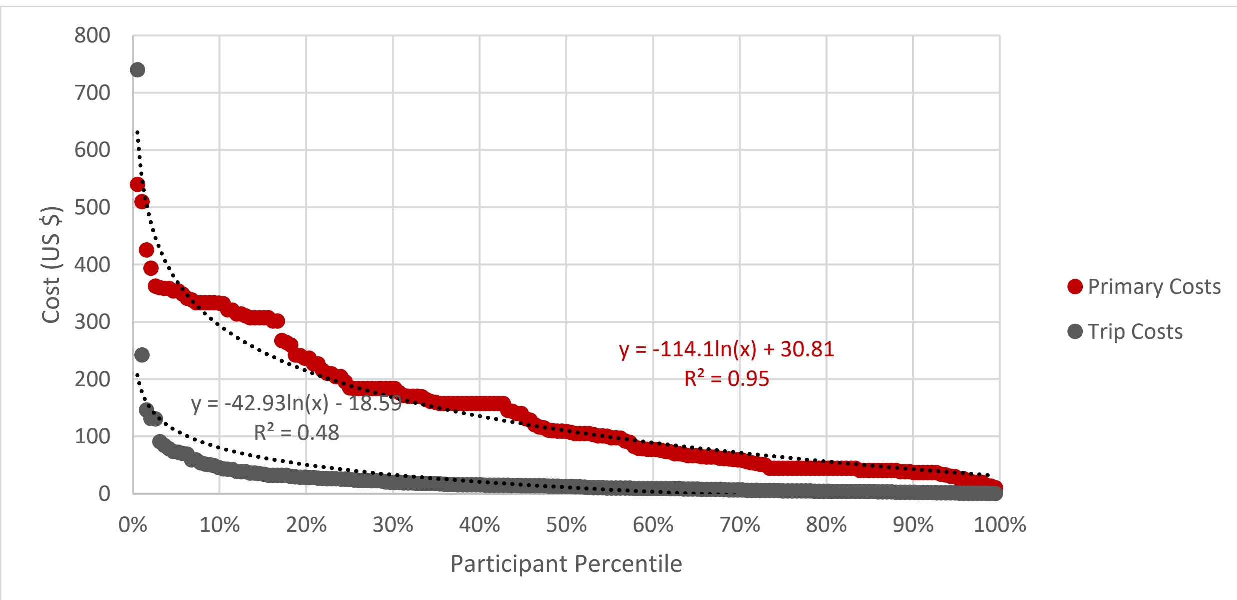

Figure B.35: Environmental Stewardship Primary and Trip Costs
For all participants in the environmental stewardship category of the entire study n=191 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 86% of the costs and the trip costs accounted for 14% of the costs for all participants in this category.

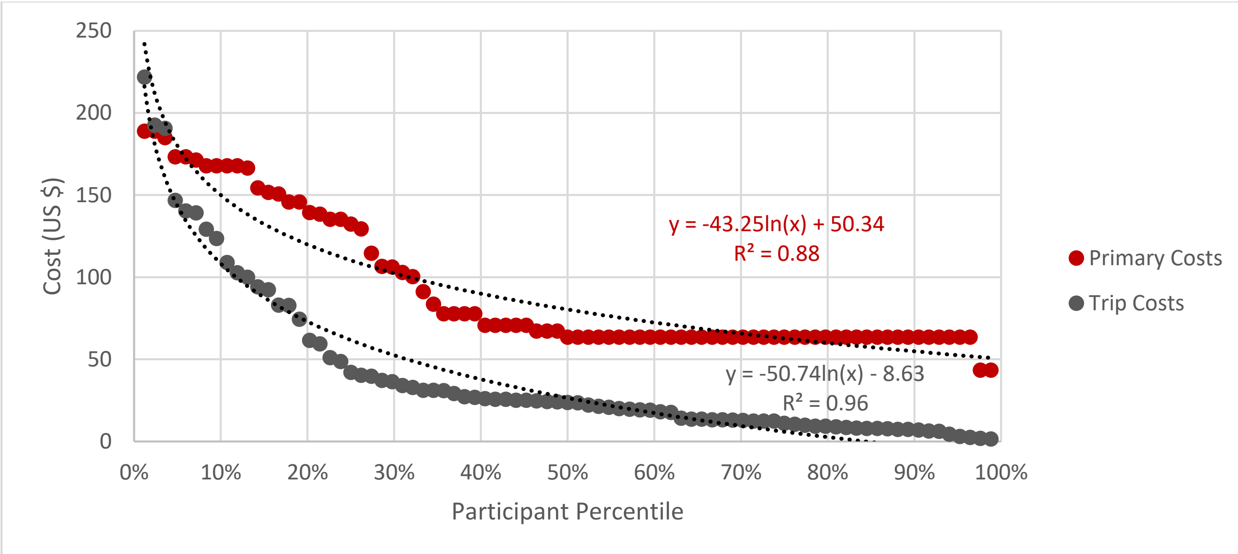

Figure B.36: Educator Training Primary and Trip Costs
For all participants in the environmental stewardship category of the entire study n=83 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 69% of the costs and the trip costs accounted for 31% of the costs for all participants in this category.

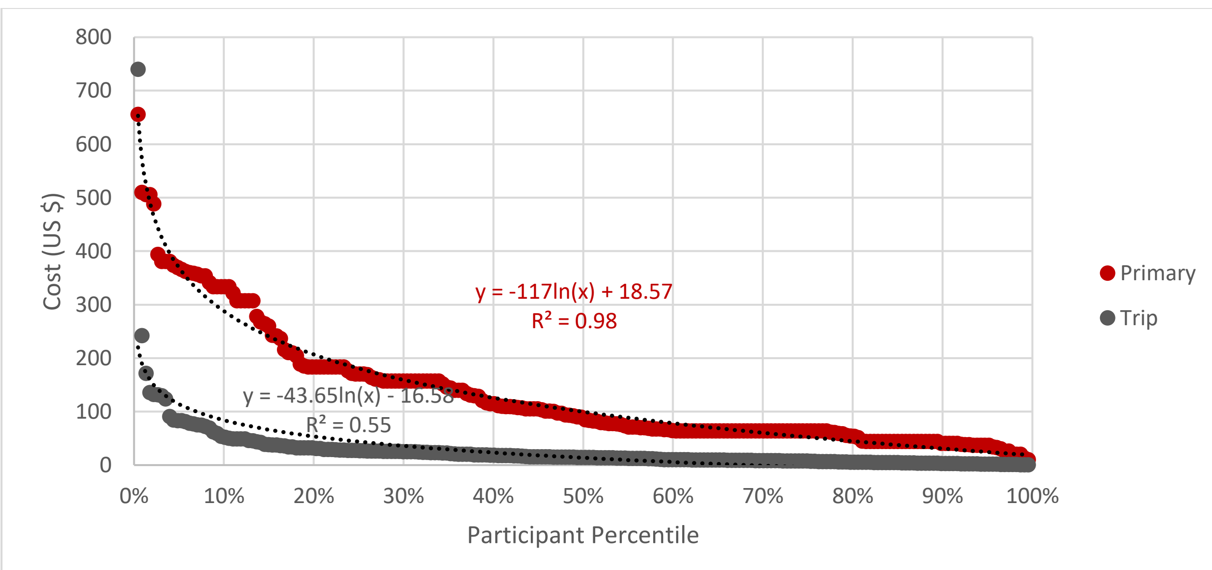

Figure B.37: Traveling for Personal Reasons Primary and Trip Costs
For all participants traveling for personal reasons in the entire study n=226 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 83% of the costs and the trip costs accounted for 17% of the costs for all participants in this category.

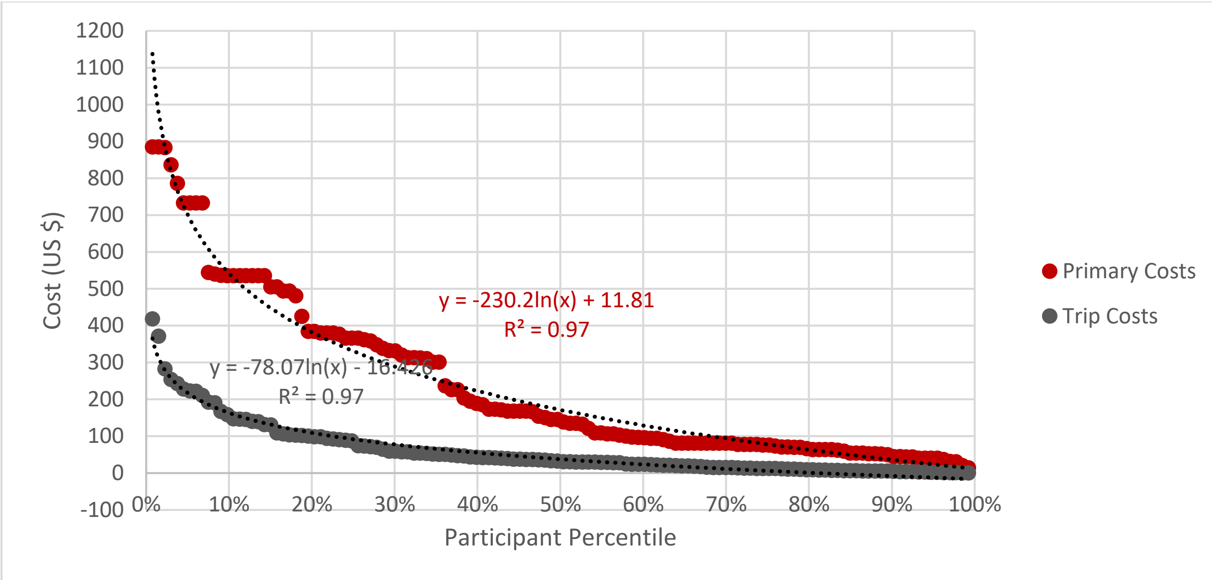

Figure B.38: Traveling for Work Primary and Trip Costs
For all participants traveling for personal reasons in the entire study n=226 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 80% of the costs and the trip costs accounted for 20% of the costs for all participants in this category.

Organization 7

This represents the 2 events hosted by this organization primarily in the Environmental Stewardship Category. Of the n=93 participants, 100% were attending for personal reasons. The figures relevant to these categories are included in the report for this organization.

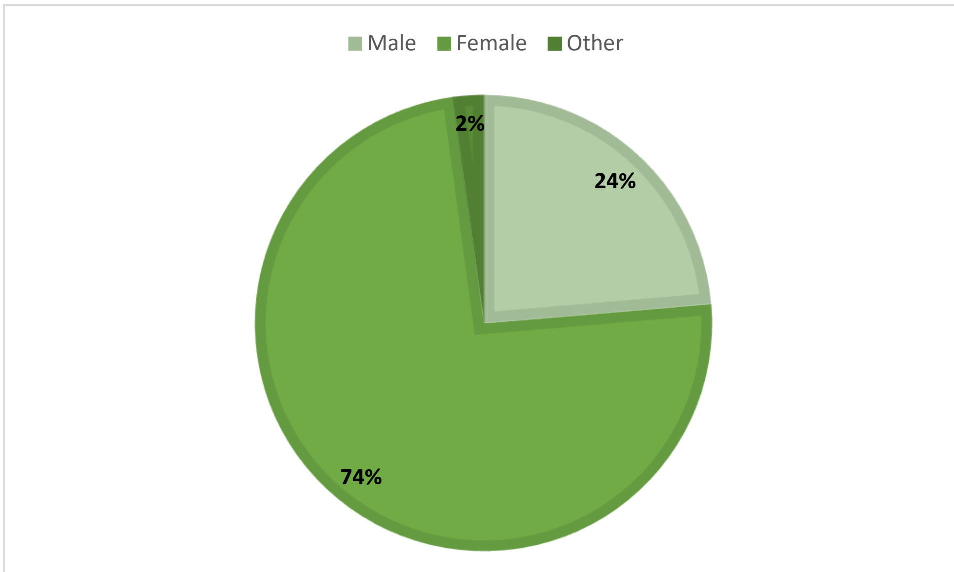

Figure B.39: Gender Demographics for Organization 7 Events

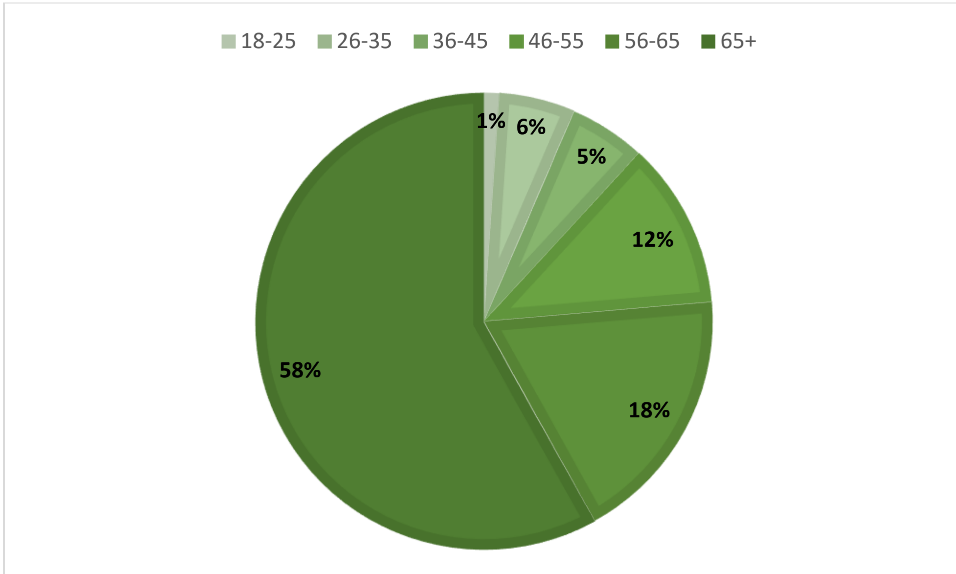

Figure B.40: Age Demographics for Organization 7 Events

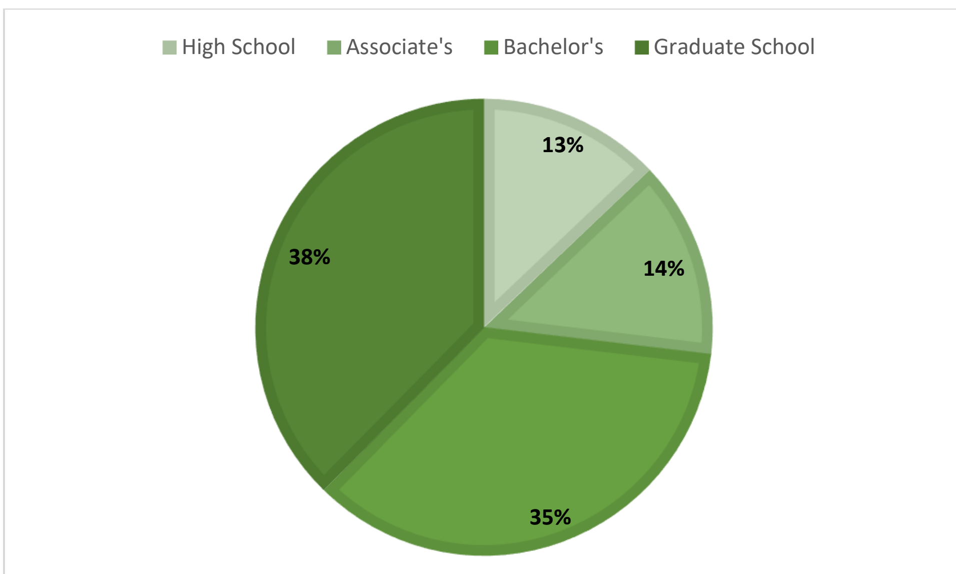

Figure B.41: Education Demographics for Organization 7 Events

Variable	Units	Mean	Standard Deviation
Actual Travel Cost	U.S. $	170	132.2
Willingness to Pay	U.S. $	198	132.5
Actual Round Trip Distance	miles	35	102.4
Actual Round Trip Travel Time	hours	0.9	1.82
Willingness Round Trip Distance	miles	84	133.9
Total Travelers		1.5	0.67
Weighted Cost Per Mile	U.S. $	0.5	0.16
Registration Fee	U.S. $	24	54.1
Time at Event	hours	4.8	2.18

Table B.7: Organization 7 Results

There were 2 events with n=93 participants.

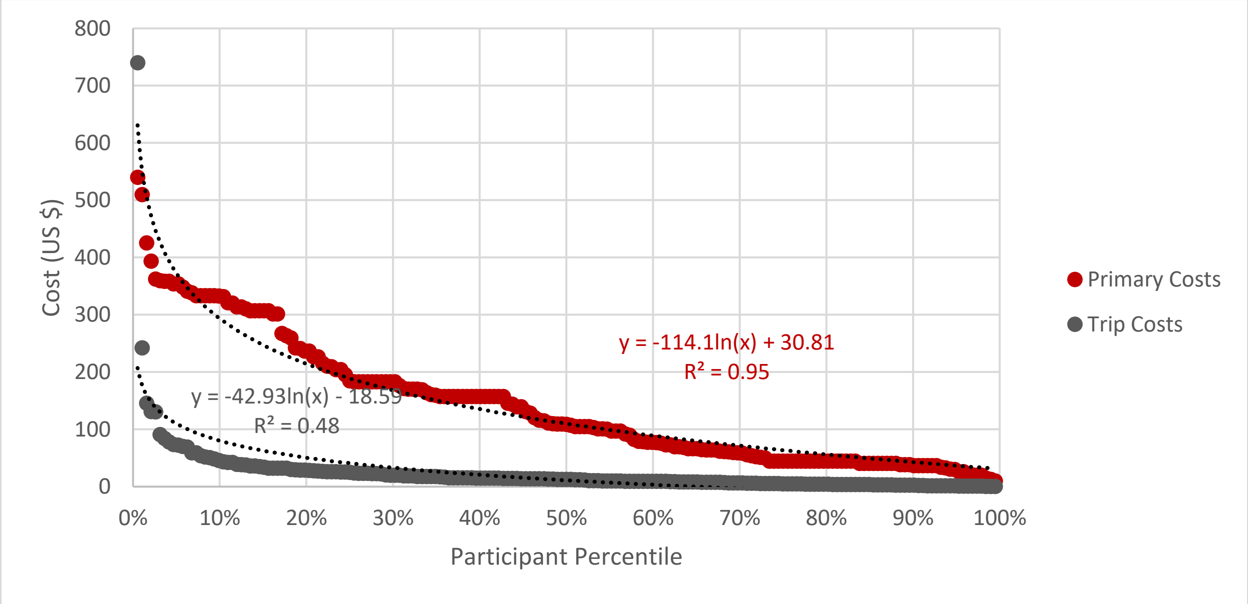

Figure B.42: Environmental Stewardship Primary and Trip Costs

For all participants in the environmental stewardship category of the entire study n=191 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 86% of the costs and the trip costs accounted for 14% of the costs for all participants in this category.

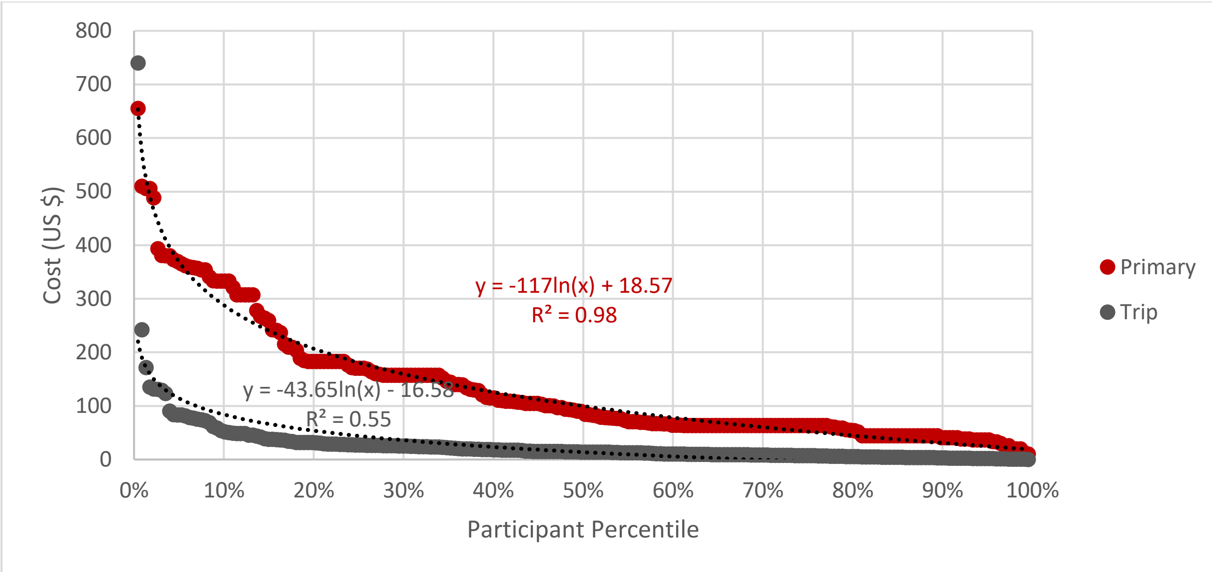

Figure B.43: Traveling for Personal Reasons Primary and Trip Costs
For all participants traveling for personal reasons in the entire study n=226 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 83% of the costs and the trip costs accounted for 17% of the costs for all participants in this category.

Organization 8

This represents the 4 events hosted by this organization primarily in the Educator Training Category. Of the n=69 participants, 70% were attending for personal reasons and 30% were attending for work-related reasons. The figures relevant to these categories are included in the report for this organization.

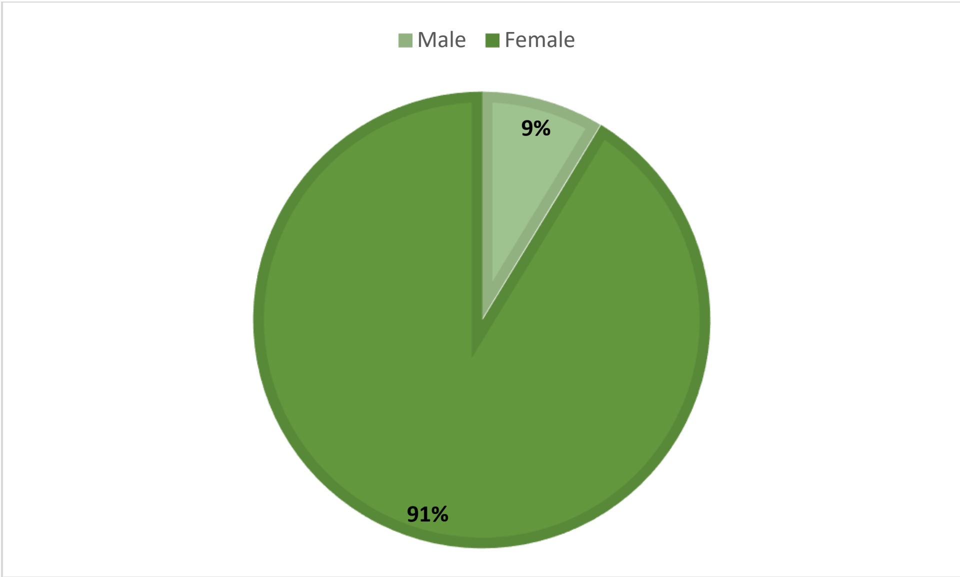

Figure B.44: Gender Demographics for Organization 8 Events

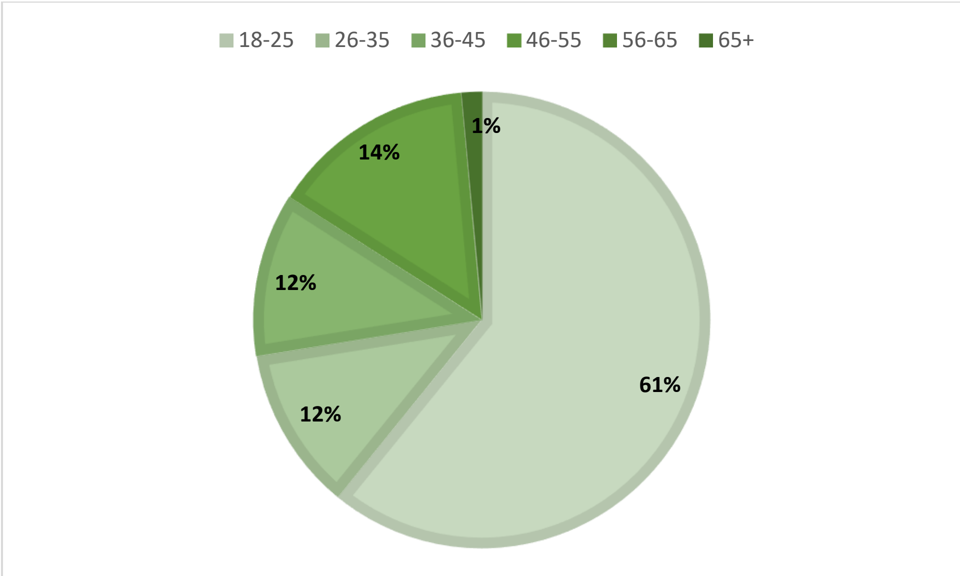

Figure B.45: Age Demographics for Organization 8 Events

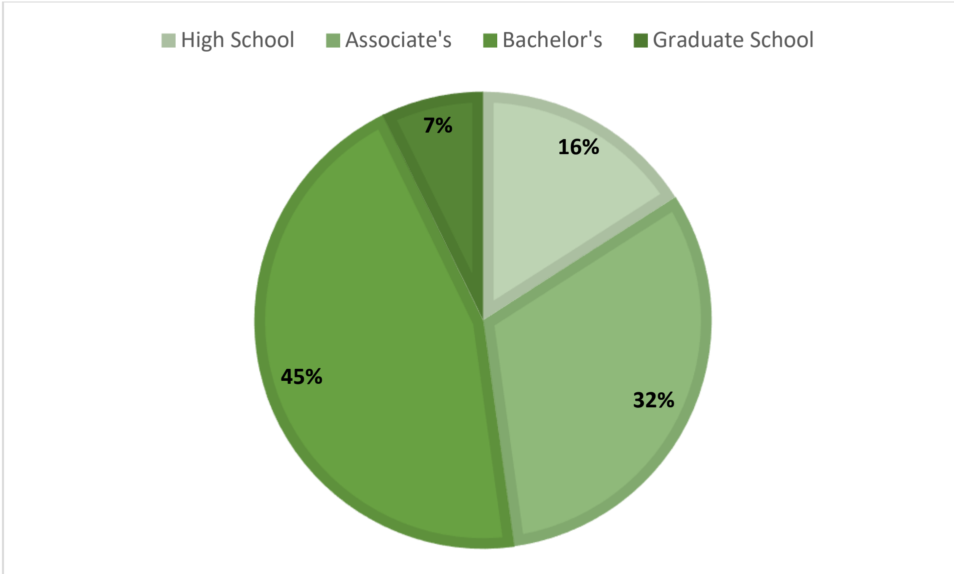

Figure B.46: Education Demographics for Organization 8 Events

Variable	*Units*	*Mean*	*Standard Deviation*
Actual Travel Cost	U.S. $	117	64.8
Willingness to Pay	U.S. $	161	122.5
Actual Round Trip Distance	miles	58	61.6
Actual Round Trip Travel Time	hours	1.2	1.03
Willingness Round Trip Distance	miles	132	158.8
Total Travelers		2.0	1.47
Weighted Cost Per Mile	U.S. $	0.4	0.19
Registration Fee	U.S. $	20	0.0
Time at Event	hours	6.1	0.27

Table B.8: Organization 8 Results
There were 4 events with n=69 participants.

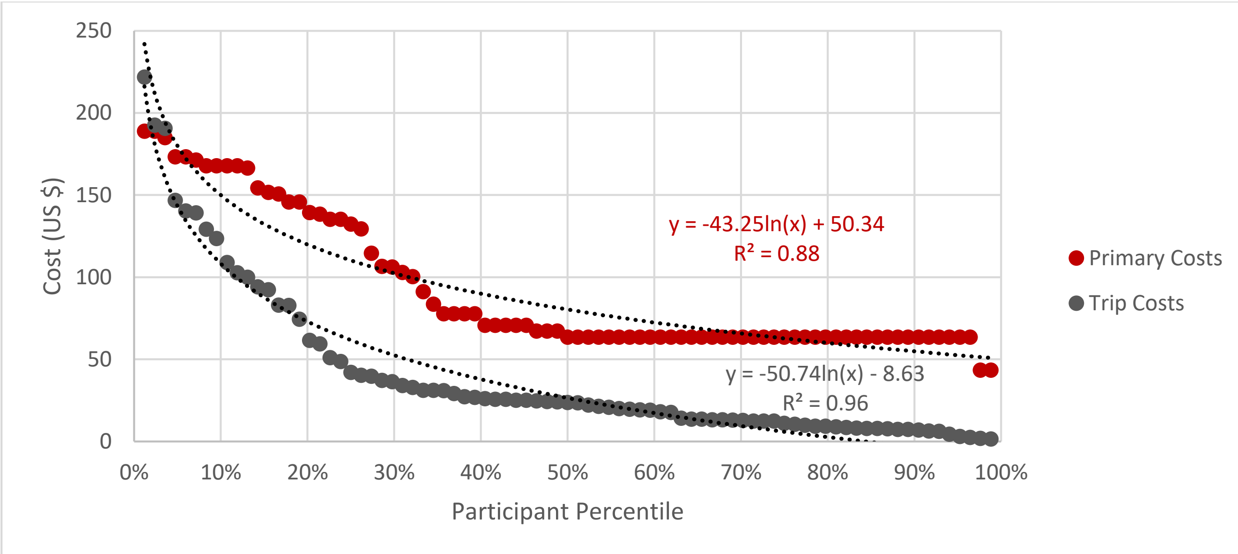

Figure B.47: Educator Training Primary and Trip Costs
For all participants in the environmental stewardship category of the entire study n=83 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 69% of the costs and the trip costs accounted for 31% of the costs for all participants in this category.|

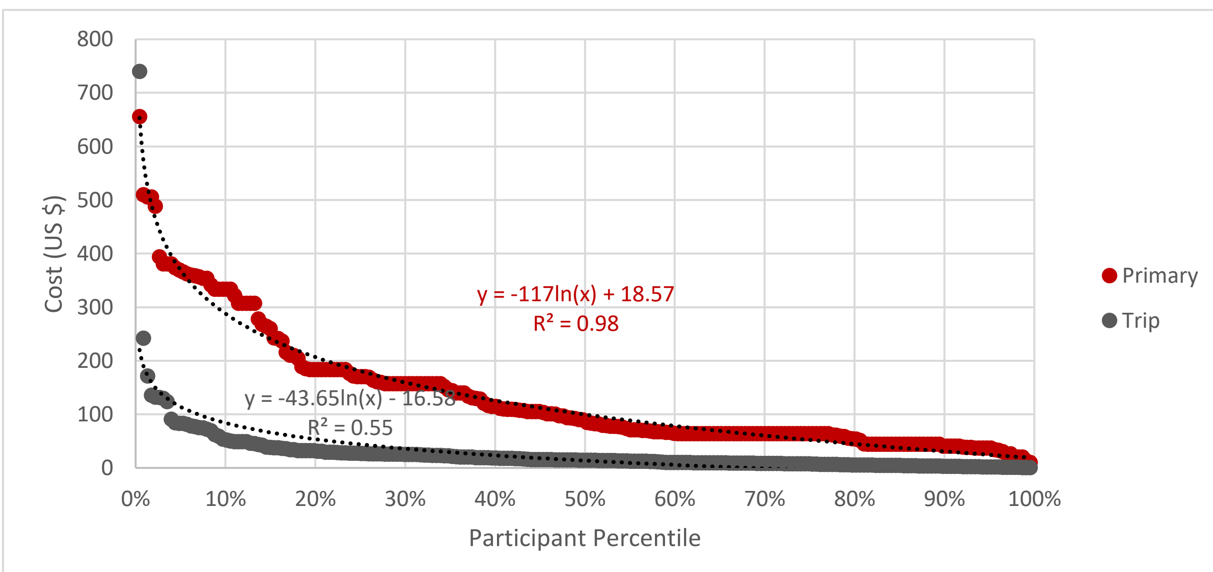

Figure B.48: Traveling for Personal Reasons Primary and Trip Costs
For all participants traveling for personal reasons in the entire study n=226 this shows the primary costs (registration fees, lodging costs, and time cost of event) and trip costs (mileage, time cost of trip, tolls). The primary costs accounted for 83% of the costs and the trip costs accounted for 17% of the costs for all participants in this category.

Appendix C

The following shows the graphs for the binary probit outcome model for the entire study of n=358 participants. They show three scenarios, where either distance, age or income is kept constant, but other the other two predictor variables are input in a combination of scenarios.

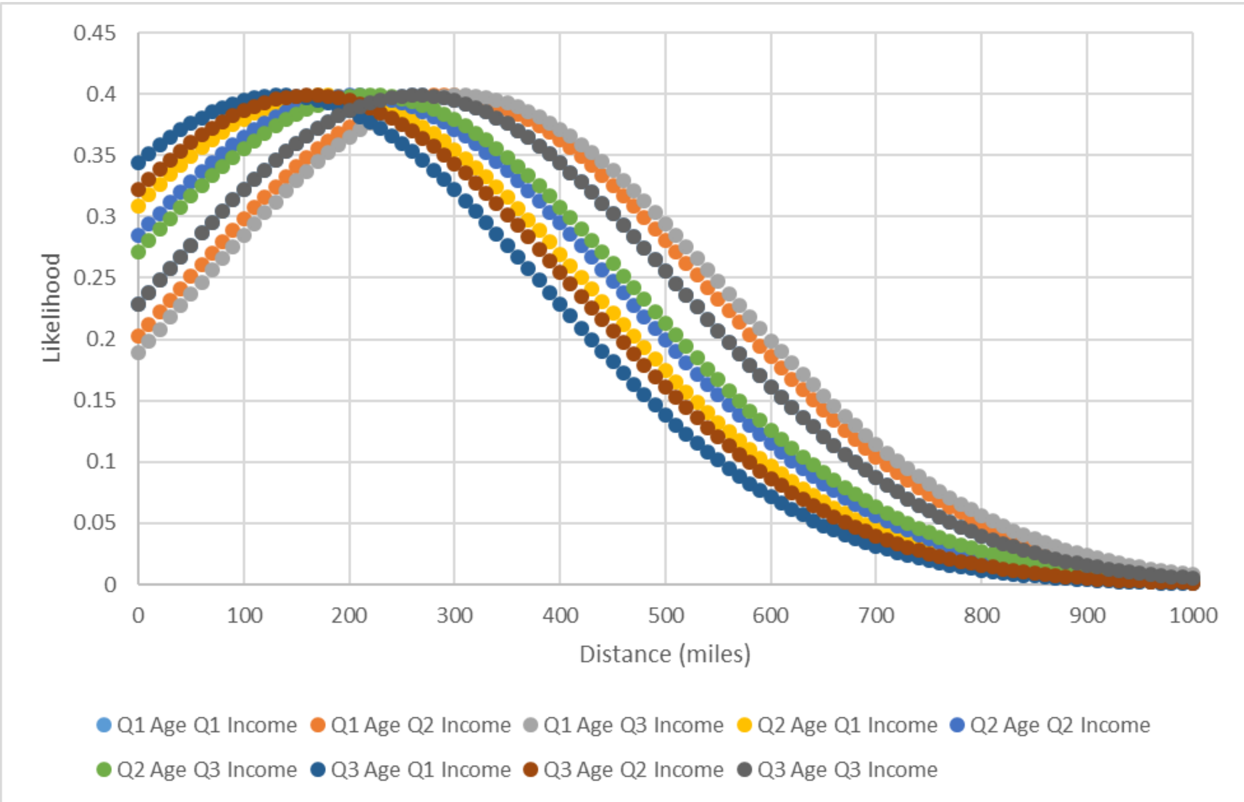

Figure C.1: Graph showing the binary probit outcome model equation where distance is the variable factor. For each curve, age and income were kept constant, with Q1: First Quartile, Q2: Second Quartile, and Q3: Third Quartile.

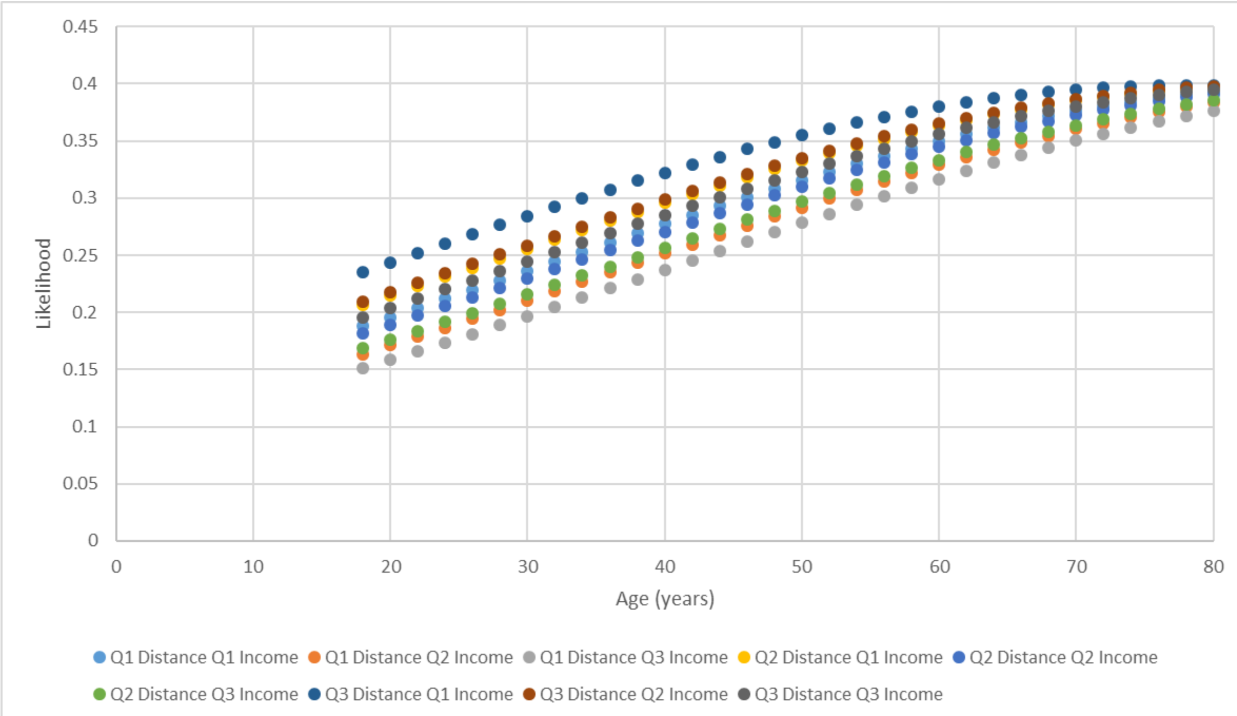

Figure C.2: Graph showing the binary probit outcome model equation where age is the variable factor. For each curve, distance and income were kept constant, with Q1: First Quartile, Q2: Second Quartile, and Q3: Third Quartile.

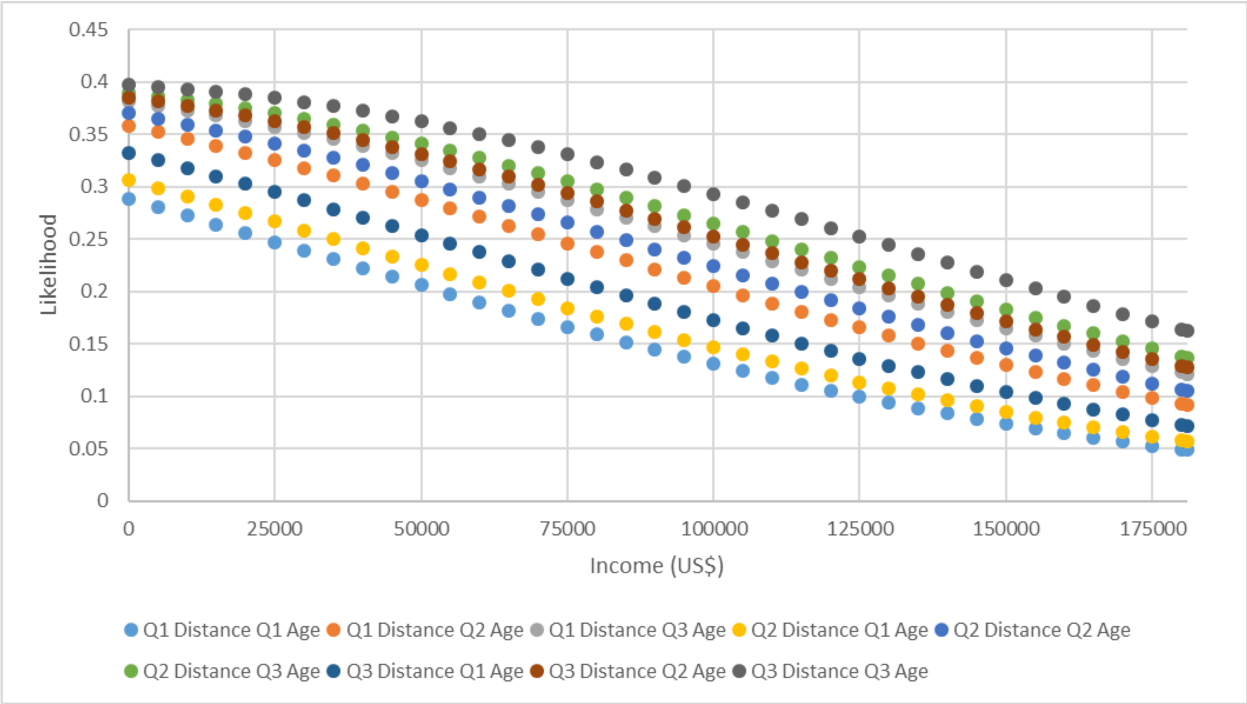

Figure C.3: Graph showing the binary probit outcome model equation where income is the variable factor. For each curve, distance and age were kept constant, with Q1: First Quartile, Q2: Second Quartile, and Q3: Third Quartile.

Appendix D

The following includes the data from 25 environmental education events.

Event 1 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Norman, OK	5
2	Norman, OK	5
3	Norman, OK	3
4	Norman, OK	3
5	Norman, OK	5
6	Norman, OK	1.5
7	Norman, OK	3
8	Norman, OK	5
Averages		
Number of Participants	8	
Actual Travel Cost Per Participant	86.32258547	
Total Travel Cost	690.5806838	
Actual Travel + Time at Event Per Participant	131.5215278	
Total Actual Travel + Time at Event	1052.172222	
Willingness Travel Cost Per Participant	101.2115598	
Total Willingness Travel Cost	809.6924786	
Willingness Travel + Time at Event Per Participant	146.4105021	
Total Willingness Travel + Time at Event	1171.284017	
Total Organzier Costs	1045.245	
Total Actual Participant + Organizer Costs Value	2097.417222	
Total Willing Participant + Organizer Costs Value	2216.529017	
Response Rate	89%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	326	12
Organizer 2		12
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	1045.245	
Total Participants Registration Fee	640	

Event 1 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (min)**
10	0.25	0.5
10	0.166666667	0.333333333
6	0.166666667	0.333333333
6	0.166666667	0.333333333
10	0.166666667	0.333333333
3	0.333333333	0.666666667
6	0.25	0.5
10	0.333333333	0.666666667
7.625		0.458333333
Organizer Benefit/Organizer Cost	0.612296639	
Actual Value/Organizer Cost	2.006627367	
Willingness Value/Organizer Cost	2.120583229	
Ratio of Actual / Willingness	0.946262019	

Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
2	4	0.166666667
5	10	0.25

Event 1 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance**	**Willingness to Travel (time, hr)**
5	10	0.25
30	60	0.5
30	60	0.5
30	60	0.5
10	20	0.166666667
15	30	0.25
30	60	0.5
20	40	0.333333333
	42.5	
Organizer Cost Per Participant	130.655625	

Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
0.333333333	1	0
0.5	1	0

Event 1 Page 4			
Willingness Round Trip Travel Time	**Additional Travellers**	**Total Travellers**	**Standard Cost Per Mile**
0.5	1	2	0.58
1	2	3	0.58
1	1	2	0.58
1	1	2	0.58
0.333333333	0	1	0.58
0.5	0	1	0.58
1	0	1	0.58
0.666666667	1	2	0.58
0.75		1.75	

Standard Cost Per Mile	Weighted Cost Per Mile	Event Duration (hr)	Registrants
0.58	0.58	2	8
0.58	0.58	2	8

Event 1 Page 5				
Weighted Cost Per Mile	Registration Fee	Time at Event (hrs)	Other Costs	Work Related? N=1 Y=2
0.29	80	2	0	1
0.193333333	80	2	0	1
0.29	80	2	0	1
0.29	80	2	0	1
0.58	80	2	0	1
0.58	80	2	0	1
0.58	80	2	0	1
0.29	80	2	0	1
0.386666667	80	2	0	

Attended	Registration Cost	Organizer Hourly Rate	Notes:	
9	80	18		
9	80	31.25		

Event 1 Page 6						
Gender M=1 F=2	**Low Age**	**High Age**	**Representative Age**	**Education**	**Job Classification**	**Average Annual Income**
1	56	65	60.5	HS	Maintenance Worker	31137.6
2	46	55	50.5	B	Office Worker	30076.8
1	26	35	30.5	G	Physical Scientist	50336
2	26	35	30.5	G	Research Admin	68328
2	56	65	60.5	G	Not Employed	42100
2	65		66	G	Retired	62000
2	56	65	60.5	B	Office Staff	30076.8
1	65		66	B	Retired Geoscientist	62000
			60.5			
					Actual Travel Cost	**Travel + Preparation + Event Time**
					8.32	260.32
					21.425	458.925

Event 1 Page 7		
Hourly Income Average	**OK Dept of Commerce Region Used**	**Central Ecosystem Profile (Oklahoma Dept of Commerce)**
14.97	Central OK	Maintenance and Repair Workers, General
14.46	Central OK	Bookkeeping, Accounting, and Auditing Clerks
24.2	Central OK	Chemists
32.85	Central OK	General and Operations Managers
20.24038462	Central OK	Average income for Cleveland County
29.80769231	Central OK	Average Income Science/Tech Industry
14.46	Central OK	Bookkeeping, Accounting, and Auditing Clerks
29.80769231	Central OK	Average Income Science/Tech Industry

Event 1 Page 8						
Actual TC	Time At Event Cost	TC+Time Spent		Willing TC	Time at Event Cost	WTC+Time Spent
85.395	29.94	115.335		85.395	29.94	115.335
83.54	28.92	112.46		96.42	28.92	125.34
84.42888889	48.4	132.8288889		105.4666667	48.4	153.8666667
85.39	65.7	151.09		108.35	65.7	174.05
88.04893162	40.48076923	128.5297009		93.84893162	40.48076923	134.3297009
88.36393162	59.61538462	147.9793162		102.3679487	59.61538462	161.9833333
85.89	28.92	114.81		119.62	28.92	148.54
89.52393162	59.61538462	149.1393162		98.22393162	59.61538462	157.8393162

Event 2 Page 1	
Participant	**Residence**
1	Park Hill, Cherokee County, OK
2	Cherokee, OK
3	Talequah, Cherokee, OK
4	Talequah, Cherokee, OK
5	Talequah, Cherokee, OK
6	Talequah, Cherokee, OK
7	Talequah, Cherokee, OK
8	Talequah, Cherokee, OK
9	Talequah, Cherokee, OK
10	Talequah, Cherokee, OK
11	Talequah, Cherokee, OK
12	Talequah, Cherokee, OK
13	Claremore, Rogers, OK
14	Checotah, McIntosh, OK
15	Checotah, McIntosh, OK
16	Checotah, McIntosh, OK
17	Talequah, Cherokee, OK
18	Talequah, Cherokee, OK
Averages	
Number of Participants	18
Actual Travel Cost Per Participant	44.58115252
Total Travel Cost	802.4607454
Actual Travel + Time at Event Per Participant	89.10308482
Total Actual Travel + Time at Event	1603.855527
Willingness Travel Cost Per Participant	81.48182952
Total Willingness Travel Cost	1466.672931
Willingness Travel + Time at Event Per Participant	126.0037618
Total Willingness Travel + Time at Event	2268.067713
Total Organzier Costs	2280.74
Total Actual Participant + Organizer Costs Value	3884.595527
Total Willing Participant + Organizer Costs Value	4548.807713

Event 2 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
20	0.25	0.5
2	0.05	0.1
30	0.416666667	0.833333333
1	0.016666667	0.033333333
30	0.333333333	0.666666667
4	0.083333333	0.166666667
4	0.083333333	0.166666667
4	0.083333333	0.166666667
6	0.083333333	0.166666667
1	0.033333333	0.066666667
20	0.25	0.5
20	0.25	0.5
124.4	1.5	3
124	1	2
124	1.5	3
100	1.25	2.5
1	0.083333333	0.166666667
4	0.083333333	0.166666667
34.41111111		0.816666667
Organizer Benefit/Organizer Cost	0.876908372	
Actual Value/Organizer Cost	0.703217169	
Willingness Value/Organizer Cost	0.994443783	
Ratio of Actual / Willingness	0.853981037	

Event 2 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance**	**Willingness to Travel (time, hr)**
30	60	0.5
60	120	1
60	120	1
30	60	0.5
60	120	1
30	60	0.5
15	30	0.25
30	60	0.5
13	26	0.2167
0.5	1	0.033333333
60	120	1
30	60	0.5
270	540	4.5
120	240	2
120	240	2
105	210	1.75
30	60	0.5
2	4	0.083333333
	118.3888889	
Organizer Cost Per Participant	126.7077778	

Event 2 Page 4		
Willingness Round Trip Travel Time	**Additional Travellers**	**Total Travellers**
1	1	2
2	0	1
2	2	3
1	0	1
2	2	3
1	0	1
0.5	1	2
1	2	3
0.4334	0	1
0.066666667	0	1
2	1	2
1	1	2
9	1	2
4	1	2
4	1	2
3.5	1	2
1	0	1
0.166666667	0	1
1.981485185		1.777777778

Event 2 Page 5				
Standard Cost Per Mile	**Weighted Cost Per Mile**	**Registration Fee**	**Time at Event (hrs)**	**Other Costs**
0.58	0.29	30	2	0
0.58	0.58	30	2	0
0.58	0.193333333	30	2	0
0.58	0.58	30	2	0
0.58	0.193333333	30	2	0
0.58	0.58	30	2	0
0.58	0.29	30	2	0
0.58	0.193333333	30	2	0
0.58	0.58	30	2	0
0.58	0.58	30	2	0
0.58	0.29	30	2	0
0.58	0.29	30	2	0
0.58	0.29	30	2	0
0.58	0.29	30	2	0
0.58	0.29	30	2	0
0.58	0.29	30	2	0
0.58	0.58	30	2	0
0.58	0.58	30	2	0
	0.386666667	30	2	0

Event 2 Page 6					
Work Related? N=1 Y=2	Gender M=1 F=2	Low Age	High Age	Representative Age	Education
2	2	65		66	G
1	2	65		66	G
1	2	56	65	60.5	HS
2	2	36	45	40.5	G
1	2			78	HS
1	2	46	55	50.5	A
1	2	18	25	21.5	HS
1	1	36	45	40.5	HS
1	2	65		66	HS
1	2	56	65	60.5	NA
1	2	26	35	30.5	HS
1	1	26	35	30.5	HS
1	2	36	45	40.5	HS
1	2	26	35	30.5	HS
1	2	26	35	30.5	B
1	1	26	35	30.5	A
1	2	26	35	30.5	B
1	2	46	55	50.5	G

Event 2 Page 7			
Job Classification	**Average Annual Income**	**Hourly Income Average**	**OK Dept. of Commerce Region Used**
Health Administration	69804.8	33.56	Eastern Oklahoma Report
Public Health	69804.8	33.56	Eastern Oklahoma Report
Sales Assistant	31824	15.3	Eastern Oklahoma Report
Environmental Scientist	180939.2	86.99	Eastern Oklahoma Report
Retired	35000	16.82692308	Eastern Oklahoma Report
Business Owner	37500	18.02884615	Eastern Oklahoma Report
Student	15080	7.25	Eastern Oklahoma Report
IT	29993.6	14.42	Eastern Oklahoma Report
Retired	35000	16.82692308	Eastern Oklahoma Report
Barber	22,000	10.78431373	Eastern Oklahoma Report
Not Employed	0	0	Eastern Oklahoma Report
Veteran/ Contractor	37500	18.02884615	Eastern Oklahoma Report
Self Employed	47500	22.83653846	Tulsa Metro Report
Dental Assistant	29681.6	14.27	East Central Oklahoma Report
Homemaker	32500	15.625	East Central Oklahoma Report
Laborer	24710.4	11.88	East Central Oklahoma Report
Web Technician	83865.6	40.32	Eastern Oklahoma Report
Registered Nurse	50315.2	24.19	Eastern Oklahoma Report

Event 2 Page 8				
OK Dept. of Commerce Job Title		**Actual Travel Cost**	**Time At Event Cost**	**TC+Time Spent**
General and Operations Managers Health Care		41.39333333	67.12	108.5133333
General and Operations Managers Health Care		32.27866667	67.12	99.39866667
Sales Representatives		40.05	30.6	70.65
Geoscientists (Agriculture & Bioscience)		31.54655556	173.98	205.5265556
Average Earning by Industry: Science/Technology		39.53931624	33.65384615	73.19316239
Average Earning Cherokee County		33.32160256	36.05769231	69.37929487
Minimum Wage: Oklahoma		31.56277778	14.5	46.06277778
Computer Network Support Specialists		31.57444444	28.84	60.41444444
Average Earning by Industry: Science/Technology		34.41482906	33.65384615	68.06867521
Average Earning by Industry: Retail Trade		30.81965142	21.56862745	52.38827887
Unemployed High Schooler		35.8	0	35.8
Average Earning Cherokee County		38.80480769	36.05769231	74.8625
Average Earnings: Rogers County		88.91253846	45.67307692	134.5856154
Dental Assistants		75.47333333	28.54	104.0133333
Average Income: Mcintosh County		81.585	31.25	112.835
Construction Laborer		68.9	23.76	92.66
Computer Occupations, All Other		32.82	80.64	113.46
Registered Nurse		33.66388889	48.38	82.04388889
		44.58115252	44.52193229	89.10308482

Event 2 Page 9				
	Willing Travel Cost	Time at Event Cost	WTC+Time Spent	
	58.58666667	67.12	125.7066667	
	121.9733333	67.12	189.0933333	
	63.4	30.6	94	
	93.79666667	173.98	267.7766667	
	64.41794872	33.65384615	98.07179487	
	70.80961538	36.05769231	106.8673077	
	39.90833333	14.5	54.40833333	
	46.40666667	28.84	75.24666667	
	47.51092949	33.65384615	81.16477564	
	30.81965142	21.56862745	52.38827887	
	64.8	0	64.8	
	53.40961538	36.05769231	89.46730769	
	255.1096154	45.67307692	300.7826923	
	118.6266667	28.54	147.1666667	
	120.4333333	31.25	151.6833333	
	104.76	23.76	128.52	
	78.24	80.64	158.88	
	33.66388889	48.38	82.04388889	
	81.48182952	44.52193229	126.0037618	

Event 3 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Sand Springs - Tulsa County	74
2	Tulsa- Osage	74
3	Tulsa- Osage	74
4	Grove- Delaware County	38
5	Grove - Ottawa	42
6	Big Cabin - Craig County	20
7	Grove - Delaware Co	17
Averages		
Number of Participants	7	
Actual Travel Cost Per Participant	97.61171608	
Total Travel Cost	683.2820126	
Actual Travel + Time at Event Per Participant	140.5195458	
Total Actual Travel + Time at Event	983.6368203	
Willingness Travel Cost Per Participant	194.2717826	
Total Willingness Travel Cost Per Participant	1359.902479	
Willingness Travel + Time at Event Per Participant	237.1796123	
Total Willingness Travel + Time at Event	1660.257286	
Total Organzier Costs	5564.33715	
Total Actual Participant + Organizer Costs Value	6547.97397	
Total Willing Participant + Organizer Costs Value	7224.594436	
Response Rate		
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	686.41	20
Organizer 2		6
Organizer 3		2
Organizer 4	2000	120
Organizer 5		
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	5564.33715	
Total Participants Registration Fee	450	

Event 3 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
148	1.5	3
148	1.5	3
148	1.5	3
76	0.66	1.32
84	0.833	1.666
40	0.5	1
34	0.5833	1.1666
96.85714286		2.0218
Organizer Benefit/Organizer Cost	0.080872166	
Actual Value/Organizer Cost	0.176775201	
Willingness Value/Organizer Cost	0.298374675	
Ratio of Actual / Willingness	0.592460475	

Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
0	0	0
62	124	1
62	124	1
165	330	2.6667
184	368	3

Event 3 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance**	**Willingness to Travel (time, hr)**
172.67	345.34	3.5
172.67	345.34	3.5
123.33	246.66	2.5
200	400	4
142.8	285.6	2.833
80	160	2
60	120	2.05
	271.8485714	
Organizer Cost Per Participant	794.9053071	

Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
0	1	0
2	2	150
2	2	
5.3334	1	
6	1	

Event 3 Page 4			
Willingness Round Trip Travel Time	Additional Travellers	Total Travellers	Standard Cost Per Mile
7	2	3	0.58
7	2	3	0.58
5	2	3	0.58
8	0	1	0.58
5.666	0	1	0.58
4	1	2	0.58
4.1	0	1	0.58
5.823714286		2	

Standard Cost Per Mile	Weighted Cost Per Mile	Event Duration (hr)	Registrants
0.58	0.58	2	11
0.58	0.29	2	
0.58	0.29	2	
0.58	0.58	2	
0.58	0.58	2	

Event 3 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.193333333	50	2		0
0.193333333	50	2		0
0.193333333	50	2		0
0.58	50	2		0
0.58	75	2		0
0.29	50	2		0
0.58	50	2		0
0.372857143	53.57142857	2		0

Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**	
9	50	27		
		44		
		25		
		7.25		
		18		

Event 3 Page 6						
Work Related? N=1 Y=2	Gender M=1 F=2	Low Age	High Age	Representative Age	Education	Job Classification
1	2	26	35	30.5	B	Teacher
2	2	46	55	50.5	B	Teacher
2	2	36	45	40.5	G	Teacher
2	1	36	45	40.5	G	Teacher
2	2	36	45	40.5	G	Teacher
1	2	46	55	50.5	G	Teacher
2	1	56	65	60.5	B	Teacher
				44.78571429		
					Actual Travel Cost	Travel + Preparation + Event Time
					0	594
					273.96	625.96
					85.96	185.96
					230.06715	1114.56715
					321.44	357.44

Event 3 Page 7			
Annual Average Income	**Hourly Income Average**	**OK STATE Teacher Salary Schedule**	**Experience Used**
35,895	17.25721154	Sand Springs (Teacher Salary Schedule)	Bachelor's + 5 Years Experience
45,343	21.79951923	Sand Springs (Teacher Salary Schedule)	Bachelor's + 25 Years Experience
41,757	20.07548077	Sand Springs (Teacher Salary Schedule)	Master's + 15 Years Experience
47,645	22.90625	Delaware- Grove (Teacher Salary Schedule)	Master's + 15 Years Experience
47,645	22.90625	Delaware- Grove (Teacher Salary Schedule)	Master's + 15 Years Experience
44,910	21.59134615	Craig County Vinita (Teacher Salary Schedule)	Master's + 25 Years Experience
49,174	23.64134615	Delaware- Grove (Teacher Salary Schedule)	Bachelor's + 35 Years Experience
44,624	21.45391484		

Event 3 Page 8						
Actual Travel Cost	**Time At Event Cost**	**TC+Time Spent**		**Willing Travel Cost**	**Time at Event Cost**	**WTC+Time Spent**
95.87054487	34.51442308	130.3849679		157.0325603	34.51442308	191.5469833
100.4128526	43.59903846	144.011891		167.6312782	43.59903846	211.2303167
98.6888141	40.15096154	138.8397756		131.1467346	40.15096154	171.2976962
104.15875	45.8125	149.97125		343.0833333	45.8125	388.8958333
136.4406042	45.8125	182.2531042		283.9102708	45.8125	329.7227708
68.79711538	43.18269231	111.9798077		125.1884615	43.18269231	168.3711538
78.91333147	47.28269231	126.1960238		151.9098397	47.28269231	199.1925321
97.61171608	42.90782967	140.5195458		194.2717826	42.90782967	237.1796123

Event 4 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	OKC, Oklahoma County	10
2	Norman, Cleveland	2
3	Norman, Cleveland	20
4	OKC, Oklahoma County	20
5	OKC, Oklahoma County	30
6	Norman, Cleveland	2
7	Purcell, McClain	30
8	Norman, Cleveland	1.5
9	Norman, Cleveland	4
10	Norman, Cleveland	2
Averages		
Number of Participants	10	
Actual Travel Cost Per Participant	11.66468767	
Total Travel Cost	116.6468767	
Actual Travel + Time at Event Per Participant	71.05068767	
Total Actual Travel + Time at Event	710.5068767	
Willingness Travel Cost Per Participant	58.15562987	
Total Willingness Travel Cost Per Participant	581.5562987	
Willingness Travel + Time at Event Per Participant	117.5416299	
Total Willingness Travel + Time at Event	1175.416299	
Total Organzier Costs	644.00785	
Total Actual Participant + Organizer Costs Value	1354.514727	
Total Willing Participant + Organizer Costs Value	1819.424149	
Response Rate	38%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
	550	10
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	644.00785	
Total Participants Registration Fee	0	

Event 4 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
20	0.5	1
4	0.25	0.5
40	0.5	1
40	0.3333	0.6666
60	0.5	1
4	0.0833	0.1666
60	0.5833	1.1666
3	0.0833	0.1666
8	0.25	0.5
4	0.0833	0.1666
Organizer Benefit/Organizer Cost	0	
Actual Value/Organizer Cost	1.1032581	
Willingness Value/Organizer Cost	1.82515834	
Ratio of Actual / Willingness	0.604472541	
Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
5	10	0.0833

Event 4 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
20	40	1
75	150	1.25
60	120	1.5
30	60	0.5
50	100	0.8333
200	400	3
30	60	0.5833
5	10	0.2833
19	38	1.1875
62	124	2.5
Organizer Cost Per Participant	64.400785	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
0.1666	1	0

Event 4 Page 4			
Willingness Round Trip Travel Time (hr)	**Additional Travellers**	**Total Travellers**	**Standard Cost Per Mile**
2	3	4	0.58
2.5	1	2	0.58
3	3	4	0.58
1	3	4	0.58
1.6666	3	4	0.58
6	1	2	0.58
1.1666	2	3	0.58
0.5666	0	1	0.58
2.375	0	1	0.58
5	0	1	0.58
Standard Cost Per Mile	**Weighted Cost Per Mile**	**Event Duration (hr)**	**Registrants**
0.58	0.58	2	38

Event 4 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.145	0	2	0	0
0.29	0	2	1	0
0.145	0	2	0	0
0.145	0	2	0	0
0.145	0	2	0	0
0.29	0	2	1	0
0.193333333	0	2	0	0
0.58	0	2	0	0
0.58	0	2	0	0
0.58	0	2	0.5	10
Attended	**Registration Cost**	**Organizer Hourly Rate**		**Notes:**
26	0	7.25		

Event 4 Page 6						
Work Related? N=1 Y=2	**Gender M=1 F=2**	**Low Age**	**High Age**	**Representative Age**	**Education**	**Job Classification**
2	2	36	45	40.5	G	State Regulator
2	2	18	25	21.5	B	Environmental Science Student
2	2	26	35	30.5	B	Environmental Protection Specialist
2	1	26	35	30.5	B	Civil Engineer
2	1	65		66	G	Civil Engineer
2	1	46	55	50.5	HS	General Manager
2	1	36	45	40.5	HS	Maintenance Worker
2	1	65		66	B	Builder
2	1	56	65	60.5	G	Developer/Builder
2	2	46	55	50.5	G	City Planner
						Actual Travel Cost
						7.00785

Event 4 Page 7		
Average Annual Income	**Hourly Income Average**	**OK Dept of Commerce Region Used**
79456	38.2	Central Ecosystem Profile
46904	22.55	Central Ecosystem Profile
46904	22.55	Central Ecosystem Profile
72550.4	34.88	Central Ecosystem Profile
72550.4	34.88	Central Ecosystem Profile
53643.2	25.79	Central Ecosystem Profile
32489.6	15.62	Central Ecosystem Profile
54204.8	26.06	Central Ecosystem Profile
79456	38.2	Central Ecosystem Profile
79456	38.2	Central Ecosystem Profile
Travel + Preparation + Event Time		
94.00785		

Event 4 Page 8				
Central Ecosystem Profile (Oklahoma Dept of Commerce)		**Actual Travel Cost**	**Time At Event Cost**	**TC+Time Spent**
General + Operations Managers Agriculture/Bioscience		15.63333333	76.4	92.03333333
Environmnetal Scientist/ Bachelor's Degree		4.918333333	45.1	50.01833333
Environmnetal Scientists & Specialists/ Bachelor's Degree		13.31666667	45.1	58.41666667
Civil Engineers		13.550336	69.76	83.310336
Civil Engineers		20.32666667	69.76	90.08666667
Supervisors of Farming Fishing and Forestry Workers (HS + Job Experience)		2.592204667	51.58	54.17220467
Maintenance Workers, Machinery		17.67409733	31.24	48.91409733
Construction Managers (Bachelors) /Construction		3.187198667	52.12	55.30719867
General & Operations Managers Construction		11.00666667	76.4	87.40666667
General & Operations Managers Transportation/Distribution		14.44137333	76.4	90.84137333
		11.66468767	59.386	71.05068767

Event 4 Page 9			
Willing Travel Cost	**Time at Event Cost**	**WTC+Time Spent**	
31.26666667	76.4	107.6666667	
62.29166667	45.1	107.3916667	
39.95	45.1	85.05	
20.32666667	69.76	90.08666667	
33.87700267	69.76	103.6370027	
167.58	51.58	219.16	
17.67409733	31.24	48.91409733	
10.72186533	52.12	62.84186533	
52.28166667	76.4	128.6816667	
145.5866667	76.4	221.9866667	
58.15562987	59.386	117.5416299	

Event 5 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	OKC, Oklahoma Co	0.189
2	OKC, Oklahoma Co	5
3	Edmond, Oklahoma Co	15
4	OKC, Oklahoma Co	3
5	OKC, Oklahoma Co	1
6	OKC, Oklahoma Co	2
7	OKC, Oklahoma Co	1
8	Edmond, Oklahoma Co	10
9	Edmond, Oklahoma Co	5
10	OKC, Oklahoma Co	1
11	Guthrie, Logan	35
12	OKC, Oklahoma Co	5
13	OKC, Oklahoma Co	2
14	OKC, Oklahoma Co	0.9
15	OKC, Oklahoma Co	0.0947
16	OKC, Oklahoma Co	1
17	OKC, Oklahoma Co	2
18	OKC, Oklahoma Co	5
19	Edmond, Oklahoma Co	1
20	Enid, Garfield Co	67
21	OKC, Oklahoma Co	15
Averages		
Number of Participants	21	
Actual Travel Cost Per Participant	21.26949423	
Total Travel Cost	446.6593788	
Actual Travel + Time at Event Per Participant	101.494769	
Total Actual Travel + Time at Event	2131.390148	
Willingness Travel Cost Per Participant	109.9248228	
Total Willingness Travel Cost Per Participant	2308.421278	
Willingness Travel + Time at Event Per Participant	190.1500975	
Total Willingness Travel + Time at Event	3993.152047	
Total Organzier Costs	431.4	
Total Actual Participant + Organizer Costs Value	2562.790148	
Total Willing Participant + Organizer Costs Value	4424.552047	

Event 5 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
0.378	0.0167	0.0334
10	0.0833	0.1666
30	0.3333	0.6666
6	0.1667	0.3334
2	0.0667	0.1334
4	0.1667	0.3334
2	0.05	0.1
20	0.1667	0.3334
10	0.25	0.5
2	0.1333	0.2666
70	0.5833	1.1666
10	0.1667	0.3334
4	0.25	0.5
1.8	0.05	0.1
0.1894	0.0167	0.0334
2	0.05	0.1
4	0.0833	0.1666
10	0.1667	0.3334
2	0.083333333	0.166666667
134	1.5	3
30	0.5	1
Organizer Benefit/Organizer Cost	0.173852573	
Actual Value/Organizer Cost	4.940635485	
Willingness Value/Organizer Cost	9.256263438	
Ratio of Actual / Willingness	0.53376133	

Event 5 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
200	400	3
5	10	0.0833
90	180	2
63	126	1.05
20	40	0.3333
30	60	0.5
60	120	1
10	20	0.1667
120	240	2
20	40	0.3333
95	190	1.6833
200	400	3
20	40	0.3333
200	400	3
0.947	1.894	0.1667
10	20	0.166666667
90	180	1.5
60	120	1
15	30	0.25
127	254	2.5
75	150	1.25
Organizer Cost Per Participant	20.54285714	

Event 5 Page 4			
Willingness Round Trip Travel Time (hr)	Additional Travellers	Total Travellers	Standard Cost Per Mile
6	0	1	0.58
0.1666	0	1	0.58
4	0	1	0.58
2.1	0	1	0.58
0.6666	2	3	0.58
1	2	3	0.58
2	1	2	0.58
0.3334	0	1	0.58
4	0	1	0.58
0.6666	1	2	0.58
3.3666	0	1	0.58
6	1	2	0.58
0.6666	1	2	0.58
6	2	3	0.58
0.3334	1	2	0.58
0.333333333	2	3	0.58
3	1	2	0.58
2	0	1	0.58
0.5	1	2	0.58
5	0	1	0.58
2.5	0	1	0.58

Event 5 Page 5				
Weighted Cost Per Mile	Registration Fee	Time at Event (hrs)	Time in Town (Outside Event Hrs)	Other Costs
0.58	25	2	0	0
0.58	0	1.5	0	0
0.58	0	2	0	0
0.58	0	2	0	0
0.193333333	0	1.5	0	0
0.193333333	0	1.5	0	0
0.29	0	1.5	0	0
0.58	25	1.5	0	0
0.58	0	1.5	0	0
0.29	0	1.5	0	0
0.58	0	1.5	0	0
0.29	0	1.5	0	0
0.29	0	1.5	0	0
0.193333333	0	1.5	0	0
0.29	0	1	0	0
0.193333333	12.5	1.5	0	0
0.29	12.5	1.5	0	0
0.58	0	1	0	0
0.29	0	1	0	0
0.58	0	1.5	0	0
0.58	0	1	0	0

Event 5 Page 6						
Work Related? N=1 Y=2	Gender M=1 F=2	Low Age	High Age	Representative Age	Education	Job Classification
1	1	65		66	G- LAW	Environmental Lawyer
2	1	26	35	30.5	G- LAW	Attorney
2	2	26	35	30.5	G- LAW	Attorney
2	1	65		66	G	General Manager
2	2	46	55	50.5	G- LAW	Attorney
2	2	36	45	40.5	G- LAW	Attorney
2	1	46	55	50.5	G- LAW	Attorney
2	2	36	45	40.5	G- LAW	Attorney
2	2	46	55	50.5	G- LAW	Attorney
2	1	26	35	30.5	G- LAW	Attorney
2	2	36	45	40.5	G- LAW	Attorney
2	1	26	35	30.5	G- LAW	Attorney
2	1	36	45	40.5	G- LAW	Attorney
2	2	46	55	50.5	G- LAW	Attorney
2	2	46	55	50.5	G- LAW	Attorney
2	1	56	65	60.5	G- LAW	Attorney
2	2	46	55	50.5	G- LAW	Attorney
2	2	36	45	40.5	B	Environmental Non-Profit Director
1	2	26	35	30.5	G- LAW	Attorney
1	1	26	35	30.5	G- LAW	Attorney
2	1	56	65	60.5	G- LAW	Attorney

Event 5 Page 7		
Annual Average Income	**Hourly Income Average**	**Bureau of Labor Statistics US DEPT OF LABOR**
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer
113040	54.34615385	Oklahoma Mean Wage Lawyer

Event 5 Page 8						
Actual Travel Cost	Time At Event Cost	TC+Time Spent		Willing Travel Cost	Time at Event Cost	WTC+Time Spent
25.82429385	108.6923077	134.5166015		365.6923077	108.6923077	474.3846154
8.818023077	81.51923077	90.33725385		8.818023077	81.51923077	90.33725385
29.47571538	108.6923077	138.1680231		176.8615385	108.6923077	285.5538462
9.519669231	108.6923077	118.2119769		111.1223077	108.6923077	219.8146154
2.803258974	81.51923077	84.32248974		19.80904872	81.51923077	101.3282795
6.813002564	81.51923077	88.33223333		29.71538462	81.51923077	111.2346154
2.391538462	81.51923077	83.91076923		71.03076923	81.51923077	152.55
42.63966923	81.51923077	124.1589		42.63966923	81.51923077	124.1589
14.85769231	81.51923077	96.37692308		211.6615385	81.51923077	293.1807692
5.409561538	81.51923077	86.92879231		23.67571538	81.51923077	105.1949462
61.73340769	81.51923077	143.2526385		171.1872538	81.51923077	252.7064846
8.939669231	81.51923077	90.4589		224.6923077	81.51923077	306.2115385
10.21769231	81.51923077	91.73692308		23.67571538	81.51923077	105.1949462
2.159538462	81.51923077	83.67876923		186.025641	81.51923077	267.5448718
0.659979846	54.34615385	55.00613369		6.588929231	54.34615385	60.93508308
14.69820513	81.51923077	96.2174359		22.40512821	81.51923077	103.924359
16.67802308	81.51923077	98.19725385		119.0461538	81.51923077	200.5653846
11.83966923	54.34615385	66.18582308		105.8307692	54.34615385	160.1769231
3.599230769	54.34615385	57.94538462		17.75769231	54.34615385	72.10384615
132.0661538	81.51923077	213.5853846		237.8969231	81.51923077	319.4161538
35.51538462	54.34615385	89.86153846		132.2884615	54.34615385	186.6346154
21.26949423	80.22527473	101.494769		109.9248228	80.22527473	190.1500975

Event 6 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Norman, Cleveland	2.8
2	Norman, Cleveland	0.1
3	Norman, Cleveland	20
4	Norman, Cleveland	4
5	Norman, Cleveland	12
6	Norman, Cleveland	2
7	Norman, Cleveland	10
Averages		
Number of Participants	7	
Actual Travel Cost Per Participant	10.50764918	
Total Travel Cost	73.55354423	
Actual Travel + Time at Event Per Participant	43.92317115	
Total Actual Travel + Time at Event	307.4621981	
Willingness Travel Cost Per Participant	22.63481731	
Total Willingness Travel Cost Per Participant	158.4437212	
Willingness Travel + Time at Event Per Participant	56.05033929	
Total Willingness Travel + Time at Event	392.352375	
Total Organzier Costs	129.09843	
Total Actual Participant + Organizer Costs Value	436.5606281	
Total Willing Participant + Organizer Costs Value	521.450805	
Response Rate	70%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	0	1
Organizer 2		3
Organizer 3		3
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	129.09843	
Total Participants Registration Fee	0	

Event 6 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
5.6	0.167	0.334
0.2	0.05	0.1
40	0.417	0.834
8	0.167	0.334
24	0.25	0.5
4	0.25	0.5
20	0.25	0.5
14.54285714		0.443142857
Organizer Benefit/Organizer Cost	0	
Actual Value/Organizer Cost	2.381610668	
Willingness Value/Organizer Cost	3.03917232	
Ratio of Actual / Willingness	0.783637918	

Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
2.5	5	0.16667
2.5	5	0.16667
24	48	0.5

Event 6 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
4.2	8.4	0.25
0.1	0.2	0.05
25	50	0.52
24	48	1
42	84	0.875
17	34	0.25
20	40	0.5
	37.8	
Organizer Cost Per Participant	18.44263286	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
0.33334	1	0
0.33334	1	0
1	1	0

Event 6 Page 4			
Willingness Round Trip Travel Time (hr)	Additional Travellers	Total Travellers	Standard Cost Per Mile
0.5	1	2	0.58
0.1	0	1	0.58
1.04	0	1	0.58
2	1	2	0.58
1.75	3	4	0.58
0.5	2	3	0.58
1	1	2	0.58
0.984285714		2.142857143	

Standard Cost Per Mile	Weighted Cost Per Mile	Event Duration (hr)	Registrants
0.58	0.58	1.5	12
0.58	0.58	1.5	
0.58	0.58	1.5	

Event 6 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.29	0	1	0	0
0.58	0	1	0	0
0.58	0	1	0.5	0
0.29	0	1	0.5	0
0.145	0	1	0.5	0
0.193333333	0	1	0	0
0.29	0	1	0	0
0.338333333	0	1		0
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**	
10	0	7.25		
		7.25		
		7.25		

Event 6 Page 6						
Work Related? N=1 Y=2	Gender M=1 F=2	Low Age	High Age	Representative Age	Education	Job Classification
1	1	26	35	30.5	G	Health
1	1	36	45	40.5	G	Professor
1	1	46	55	50.5	G	Farmer/Rancher General Manager
1	1.5	46	55	50.5	G	Student
1	2	36	45	40.5	G	Lawyer
1	2	46	55	50.5	Tech School	Laborer
1	1	56	65	60.5	G	General Manager
				46.21428571		
					Actual Travel Cost	Travel + Preparation + Event Time
					5.316715	23.441715
					5.316715	37.941715
					35.09	67.715
					0	0
					0	0
				Sum	45.72343	129.09843

Event 6 Page 7			
Average Annual Income	**Hourly Income Average**	**OK Dept of Commerce Region Used**	**Source**
68328	32.85	Central Ecosystem Profile	Health General and Operations Management
69770	33.54326923		(Bureau of Labor Statistics) Postsecondary Environmental Science
79456	38.2	Central Ecosystem Profile	Agriculture General and Operations Managers
26590	12.78365385		(Bureau of Labor Statistics) Graduate Teaching Assistant Wage
142130	68.33173077		(Bureau of Labor Statistics) Mena Annual Wage Lawyers
20800	10	Central Ecosystem Profile	Farmworkers and Laborers, Crop, Nursery, and Greenhouse
79456	38.2	Central Ecosystem Profile	General and Operations Managers
69,504	33.41552198		

Event 6 Page 8						
Actual Travel Cost	Time At Event Cost	TC+Time Spent		Willing Travel Cost	Time at Event Cost	WTC+Time Spent
5.2813	32.85	38.1313		7.911	32.85	40.761
1.234108974	33.54326923	34.77737821		1.234108974	33.54326923	34.77737821
33.8196	38.2	72.0196		42.24266667	38.2	80.44266667
3.743246795	12.78365385	16.52690064		22.4424359	12.78365385	35.22608974
14.86862179	68.33173077	83.20035256		52.04017628	68.33173077	120.3719071
2.44	10	12.44		8.24	10	18.24
12.16666667	38.2	50.36666667		24.33333333	38.2	62.53333333
10.50764918	33.41552198	43.92317115		22.63481731	33.41552198	56.05033929

Event 7 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	OKC, Oklahoma County	7
2	Moore, Cleveland	21
3	OKC, Oklahoma County	8
4	El Reno, Canadian	35
5	Morris, Okmulgee County	90
6	Henryetta, Okmulgee	90
7	El Reno, Canadian	35
8	Newkirk, Kay County	112
9	Moore, Cleveland	20
Averages		
Number of Participants	9	
Actual Travel Cost Per Participant	81.73422244	
Total Travel Cost	735.6080019	
Actual Travel + Time at Event Per Participant	186.9223635	
Total Actual Travel + Time at Event	1682.301271	
Willingness Travel Cost Per Participant	141.1791548	
Total Willingness Travel Cost	1270.612393	
Willingness Travel + Time at Event Per Participant	246.3672958	
Total Willingness Travel + Time at Event	2217.305663	
Total Organzier Costs	1300.86218	
Total Actual Participant + Organizer Costs Value	2983.163451	
Total Willing Participant + Organizer Costs Value	3518.167843	
Response Rate	90%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	221.16	20
Organizer 2		9
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	1300.86218	
Total Participants Registration Fee	0	

Event 7 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
14	0.333	0.666
42	0.5	1
16	0.25	0.5
70	0.75	1.5
180	2	4
180	1.5	3
70	0.75	1.5
224	2	4
40	0.667	1.334
132		2.667
Organizer Benefit/Organizer Cost	0	
Actual Value/Organizer Cost	1.293220217	
Willingness Value/Organizer Cost	1.704489297	
Ratio of Actual / Willingness	0.758714191	
Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
5	10	0.25
7	14	0.333

Event 7 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
17	34	0.476
41	82	0.976
72	144	2.25
55	110	1.18
112	224	2.5
240	480	4
55	110	1.18
112	224	2
35	70	0.833
	147	
Organizer Cost Per Participant	144.5402422	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
0.5	1	0
0.666	1	0

Event 7 Page 4			
Willingness Round Trip Travel Time (hr)	**Additional Travellers**	**Total Travellers**	**Standard Cost Per Mile**
0.952	0	1	0.58
1.952	0	1	0.58
4.5	1	2	0.58
2.36	1	2	0.58
5	0	1	0.58
8	0	1	0.58
2.36	1	2	0.58
4	0	1	0.58
1.666	1	2	0.58
2.833		1.5	
Standard Cost Per Mile	**Weighted Cost Per Mile**	**Event Duration (hr)**	**Registrants**
0.58	0.58	6	18
0.58	0.58	6	

Event 7 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.58	0	6	0	0
0.58	0	6	0	0
0.29	0	6	1	0
0.29	0	6	0	0
0.58	0	6	0	0
0.58	0	6	0	0
0.29	0	6	0	0
0.58	0	6	0	0
0.29	0	6	1.5	0
0.435	0	6	0.75	
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**	
10	0	28.85		
		19.23		

Event 7 Page 6						
Work Related? N=1 Y=2	**Gender M=1 F=2**	**Low Age**	**High Age**	**Representative Age**	**Education**	**Job Classification**
2	1	65		66	B	Teacher
2	2	26	35	30.5	B	Teacher
2	2	26	35	30.5	B	Educator
2	2	18	25	21.5	HS	Student
2	2	46	55	50.5	GS	Teacher Librarian
1	2	36	45	40.5	B	Teacher
2	2	18	25	21.5	HS	Student
2	2	56	65	60.5	A	Teacher
2	1	65		66	GS	Teacher
				43.05555556		
					Actual Travel Cost	**Travel + Preparation Time + Event Time**
					20.225	770.325
					20.92718	309.37718

Event 7 Page 7			
Average Annual Income	**Hourly Income Average**	**OK State Dept of Education Region Used**	**Description of Salary Standing**
50579	24.31682692	Oklahoma City School District	25+ Years with a Bachelor's
36825	17.70432692	Moore Public School District	5 Years with a bachelors
35660	17.14423077	Oklahoma City School District	5 Years with a bachelors
15080	7.25	High School STUDENT	Potentially makes minimum wage, over 18 years
45875	22.05528846	Morris Public Schools Okmulgee	25+ Years with Graduate Degree
39,743	19.10721154	Henryetta Public Schools Okmulgee	15+ years with bachleors
15080	7.25	High School STUDENT	Potentially makes minimum wage, over 18 years
31600	15.19230769	Newkirk uses minimum slary schedule	Minimum bachelor's degree beccause has Associates
57745	27.76201923	Moore Public School District	35+ Years with a master's degree

Event 7 Page 8						
Actual Travel Cost	Time At Event Cost	TC+Time Spent		Willing Travel Cost	Time at Event Cost	WTC+Time Spent
24.31500673	145.9009615	170.2159683		42.86961923	145.9009615	188.7705808
42.06432692	106.2259615	148.2902885		82.11884615	106.2259615	188.3448077
13.21211538	102.8653846	116.0775		118.9090385	102.8653846	221.7744231
31.175	43.5	74.675		49.01	43.5	92.51
192.6211538	132.3317308	324.9528846		240.1964423	132.3317308	372.5281731
161.7216346	114.6432692	276.3649038		431.2576923	114.6432692	545.9009615
31.175	43.5	74.675		49.01	43.5	92.51
190.6892308	91.15384615	281.8430769		190.6892308	91.15384615	281.8430769
48.63453365	166.5721154	215.206649		66.55152404	166.5721154	233.1236394

Event 8 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Warr Acres	10
2	Warr Acres Oklahoma County	40
3	Bixby Tulsa County	100
4	Sasakwa	80
5	Sasakwa, Seminole Co	90
Averages		
Number of Participants	5	
Actual Travel Cost Per Participant	94.30423308	
Total Travel Cost	471.5211654	
Actual Travel + Time at Event Per Participant	263.69481	
Total Actual Travel + Time at Event	1318.47405	
Willingness Travel Cost Per Participant	194.1600344	
Total Willingness Travel Cost	970.8001718	
Willingness Travel + Time at Event Per Participant	363.5506113	
Total Willingness Travel + Time at Event	1817.753056	
Total Organzier Costs	2279.1668	
Total Actual Participant + Organizer Costs Value	3597.64085	
Total Willing Participant + Organizer Costs Value	4096.919856	
Response Rate	33%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	555.27	40
Organizer 2		10
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	2279.1668	
Total Participants Registration Fee	0	

Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
20	0.25	0.5
80	0.667	1.334
200	2	4
160	1.5	3
180	1.5	3
170		3
Organizer Benefit/Organizer Cost	0	
Actual Value/Organizer Cost	0.578489494	
Willingness Value/Organizer Cost	0.797551569	
Ratio of Actual / Willingness	0.725331774	

Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
5	10	0.25
7	14	0.33

Event 8 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
30	60	0.75
40	80	0.667
200	400	4
80	160	1.5
350	700	5
	430	
Organizer Cost Per Participant	455.83336	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
0.5	1	0
0.66	1	0

Event 8 Page 4			
Willingness Round Trip Travel Time (hr)	**Additional Travellers**	**Total Travellers**	**Standard Cost Per Mile**
1.5	1	2	0.58
1.334	2	3	0.58
8	0	1	0.58
3	1	2	0.58
10	2	3	0.58
6.5		2.5	

Standard Cost Per Mile	**Weighted Cost Per Mile**	**Event Duration (hr)**	**Registrants**
0.58	0.58	7	23
0.58	0.58	7	

Event 8 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.29	0	7	0	0
0.193333333	0	7	0	0
0.58	0	7	0	0
0.29	0	7	0	0
0.193333333	0	7	0	0
0.241666667	0	7	0	
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**	
15	0	28.85		
		19.23		

Event 8 Page 6					
Work Related? N=1 Y=2	Gender M=1 F=2	Low Age	High Age	Representative Age	Education
2	2	56	65	60.5	B
1	2	65		66	B
2	2	56	65	60.5	B
2	2	46	55	50.5	B
2	2	36	45	40.5	GS
				55.6	
					Actual Travel Cost
					20.225
					20.8118

Event 8 Page 7		
Job Classification	**Average Annual Income**	**Hourly Income Average**
Teacher	56,108	26.975
Retired Teacher	56,108	26.975
NonProfit	55,000	26.44230769
Teacher	43,325	20.82932692
Teacher	41,125	19.77163462
Travel + Preparation + Event Time		
1376.175		
347.7218		

Event 8 Page 8		
OK State Dept of Education Region Used	**Description of Salary Standing**	
Putnam City School District	35+ Years Bachelors	
Putnam City School District	35+ Years Bachelors	
Workforce Data OK Dept Commerce	Tulsa County Average Yearly Income	
Minimum Schedule, used by sasakwa	25+ Years Bachelors	
Minimum Schedule, used by sasakwa	15+ Years Grad Degree	

Event 8 Page 9						
Actual Travel Cost	**Time At Event Cost**	**TC+Time Spent**		**Willing Travel Cost**	**Time at Event Cost**	**WTC+Time Spent**
19.2875	188.825	208.1125		57.8625	188.825	246.6875
27.46155	188.825	216.28655		27.46155	188.825	216.28655
221.7692308	185.0961538	406.8653846		443.5384615	185.0961538	628.6346154
108.8879808	145.8052885	254.6932692		108.8879808	145.8052885	254.6932692
94.11490385	138.4014423	232.5163462		333.0496795	138.4014423	471.4511218

Event 9 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Lawton, Comanche County	7
2	Cache, Comanche County	7
Averages		
Number of Participants	2	
Actual Travel Cost Per Participant	109.7571154	
Total Travel Cost	219.5142308	
Actual Travel + Time at Event Per Participant	109.7571154	
Total Actual Travel + Time at Event	219.5142308	
Willingness Travel Cost Per Participant	93.42410256	
Total Willingness Travel Cost	186.8482051	
Willingness Travel + Time at Event Per Participant	139.0971795	
Total Willingness Travel + Time at Event	278.194359	
Total Organzier Costs	279.96	
Total Actual Participant + Organizer Costs Value	499.4742308	
Total Willing Participant + Organizer Costs Value	558.154359	
Response Rate	67%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	60	2
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	279.96	
Total Participants Registration Fee	330	

Event 9 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
14	0.33	0.66
14	0.33	0.66
14		0.66
Organizer Benefit/Organizer Cost	1.17873982	
Actual Value/Organizer Cost	0.784091409	
Willingness Value/Organizer Cost	0.993693238	
Ratio of Actual / Willingness	0.789067872	
Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
81	162	1.5

Event 9 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
32	64	1.52
27	54	1.28
	59	
Organizer Cost Per Participant	139.98	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
3	1	0

Event 9 Page 4			
Willingness Round Trip Travel Time (hr)	**Additional Travellers**	**Total Travellers**	**Standard Cost Per Mile**
3.04	1	2	0.58
2.56	1	2	0.58
2.8		2	
Standard Cost Per Mile	**Weighted Cost Per Mile**	**Event Duration (hr)**	**Registrants**
0.58	0.58	2	6

Event 9 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.29	55	2	0	0
0.29	55	2	0	0
0.29	55	2	0	
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**	
3	55	18		

Event 9 Page 6						
Work Related? N=1 Y=2	Gender M=1 F=2	Low Age	High Age	Representative Age	Education	Job Classification
1	1	65		66	G	Retired
1	1	65		66	G	Retired
				65		
					Actual Travel Cost	Travel + Preparation + Event Time
					147.96	219.96

Event 9 Page 7			
Average Annual Income	**Hourly Income Average**	**OK Dept of Commerce Region Used**	**Central Ecosystem Profile (Oklahoma Dept of Commerce)**
47500	22.83653846	Southwestern	Average Income by Scientific/Technical Insdustry
47500	22.83653846	Southwestern	Average Income by Scientific/Technical Insdustry

Event 9 Page 8						
Actual Travel Cost	**Time At Event Cost**	**TC+Time Spent**		**Willing Travel Cost**	**Time at Event Cost**	**WTC+Time Spent**
64.08403846	45.67307692	109.7571154		96.70102564	45.67307692	142.3741026
64.08403846	45.67307692	109.7571154		90.14717949	45.67307692	135.8202564

Event 10 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Bartlesville, Washington County	50
2	Tulsa, Tulsa County	10
3	Tulsa, Tulsa County	15
4	Tulsa, Tulsa County	8
5	Tulsa, Tulsa County	10
6	Tulsa, Tulsa County	4.8
7	Tulsa, Tulsa County	5
8	Broken Arrow, Wagoner County	20
9	Owasso, Tulsa County	20
10	Stratford, Garvin County	120
11	Stratford, Garvin County	120
12	Tulsa, Tulsa County	10
13	Tulsa, Tulsa County	8
14	Okmulgee, Okmulgee County	35
15	Okemah, Okfuskee County	60
16	Norman, Cleveland	105
17	Broken Arrow, Wagoner County	25
18	Tulsa, Tulsa County	8
19	Tulsa, Creek County	4.6
20	Tulsa, Tulsa County	10
21	Tulsa, Tulsa County	6
22	Tulsa, Tulsa County	6
23	Bristow, Creek County	30
24	Beggs, Okmulgee County	40
25	Tulsa, Tulsa County	10

Event 10 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
100	1	2
20	0.25	0.5
30	0.33	0.66
16	0.33	0.66
20	0.5	1
9.6	0.112	0.224
10	0.166	0.332
40	0.5	1
40	0.33	0.66
240	3	6
240	2	4
20	0.25	0.5
16	0.25	0.5
70	0.75	1.5
120	1	2
210	1.9167	3.8334
50	0.4167	0.8334
16	0.2	0.4
9.2	0.133	0.266
20	1.1667	2.3334
12	0.1667	0.3334
12	0.25	0.5
60	0.5	1
80	0.667	1.334
20	0.25	0.5

Event 10 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
100	200	2
33.33	66.66	0.75
60	120	1.15
25	50	2.08
40	80	0.666
64.8	129.6	1.575
5	10	0.166
80	160	2
20	40	0.33
160	320	4
180	360	3
40	80	1.25
32	64	1
58.33	116.66	1.25
60	120	1
105	210	1.9167
100	200	1.667
68	136	1.7
14.6	29.2	0.41
60	120	1
72	144	2
16	32	0.6667
60	120	1
60	120	1
20	40	0.5

Event 10 Page 4			
Willingness Round Trip Travel Time (hr)	Additional Travellers	Total Travellers	Standard Cost Per Mile
4	0	1	0.58
1.5	0	1	0.58
2.3	0	1	0.58
4.16	0	1	0.58
1.332	0	1	0.58
3.15	0	1	0.58
0.332	0	1	0.58
4	0	1	0.58
0.66	1	2	0.58
8	1	2	0.58
6	2	3	0.58
2.5	1	2	0.58
2	1	2	0.58
2.5	1	2	0.58
2	1	2	0.58
3.8334	0	1	0.58
3.334	0	1	0.58
3.4	1	2	0.58
0.82	0	1	0.58
2	0	1	0.58
4	0	1	0.58
1.3334	0	1	0.58
2	0	1	0.58
2	0	1	0.58
1	0	1	0.58

Event 10 Page 5				
Weighted Cost Per Mile	Registration Fee	Time at Event (hrs)	Time in Town (Outside Event Hrs)	Other Costs
0.58	35	14	0	0
0.58	25	8	0	0
0.58	15	8	0	0
0.58	25	7	0	0
0.58	15	8	0	0
0.58	25	16	0	0
0.58	25	16	0	0
0.58	25	16	0	0
0.29	25	17	0	0
0.29	25	16	0	100
0.193333333	25	16	0	100
0.29	25	14	0	10
0.29	25	8	0	0
0.29	25	16	0	0
0.29	25	16	0	0
0.58	25	16	0	200
0.58	25	8	0	0
0.29	25	8	0	0
0.58	25	16	0	0
0.58	25	16	0	0
0.58	25	16	0	0
0.58	25	16	0	0
0.58	25	16	0	0
0.58	35	16	0	0
0.58	25	14	0	0

Event 10 Page 6						
Work Related? N=1 Y=2	Gender M=1 F=2	Low Age	High Age	Representative Age	Education	Job Classification
1	1	56	65	60.5	HS	Maintenance Worker
2	1	56	65	60.5	GS	Geoscientist
2	2	18	25	21.5	B	University Recruiter
1	1	65		66	GS	Retired
2	2	36	45	40.5	B	Manager of Education
2	2	26	35	30.5	BS	Educator
2	1	36	45	40.5	GS	Teacher
2	2	36	45	40.5	B	Teacher
1	2	18	25	21.5	B	Graduate Student
1	2	18	18	18	HS	HS Student
1	1	36	45	40.5	B	Self Employed Environmental Scientist
2	2	26	35	30.5	B	Environmental Scientist
1	2	46	55	50.5	GS	Self Employed
2	2	46	55	50.5	B	Conservationist
1	2	46	55	50.5	B	Educator
1	2	46	55	50.5	Some College	Student
2	2	46	55	50.5	GS	Environmental Educator/ Naturalist
2	2	18	25	21.5	A	Hairstylist & Student
2	2	36	45	40.5	GS	Educator
2	2	46	55	50.5	GS	Educator
2	2	26	35	30.5	GS	Teacher
2	2	26	35	30.5	B	Teacher
2	2	36	45	40.5	B	Teacher
2	2	26	35	30.5	B	Environmental Scientist
2	2	36	45	40.5	GS	Teacher

Event 10 Page 7			
Average Annual Income	**Hourly Income Average**	**OK Dept of Commerce Region Used**	**Profile Used**
33966.4	16.33	OK DEPT COMM: Tulsa Metro	Maintenance Worker
75000	36.05769231	OK DEPT COMM: Tulsa Metro	Average Income Professional, Scientific and Technical Services
55000	26.44230769	OK DEPT COMM: Tulsa Metro	Tulsa Metro Average Income
55000	26.44230769	OK DEPT COMM: Tulsa Metro	Tulsa Metro Average Income
55000	26.44230769	OK DEPT COMM: Tulsa Metro	Tulsa Metro Average Income
35900	17.25961538	Oklahoma Teacher Salary Schedule Tulsa-Tulsa	Teacher 5 Years, Bachelors
43844	21.07884615	Oklahoma Teacher Salary Schedule Tulsa-Tulsa	Teacher 15 Years, Masters
39959	19.21105769	Oklahoma Teacher Salary Schedule -Broken Arrow	Teacher 15 Years Bachelors
26590	12.78365385	(Bureau of Labor Statistics)	Graduate Teaching Assistant Wage
15080	7.25	Minimum Wage	High School Student 18+
50000	24.03846154	OK DEPT COMM: Southern	Average Income Professional, Scientific and Technical Services
75000	36.05769231	OK DEPT COMM: Tulsa Metro	Average Income Professional, Scientific and Technical Services
55000	26.44230769	OK DEPT COMM: Tulsa Metro	Tulsa Metro Average Income
42000	20.19230769	OK DEPT COMM Region: East Central	Average Income Professional, Scientific and Technical Services
43325	20.82932692	Oklahoma Teacher Salary Schedule	Teacher 25+ Years Experience, Bachelor's Min. Salary
15080	7.25	Minimum Wage	College Student, no bachelors
75000	36.05769231	OK DEPT COMM: Tulsa Metro	Average Income Professional, Scientific and Technical Services
55000	26.44230769	OK DEPT COMM: Tulsa Metro	Tulsa Metro Average Income
40700	19.56730769	Oklahoma Teacher Salary Schedule	Teacher 15 Years Experience, Master's Min Salary
52044	25.02115385	Oklahoma Teacher Salary Schedule Tulsa-Tulsa	Teacher 25 Years, Masters
37094	17.83365385	Oklahoma Teacher Salary Schedule Tulsa-Tulsa	Teacher 5 Years, Masters
35900	17.25961538	Oklahoma Teacher Salary Schedule Tulsa-Tulsa	Teacher 5 Years, Bachelors
39841	19.15432692	Oklahoma Teacher Salary Schedule Creek/Bristow	Teacher 15 Years Experience, Bachelors
42000	20.19230769	OK DEPT COMM Region: East Central	Average Income Professional, Scientific and Technical Services
43844	21.07884615	Oklahoma Teacher Salary Schedule Tulsa-Tulsa	Teacher 15 Years Experience, Master's

Event 10 Page 8						
Actual Travel Cost	**Time At Event Cost**	**TC+Time Spent**		**Willing Travel Cost**	**Time at Event Cost**	**WTC+Time Spent**
103.8866667	228.62	332.5066667		172.7733333	228.62	401.3933333
54.62884615	288.4615385	343.0903846		81.69164615	288.4615385	370.1531846
49.85192308	211.5384615	261.3903846		104.8724359	211.5384615	316.4108974
40.09730769	185.0961538	225.1934615		90.66666667	185.0961538	275.7628205
53.04230769	211.5384615	264.5807692		73.14038462	211.5384615	284.6788462
34.43415385	276.1538462	310.588		118.2905962	276.1538462	394.4444423
37.79817692	337.2615385	375.0597154		33.13272564	337.2615385	370.3942641
67.41105769	307.3769231	374.7879808		143.4147436	307.3769231	450.7916667
39.41240385	217.3221154	256.7345192		39.41240385	217.3221154	256.7345192
209.1	116	325.1		237.1333333	116	353.1333333
203.4512821	384.6153846	588.0666667		242.6769231	384.6153846	627.2923077
58.82884615	504.8076923	563.6365385		88.24807692	504.8076923	593.0557692
34.04705128	211.5384615	245.5855128		61.18820513	211.5384615	272.7266667
75.58846154	323.0769231	398.6653846		75.65832308	323.0769231	398.7352462
73.68621795	333.2692308	406.9554487		73.68621795	333.2692308	406.9554487
356.06405	116	472.06405		356.06405	116	472.06405
84.05048077	288.4615385	372.5120192		181.0721154	288.4615385	469.5336538
40.21692308	211.5384615	251.7553846		94.40794872	211.5384615	305.9464103
35.54090385	313.0769231	348.6178269		47.28439744	313.0769231	360.3613205
94.98436038	400.3384615	495.3228219		111.2807692	400.3384615	511.6192308
37.90574019	285.3384615	323.2442017		132.2982051	285.3384615	417.6366667
40.58980769	276.1538462	316.7436538		51.23132372	276.1538462	327.3851699
78.95432692	306.4692308	385.4235577		107.3695513	306.4692308	413.8387821
108.3365385	323.0769231	431.4134615		118.0615385	323.0769231	441.1384615
47.13942308	295.1038462	342.2432692		55.22628205	295.1038462	350.3301282

Event 10 Page 9		
Number of Participants	25	
Actual Travel Cost Per Participant	82.36189028	
Total Travel Cost	2059.047257	
Actual Travel + Time at Event Per Participant	360.4512672	
Total Actual Travel + Time at Event	9011.28168	
Willingness Travel Cost Per Participant	115.6112879	
Total Willingness Travel Cost Per Participant	2890.282197	
Willingness Travel + Time at Event Per Participant	393.7006648	
Total Willingness Travel + Time at Event	9842.51662	
Total Organzier Costs	5277.38	
Total Actual Participant + Organizer Costs Value	14288.66168	
Total Willing Participant + Organizer Costs Value	15119.89662	
Response Rate	89%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	1423.5	25
Organizer 2		0
Organizer 3		0
Organizer 4		0
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	5277.38	
Total Participants Registration Fee	850	

Event 10 Page 10		
Organizer Benefit/Organizer Cost	0.161064771	
Actual Value/Organizer Cost	1.707529433	
Willingness Value/Organizer Cost	1.865038451	
Ratio of Actual / Willingness	0.915546504	

Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
392	784	1.5
784	1568	3
15	30	0.25
127	254	1.25

Event 10 Page 11		
Organizer Cost Per Participant	211.0952	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
3	1	0
6	1	0
0.5	1	0
2.5	1	0

Event 10 Page 12			
Standard Cost Per Mile	**Weighted Cost Per Mile**	**Event Duration (hr)**	**Registrants**
0.58	0.58	8	34
0.58	0.58	16	
0.58	0.58	16	
0.58	0.58	16	

Event 10 Page 13			
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**
28	25	25	
		25	
		25	
		25	

Event 10 Page 14		
Actual Travel Cost	**Travel + Preparation + Event Time**	
529.72	1354.72	
1059.44	1459.44	
29.9	429.9	
209.82	609.82	

Event 11 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	OKC, Oklahoma County	80
2	Jones, Oklahoma County	90
3	OKC, Oklahoma County	80
4	Ada, Pontotoc County	120
5	Indiahoma, OK Comanche County	30
6	Lawton, Comanche County	10
7	Elgin, Comanche County	30
8	Lawton, Comanche County	2
9	Altus, Jackson County	50
10	Yukon, Canadian County	83
11	OKC Nichols Hills, Oklahoma County	90
Averages		
Number of Participants	11	
Actual Travel Cost Per Participant	306.3676538	
Total Travel Cost	3370.044191	
Actual Travel + Time at Event Per Participant	524.4834579	
Total Actual Travel + Time at Event	5769.318037	
Willingness Travel Cost Per Participant	398.2290367	
Total Willingness Travel Cost Per Participant	4380.519404	
Willingness Travel + Time at Event Per Participant	616.3448409	
Total Willingness Travel + Time at Event	6779.79325	
Total Organzier Costs	470.8	
Total Actual Participant + Organizer Costs Value	6240.118037	
Total Willing Participant + Organizer Costs Value	7250.59325	
Response Rate	100%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	0	10
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	470.8	
Total Participants Registration Fee	2200	

Event 11 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
160	1.5	3
180	1.5	3
160	1.5	3
240	2	4
60	0.5	1
20	0.25	0.5
60	0.5	1
4	0.083	0.166
100	1	2
166	1.5	3
180	1.5	3
Organizer Benefit/Organizer Cost	4.672897196	
Actual Value/Organizer Cost	12.2542864	
Willingness Value/Organizer Cost	14.40058039	
Ratio of Actual / Willingness	0.850957813	
Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
80	160	1.5

Event 11 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
236	472	3.5
150	300	2.5
80	160	1.5
120	240	2
60	120	1
350	700	5.833
120	240	2
102	204	4.25
138	276	3
100	200	1.76
210	420	3.5
Organizer Cost Per Participant	42.8	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
3	1	0

Event 11 Page 4			
Willingness Round Trip Travel Time (hr)	Additional Travellers	Total Travellers	Standard Cost Per Mile
7	2	3	0.58
5	2	3	0.58
3	2	3	0.58
4	0	1	0.58
2	0	1	0.58
11.666	2	3	0.58
4	0	1	0.58
8.5	2	3	0.58
6	0	1	0.58
3.52	0	1	0.58
7	1	2	0.58
Standard Cost Per Mile	Weighted Cost Per Mile	Event Duration (hr)	Registrants
0.58	0.58	8	11

Event 11 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.193333333	200	8	1	0
0.193333333	200	8	0	0
0.193333333	200	8	1	0
0.58	200	8	0	0
0.58	200	8	0	0
0.193333333	200	8	0	0
0.58	200	8	0	0
0.193333333	200	8	0	0
0.58	200	8	0	0
0.58	200	8	0	0
0.29	200	8	0	0
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**	
11	200	18		

Event 11 Page 6						
Work Related? N=1 Y=2	Gender M=1 F=2	Low Age	High Age	Representative Age	Education	Job Classification
2	1	26	35	30.5	B	Environmental Scientist/Engineer
2	1	18	25	21.5	B	Environmental Scientist
2	2	26	35	30.5	GS	Environmental Scientist
2	2	46	55	50.5	HS	Environmental Specialist
2	2	26	35	30.5	GS	Environmental Scientist
2	1	56	65	60.5	HS	Inspector
2	2	36	45	40.5	B	Environmental Scientist
2	1	65		65	B	Civil Engineer
2	1	46	55	50.5	B	Civil Engineer
2	2	46	55	50.5	GS	Stormwater Program Manager
2	2	56	65	60.5	GS	Environmental Scientist/Geoscientist/Hydrologist
					Actual Travel Cost	Travel + Preparation + Event Time
					146.8	470.8

Event 11 Page 7			
Average Annual Income	**Average Hourly Income**	**OK Dept of Commerce Region Used**	**Central Ecosystem Profile (Oklahoma Dept of Commerce)**
46904	22.55	Central Oklahoma	Env. Scientist/Specialists
46904	22.55	Central Oklahoma	Env. Scientist/Specialists
46904	22.55	Central Oklahoma	Env. Scientist/Specialists
46000	22.11538462	Southern Oklahoma	Avg Earning by Industry: Professional Scientific and Technical Services
48000	23.07692308	Southwestern Oklahoma	Avg Earning by Industry: Professional Scientific and Technical Services
29140.8	14.01	Southwestern Oklahoma	Inspectors, Testers, Sorters, Samplers & Weighers
48000	23.07692308	Southwestern Oklahoma	Avg Earning by Industry: Professional Scientific and Technical Services
76523.2	36.79	Southwestern Oklahoma	Industrial Engineers
76523.2	36.79	Southwestern Oklahoma	Industrial Engineers
79456	38.2	Central Oklahoma	General/Operations Managers (Graduate Degree)
79456	38.2	Central Oklahoma	General/Operations Managers (Graduate Degree)

Event 11 Page 8						
Actual Travel Cost	Time At Event Cost	TC+Time Spent		Willing Travel Cost	Time at Event Cost	WTC+Time Spent
298.5833333	180.4	478.9833333		388.7833333	180.4	569.1833333
302.45	180.4	482.85		347.55	180.4	527.95
298.5833333	180.4	478.9833333		298.5833333	180.4	478.9833333
427.6615385	176.9230769	604.5846154		427.6615385	176.9230769	604.5846154
257.8769231	184.6153846	442.4923077		280.9538462	184.6153846	465.5692308
210.8716667	112.08	322.9516667		367.3073267	112.08	479.3873267
257.8769231	184.6153846	442.4923077		327.1076923	184.6153846	511.7230769
206.8804733	294.32	501.2004733		513.4883333	294.32	807.8083333
331.58	294.32	625.9		478.74	294.32	773.06
410.88	305.6	716.48		430.744	305.6	736.344
366.8	305.6	672.4		519.6	305.6	825.2

Event 12 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Norman, Cleveland County	3
2	Lexington, Cleveland County	40
3	Oklahoma County	25
4	Midwest City, Oklahoma County	20
5	Midwest City, Oklahoma County	50
6	Norman, Cleveland County	5
7	Edmond, Oklahoma City	50
8	Norman, Cleveland County	10
9	Edmond, Oklahoma City	37
10	Midwest City, Oklahoma County	30
11	Quapaw, OK, Ottawa County	215
12	Miami, OK, Ottawa County	204.7
13	Edmond, Oklahoma City	32.4
14	Midwest City, Oklahoma County	30
15	Anadarko, Caddo County	55
Averages		
Number of Participants	15	
Actual Travel Cost Per Participant	274.7511611	
Total Travel Cost	4121.267417	
Actual Travel + Time at Event Per Participant	628.4250073	
Total Actual Travel + Time at Event	9426.375109	
Willingness Travel Cost Per Participant	375.9632928	
Total Willingness Travel Cost Per Participant	5639.449391	
Willingness Travel + Time at Event Per Participant	729.6371389	
Total Willingness Travel + Time at Event	10944.55708	
Total Organzier Costs	635	
Total Actual Participant + Organizer Costs Value	10061.37511	
Total Willing Participant + Organizer Costs Value	11579.55708	
Response Rate	100%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	635	25
Organizer 2		25
Organizer 3		3
Organizer 4		3
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	2183.2764	
Total Participants Registration Fee	2625	

Event 12 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
6	0.25	0.5
80	0.75	1.5
50	0.667	1.334
40	0.583	1.166
100	0.833	1.666
10	0.25	0.5
100	1	2
20	0.33	0.66
74	1	2
60	0.5	1
430	3.5	7
409.4	3	6
64.8	0.75	1.5
60	0.833	1.666
110	0.917	1.834
Organizer Benefit/Organizer Cost	1.202321428	
Actual Value/Organizer Cost	4.3175363	
Willingness Value/Organizer Cost	5.012904955	
Ratio of Actual / Willingness	0.861284293	
Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
4	8	0.0833
4	8	0.0833
4	8	0.0833

Event 12 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
75	150	1.25
90	180	1.688
45	90	1.2
120	240	3.5
50	100	0.833
5	10	0.25
50	100	1
50	100	1.33
74	148	2
90	180	1.5
450	900	4.5
204.7	409.4	3
350	700	5.833
350	700	5.833
55	110	0.917
Organizer Cost Per Participant	42.33333333	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
0.1666	2	0
0.1666	2	
0.1666	1	

Event 12 Page 4			
Willingness Round Trip Travel Time (hr)	Additional Travellers	Total Travellers	Standard Cost Per Mile
2.5	0	1	0.58
3.376	0	1	0.58
2.4	3	4	0.58
7	0	1	0.58
1.666	3	4	0.58
0.5	0	1	0.58
2	2	3	0.58
2.66	0	1	0.58
4	2	3	0.58
3	4	5	0.58
9	1	2	0.58
6	1	2	0.58
11.666	3	4	0.58
11.666	3	4	0.58
1.834	0	1	0.58
Standard Cost Per Mile	Weighted Cost Per Mile	Event Duration (hr)	Registrants
0.58	0.29	14	15
0.58	0.29	14	
0.58	0.58	4	

Event 12 Page 5				
Weighted Cost Per Mile	Registration Fee	Time at Event (hrs)	Time in Town (Outside Event Hrs)	Other Costs
0.58	175	16	0	0
0.58	175	16	0	0
0.145	175	16	0	0
0.58	175	16	0	0
0.145	175	16	0	0
0.58	175	16	0	0
0.193333333	175	16	0	0
0.58	175	16	0	0
0.193333333	175	8	0	0
0.116	175	16	0	0
0.29	175	16	0	0
0.29	175	16	0	300
0.145	175	16	0	0
0.145	175	16	0	0
0.58	175	16	0	0
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**	
15	175	18		
		18		
		18		

Event 12 Page 6						
Work Related? N=1 Y=2	**Gender M=1 F=2**	**Low Age**	**High Age**	**Representative Age**	**Education**	**Job Classification**
2	2	18	25	21.5	B	Environmental Scientist/Hydrologist
2	2	36	45	40.5	HS	Stormwater Inspector
2	1	26	35	30.5	B	Environmental Scientist/Stormwater Tech
2	2	26	35	30.5	HS	Environmental Tech
2	2	26	35	30.5	B	Environmental Scientist
2	1	26	35	30.5	HS	Environmental Scientist
2	1	46	55	50.5	GS	Civil Engineer
2	1	26	35	30.5	GS	Hydrologist
2	2	26	35	30.5	GS	Water Quality Specialist
2	1	18	25	21.5	A	Stormwater Quality Technician
2	2	18	25	21.5	B	Environmental Scientist
2	2	18	25	21.5	B	Environmental Scientist
2	2	26	35	30.5	B	Water Specialist
2	1	36	45	40.5	A	Environmental Specialist
2	1	26	35	30.5	HS	Environmental Scientist
						Actual Travel Cost
						5.3188
						5.3188
						7.6388

Event 12 Page 7			
Annual Average Income	Hourly Income Average	OK Dept of Commerce Region Used	Central Ecosystem Profile (Oklahoma Dept of Commerce)
46904	22.55	Central Oklahoma	Environmental Scientists and Specialists
24835.2	11.94	Central Oklahoma	Inspectors, Testers, Sorters, Samplers & Weighers
46904	22.55	Central Oklahoma	Environmental Scientists and Specialists
24835.2	11.94	Central Oklahoma	Inspectors, Testers, Sorters, Samplers & Weighers
46904	22.55	Central Oklahoma	Environmental Scientists and Specialists
24835.2	11.94	Central Oklahoma	Inspectors, Testers, Sorters, Samplers & Weighers
72550.4	34.88	Central Oklahoma	Civil Engineers
79456	38.2	Central Oklahoma	General & Operations Managers: Grad Degree
79456	38.2	Central Oklahoma	General & Operations Managers: Grad Degree
46904	22.55	Central Oklahoma	Inspectors, Testers, Sorters, Samplers & Weighers
47000	22.59615385	Eastern Oklahoma	Average Income: Professional Scientific and Tech Services
47000	22.59615385	Eastern Oklahoma	Average Income: Professional Scientific and Tech Services
46904	22.55	Central Oklahoma	Environmental Scientists and Specialists
46904	22.55	Central Oklahoma	Environmental Scientists and Specialists
48000	23.07692308	Southwestern Oklahoma	Average Income: Professional Scientific and Tech Services
Travel + Preparation + Event Time			
707.3188			
707.3188			
133.6388			

Event 12 Page 8						
Actual Travel Cost	Time At Event Cost	TC+Time Spent		Willing Travel Cost	Time at Event Cost	WTC+Time Spent
189.755	360.8	550.555		318.375	360.8	679.175
239.31	191.04	430.35		319.70944	191.04	510.74944
212.3317	360.8	573.1317		242.17	360.8	602.97
212.12204	191.04	403.16204		397.78	191.04	588.82
227.0683	360.8	587.8683		227.0683	360.8	587.8683
186.77	191.04	377.81		186.77	191.04	377.81
264.0933333	558.08	822.1733333		264.0933333	558.08	822.1733333
211.812	611.2	823.012		334.612	611.2	945.812
265.7066667	305.6	571.3066667		356.4133333	305.6	662.0133333
204.51	360.8	565.31		263.53	360.8	624.33
457.8730769	361.5384615	819.4115385		639.3653846	361.5384615	1000.903846
729.3029231	361.5384615	1090.841385		729.3029231	361.5384615	1090.841385
218.221	360.8	579.021		539.5683	360.8	900.3683
221.2683	360.8	582.0683		539.5683	360.8	900.3683
281.1230769	369.2307692	650.3538462		281.1230769	369.2307692	650.3538462

Event 13 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Yukon, Canadian County	8
2	Yukon, Canadian County	5
3	Bethany, Oklahoma County	8
4	Bethany, Oklahoma County	8
5	Bethany, Oklahoma County	15
6	Bethany, Oklahoma County	15
7	Yukon, Canadian County	6
8	Bethany, Oklahoma County	10
Averages		
Number of Participants	8	
Actual Travel Cost Per Participant	63.16410722	
Total Travel Cost	505.3128578	
Actual Travel + Time at Event Per Participant	94.33593414	
Total Actual Travel + Time at Event	754.6874732	
Willingness Travel Cost Per Participant	78.00817494	
Total Willingness Travel Cost Per Participant	624.0653995	
Willingness Travel + Time at Event Per Participant	109.1800019	
Total Willingness Travel + Time at Event	873.4400149	
Total Organzier Costs	539.732	
Total Actual Participant + Organizer Costs Value	1294.419473	
Total Willing Participant + Organizer Costs Value	1413.172015	
Response Rate	100%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	280	2.5
Organizer 2		2.5
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	539.732	
Total Participants Registration Fee	550	

Event 13 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
16	0.25	0.5
10	0.1667	0.3334
16	0.1667	0.3334
16	0.1667	0.3334
30	0.333	0.666
30	0.33	0.66
12	0.1667	0.3334
20	0.333	0.666
Organizer Benefit/Organizer Cost	1.019024256	
Actual Value/Organizer Cost	1.398263348	
Willingness Value/Organizer Cost	1.618284658	
Ratio of Actual / Willingness	0.864040415	
Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
37.7	75.4	0.75
37.7	75.4	0.75

Event 13 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
16	32	0.5
25	50	0.833
23	46	0.479
44	88	0.9167
45	90	1
45	90	1
6	12	0.1667
25	50	0.833
Organizer Cost Per Participant	67.4665	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
1.5	2	0
1.5	2	0

Event 13 Page 4			
Willingness Round Trip Travel Time (hr)	**Additional Travellers**	**Total Travellers**	**Standard Cost Per Mile**
1	0	1	0.58
1.666	1	2	0.58
0.958	1	2	0.58
1.8334	1	2	0.58
2	2	3	0.58
2	2	3	0.58
0.3334	0	1	0.58
1.666	1	2	0.58
Standard Cost Per Mile	**Weighted Cost Per Mile**	**Event Duration (hr)**	**Registrants**
0.58	0.29	2	10
0.58	0.29	2	10

Event 13 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.58	55	2	0	0
0.29	55	2	0	0
0.29	55	2	0	0
0.29	55	2	0	0
0.193333333	55	2	0	0
0.193333333	55	2	0	0
0.58	55	2	0	0
0.29	55	2	0	0
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**	
8	55	18		
8		18		

Event 13 Page 6						
Work Related? N=1 Y=2	**Gender M=1 F=2**	**Low Age**	**High Age**	**Representative Age**	**Education**	**Job Classification**
1	2	36	45	40.5	B	Teacher
1	1	36	45	40.5	GS	Medical
1	1	56	65	60.5	HS	Retired
1	2	46	55	50.5	B	Medical Billing
1	2	65		66	GS	Not Employed
1	2	65		66	HS	Not Employed
1	2	56	65	60.5	BS	Caregiver
1	2	36	45	40.5	BS	Accountant
						Actual Travel Cost
						48.866
						48.866

Event 13 Page 7			
Average Annual Income	Hourly Income Average	Region Used	Central Ecosystem Profile (Oklahoma Dept of Commerce)
43336	20.83461538	Yukon School District Teacher Salaries Schedule	Bachleor's + 15 years of experience
25126.4	12.08	OK DEPT of Commerce: Central	Medical Assistants
55500	26.68269231	OK DEPT of Commerce: Central	Oklahoma County Average Income
28537.6	13.72	OK DEPT of Commerce: Central	Medical Records and Health Information Technicians
15080	7.25	OK DEPT of Commerce: Central	Unemployed
15080	7.25	OK DEPT of Commerce: Central	Unemployed
22547.2	10.84	OK DEPT of Commerce: Central	Home Health Aides
54142.4	26.03	OK DEPT of Commerce: Central	Accountant Wages
Travel + Preparation + Event Time			
129.866			
129.866			

Event 13 Page 8						
Actual Travel Cost	Time At Event Cost	TC+Time Spent		Willing Travel Cost	Time at Event Cost	WTC+Time Spent
67.7524359	41.66923077	109.4216667		80.50487179	41.66923077	122.1741026
59.24249067	24.16	83.40249067		76.20842667	24.16	100.3684267
62.60533654	53.36538462	115.9707212		76.86067308	53.36538462	130.2260577
61.16474933	27.44	88.60474933		88.90474933	27.44	116.3447493
62.4095	14.5	76.9095		77.23333333	14.5	91.73333333
62.395	14.5	76.895		77.23333333	14.5	91.73333333
63.16468533	21.68	84.84468533		63.16468533	21.68	84.84468533
66.57866	52.06	118.63866		83.95532667	52.06	136.0153267

Event 14 Page 1		
Participant	Residence	Distance Travelled (mi)
1	Ardmore, Carter County	2
2	Ardmore, Carter County	3
3	Ardmore, Carter County	4
4	Carter County	3.5
5	Ardmore, Carter County	1
6	Madill, Marshall County	10
7	Madill, Marshall County	20
8	Ardmore, Carter County	1
9	Ardmore, Carter County	10
10	Ardmore, Carter County	6
11	Marietta, Love County	20
12	Ardmore, Carter County	20
13	Ardmore, Carter County	5
14	Ardmore, Carter County	5
15	Marietta, Love County	20
16	Marietta, Love County	15
17	Ardmore, Carter County	3
18	Ardmore, Carter County	3
19	Lebanon OK, Marshall County	27
20	Marietta, Love County	10
21	Dickson, Carter County	3
22	Ardmore, Carter County	2
23	Lone Grove, Carter County	17
24	Ardmore, Carter County	2
25	Ardmore, Carter County	18
26	Ardmore, Carter County	2
27	Ardmore, Carter County	1.5
28	Ardmore, Carter County	5
29	Ardmore, Carter County	5
30	Ardmore, Carter County	5
31	Ardmore, Carter County	3
32	Durant, Bryan County	51.2

Event 14 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
4	0.083	0.166
6	0.083	0.166
8	0.15	0.3
7	0.05	0.1
2	0.0833	0.1666
20	0.333	0.666
40	0.33	0.66
2	0.0833	0.1666
20	0.25	0.5
12	0.1667	0.3334
40	0.5	1
40	0.5	1
10	0.1667	0.3334
10	0.11667	0.23334
40	0.4167	0.8334
30	0.333	0.666
6	0.0833	0.1666
6	0.1667	0.3334
54	0.533	1.066
20	0.333	0.666
6	0.16667	0.33334
4	0.16667	0.33334
34	0.5	1
4	0.0833	0.1666
36	0.333	0.666
4	0.25	0.5
3	0.1333	0.2666
10	0.25	0.5
10	0.25	0.5
10	0.1667	0.3334
6	0.1	0.2
102.4	1	2

Event 14 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
150	300	2.5
3	6	0.083
15.11	30.22	0.5667
123.5	247	1.76
60	120	1
10	20	0.333
65	130	1.083
6	12	0.5
50	100	1.25
6	12	0.1667
314	628	7.85
20	40	0.5
5	10	0.1667
5	10	0.11667
40	80	0.833
35	70	0.778
21	42	0.58333
33	66	0.55
77.625	155.25	1.533
10	20	0.333
103	206	1.716
122	244	2.033
37	74	1.088
2	4	0.0833
18	36	0.333
2	4	0.25
16.5	33	0.275
5	10	0.25
25	50	0.41667
20	40	0.6667
3	6	0.1
51.2	102.4	1

Event 14 Page 4			
Willingness Round Trip Travel Time (hr)	Additional Travellers	Total Travellers	Standard Cost Per Mile
5	0	1	0.58
0.166	2	3	0.58
1.1334	0	1	0.58
3.52	0	1	0.58
2	2	3	0.58
0.666	1	2	0.58
2.166	1	2	0.58
1	1	2	0.58
2.5	2	3	0.58
0.3334	0	1	0.58
15.7	2	3	0.58
1	1	2	0.58
0.3334	2	3	0.58
0.23334	1	2	0.58
1.666	1	2	0.58
1.556	1	2	0.58
1.16666	0	1	0.58
1.1	1	2	0.58
3.066	0	1	0.58
0.666	2	3	0.58
3.432	0	1	0.58
4.066	1	2	0.58
2.176	0	1	0.58
0.1666	1	2	0.58
0.666	1	2	0.58
0.5	1	2	0.58
0.55	2	3	0.58
0.5	1	2	0.58
0.83334	1	2	0.58
1.3334	1	2	0.58
0.2	0	1	0.58
2	0	1	0.58

Event 14 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.58	0	2	0	0
0.193333333	0	2	0	0
0.58	0	2	0	0
0.58	0	2	0	0
0.193333333	0	2	0	0
0.29	0	2	1	0
0.29	0	2	1	0
0.29	0	2	0	0
0.193333333	0	2	0	0
0.58	0	2	0	0
0.193333333	0	2	0	0
0.29	0	2	0	0
0.193333333	0	2	0	0
0.29	0	2	0	0
0.29	0	2	0	0
0.29	0	2	1	0
0.58	0	2	0	0
0.29	0	2	0	0
0.58	0	2	0	0
0.193333333	0	2	0	0
0.58	0	2	0	0
0.29	0	2	0	0
0.58	20	2	0	0
0.29	0	2	0	0
0.29	0	2	0	0
0.29	0	2	0	0
0.193333333	0	2	0	0
0.29	0	2	0	0
0.29	0	2	0	0
0.29	0	2	0	0
0.58	0	2	0	0
0.58	0	2	0	0

Event 14 Page 6						
Work Related? N=1 Y=2	Gender M=1 F=2	Low Age	High Age	Representative Age	Education	Job Classification
1	2	65		66	HS	Retired
1	1	65		66	GS	Retired
1	2	36	45	40.5	HS	Laborer
1	2	56	65	60.5	BS	Retired
1	1	65		66	BS	Retired
1	1	65		66	BS	Retired
1	2	65		66	BS	Retired
1	2	65		66	BS	Retired
1	2	56	65	60.5	BS	Retired
1	2	65		66	A	Retired
1	1	65		66	Doctorate	Retired
1	2	56	65	60.5	GS	Retired
1	2	65		66	GS	Retired
1	2	65		66	B	Retired
1	2	65		66	B	Retired
1	2	65		66	GS	Retired
1	2	71	71	71	Some College	Landscape Design
1	2	26	35	30.5	B	Landscape Design
1	2	36	45	40.5	A	Administrative Assistant
1	1	65		66	B	Retired Farmer Rancher
1	1	56	65	60.5	GS	Electrical Engineering/Master Gardner
1	2	65		66	HS	Retired
1	2	56	65	60.5	GS	Retired
1	2	65		66	A	Retired
1	2	65		66	A	Retired
1	1.5	65		66	GS	Retired
1	1	65		66	A	Retired
1	2	46	55	50.5	HS	Self Employed
1	2	65		66	A	Retired
1	2	46	55	50.5	HS	Office Manager
1	1	56	65	60.5	B	Retired
1	2	56	65	60.5	B	Not Employed

Event 14 Page 7			
Average Annual Income	Hourly Income Average	Region Used	Central Ecosystem Profile (Oklahoma Dept of Commerce)
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
21340.8	10.26	Southern Oklahoma Ecosystem	Laborers and Freight, Stock, and Material Movers, Hand
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
38000	18.26923077	Southern Oklahoma Ecosystem	Average Income Marshall County
38000	18.26923077	Southern Oklahoma Ecosystem	Average Income Marshall County
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
38000	18.26923077	Southern Oklahoma Ecosystem	Average Income Love County
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
38000	18.26923077	Southern Oklahoma Ecosystem	Average Income Love County
38000	18.26923077	Southern Oklahoma Ecosystem	Average Income Love County
20675.2	9.94	Southern Oklahoma Ecosystem	Farmworkers and Laborers, Crop, Nursery, and Greenhouse
20675.2	9.94	Southern Oklahoma Ecosystem	Farmworkers and Laborers, Crop, Nursery, and Greenhouse
26832	12.9	Southern Oklahoma Ecosystem	Bookkeeping, Accounting, and Auditing Clerks
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income for Love County
120785.6	58.07	Southern Oklahoma Ecosystem	Aerospace Engineers
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
26832	12.9	Southern Oklahoma Ecosystem	Bookkeeping, Accounting, and Auditing Clerks
46000	22.11538462	Southern Oklahoma Ecosystem	Average Income Carter County
40000	19.23076923	Southeast Corridor	Average Income Bryan County

Event 14 Page 8						
Actual Travel Cost	Time At Event Cost	TC+Time Spent		Willing Travel Cost	Time at Event Cost	WTC+Time Spent
3.543717949	44.23076923	47.77448718		210.8589744	44.23076923	255.0897436
2.383717949	44.23076923	46.61448718		2.383717949	44.23076923	46.61448718
5.666	20.52	26.186		21.403828	20.52	41.923828
4.797179487	44.23076923	49.02794872		169.2087179	44.23076923	213.4394872
1.614807692	44.23076923	45.84557692		37.94358974	44.23076923	82.17435897
9.855769231	36.53846154	46.39423077		9.855769231	36.53846154	46.39423077
15.61923077	36.53846154	52.15769231		50.89038462	36.53846154	87.42884615
1.808141026	44.23076923	46.03891026		10.85179487	44.23076923	55.0825641
7.552564103	44.23076923	51.78333333		37.76282051	44.23076923	81.99358974
9.41775641	44.23076923	53.64852564		9.41775641	44.23076923	53.64852564
13.82307692	36.53846154	50.36153846		217.0223077	36.53846154	253.5607692
18.97179487	44.23076923	63.2025641		18.97179487	44.23076923	63.2025641
4.391089744	44.23076923	48.62185897		4.391089744	44.23076923	48.62185897
4.620134615	44.23076923	48.85090385		4.620134615	44.23076923	48.85090385
16.67519231	36.53846154	53.21365385		33.34551282	36.53846154	69.88397436
12.75576923	36.53846154	49.29423077		29.77564103	36.53846154	66.31410256
4.032001333	19.88	23.91200133		28.22553347	19.88	48.10553347
2.844665333	19.88	22.72466533		22.78466667	19.88	42.66466667
35.9038	25.8	61.7038		103.2288	25.8	129.0288
8.776282051	44.23076923	53.00705128		8.776282051	44.23076923	53.00705128
9.932351267	116.14	126.0723513		185.91208	116.14	302.05208
3.617314103	44.23076923	47.84808333		100.7337179	44.23076923	144.9644872
47.09179487	44.23076923	91.3225641		78.96102564	44.23076923	123.1917949
2.388141026	44.23076923	46.61891026		2.388141026	44.23076923	46.61891026
15.34961538	44.23076923	59.58038462		15.34961538	44.23076923	59.58038462
4.845897436	44.23076923	49.07666667		4.845897436	44.23076923	49.07666667
2.545320513	44.23076923	46.77608974		10.43448718	44.23076923	54.66525641
6.585897436	44.23076923	50.81666667		6.585897436	44.23076923	50.81666667
6.585897436	44.23076923	50.81666667		20.64321154	44.23076923	64.87398077
4.33362	25.8	30.13362		17.33362	25.8	43.13362
4.954358974	44.23076923	49.18512821		4.954358974	44.23076923	49.18512821
72.21251282	38.46153846	110.6740513		72.21251282	38.46153846	110.6740513

Event 14 Page 9		
Number of Participants	32	
Actual Travel Cost Per Participant	11.42173163	
Total Travel Cost	365.4954123	
Actual Travel + Time at Event Per Participant	53.1026451	
Total Actual Travel + Time at Event	1699.284643	
Willingness Travel Cost Per Participant	48.50230256	
Total Willingness Travel Cost Per Participant	1552.073682	
Willingness Travel + Time at Event Per Participant	90.18321602	
Total Willingness Travel + Time at Event	2885.862913	
Total Organzier Costs	275.12	
Total Actual Participant + Organizer Costs Value	1974.404643	
Total Willing Participant + Organizer Costs Value	3160.982913	
Response Rate	91%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	0	5
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	275.12	
Total Participants Registration Fee	20	

Event 14 Page 10		
Organizer Benefit/Organizer Cost	0.072695551	
Actual Value/Organizer Cost	6.176521674	
Willingness Value/Organizer Cost	10.48946973	
Ratio of Actual / Willingness	0.588830688	
Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
82	164	1.5

Event 14 Page 11		
Organizer Cost Per Participant	8.5975	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
3	1	0

Event 14 Page 12			
Standard Cost Per Mile	**Weighted Cost Per Mile**	**Event Duration (hr)**	**Registrants**
0.58	0.58	2	35

Event 14 Page 13			
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**
32	0	18	

Event 14 Page 14		
Actual Travel Cost	**Travel + Preparation + Event Time**	
149.12	275.12	

Event 15 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Norman, Cleveland County	0.15
2	Norman, Cleveland County	0.5
3	Norman, Cleveland County	0.5
4	Norman, Cleveland County	0.113636
5	Norman, Cleveland County	0.113636
6	Norman, Cleveland County	0.113636
7	Norman, Cleveland County	0.5
8	Norman, Cleveland County	0.1
9	Norman, Cleveland County	0.25
10	Norman, Cleveland County	0.25
11	Norman, Cleveland County	0.05
12	Norman, Cleveland County	3
13	Norman, Cleveland County	0.25
14	Norman, Cleveland County	1
Averages		
Number of Participants	14	
Actual Travel Cost Per Participant	1.354255459	
Total Travel Cost	18.95957642	
Actual Travel + Time at Event Per Participant	45.48481865	
Total Actual Travel + Time at Event	636.787461	
Willingness Travel Cost Per Participant	4.969954119	
Total Willingness Travel Cost Per Participant	69.57935766	
Willingness Travel + Time at Event Per Participant	49.10051731	
Total Willingness Travel + Time at Event	687.4072423	
Total Organzier Costs	179.6	
Total Actual Participant + Organizer Costs Value	816.387461	
Total Willing Participant + Organizer Costs Value	867.0072423	
Response Rate	100%	

Event 15 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
0.3	0.08333	0.16666
1	0.03333	0.06666
1	0.01667	0.03334
0.227272	0.05	0.1
0.227272	0.08333	0.16666
0.227272	0.08333	0.16666
1	0.08333	0.16666
0.2	0.016667	0.033334
0.5	0.033333	0.066666
0.5	0.08333	0.16666
0.1	0.016667	0.033334
6	0.083333	0.166666
0.5	0.08333	0.16666
2	0.05	0.1
Organizer Benefit/Organizer Cost	0	
Actual Value/Organizer Cost	3.5455872	
Willingness Value/Organizer Cost	3.827434534	
Ratio of Actual / Willingness	0.926361292	
Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
5	10	0.25
5	10	0.25

Event 15 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
5	10	0.16667
1.5	3	0.1
0.5	1	0.01667
10	20	0.1667
5	10	0.16667
2	4	0.116667
3.5	7	0.1116667
0.1	0.2	0.016667
0.25	0.5	0.033333
3	6	0.166667
0.05	0.1	0.016667
15	30	0.25
5	10	0.166667
3	6	0.25
Organizer Cost Per Participant	12.82857143	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
0.5	1	0
0.5	1	0

Event 15 Page 4			
Willingness Round Trip Travel Time (hr)	Additional Travellers	Total Travellers	Standard Cost Per Mile
0.33334	2	3	0.58
0.2	1	2	0.58
0.03334	1	2	0.58
0.3334	2	3	0.58
0.33334	1	2	0.58
0.233334	1	2	0.58
0.2233334	0	1	0.58
0.033334	0	1	0.58
0.066666	0	1	0.58
0.333334	1	2	0.58
0.033334	0	1	0.58
0.5	0	1	0.58
0.333334	0	1	0.58
0.5	0	1	0.58
Standard Cost Per Mile	Weighted Cost Per Mile	Event Duration (hr)	Registrants
0.58	0.58	1.5	14
0.58	0.58	1.5	14

Event 15 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.193333333	0	1	0	0
0.29	0	2	0	0
0.29	0	2	0	0
0.193333333	0	2	0	0
0.29	0	2	0	0
0.29	0	2	0	0
0.58	0	2	0	0
0.58	0	2	0	0
0.58	0	2	0	0
0.29	0	1.5	0	0
0.58	0	2	0	0
0.58	0	2	0	0
0.58	0	2	0	0
0.58	0	2	0	0
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**	
14	0	11		
14		31		

Event 15 Page 6						
Work Related? N=1 Y=2	**Gender M=1 F=2**	**Low Age**	**High Age**	**Representative Age**	**Education**	**Job Classification**
1	2	56	65	60.5	B	Retired
1	2	36	45	40.5	B	Self-Employed
1	1	46	55	50.5	B	Software Engineer
1	1	56	65	60.5	GS	Educator
1	2	18	25	21.5	HS	Not Employed
1	1	26	35	30.5	GS	Project Manager
1	2	56	65	60.5	DVM	Veternarian
1	2	56	65	60.5	A	Retired
1	1	36	45	40.5	B	Teacher
1	1	56	65	60.5	B	Retired
1	1	65		66	B	Retired
1	2	56	65	60.5	GS	Clinical Social Worker
1	2	36	45	40.5	GS	Faculty Professor
1	1	36	45	40.5	B	Small Business Owner
						Actual Travel Cost
						11.3
						21.3

Event 15 Page 7			
Average Annual Income	**Hourly Income Average**	**Region Used**	**Central Ecosystem Profile (Oklahoma Dept of Commerce)**
42100	20.24038462	Central Oklahoma	Average Income for the county
42100	20.24038462	Central Oklahoma	Average Income for the county
68744	33.05	Central Oklahoma	Software Development, Systems Software
66611	32.02451923	Norman Public Schools	30 Years Graduate Degree Schedule Pay
15080	7.25	Central Oklahoma	Minimum Wage
64396.8	30.96	Central Oklahoma	Management Analyst
52166.4	25.08	Central Oklahoma	Agriculture/Bioscience: Doctoral Degree
42100	20.24038462	Central Oklahoma	Average Income for the county
54537	26.21971154	Norman Public Schools	20 Years Bachelors Degree Schedule Pay
42100	20.24038462	Central Oklahoma	Average Income for the county
42100	20.24038462	Central Oklahoma	Average Income for the county
37980.8	18.26	Central Oklahoma	Licensed Practical and Licensed Vocational Nurses
62000	29.80769231	Central Oklahoma	Central OK Professional, Technical Services
42100	20.24038462	Central Oklahoma	Average Income for the county
Travel + Preparation + Event Time			
49.8			
129.8			

Event 15 Page 8						
Actual Travel Cost	**Time At Event Cost**	**TC+Time Spent**		**Willing Travel Cost**	**Time at Event Cost**	**WTC+Time Spent**
1.182420833	20.24038462	21.42280545		4.182309936	20.24038462	24.42269455
0.739741346	40.48076923	41.22051058		2.219358974	40.48076923	42.70012821
0.657295667	66.1	66.75729567		0.657295667	66.1	66.75729567
1.111423228	64.04903846	65.16046169		7.425658237	64.04903846	71.4746967
0.468670547	14.5	14.96867055		3.705571667	14.5	18.20557167
1.78584008	61.92	63.70584008		3.56800688	61.92	65.48800688
1.9732776	50.16	52.1332776		5.927067224	50.16	56.08706722
0.34089766	40.48076923	40.82166689		0.34089766	40.48076923	40.82166689
0.87265443	52.43942308	53.31207751		0.87265443	52.43942308	53.31207751
1.269420833	30.36057692	31.62999776		3.988936122	30.36057692	34.34951304
0.28289766	40.48076923	40.76366689		0.28289766	40.48076923	40.76366689
4.494440387	36.52	41.01444039		20.44333333	36.52	56.96333333
1.945916667	59.61538462	61.56130128		9.111972436	59.61538462	68.72735705
1.834679487	40.48076923	42.31544872		6.853397436	40.48076923	47.33416667

Event 16 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Norman, Cleveland County	0.05
2	Norman, Cleveland County	0.15
3	Norman, Cleveland County	0.5
4	Norman, Cleveland County	0.15
5	Norman, Cleveland County	0.1
6	Norman, Cleveland County	0.25
7	Norman, Cleveland County	0.1
Averages		
Number of Participants	7	
Actual Travel Cost Per Participant	1.029566647	
Total Travel Cost	7.206966526	
Actual Travel + Time at Event Per Participant	60.59297324	
Total Actual Travel + Time at Event	424.1508127	
Willingness Travel Cost Per Participant	13.80220272	
Total Willingness Travel Cost Per Participant	96.61541904	
Willingness Travel + Time at Event Per Participant	73.36560931	
Total Willingness Travel + Time at Event	513.5592652	
Total Organzier Costs	179.6	
Total Actual Participant + Organizer Costs Value	603.7508127	
Total Willing Participant + Organizer Costs Value	693.1592652	
Response Rate	100%	
Organizer Data: Sutton Norman		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	0	2
Organizer 2		2
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	179.6	
Total Participants Registration Fee	0	

Event 16 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
0.1	0.05	0.1
0.3	0.01667	0.03334
1	0.01667	0.03334
0.3	0.01667	0.03334
0.2	0.00833	0.01666
0.5	0.25	0.5
0.2	0.0333	0.0666
Organizer Benefit/Organizer Cost	0	
Actual Value/Organizer Cost	2.361641496	
Willingness Value/Organizer Cost	2.859461387	
Ratio of Actual / Willingness	0.825904314	

Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
5	10	0.25
5	10	0.25

Event 16 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
30	60	0.5
0.75	1.5	0.0833
30	60	0.5
10	20	0.1667
2	4	0.0333
5	10	0.08333
20	40	0.333
Organizer Cost Per Participant	0	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
0.5	1	0
0.5	1	0

Event 16 Page 4			
Willingness Round Trip Travel Time (hr)	Additional Travellers	Total Travellers	Standard Cost Per Mile
1	2	3	0.58
0.1666	1	2	0.58
1	0	1	0.58
0.3334	1	2	0.58
0.0666	2	3	0.58
0.16666	1	2	0.58
0.666	1	2	0.58

Standard Cost Per Mile	Weighted Cost Per Mile	Event Duration (hr)	Registrants
0.58	0.58	1.5	14
0.58	0.58	1.5	14

Event 16 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.193333333	0	2	0	0
0.29	0	2	0	0
0.58	0	2	0	0
0.29	0	2	0	0
0.193333333	0	2	0	0
0.29	0	2	0	0
0.29	0	2	0	0
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**	
14	0	11		
14		31		

Event 16 Page 6						
Work Related? N=1 Y=2	**Gender M=1 F=2**	**Low Age**	**High Age**	**Representative Age**	**Education**	**Job Classification**
1	2	56	65	60.5	B	Physical Therapist
1	1	56	65	60.5	PhD	Retired Geoscientist
1	2	36	45	40.5	B	Outreach Specialist
1	2	56	65	60.5	B	Homemaker
1	2	65		66	GS	Retired
1	1	65		66	GS	Retired
1	1	65		66	A	Retired
						Actual Travel Cost
						11.3
						21.3
						32.6

Event 16 Page 7			
Annual Average Income	**Hourly Income Average**	**Region Used**	**Central Ecosystem Profile (Oklahoma Dept of Commerce)**
57553.6	27.67	Central Oklahoma	Registered Nurse (Bachelor's Degree)
165568	79.6	Central Oklahoma	Geoscientists
42100	20.24038462	Central Oklahoma	Average Income for the county
42100	20.24038462	Central Oklahoma	Average Income for the county
42100	20.24038462	Central Oklahoma	Average Income for the county
42100	20.24038462	Central Oklahoma	Average Income for the county
42100	20.24038462	Central Oklahoma	Average Income for the county
Travel + Preparation Event Time			
49.8			
129.8			
179.6			

Event 16 Page 8						
Actual Travel Cost	Time At Event Cost	TC+Time Spent		Willing Travel Cost	Time at Event Cost	WTC+Time Spent
0.941666667	55.34	56.28166667		20.82333333	55.34	76.16333333
0.971621333	159.2	160.1716213		4.855453333	159.2	164.0554533
0.804938141	40.48076923	41.28570737		41.54679487	40.48076923	82.0275641
0.311938141	40.48076923	40.79270737		8.04938141	40.48076923	48.53015064
0.151068269	40.48076923	40.6318375		1.222669872	40.48076923	41.7034391
3.518397436	40.48076923	43.99916667		4.024420833	40.48076923	44.50519006
0.507336538	40.48076923	40.98810577		16.09336538	40.48076923	56.57413462

Event 17 Page 1		
Participant	Residence	Distance Travelled (mi)
1	Oklahoma City, Oklahoma County	20
2	Oklahoma City, Oklahoma County	18
3	Edmond, Oklahoma County	8
4	Norman, Cleveland County	37
5	Yukon, Oklahoma County	20
6	Frisco, Texas	198
7	Konawa, Seminole County	70
8	Sulphur, Oklahoma	99
9	Edmond, Oklahoma County	5.4
10	Purcell, McClain County	51
11	Edmond, Oklahoma County	8
12	Oklahoma City, Oklahoma County	20
13	Oklahoma City, Oklahoma County	20
14	Oklahoma City, Oklahoma County	20
15	Edmond, Oklahoma County	20
16	Piedmont	20
17	Edmond, Oklahoma County	5.4
18	Edmond, Oklahoma County	3
19	Edmond, Oklahoma County	5
20	Newcastle, McClain	50
21	Oklahoma City, Oklahoma County	19
22	Oklahoma City, Oklahoma County	15
23	Edmond, Oklahoma County	10
24	Edmond, Oklahoma County	5
25	Edmond, Oklahoma County	7
26	Edmond, Oklahoma County	10
27	Hennessey, Kingfisher County	67

Event 17 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
40	0.75	1.5
36	0.5	1
16	0.25	0.5
74	0.75	1.5
40	0.5	1
396	3	6
140	2	4
198	1.75	3.5
10.8	0.333	0.666
102	0.9333	1.8666
16	0.25	0.5
40	0.3333	0.6666
40	0.333	0.666
40	0.416667	0.833334
40	0.3333	0.6666
40	0.66667	1.33334
10.8	0.333	0.666
6	0.166667	0.333334
10	0.166667	0.333334
100	0.75	1.5
38	0.416667	0.833334
30	0.33333	0.66666
20	0.16667	0.33334
10	0.25	0.5
14	0.16667	0.33334
20	0.166667	0.333334
134	1.1167	2.2334

Event 17 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
46.6667	93.3334	1.75
54	108	1.5
13.333	26.666	0.416667
49.333	98.666	1
20	40	0.5
198	396	3
70	140	2
113.14	226.28	2
10.8	21.6	0.666
100	200	1.8666
18	36	33.75
30	60	0.5
30	60	0.5
40	80	0.8333
30	60	0.5
20	40	0.66667
8.1	16.2	0.5
9	18	0.5
20	40	0.666667
50	100	0.75
26.6	53.2	0.58333
30	60	0.6666
40	80	0.666667
15	30	0.5
35	70	0.8333
30	60	0.5
134	268	2

Event 17 Page 4			
Willingness Round Trip Travel Time (hr)	**Additional Travellers**	**Total Travellers**	**Standard Cost Per Mile**
3.5	0	1	0.58
3	1	2	0.58
0.833334	0	1	0.58
2	1	2	0.58
1	0	1	0.58
6	1	2	0.58
4	1	2	0.58
4	1	2	0.58
1.332	0	1	0.58
3.7332	1	2	0.58
67.5	0	1	0.58
1	0	1	0.58
1	2	3	0.58
1.6666	1	2	0.58
1	1	2	0.58
1.33334	4	5	0.58
1	3	4	0.58
1	1	2	0.58
1.333334	4	5	0.58
1.5	0	1	0.58
1.16666	0	1	0.58
1.3332	0	1	0.58
1.333334	0	1	0.58
1	0	1	0.58
1.6666	0	1	0.58
1	0	1	0.58
4	0	1	0.58

Event 17 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.58	20	7	0	0
0.29	20	7	0	0
0.58	20	7	0	0
0.29	20	6	0	0
0.58	20	7	0	0
0.29	20	7	0	0
0.29	20	6	0	0
0.29	20	6	0	0
0.58	20	6	0	0
0.29	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.193333333	20	6	0	0
0.29	20	6	0	0
0.29	20	6	0	0
0.116	20	6	0	0
0.145	20	6.5	0	0
0.29	20	6.5	0	0
0.116	20	6.5	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0

Event 17 Page 6						
Work Related? N=1 Y=2	**Gender 1=M 2=F**	**Low Age**	**High Age**	**Average Age**	**Education**	**Job Classification**
1	2	18	25	21.5	B	Student
1	2	18	25	21.5	B	Student
2	2	18	25	21.5	A	Student
1	2	18	25	21.5	A	Student
1	2	18	25	21.5	A	Student
1	2	18	25	21.5	B	Student
2	2	46	55	50.5	B	Teacher
2	2	46	55	50.5	G	Educator
1	2	18	25	21.5	HS	Nursing Assistant
1	2	18	25	21.5	A	Student
1	1	36	45	40.5	HS	Student
1	2	18	25	21.5	A	Student
1	1	18	25	21.5	A	Student
1	2	18	25	21.5	A	Student
1	2	18	25	21.5	A	Student
1	2	36	45	40.5	B	Bartender
1	2	36	45	40.5	B	Student
1	2	18	25	21.5	B	Student
1	2	36	45	40.5	B	Student
1	1	18	25	21.5	B	Student
1	2	18	25	21.5	A	Student
1	2	18	25	21.5	B	Student
1	2	18	25	21.5	B	Student
1	2	18	25	21.5	HS	Student
1	2	18	25	21.5	B	Student
1	2	18	25	21.5	B	Student
1	2	18	25	21.5	A	Student

Event 17 Page 7			
Average Annual Income	**Hourly Income Average**	**Region Used**	**Central Ecosystem Profile (Oklahoma Dept of Commerce)**
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
51,232	24.63076923		Teacher Salary Schedule
53,153	25.55432692		Teacher Salary Schedule
22068.8	10.61	Central Oklahoma	Nursing Assistant Wages
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
30000	14.42307692	Central Oklahoma	Average Income by Trade (Retail Sales)
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		

Event 17 Page 8						
Actual Travel Cost	Time At Event Cost	TC+Time Spent		Willing Travel Cost	Time at Event Cost	WTC+Time Spent
46.825	50.75	97.575		82.59170533	50.75	133.3417053
32.85666667	50.75	83.60666667		58.57	50.75	109.32
32.905	50.75	83.655		41.5079515	50.75	92.2579515
45.085	43.5	88.585		53.44647333	43.5	96.94647333
45.61666667	50.75	96.36666667		45.61666667	50.75	96.36666667
149.34	50.75	200.09		149.34	50.75	200.09
159.1230769	147.7846154	306.9076923		159.1230769	147.7846154	306.9076923
166.8601442	153.3259615	320.1861058		187.8385077	153.3259615	341.1644692
28.61942	63.66	92.27942		37.23884	63.66	100.89884
54.09095	43.5	97.59095		87.0219	43.5	130.5219
30.48833333	43.5	73.98833333		204.005	43.5	247.505
44.81095	43.5	88.31095		57.21666667	43.5	100.7166667
29.34283333	43.5	72.84283333		34.01666667	43.5	77.51666667
33.6138905	43.5	77.1138905		47.22761667	43.5	90.72761667
33.21095	43.5	76.71095		39.81666667	43.5	83.31666667
31.05028846	86.53846154	117.58875		31.05028846	86.53846154	117.58875
23.1755	47.125	70.3005		24.76566667	47.125	71.89066667
22.54555717	47.125	69.67055717		27.63666667	47.125	74.76166667
21.96555717	47.125	69.09055717		27.86222383	47.125	74.98722383
81.625	43.5	125.125		81.625	43.5	125.125
44.0538905	43.5	87.5538905		53.67542833	43.5	97.17542833
39.011095	43.5	82.511095		58.0219	43.5	101.5219
32.40557167	43.5	75.90557167		69.62222383	43.5	113.1222238
27.00833333	43.5	70.50833333		39.81666667	43.5	83.31666667
28.92557167	43.5	72.42557167		64.62761667	43.5	108.1276167
32.40555717	43.5	75.90555717		57.21666667	43.5	100.7166667
103.1173833	43.5	146.6173833		185.1066667	43.5	228.6066667

Event 17 Page 9		
Number of Participants	27	
Actual Travel Cost Per Participant	52.59548841	
Total Travel Cost	1420.078187	
Actual Travel + Time at Event Per Participant	108.1115639	
Total Actual Travel + Time at Event	2919.012226	
Willingness Travel Cost Per Participant	74.2816575	
Total Willingness Travel Cost Per Participant	2005.604753	
Willingness Travel + Time at Event Per Participant	129.797733	
Total Willingness Travel + Time at Event	3504.538791	
Total Organzier Costs	1739.157773	
Total Actual Participant + Organizer Costs Value	4658.169999	
Total Willing Participant + Organizer Costs Value	5243.696564	
Response Rate	100%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	900	12
Organizer 2		8
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	1739.157773	
Total Participants Registration Fee	560	

Event 17 Page 10		
Organizer Benefit/Organizer Cost	0.321994938	
Actual Value/Organizer Cost	1.678405646	
Willingness Value/Organizer Cost	2.015078128	
Ratio of Actual / Willingness	0.83292336	
Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
38	76	0.66667
21	42	0.4333

Event 17 Page 11		
Organizer Cost Per Participant	64.41325087	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
1.33334	1	0
0.8666	1	0

Event 17 Page 12			
Standard Cost Per Mile	Weighted Cost Per Mile	Event Duration (hr)	Registrants
0.58	0.58	6	28
0.58	0.58	6	

Event 17 Page 13			
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**
27	20	20.31	
		25.43	

Event 17 Page 14		
Actual Travel Cost	**Travel + Preparation + Event Time**	
71.1601354	436.7401354	
46.397638	402.417638	
117.5577734	839.1577734	

Event 18 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Norman, Cleveland County	180
2	Oklahoma City, Oklahoma County	170
3	Oklahoma City, Oklahoma County	168
4	Moore, Cleveland County	176
5	Tulsa, Tulsa County	60
6	Broken Arrow, Tulsa County	50
7	Chelsea, Rogers County	27
Averages		
Number of Participants	7	
Actual Travel Cost Per Participant	427.1535929	
Total Travel Cost	2990.07515	
Actual Travel + Time at Event Per Participant	1000.570736	
Total Actual Travel + Time at Event	7003.99515	
Willingness Travel Cost Per Participant	746.1446179	
Total Willingness Travel Cost Per Participant	5223.012325	
Willingness Travel + Time at Event Per Participant	1319.561761	
Total Willingness Travel + Time at Event	9236.932325	
Total Organzier Costs	1889.953335	
Total Actual Participant + Organizer Costs Value	8893.948486	
Total Willing Participant + Organizer Costs Value	11126.88566	
Response Rate	78%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	317.46	6
Organizer 2	242	2
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	1889.953335	
Total Participants Registration Fee	1225	

Event 18 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
360	3	6
340	2.5	5
336	2.5	5
352	2.5	5
120	1	2
100	1	2
54	0.51667	1.03334
Organizer Benefit/Organizer Cost	0.648164151	
Actual Value/Organizer Cost	3.70590904	
Willingness Value/Organizer Cost	4.887386451	
Ratio of Actual / Willingness	0.758259875	

Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
1	2	0.08333
185	370	2.8666667

Event 18 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
210	420	3.5
744	1488	10.9167
497	994	7.5
176	352	2.5
120	240	2
100	200	2
108	216	2
Organizer Cost Per Participant	269.9933336	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
1	1	0
5.7333334	1	

Event 18 Page 4			
Willingness Round Trip Travel Time (hr)	**Additional Travellers**	**Total Travellers**	**Standard Cost Per Mile**
7	0	1	0.58
21.8334	0	1	0.58
15	3	4	0.58
5	2	3	0.58
4	0	1	0.58
4	0	1	0.58
4	0	1	0.58

Standard Cost Per Mile	**Weighted Cost Per Mile**	**Event Duration (hr)**	**Registrants**
0.58	0.58	16	11
0.58	0.58	16	

Event 18 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.58	175	16	0	150
0.58	175	16	0	0
0.145	175	16	0	0
0.193333333	175	16	0	0
0.58	175	16	0	0
0.58	175	16	0	0
0.58	175	16	0	0
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**	
9	175	27		
		31		

Event 18 Page 6						
Work Related? N=1 Y=2	**Gender M=1 F=2**	**Low Age**	**High Age**	**Representative Age**	**Education**	**Job Classification**
2	1	26	35	30.5	G	Civil Engineer
2	2	56	65	60.5	B	Civil Engineer
2	1	18	25	21.5	B	Environmental Engineer
2	2	26	35	30.5	B	Civil Engineer
2	1	36	45	40.5	G	Civil Engineer
2	1	36	45	40.5	B	Civil Engineer
2	2	36	45	40.5	B	Environmental Scientist
						Actual Travel Cost
						28.16
						392.3333354
						420.4933354

Event 18 Page 7			
Average Annual Income	**Hourly Income Average**	**Region Used**	**Ecosystem Profile (Oklahoma Dept of Commerce)**
72550.4	34.88	Central Oklahoma	Civil Engineer
72550.4	34.88	Central Oklahoma	Civil Engineer
72550.4	34.88	Central Oklahoma	Civil Engineer
72550.4	34.88	Central Oklahoma	Civil Engineer
92352	44.4	Tulsa Metro	Civil Engineer
92352	44.4	Tulsa Metro	Civil Engineer
46904	22.55	Central Oklahoma	Environmental Scientist
Travel + Preparation + Event Time			
622.16			
950.3333354			
1572.493335			

Event 18 Page 8						
Actual Travel Cost	Time At Event Cost	TC+Time Spent		Willing Travel Cost	Time at Event Cost	WTC+Time Spent
743.08	558.08	1301.16		812.76	558.08	1370.84
546.6	558.08	1104.68		1799.588992	558.08	2357.668992
398.12	558.08	956.2		842.33	558.08	1400.41
417.4533333	558.08	975.5333333		417.4533333	558.08	975.5333333
333.4	710.4	1043.8		491.8	710.4	1202.2
321.8	710.4	1032.2		468.6	710.4	1179
229.621817	360.8	590.421817		390.48	360.8	751.28

Event 19 Page 1		
Participants	**Residence**	**Distance Travelled (mi)**
1	Sulphur, Murray County	22
2	Ada, Pontotoc County	10
3	Ada, Pontotoc County	4
4	Ada, Pontotoc County	5
5	Ada, Pontotoc County	3
6	Stratford, Garvin County	17
7	Ada, Pontotoc County	2
8	Allen, Pontotoc	20
9	Calvin, Hughes County	30
10	Stratford, Garvin County	20
11	Dibble, McClain County	70
12	Blanchard, McClain County	70
13	Springer, Carter County	75
14	Ada, Pontotoc County	1
15	Davis, Murray County	30
16	Sulphur, Murray County	36
17	Davis, Murray County	36
18	Sulphur, Murray County	30
Averages		
Number of Participants	18	
Actual Travel Cost Per Participant	58.62278494	
Total Travel Cost	1055.210129	
Actual Travel + Time at Event Per Participant	163.456599	
Total Actual Travel + Time at Event	2942.218783	
Willingness Travel Cost Per Participant	159.6676498	
Total Willingness Travel Cost Per Participant	2874.017696	
Willingness Travel + Time at Event Per Participant	264.5014639	
Total Willingness Travel + Time at Event	4761.02635	
Total Organzier Costs	1739.157773	
Total Actual Participant + Organizer Costs Value	4681.376556	
Total Willing Participant + Organizer Costs Value	6500.184123	

Event 19 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
44	0.5	1
20	0.166666667	0.333333333
8	0.166666667	0.333333333
10	0.166666667	0.333333333
6	0.166666667	0.333333333
34	0.416667	0.833334
4	0.15	0.3
40	0.416667	0.833334
60	0.583333	1.166666
40	0.5	1
140	1.5	3
140	1.5	3
150	1.08333	2.16666
2	0.08333	0.16666
60	0.5	1
72	0.5	1
72	0.5	1
60	0.5	1
Organizer Benefit/Organizer Cost	0.321994938	
Actual Value/Organizer Cost	1.691749206	
Willingness Value/Organizer Cost	2.737547118	
Ratio of Actual / Willingness	0.617979941	

Event 19 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
44	88	1
40	80	0.66667
72	144	3
5	10	0.166667
35	70	0.75
57.8	115.6	1.416667
60	120	1
20	40	0.416667
90	180	1.75
20	40	0.5
70	140	1.5
70	140	1.5
100	200	1.4444
2	4	0.166667
324	648	5.316667
307	614	5.08333
324	648	5.316667
307	614	5.08333
Organizer Cost Per Participant	96.6198763	

Event 19 Page 4			
Willingness Round Trip Travel Time (hr)	Additional Travellers	Total Travellers	Standard Cost Per Mile
2	0	1	0.58
1.33334	0	1	0.58
6	0	1	0.58
0.333334	0	1	0.58
1.5	0	1	0.58
2.833334	0	1	0.58
2	0	1	0.58
0.833334	1	2	0.58
3.5	1	2	0.58
1	0	1	0.58
3	2	3	0.58
3	2	3	0.58
2.8888	0	1	0.58
0.333334	0	1	0.58
10.633334	0	1	0.58
10.16666	3	4	0.58
10.633334	2	3	0.58
10.16666	2	3	0.58

Event 19 Page 5				
Weighted Cost Per Mile	Registration Fee	Time at Event (hrs)	Time in Town (Outside Event Hrs)	Other Costs
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.29	20	6	0	0
0.29	20	6	0	0
0.58	20	6	0	0
0.193333333	20	6	0	0
0.193333333	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.145	20	6	0	0
0.193333333	20	6	0	0
0.193333333	20	6	0	0

Event 19 Page 6						
Work Related?N=1 Y=2	**Gender M=1 F=2**	**Low Age**	**High Age**	**Representative Age**	**Education**	**Job Classification**
2	2	46	55	50.5	GS	Educator
1	2	18	25	21.5	HS	Not Currently Employed
2	2	26	35	30.5	A	Teacher Assistant
1	2	18	25	21.5	B	Educator
2	2	65		65	Some College	Special Needs Provider
2	2	46	55	50.5	B	Teacher
1	2	36	45	40.5	B	Teacher
2	2	46	55	50.5	HS	Teacher Assistant
2	2	26	35	30.5	B	Educator
2	2	26	35	30.5	HS	Childcare Provider
2	2	36	45	40.5	B	Educator
2	2	46	55	50.5	GS	Educator
2	2	46	55	50.5	B	Public School Teacher
1	1	18	25	21.5	HS	Student
2	2	46	55	50.5	B	Teacher
2	2	46	55	50.5	B	Teacher Assistant
2	2	36	45	40.5	GS	Teacher
1	1	26	35	30.5	GS	Teacher

Event 19 Page 7			
Average Annual Income	Hourly Income Average	Region Used	Ecosystem Profile (Oklahoma Dept of Commerce)
53,153	25.55432692		Oklahoma Teacher Salary Schedule
15080	7.25		Oklahoma Teacher Salary Schedule
20000	9.615384615		Oklahoma Teacher Salary Schedule
37,964	18.25192308		Oklahoma Teacher Salary Schedule
27854	13.39134615		Oklahoma Teacher Salary Schedule
51,232	24.63076923		Oklahoma Teacher Salary Schedule
45,642	21.94326923		Oklahoma Teacher Salary Schedule
20000	9.615384615		Oklahoma Teacher Salary Schedule
39,968	19.21538462		Oklahoma Teacher Salary Schedule
20000	9.615384615		Oklahoma Teacher Salary Schedule
45,327	21.79182692		Oklahoma Teacher Salary Schedule
52,436	25.20961538		Oklahoma Teacher Salary Schedule
51,232	24.63076923		Oklahoma Teacher Salary Schedule
15080	7.25		Oklahoma Teacher Salary Schedule
51,232	24.63076923		Oklahoma Teacher Salary Schedule
20000	9.615384615		Oklahoma Teacher Salary Schedule
46,605	22.40625		Oklahoma Teacher Salary Schedule
41,358	19.88365385		Oklahoma Teacher Salary Schedule

Event 19 Page 8						
Actual Travel Cost	Time At Event Cost	TC+Time Spent		Willing Travel Cost	Time at Event Cost	WTC+Time Spent
71.07432692	153.3259615	224.4002885		122.1486538	153.3259615	275.4746154
32.40555556	43.5	75.90555556		69.62223833	43.5	113.1222383
27.84512821	57.69230769	85.5374359		161.2123077	57.69230769	218.9046154
27.82799145	109.5115385	137.3395299		27.82799551	109.5115385	137.339534
27.94378205	80.34807692	108.291859		80.68701923	80.34807692	161.0350962
60.24565745	147.7846154	208.0302728		156.8351959	147.7846154	304.6198113
24.51432692	131.6596154	156.1739423		104.2288462	131.6596154	235.8884615
39.61282692	57.69230769	97.30513462		39.61282692	57.69230769	97.30513462
59.81793591	115.2923077	175.1102436		139.4538462	115.2923077	254.7461538
52.81538462	57.69230769	110.5076923		52.81538462	57.69230769	110.5076923
112.4421474	130.7509615	243.193109		112.4421474	130.7509615	243.193109
122.6955128	151.2576923	273.9532051		122.6955128	151.2576923	273.9532051
160.3665025	147.7846154	308.1511178		207.1533662	147.7846154	354.9379815
21.56276167	43.5	65.06276167		23.12555717	43.5	66.62555717
79.43076923	147.7846154	227.2153846		657.7471959	147.7846154	805.5318113
40.05538462	57.69230769	97.74769231		206.7863462	57.69230769	264.4786538
56.32625	134.4375	190.76375		383.5331399	134.4375	517.9706399
38.22788462	119.3019231	157.5298077		206.0901161	119.3019231	325.3920391

Event 20 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Edmond, Oklahoma County	8
2	Oklahoma City, Oklahoma County	19
3	Edmond, Oklahoma County	10
4	Edmond, Oklahoma County	5
5	Oklahoma City, Oklahoma County	19
6	Yukon, Canadian County	31
7	Moore, Cleveland County	26
8	Moore, Cleveland County	26
9	Oklahoma City, Oklahoma County	30
10	Moore, Cleveland County	30
11	Moore, Cleveland County	30
12	Stillwater, Payne County	60
Averages		
Number of Participants	12	
Actual Travel Cost Per Participant	39.13327107	
Total Travel Cost	469.5992529	
Actual Travel + Time at Event Per Participant	82.63327107	
Total Actual Travel + Time at Event	991.5992529	
Willingness Travel Cost Per Participant	74.46623078	
Total Willingness Travel Cost Per Participant	893.5947693	
Willingness Travel + Time at Event Per Participant	117.9662308	
Total Willingness Travel + Time at Event	1415.594769	
Total Organzier Costs	936.7401354	
Total Actual Participant + Organizer Costs Value	1928.339388	
Total Willing Participant + Organizer Costs Value	2352.334905	
Response Rate	100%	

Event 20 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
16	0.13333	0.26666
38	0.3333	0.6666
20	0.416667	0.833334
10	0.1166667	0.2333334
38	0.5	1
62	0.58333	1.16666
52	0.5	1
52	0.5	1
60	0.5	1
60	0.5	1
60	0.5	1
120	1	2
Organizer Benefit/Organizer Cost	0.277558301	
Actual Value/Organizer Cost	1.058563859	
Willingness Value/Organizer Cost	1.511192609	
Ratio of Actual / Willingness	0.700482422	
Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
38	76	0.66667

Event 19 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
44	88	1
40	80	0.66667
72	144	3
5	10	0.166667
35	70	0.75
57.8	115.6	1.416667
60	120	1
20	40	0.416667
90	180	1.75
20	40	0.5
70	140	1.5
70	140	1.5
100	200	1.4444
2	4	0.166667
324	648	5.316667
307	614	5.08333
324	648	5.316667
307	614	5.08333
Organizer Cost Per Participant	96.6198763	

Event 20 Page 4			
Willingness Round Trip Travel Time (hr)	Additional Travellers	Total Travellers	Standard Cost Per Mile
0.533334	0	1	0.58
1	0	1	0.58
0.833334	0	1	0.58
0.93334	0	1	0.58
2	0	1	0.58
2.3332	1	2	0.58
1	5	6	0.58
1	5	6	0.58
1.5	4	5	0.58
1	4	5	0.58
9.4666	5	6	0.58
8	0	1	0.58
Standard Cost Per Mile	Weighted Cost Per Mile	Event Duration (hr)	Registrants
0.58	0.58	6	13

Event 20 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.29	20	6	0	0
0.096666667	20	6	0	0
0.096666667	20	6	0	0
0.116	20	6	0	0
0.116	20	6	0	0
0.096666667	20	6	0	0
0.58	20	6	0	0
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**	
12	20	20.31		

Event 20 Page 6						
Work Related? N=1 Y=2	**Gender M=1 F=2**	**Low Age**	**High Age**	**Representative Age**	**Education**	**Job Classification**
1	2	18	25	21.5	HS	Student
1	2	18	25	21.5	A	Student
1	2	18	25	21.5	HS	Student
1	2	18	25	21.5	HS	Student
2	2	18	25	21.5	B	Student
1	2	46	55	50.5	B	Student
1	2	18	25	21.5	B	Student
1	2	18	25	21.5	A	Student
1	2	18	25	21.5	A	Student
2	2	18	25	21.5	B	Student
2	2	26	35	30.5	B	Student
1	1	26	35	30.5	B	Student
						Actual Travel Cost
						71.1601354

Event 20 Page 7		
Average Annual Income	**Hourly Income Average (Reported/Researched)**	**Region Used**
15080	7.25	
15080	7.25	
15080	7.25	
15080	7.25	
15080	7.25	
15080	7.25	
15080	7.25	
15080	7.25	
15080	7.25	
15080	7.25	
15080	7.25	
15080	7.25	
Travel + Preparation + Event Time		
436.7401354		

Event 20 Page 8						
Actual Travel Cost	Time At Event Cost	TC+Time Spent		Willing Travel Cost	Time at Event Cost	WTC+Time Spent
29.92442833	43.5	73.42442833		39.8488905	43.5	83.3488905
43.65095	43.5	87.15095		55.47666667	43.5	98.97666667
33.6138905	43.5	77.1138905		33.6138905	43.5	77.1138905
26.36388905	43.5	69.86388905		45.45557167	43.5	88.95557167
49.29	43.5	92.79		78.58	43.5	122.08
40.79942833	43.5	84.29942833		61.59856667	43.5	105.0985667
27.44333333	43.5	70.94333333		27.44333333	43.5	70.94333333
27.44333333	43.5	70.94333333		27.44333333	43.5	70.94333333
29.37666667	43.5	72.87666667		34.065	43.5	77.565
34.21	43.5	77.71		34.21	43.5	77.71
33.05	43.5	76.55		138.1261833	43.5	181.6261833
94.43333333	43.5	137.9333333		317.7333333	43.5	361.2333333

Event 21 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Hennessey, Kingfisher County	67
2	Yukon, Canadian County	20
3	Oklahoma City, Oklahoma County	25
4	Moore, Cleveland County	30
5	Edmond, Oklahoma County	6
6	Edmond, Oklahoma County	5
7	Purcell, McClain County	50
8	Norman, Cleveland County	40
9	Midwest City, Oklahoma County	20
10	Ardmore, Oklahoma	100
11	Oklahoma City, Oklahoma County	17
12	Oklahoma City, Oklahoma County	17
Averages		
Number of Participants	12	
Actual Travel Cost Per Participant	54.14843334	
Total Travel Cost	649.7812001	
Actual Travel + Time at Event Per Participant	103.6311257	
Total Actual Travel + Time at Event	1243.573508	
Willingness Travel Cost Per Participant	67.32246096	
Total Willingness Travel Cost Per Participant	807.8695315	
Willingness Travel + Time at Event Per Participant	116.8051533	
Total Willingness Travel + Time at Event	1401.661839	
Total Organzier Costs	817.9801354	
Total Actual Participant + Organizer Costs Value	2061.553643	
Total Willing Participant + Organizer Costs Value	2219.641975	
Response Rate	100%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	300	16
Organizer 2		
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	817.9801354	
Total Participants Registration Fee	260	

Event 21 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
134	1.08333	2.16666
40	0.41667	0.83334
50	0.416667	0.833334
60	0.5	1
12	0.25	0.5
10	0.083333	0.166666
100	0.9	1.8
80	0.58333	1.16666
40	0.5	1
200	2	4
34	0.5333	1.0666
34	0.3333	0.6666
Organizer Benefit/Organizer Cost	0.31785613	
Actual Value/Organizer Cost	1.520297931	
Willingness Value/Organizer Cost	1.713564644	
Ratio of Actual / Willingness	0.887213644	
Travel Distance (mi)	**Round Trip Distanc**	**Travel Time (hr)**
38	76	0.66667

Event 21 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
67	134	1.08333
30	60	0.625
35	70	0.58333
30	60	0.5
18	36	0.5
25	50	0.416667
90	180	1.62
60	120	0.875
20	40	0.5
150	300	3
21.25	42.5	0.66667
21.25	42.5	0.46667
Organizer Cost Per Participant	68.16501128	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
1.33334	1	0

Event 21 Page 4			
Willingness Round Trip Travel Time (hr)	**Additional Travellers**	**Total Travellers**	**Standard Cost Per Mile**
2.16666	0	1	0.58
1.25	0	1	0.58
1.16666	0	1	0.58
1	0	1	0.58
1	0	1	0.58
0.833334	0	1	0.58
3.24	2	3	0.58
1.75	1	2	0.58
1	0	1	0.58
6	4	5	0.58
1.33334	0	1	0.58
0.93334	0	1	0.58
Standard Cost Per Mile	**Weighted Cost Per Mile**	**Event Duration (hı**	**Registrants**
0.58	0.58	6	13

Event 21 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
0.193333333	20	6	0	0
0.29	20	6	0	0
0.58	20	6	0	0
0.116	20	6	0	0
0.58	20	6	0	0
0.58	20	6	0	0
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**	
12	20	20.31		

Event 21 Page 6						
Work Related? N=1 Y=2	**Gender M=1 F=2**	**Low Age**	**High Age**	**Representative Age**	**Education**	**Job Classification**
1	2	18	25	21.5	A	Student
1	2	36	45	40.5	B	Student
1	2	18	25	21.5	A	Student
1	2	26	35	30.5	A	Student
1	2	18	25	21.5	A	Student
1	2	18	25	21.5	B	Student
1	2	18	25	21.5	A	Student
1	2	18	25	21.5	A	Student
1	2	18	25	21.5	HS	Student
2	2	26	35	30.5	B	Teacher
1	2	18	25	21.5	B	Student
1	2	18	25	21.5	A	Student
						Actual Travel Cost
						71.1601354
						71.1601354

Event 21 Page 7			
Average Annual Income	**Hourly Income Average**	**Region Used**	**Ecosystem Profile (Oklahoma Dept of Commerce)**
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
15080	7.25		
39,968	19.21538462		Oklahoma Teacher Salary Schedule
15080	7.25		
15080	7.25		
Travel + Preparation + Event Time			
517.9801354			
517.9801354			

Event 21 Page 8						
Actual Travel Cost	Time At Event Cost	TC+Time Spent		Willing Travel Cost	Time at Event Cost	WTC+Time Spent
102.956095	43.5	146.456095		102.956095	43.5	146.456095
45.213905	43.5	88.713905		57.82083333	43.5	101.3208333
51.0138905	43.5	94.5138905		63.41942833	43.5	106.9194283
57.21666667	43.5	100.7166667		57.21666667	43.5	100.7166667
28.16833333	43.5	71.66833333		43.29666667	43.5	86.79666667
26.20277617	43.5	69.70277617		51.0138905	43.5	94.5138905
43.68333333	43.5	87.18333333		62.63	43.5	106.13
46.01942833	43.5	89.51942833		59.02916667	43.5	102.5291667
45.61666667	43.5	89.11666667		45.61666667	43.5	89.11666667
120.0615385	115.2923077	235.3538462		170.0923077	115.2923077	285.3846154
42.29761667	43.5	85.79761667		47.87223833	43.5	91.37223833
41.33095	43.5	84.83095		46.90557167	43.5	90.40557167

Event 22 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Norman, Cleveland Co	3.5
2	Norman, Cleveland Co	4.2
3	Norman, Cleveland Co	5
4	Blanchard, Grady Co	22
5	Goldsby, McClain Co	10
Averages		
Number of Participants	5	
Actual Travel Cost Per Participant	66.9249956	
Total Travel Cost	334.624978	
Actual Travel + Time at Event Per Participant	123.8871494	
Total Actual Travel + Time at Event	619.4357472	
Willingness Travel Cost Per Participant	79.74481718	
Total Willingness Travel Cost	398.7240859	
Willingness Travel + Time at Event Per Participant	19.38505446	
Total Willingness Travel + Time at Event	683.5348551	
Total Organzier Costs	1045.245	
Total Actual Participant + Organizer Costs Value	1664.680747	
Total Willing Participant + Organizer Costs Value	1728.779855	
Response Rate	56%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	326	12
Organizer 2		12
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	1045.245	
Total Participants Registration Fee	720	

Event 22 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
7	0.18333	0.36666
8.4	0.15	0.3
10	0.25	0.5
44	0.6333	1.2666
20	0.333	0.666
Organizer Benefit/Organizer Cost	0.688833718	
Actual Value/Organizer Cost	1.59262254	
Willingness Value/Organizer Cost	1.653947022	
Ratio of Actual / Willingness	0.962922342	
Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
2	4	0.166666667
5	10	0.25

Event 22 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
13.045	26.09	0.68333
14	28	0.5
5	10	0.25
34.74	69.48	1
25	50	0.8333
Organizer Cost Per Participant	209.049	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
0.333333333	1	0
0.5	1	0

Event 22 Page 4			
Willingness Round Trip Travel Time (hr)	**Additional Travellers**	**Total Travellers**	**Standard Cost Per Mile**
1.36666	0	1	0.58
1	0	1	0.58
0.5	0	1	0.58
2	1	2	0.58
1.6666	1	2	0.58
Standard Cost Per Mile	**Weighted Cost Per Mile**	**Event Duration (hr)**	**Registrants**
0.58	0.58	2	8
0.58	0.58	2	8

Event 22 Page 5				
Weighted Cost Per Mile	Registration Fee	Time at Event (hrs)	Time in Town (Outside Event Hrs)	Other Costs
0.58	55	2	0	0
0.58	55	2	0	0
0.58	55	2	0	0
0.29	55	2	0	0
0.29	55	2	0	0

Attended	Registration Cost	Organizer Hourly Rate	Notes:	
9	80	18		
9	80	31.25	Hourly Rate as 250/day, 12 hours = 1.5 days, 375/12	

Event 22 Page 6						
Work Related? N=1 Y=2	Gender M=1 F=2	Low Age	High Age	Representative Age	Education	Job Classification
1	2	26	35	30.5	GS	Meteorologist
1	2	26	35	30.5	B	Environmental Programs Specialist DEQ
1	1	36	45	40.5	GS	Attorney
1	1	36	45	40.5	HS	Truck Driver
1	1	65		66	B	Retired
					Actual Travel Cost	Travel + Preparation + Event Time
					8.32	260.32
					21.425	458.925

Event 22 Page 7			
Average Annual Income	**Hourly Income Average (Reported/Researched)**	**Region Used**	**Ecosystem Profile (Oklahoma Dept of Commerce)**
62000	29.80769231	Central	Average Income Profession Scientific and Techical Services
46904	22.55	Central	Environmnetal Scientists and Specialists
113040	54.34615385	Oklahoma Mean Wage	Lawyer (US Bureau of Labor Statistics)
35,859.20	17.24	Central	Heavy and Tractor Trailer Truck Drivers
38400	18.46153846	Cetnral	McClain County Average Earnings

Event 22 Page 8						
Actual Travel Cost	Time At Event Cost	TC+Time Spent		Willing Travel Cost	Time at Event Cost	WTC+Time Spent
62.70309615	59.61538462	122.3184808		83.71119359	59.61538462	143.3265782
62.127	45.1	107.227		78.75666667	45.1	123.8566667
69.85769231	108.6923077	178.55		69.85769231	108.6923077	178.55
75.038728	34.48	109.518728		86.64253333	34.48	121.1225333
64.89846154	36.92307692	101.8215385		79.756	36.92307692	116.6790769

Event 23 Page 1		
Participant	Residence	Distance Travelled (mi)
1	Oklahoma City, Oklahoma County	15
2	Oklahoma City, Oklahoma County	15
3	Harrah, Oklahoma County	17
4	Edmond, Oklahoma County	17
5	Oklahoma City, Oklahoma County	9
6	Edmond, Oklahoma County	10
7	Oklahoma City, Oklahoma County	20
8	Oklahoma City, Oklahoma County	8
9	Edmond, Oklahoma County	7
10	Oklahoma City, Oklahoma County	4
11	Choctaw, Oklahoma	30
12	Harrah, Oklahoma County	17
13	Oklahoma City, Oklahoma County	12
14	Midwest City, Oklahoma County	15
15	Oklahoma City, Oklahoma County	15
16	Oklahoma City, Oklahoma County	10
17	Edmond, Oklahoma County	12
18	Edmond, Oklahoma County	17
19	Edmond, Logan County	24
20	Oklahoma City, Oklahoma County	7
21	Edmond, Oklahoma County	7
22	Oklahoma City, Oklahoma County	6
23	Oklahoma City, Oklahoma County	5
24	Edmond, Oklahoma County	15
25	Jones, Oklahoma County	7.4
26	Oklahoma City, Oklahoma County	6
27	Edmond, Oklahoma County	12
28	Oklahoma City, Oklahoma County	8
29	Midwest City, Oklahoma County	20
30	Edmond, Oklahoma County	14

31	Oklahoma City, Oklahoma County	11
32	Midwest City, Oklahoma County	20
33	Norman, Cleveland County	25
34	Edmond, Oklahoma County	10
35	Oklahoma City, Oklahoma County	6
36	Oklahoma City, Oklahoma County	10
37	Oklahoma City, Oklahoma County	17
38	Oklahoma City, Oklahoma County	25
39	Edmond, Oklahoma County	11
40	Jones, Oklahoma County	22
41	Oklahoma City, Oklahoma County	10
42	Choctaw, Oklahoma	10
43	Edmond, Oklahoma County	15
44	Choctaw, Oklahoma	20
45	Edmond, Oklahoma County	7
46	Oklahoma City, Oklahoma County	15
47	Oklahoma City, Oklahoma County	8
48	Edmond, Oklahoma County	20
49	Oklahoma City, Oklahoma County	15
50	Oklahoma City, Oklahoma County	15
51	Edmond, Logan County	15
52	Edmond, Oklahoma County	15
53	Midwest City, Oklahoma County	18
54	Edmond, Oklahoma County	20
55	Oklahoma City, Oklahoma County	15
56	Kountze, Texas, Hardin County	500
57	Midwest City, Oklahoma County	11
58	Oklahoma City, Oklahoma County	10
59	Edmond, Oklahoma County	15
60	Edmond, Oklahoma County	12
61	Choctaw, Oklahoma	20

Event 23 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
30	0.5	1
30	0.41667	0.83334
34	0.5833	1.1666
34	0.3333	0.6666
18	0.3333	0.6666
20	0.416667	0.833334
40	0.5	1
16	0.25	0.5
14	0.333	0.666
8	0.25	0.5
60	0.5	1
34	0.58333	1.16666
24	0.583333	1.166666
30	0.5	1
30	0.4166667	0.8333334
20	0.33333	0.66666
24	0.3333	0.6666
34	0.366667	0.733334
48	0.58333	1.16666
14	0.25	0.5
14	0.333	0.666
12	0.41667	0.83334
10	0.3333	0.6666
30	0.333	0.666
14.8	0.2	0.4
12	0.333	0.666
24	0.5	1
16	0.25	0.5
40	0.5	1
28	0.75	1.5

22	0.25	0.5
40	0.416667	0.833334
50	0.666667	1.333334
20	0.25	0.5
12	0.25	0.5
20	0.3333	0.6666
34	0.333	0.666
50	0.41667	0.83334
22	0.3333	0.6666
44	0.416667	0.833334
20	0.16667	0.33334
20	0.333	0.666
30	0.5	1
40	0.5	1
14	0.333	0.666
30	0.3333	0.6666
16	0.416667	0.833334
40	0.5	1
30	0.416667	0.833334
30	0.3333	0.6666
30	0.366667	0.733334
30	0.5	1
36	0.416667	0.833334
40	0.333	0.666
30	0.3333	0.6666
1000	9	18
22	0.5	1
20	0.16667	0.33334
30	0.25	0.5
24	0.25	0.5
40	0.5	1

Event 23 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
15	30	0.5
15	30	0.41667
27	54	0.92647
17	34	0.3333
24	48	0.8888889
60	120	1
30	60	0.75
28	56	0.875
10	20	0.47619
45	90	0.75
30	60	0.5
46.1428571	92.2857142	1.35
12	24	0.583333
15	30	0.5
15	30	0.4166667
20	40	0.666667
36	72	1
27	54	0.58235
41.1429	82.2858	1
32	64	1.143
47	94	0.7833
26	52	0.43333
30	60	0.5
15	30	0.333
19.7333	39.4666	0.53333
31	62	0.516667
22	44	0.66667
38	76	1.19
20	40	0.5

18	36	1
33	66	0.75
50	100	1.0416667
60	120	1.6
20	40	0.5
18	36	0.75
10	20	0.3333
47	94	0.9216
25	50	0.41667
11	22	0.3333
48.4	96.8	0.91667
20	40	0.333
10	20	0.333
22.5	45	0.75
60	120	0.75
7	14	0.333
15	30	0.3333
8	16	0.416667
40	80	1
15	30	0.416667
15	30	0.3333
276	552	6.74
25	50	0.833
18	36	0.416667
50	100	0.8333
45	90	1
500	1000	9
69.5	139	1.2833
45	90	0.75
15	30	0.25
12	24	0.25
40	80	1

Event 23 Page 4			
Willingness Round Trip Travel Time (hr)	Additional Travellers	Total Travellers	Standard Cost Per Mile
1	0	1	0.58
0.83334	0	1	0.58
1.85294	1	2	0.58
0.6666	0	1	0.58
1.7777778	0	1	0.58
2	0	1	0.58
1.5	0	1	0.58
1.75	1	2	0.58
0.95238	0	1	0.58
1.5	0	1	0.58
1	0	1	0.58
2.7	1	2	0.58
1.166666	1	2	0.58
1	1	2	0.58
0.8333334	0	1	0.58
1.333334	0	1	0.58
2	0	1	0.58
1.1647	0	1	0.58
2	0	1	0.58
2.286	0	1	0.58
1.5666	0	1	0.58
0.86666	0	1	0.58
1	0	1	0.58
0.666	1	2	0.58
1.06666	0	1	0.58
1.033334	1	2	0.58
1.33334	0	1	0.58
2.38	0	1	0.58
1	0	1	0.58

2	0	1	0.58
1.5	0	1	0.58
2.0833334	1	2	0.58
3.2	0	1	0.58
1	1	2	0.58
1.5	1	2	0.58
0.6666	0	1	0.58
1.8432	0	1	0.58
0.83334	0	1	0.58
0.6666	0	1	0.58
1.83334	0	1	0.58
0.666	0	1	0.58
0.666	0	1	0.58
1.5	0	1	0.58
1.5	0	1	0.58
0.666	0	1	0.58
0.6666	0	1	0.58
0.833334	1	2	0.58
2	0	1	0.58
0.833334	0	1	0.58
0.6666	0	1	0.58
13.48	1	2	0.58
1.666	0	1	0.58
0.833334	1	2	0.58
1.6666	0	1	0.58
2	0	1	0.58
18	0	1	0.58
2.5666	1	2	0.58
1.5	0	1	0.58
0.5	2	3	0.58
0.5	2	3	0.58
2	0	1	0.58

Event 23 Page 5				
Weighted Cost Per Mile	Registration Fee	Time at Event (hrs)	Time in Town (Outside Event Hrs)	Other Costs
0.58	0	7	0	0
0.58	0	5	0	0
0.29	0	4	0	0
0.58	0	6	0	0
0.58	0	8	0	0
0.58	0	6	0	0
0.58	0	6	0	0
0.29	0	7	0	0
0.58	0	6	0	0
0.58	150	6	0	0
0.58	150	6	0	0
0.29	0	7	0	0
0.29	150	7	0	0
0.29	0	4	0	0
0.58	0	7	0	0
0.58	0	4	0	0
0.58	150	7	0	0
0.58	0	7	0	0
0.58	150	7	0	0
0.58	0	7	0	0
0.58	0	6.5	0	0
0.58	150	6	0	0
0.58	0	7	0	0
0.29	150	6	0	0
0.58	0	7	0	0
0.29	0	6	0	0
0.58	0	6	0	0
0.58	0	7	0	0
0.58	0	6	0	0

0.58	150	6	0	0
0.58	0	6	0	0
0.29	0	6	0	0
0.58	0	6	0	0
0.29	0	6	0	0
0.29	0	6.5	0	0
0.58	0	6	0	0
0.58	0	5.5	0	0
0.58	0	6.5	0	0
0.58	0	8	0	0
0.58	0	7	0	0
0.58	150	6	0	0
0.58	75	6	0	0
0.58	0	6	0	0
0.58	0	7	0	0
0.58	150	7	0	0
0.58	0	6	0	0
0.29	150	8	0	0
0.58	0	7	0	0
0.58	150	7	0	0
0.58	0	7	0	0
0.29	0	6	0	0
0.58	150	6.5	0	0
0.29	0	7	0	0
0.58	0	4	0	0
0.58	150	7	0	0
0.58	0	8	0	0
0.29	0	5.5	0	0
0.58	0	6	0	0
0.193333333	0	6	0	0
0.193333333	0	6	0	0
0.58	0	6	0	0

Event 23 Page 6						
Work Related? N=1 Y=2	Gender M=1 F=2	Low Age	High Age	Representative Age	Education	Job Classification
1	1	65		66	GS	Retired
1	1	65		66	GS	Retired
1	1	65		66	GS	Retired
1	2	46	55	50.5	A	Retired
1	2	65		66	B	Music
1	1	46	55	50.5	GS	Retired
1	1	65		66		
1	2	56	65	60.5	A	Retired
1	2	65		66	B	Retired
1	2	26	35	30.5	B	Not Employed
1	1.5	46	55	50.5	A	Student
1	2	65		66	B	Retired
1	2	65		66	B	Retired RN
1	2	65		66	B	Retired
1	2	36	45	40.5	GS	Web Developer
1	2	56	65	60.5	B	Retired
1	2	56	65	60.5	B	RN
1	2	56	65	60.5	B	Not Employed
1	1	65		66	GS	Retired
1	2	65		66	B	Retired
1	2	65		66	MBA	Retired
1	2	65		66	GS	Retired
1	2	46	55	50.5	B	Student/Real Estate
1	2	56	65	60.5	GS	CPA
1	2	56	65	60.5	B	General Manager
1	1	65		65	B	Retired
1	1	56	65	60.5	GS	Retired
1	2	56	65	60.5	B	Retired
1	2	65		66	Postgrad	Retired

1	2	36	45	40.5	GS	Retired
1	2	26	35	30.5	GS	Hydrologist
1	2	36	45	40.5	HS	GM Farmer/Rancher
1	2	26	35	30.5	GS	Speech Language Pathologist
1	2	46	55	50.5	HS	Homemaker
1	1	65		66	B	Retired
1	2	56	65	60.5	HS	Other
1	2	46	55	50.5	GS	Purchasing Officer
1	2	65		66	B	Retired
1	2	65		66	A	Retired
1	2	46	55	50.5	GS	Baker/Beekeeper
1	1	26	35	30.5	Some College	Retail
1	1	46	55	50.5	B	Remodeler
1	2	65		66	GS	Not Employed
1	2	18	25	21.5	HS	Not Employed
1	1	65		66	MD	Retired Psychiatrist
1	1	65		66	GS	Retired
1	2	65		66	GS	Retired
1	2	65		66	HS	Retired
1	2	65		66	GS	Research RN
1	2	65		66	GS	Retired
1	2	65		66	B	Retired Accountant
1	2	46	55	50.5	GS	Business Owner
1	2	65		80	B	Retired
1	2	56	65	60.5	GS	Retired
1	2	65		66	GS	Retired
1	2	65		66	HS	Retired
1	2	65		66	B	Retired
1	2	65		66	A	Retired
1	1	65		66	GS	Retired
1	2	65		66	B	Retired
1	2	65		66	GS	Retired

Event 23 Page 7				
Average Annual Income	Hourly Income Average	Region Used	Ecosystem Profile (Oklahoma Dept of Commerce)	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
41683.2	20.04	Central	Arts, Design, Entertainment, Sports, and Media Occupation	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
79456	38.2	Central	Aerospace and Defense Software Developers, Applications	
54429	26.16778846	Central	Average Income for Central OK	
60528	29.1	Central	Regisered Nurses	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
21736	10.45	Central	Retail Salespersons	
59321.6	28.52	Central	Accountants	
77147.2	37.09	Central	Genergal Manager Operations	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	

54429	26.16778846	Central	Average Income for Central OK	
58489.6	28.12	Central	Life, Physical, and Social Science Occupations	
26790.4	12.88	Central	Farmers Ranchers and Other Agricultural Managers	
61068.8	29.36	Central	Speech Language Pathologists	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
77147.2	37.09	Central	General Managers Operations	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
23025.6	11.07	Central	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	
54429	26.16778846	Central	Average Income for Central OK	
33404.8	16.06	Central	Construction Carpenter	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
60528	29.1	Central	Registered Nurses	
54429	26.16778846	Central	Average Income for Central OK	
35700	17.16346154	Central	Average Income for Central OK	
58676.8	28.21	Central	Business and Financial Operations Occupations	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
55993	26.91971154	data.usa	Average Income for Hardin Co, TX	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	
54429	26.16778846	Central	Average Income for Central OK	

Event 23 Page 8						
Actual Travel Cost	Time At Event Cost	TC+Time Spent		Willing Travel Cost	Time at Event Cost	WTC+Time Spent
26.12259615	183.1745192	209.2971154		26.12259615	183.1745192	209.2971154
24.66888828	130.8389423	155.5078306		24.66888828	130.8389423	155.5078306
20.03578067	104.6711538	124.7069345		31.82244732	104.6711538	136.4936012
25.5344826	157.0067308	182.5412134		25.5344826	157.0067308	182.5412134
14.892888	160.32	175.212888		39.7155557	160.32	200.0355557
18.86883594	157.0067308	175.8755667		87.04519231	157.0067308	244.0519231
31.92259615	157.0067308	188.9293269		47.88389423	157.0067308	204.890625
9.001298077	183.1745192	192.1758173		31.50454327	183.1745192	214.6790625
13.92924904	157.0067308	170.9359798		19.90722613	157.0067308	176.9139569
159.0012981	157.0067308	316.0080288		215.2838942	157.0067308	372.290625
193.5225962	157.0067308	350.5293269		193.5225962	157.0067308	350.5293269
20.03630403	183.1745192	203.2108233		50.31386673	183.1745192	233.488386
167.1363564	183.1745192	350.3108756		167.1363564	183.1745192	350.3108756
17.42259615	104.6711538	122.09375		17.42259615	104.6711538	122.09375
28.01111196	267.4	295.411112		28.01111196	267.4	295.411112
17.41500595	104.6711538	122.0861598		34.83013402	104.6711538	139.5012879
170.38602	203.7	374.08602		211.16	203.7	414.86
26.11657633	183.1745192	209.2910956		41.47920774	183.1745192	224.653727
188.016304	183.1745192	371.1908233		215.1709563	183.1745192	398.3454755
12.48129808	183.1745192	195.6558173		57.05985481	183.1745192	240.234374
13.92924904	170.090625	184.019874		68.18481913	170.090625	238.2754441
164.2288883	157.0067308	321.235619		187.7195252	157.0067308	344.726256
8.12199	73.15	81.27199		38.28333333	73.15	111.4333333
165.03144	171.12	336.15144		165.03144	171.12	336.15144
13.52933333	259.63	273.1593333		36.07810113	259.63	295.7081011
9.289249038	157.0067308	166.2959798		26.99335517	157.0067308	184.0000859
22.64259615	157.0067308	179.6493269		37.15018636	157.0067308	194.1569171
13.64129808	183.1745192	196.8158173		64.83977885	183.1745192	248.0142981
31.92259615	157.0067308	188.9293269		31.92259615	157.0067308	188.9293269

179.3238942	157.0067308	336.330625		188.3251923	157.0067308	345.3319231
17.44666667	168.72	186.1666667		52.34	168.72	221.06
15.17778064	77.28	92.45778064		37.94444473	77.28	115.2244447
42.04889541	176.16	218.2088954		100.9173333	176.16	277.0773333
10.16129808	157.0067308	167.1680288		20.32259615	157.0067308	177.3293269
7.841298077	170.090625	177.9319231		23.52389423	170.090625	193.6145192
17.4144826	157.0067308	174.4212134		17.4144826	157.0067308	174.4212134
27.95398	203.995	231.94898		77.308096	203.995	281.303096
36.26888828	170.090625	206.3595133		36.26888828	170.090625	206.3595133
18.5744826	209.3423077	227.9167903		18.5744826	209.3423077	227.9167903
28.59500246	77.49	106.0850025		62.9090246	77.49	140.3990246
164.5075902	157.0067308	321.514321		179.009249	157.0067308	336.0159798
90.16532	96.36	186.52532		90.16532	96.36	186.52532
26.12259615	157.0067308	183.1293269		39.18389423	157.0067308	196.190625
31.92259615	183.1745192	215.0971154		82.68389423	183.1745192	265.8584135
163.929249	183.1745192	347.1037683		163.929249	183.1745192	347.1037683
23.2144826	157.0067308	180.2212134		23.2144826	157.0067308	180.2212134
161.9088359	209.3423077	371.2511436		161.9088359	209.3423077	371.2511436
31.92259615	183.1745192	215.0971154		63.84519231	183.1745192	247.0197115
175.4833398	203.7	379.1833398		175.4833398	203.7	379.1833398
23.2144826	183.1745192	206.3890018		23.2144826	183.1745192	206.3890018
12.89551663	102.9807692	115.8762859		237.2011538	102.9807692	340.1819231
176.8033333	183.365	360.1683333		194.6659533	183.365	378.0309533
17.70883594	183.1745192	200.8833552		17.70883594	183.1745192	200.8833552
29.00924904	104.6711538	133.6804029		72.53707875	104.6711538	177.2082326
173.2144826	183.1745192	356.3890018		219.6451923	183.1745192	402.8197115
741.5182692	215.3576923	956.8759615		741.5182692	215.3576923	956.8759615
15.10259615	143.9228365	159.0254327		62.69741529	143.9228365	206.6202518
14.5075902	157.0067308	171.514321		65.28389423	157.0067308	222.290625
10.16129808	157.0067308	167.1680288		10.16129808	157.0067308	167.1680288
9.001298077	157.0067308	166.0080288		9.001298077	157.0067308	166.0080288
31.92259615	157.0067308	188.9293269		63.84519231	157.0067308	220.8519231

Event 23 Page 9		
Number of Participants	61	
Actual Travel Cost Per Participant	68.06395976	
Total Travel Cost	4151.901545	
Actual Travel + Time at Event Per Participant	231.4690291	
Total Actual Travel + Time at Event	14119.61078	
Willingness Travel Cost Per Participant	91.05820478	
Total Willingness Travel Cost	5554.550492	
Willingness Travel + Time at Event Per Participant	254.4632741	
Total Willingness Travel + Time at Event	15522.25972	
Total Organzier Costs	0	
Total Actual Participant + Organizer Costs Value	14119.61078	
Total Willing Participant + Organizer Costs Value	15522.25972	
Response Rate	100%	

Event 24 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Rush Springs, Grady Co	75
2	Macomb, Pottawatamie Co	46
3	Edmond, Oklahoma Oklahoma Co	30
4	Owasso, OK Rogers Co	122
5	Claremore, Rogers Co	160
6	Yukon, Canadian Co	20
7	Ada, Pontotoc Co	60
8	Asher, OK Pottawatamie	60
9	Norman, OK Cleveland Co	36
10	Norman, OK Cleveland Co	36
11	Norman, OK Cleveland Co	36
12	Tulsa, OK, Tulsa Co	110
13	Tonkawa, Kay Co	92
Averages		
Number of Participants	13	
Actual Travel Cost Per Participant	281.3461823	
Total Travel Cost	3657.50037	
Actual Travel + Time at Event Per Participant	480.190916	
Total Actual Travel + Time at Event	6242.481908	
Willingness Travel Cost Per Participant	344.2792817	
Total Willingness Travel Cost	4475.630662	
Willingness Travel + Time at Event Per Participant	543.1240154	
Total Willingness Travel + Time at Event	7060.612201	
Total Organzier Costs	836.45	
Total Actual Participant + Organizer Costs Value	7078.931908	
Total Willing Participant + Organizer Costs Value	7897.062201	
Response Rate	28%	
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	519.22	10
Organizer 2	300	2
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	836.45	
Total Participants Registration Fee	6900	

Event 24 Page 2		
Round Trip Distance Travelled (mi)	**Travel Time (hr)**	**Round Trip Travel Time (hr)**
150	1.25	2.5
92	0.76667	1.53334
60	0.75	1.5
244	2	4
320	3	6
40	0.58333	1.16666
120	1	2
120	1	2
72	1	2
72	1	2
72	0.7166	1.4332
220	1.5	3
184	2	4
Organizer Benefit/Organizer Cost	8.249148186	
Actual Value/Organizer Cost	7.463066422	
Willingness Value/Organizer Cost	8.441164685	
Ratio of Actual / Willingness	0.88412757	
Travel Distance (mi)	**Round Trip Distance (mi)**	**Travel Time (hr)**
39	78	0.75
39	78	0.75

Event 24 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
100	200	1.66667
266	532	4.48333
50	100	1.25
183	366	3
160	320	3
54.15	108.3	1.333
180	360	3
120	240	2
108	216	3
108	216	3
136	272	2.71
210	420	3
92	184	2
Organizer Cost Per Participant	64.34230769	
Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
1.5	1	1
1.5	1	1

Event 24 Page 4			
Willingness Round Trip Travel Time (hr)	Additional Travellers	Total Travellers	Standard Cost Per Mile
3.33334	1	2	0.58
8.96666	1	2	0.58
2.5	0	1	0.58
6	2	3	0.58
6	2	3	0.58
2.666	0	1	0.58
6	1	2	0.58
4	1	2	0.58
6	2	3	0.58
6	2	3	0.58
5.42	2	3	0.58
6	0	1	0.58
4	0	1	0.58
Standard Cost Per Mile	**Weighted Cost Per Mile**	**Event Duration (hr)**	**Registrants**
0.58	0.58	8	41
0.58	0.58	8	

Event 24 Page 5				
Weighted Cost Per Mile	**Registration Fee**	**Time at Event (hrs)**	**Time in Town (Outside Event Hrs)**	**Other Costs**
0.29	200	8	0	0
0.29	200	8	0	0
0.58	200	8	0	0
0.193333333	200	8	0	0
0.193333333	200	8	0	0
0.58	200	8	0	0
0.29	200	8	0	0
0.29	200	8	0	0
0.193333333	200	8	0	0
0.193333333	200	8	0	0
0.193333333	200	8	0	0
0.58	200	8	0	100
0.58	200	8	0	115
Attended	**Registration Cost**	**Organizer Hourly Rate**	**Notes:**	
46	150	7.25		
		7.25		

Event 24 Page 6						
Work Related? N=1 Y=2	Gender M=1 F=2	Low Age	High Age	Representative Age	Education	Job Classification
2	1	56	65	60.5	HS	Construction Safety & Risk Management
2	1	46	55	50.5	Other	Superindendent
2	1	36	45	40.5	B	Construction Manager
2	1	46	55	50.5	B	Environmental Scientist
2	1	36	45	40.5	B	Farmer/ Rancher
2	1	36	45	40.5	B	City Building Inspector
2	1	36	45	40.5	B	Environmental Scientist
2	1	36	45	40.5	B	EHS Specialist II
2	1	26	35	30.5	B	Environmental Scientist
2	1	18	25	21.5	GS	Student
2	2	56	65	60.5	B	Environmental Scientist
2	1	18	25	21.5	B	Civil Engineer
2	2	26	35	30.5	HS	Water Specialist
					Actual Travel Cost	Travel + Preparation + Event Time
					57.115	187.615
					57.115	129.615

Event 24 Page 7			
Average Annual Income	**Hourly Income Average**	**Region Used**	**Ecosystem Profile (Oklahoma Dept of Commerce)**
79456	38.2	Central	Construction General and Operations Managers
45000	21.63461538	East Central	Pottawatamie County Average Salary
79456	38.2	Central	Construction General and Operations Managers
47000	22.59615385	Tulsa Metro	Average Salary Rogers County
20217.6	9.72	Ports Region	Farmers, Laborers
40705.6	19.57	Central	Transportation & Distribution: Inspectors
43000	20.67307692	Southern	Average Salary Pontotoc County
44000	21.15384615	East Central	Average Salary Pottawatomie County
46904	22.55	Central	Environmental Scientists
42100	20.24038462	Central	Cleveland County Average Salary
46904	22.55	Central	Environmental Scientists
92352	44.4	Tulsa Metro	Civil Engineers: Agriculture and Bioscience
45000	21.63461538	Northern	Kay County Average Salary

Event 24 Page 8						
Actual Travel Cost	**Time At Event Cost**	**TC+Time Spent**		**Willing Travel Cost**	**Time at Event Cost**	**WTC+Time Spent**
275.3333333	305.6	580.9333333		300.4445293	305.6	606.0445293
237.7377404	173.0769231	410.8146635		418.9434135	173.0769231	592.0203365
253.9	305.6	559.5		289.8333333	305.6	595.4333333
277.3015385	180.7692308	458.0707692		315.9523077	180.7692308	496.7215385
281.3066667	77.76	359.0666667		281.3066667	77.76	359.0666667
230.8105121	156.56	387.3705121		280.2052067	156.56	436.7652067
248.5820513	165.3846154	413.9666667		345.7461538	165.3846154	511.1307692
248.9025641	169.2307692	418.1333333		297.8051282	169.2307692	467.0358974
228.9533333	180.4	409.3533333		286.86	180.4	467.26
227.4135897	161.9230769	389.3366667		282.2407692	161.9230769	444.1638462
224.6928867	180.4	405.0928867		293.327	180.4	473.727
472	355.2	827.2		632.4	355.2	987.6
450.5661538	173.0769231	623.6430769		450.5661538	173.0769231	623.6430769

Event 25 Page 1		
Participant	**Residence**	**Distance Travelled (mi)**
1	Enid, Garfield County	72
2	Norman, Cleveland County	180
3	Oklahoma City, Oklahoma County	110
4	El Reno, Canadian County	128
Averages		
Number of Participants	4	
Actual Travel Cost Per Participant	198.7649679	
Total Travel Cost	795.0598718	
Actual Travel + Time at Event Per Participant	367.8915064	
Total Actual Travel + Time at Event	1471.566026	
Willingness Travel Cost Per Participant	198.7649679	
Total Willingness Travel Cost	795.0598718	
Willingness Travel + Time at Event Per Participant	367.8915064	
Total Willingness Travel + Time at Event	1471.566026	
Total Organzier Costs	3101.19715	
Total Actual Participant + Organizer Costs Value	4572.763176	
Total Willing Participant + Organizer Costs Value	4572.763176	
Response Rate		
Organizer Data		
Organizers	**Expenditures**	**Planning Time (hrs)**
Organizer 1	900	232
Organizer 2		
Averages		
Total Travel + Preparation Time+ Time Spent at Event + Expenditures	3101.19715	
Total Participants Registration Fee	325	

Event 25 Page 3		
Willingness to Travel (dist, miles)	**Willingness Round Trip Distance (mi)**	**Willingness to Travel (time, hr)**
72	144	1
180	360	3
110	220	2.5
128	256	2.5
Organizer Cost Per Participant	775.2992875	

Round Trip Time (hr)	**Total Travellers**	**Travel Expenditures**
5.3334	1	0
6	1	0

Event 25 Page 4			
Willingness Round Trip Travel Time (hr)	**Additional Travellers**	**Total Travellers**	**Standard Cost Per Mile**
2	0	1	0.58
6	0	1	0.58
5	0	1	0.58
5	1	2	0.58

Standard Cost Per Mile	Weighted Cost Per Mile	Event Duration (hr)	Registrants
0.58	0.58	1.5	13
0.58	0.58	1.5	

Event 25 Page 5				
Weighted Cost Per Mile	Registration Fee	Time at Event (hrs)	Time in Town (Outside Event Hrs)	Other Costs
0.58	15	8	0	0
0.58	25	8	0	100
0.58	15	8	0	0
0.29	15	8	8	0
Attended	Registration Cost	Organizer Hourly Rate	Notes:	
11	25	7.25		
		7.25		

Event 25 Page 6						
Work Related? N=1 Y=2	Gender M=1 F=2	Low Age	High Age	Representative Age	Education	Job Classification
2	2	36	45	40.5	B	Environmental Scientist
2	1	36	45	40.5	GS	University Professor
1	2	18	25	21.5	B	Geology Student
1	1	46	55	50.5	BS	Environmental Scientist
					Actual Travel Cost	Travel + Preparation+ Event Time
					234.70715	1927.58215
					262.74	273.615
						2201.19715

Event 25 Page 7			
Average Annual Income	**Hourly Income Average**	**Region Used**	**Ecosystem Profile (Oklahoma Dept of Commerce)**
44137.6	21.22	OK	Bureau of Labor Statistics Statewide mean for Env. Sci.
$69,770	$33.54	OK	Bureau of Labor Statistics Statewide mean for Postsecondary Env. Science Teachers
15080	7.25	Central	Minimum Wage (Student)
46904	22.55	Central	Environmental Scientists and Specialists

Event 25 Page 8						
Actual Travel Cost	**Time At Event Cost**	**TC+Time Spent**		**Willing Travel Cost**	**Time at Event Cost**	**WTC+Time Spent**
112.6666667	169.76	282.4266667		112.6666667	169.76	282.4266667
400.8865385	268.3461538	669.2326923		400.8865385	268.3461538	669.2326923
154.6833333	58	212.6833333		154.6833333	58	212.6833333
126.8233333	180.4	307.2233333		126.8233333	180.4	307.2233333