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**Abstract**

This study estimates the monetary value of participation in a cycling event using a willingness to travel question. The empirical analysis is based on three years of data (2014-2016) from a post-race survey ($n$=976). Respondents were asked for their likelihood of revisiting the event in the following year contingent on different additional driving distances. Return visitation is higher in the randomly selected question than in the payment card format. The random selection format also produces larger willingness to pay estimates. The combination and joint estimation of stated and revealed preference data allows identifying the magnitude of hypothetical bias.

*Keywords*: Contingent behavior method; intention to revisit; sport participation; travel cost; willingness to pay

## Introduction

Small-scale sport events, like participatory cycling events, marathon races, or triathlon events, are characterized by amateur participants who compete in these events (Kaplanidou & Gibson, 2010). Rather than winning the race, most participants pursue a variety of individual and intangible goals, such as performing as well as they possibly can, performing better than others in their gender and age group (Stoeber, Uphill, & Hotham, 2009), finishing the race, or simply enjoying the race and the scenery (Maxcy, Wicker, & Prinz, 2018). Achieving these intangible goals yields satisfaction and psychic rewards (Maxcy et al., 2018). Given the intangible and psychological nature of these benefits and the absence of a market price, they are referred to as non-market benefits.

The monetary valuation of non-market benefits associated with active sport participation has received increased academic interest in recent years (e.g., Downward & Rasciute, 2011; Whitehead, Weddell, & Groothuis, 2016). Existing studies have estimated the monetary value of non-market benefits of regular sport participation (Downward & Dawson, 2016; Orlowski & Wicker, 2018) as well as participation and competition in sport events (Whitehead et al., 2016; Whitehead & Wicker, 2018). Different valuation approaches have emerged in the literature, including the compensating variation approach (Downward & Dawson, 2016; Orlowski & Wicker, 2018), travel cost method (Englin & Moeltner, 2004; Loomis, González-Cabán, & Englin, 2001), contingent valuation method (CVM) (Whitehead et al., 2016; Wicker & Hallmann, 2013), and contingent behavior method (CBM) (Whitehead & Wicker, 2018). These methods differ in the types of preferences they assess: While the former two approaches are based on revealed preferences (i.e., data on actual behavior), the latter two rely on stated preferences (i.e., data on intended behavior) where hypothetical bias can be an issue.

Hypothetical bias exists when stated preferences differ from revealed preferences, implying that respondents overstate their intended behavior because of the hypothetical nature of the question. Since hypothetical bias is a major concern of stated preference approaches (e.g., Hausman, 2012), prior research has established a number of ways to mitigate and control for hypothetical bias (Loomis, 2011). One way is to combine and jointly estimate revealed and stated preference data and to include a dummy variable for the stated preference scenarios to control for hypothetical bias (Whitehead, Pattanayak, van Houtven, & Gelso, 2008). Applying this procedure, existing research has found that survey respondents overstate their future behavior when combining stated preference data with subsequent revealed preference behavior under similar situations (Atkinson & Whitehead, 2015; Whitehead, 2005; Whitehead, Noonan, & Marquardt, 2014). On the contrary, Whitehead et al. (2016) have documented that stated preference data with a registration fee increase accurately predict actual behavior with the price increase. Their results are limited, however, by the incentive incompatibility of the stated preference question.

The present research builds upon these existing studies by using an incentive compatible stated preference question assessing willingness to travel (WTT) (Whitehead & Wicker, 2018) – as opposed to Whitehead et al. (2016) who asked for willingness to pay (WTP). The focus of this study is on the question format and the identification of the magnitude of hypothetical bias, yielding a two-fold purpose: The first purpose is to compare stated WTT values and resulting WTP estimates between two question formats – payment card and random selection. The second purpose is to estimate the magnitude of hypothetical bias by combining and jointly estimating stated and revealed preference data.

The findings reveal the extent to which monetary values are sensitive to the question format and give information about the magnitude of hypothetical bias. This study's contribution is, therefore, mainly of methodological nature as it informs future valuation and demand forecasting studies.

## Research context

The research context for this study is Blood Sweat and Gears (BSG, 2017), a participatory bicycle sporting event in Valle Crucis, which is approximately 5 miles south of Boone, North Carolina. This recurring sport event is held every year in June. The BSG includes 50 and 100 mile bike rides in and around mountain communities in Watauga County, North Carolina, including the Blue Ridge Parkway. Officially, the 100 mile ride is limited to 750 riders and the 50 mile ride to 500 riders, but registration details and results indicate that these thresholds are slightly exceeded (BSG, 2017). Demand is high as the race is sold out quickly and has a waiting list (Whitehead et al., 2016).

The BSG is a strenuous bike ride: The 100 mile ride has a cumulative climbing elevation of 8,188 feet with a maximum grade of approximately 20%. With 4,200 feet elevation, the 50 mile route is also strenuous although shorter (BSG, 2017). These figures confirm that the BSG is a challenging ride where achieving personal goals is important to participants. Like other participatory sport events, the BSG also offers event-specific gear that riders can purchase in order to showcase that they have faced and passed the test this ride has offered. Hence, studying the value of non-market benefits of event participants is a worthwhile exercise in this research context.

## Conceptual framework and literature review

### Willingness to travel

Following Whitehead and Wicker (2018), WTT is referred to as the maximum distance an individual is willing to travel under specific circumstances. The underlying assumption is that respondents have the incentive to reveal their true preferences because the *payment* is expressed in non-monetary units (i.e., travel distances). The advantage of such non-monetary expressions over monetary expressions, like WTP, is that respondents are less likely to demonstrate strategic behavior or protest-motivated bidding. For example, respondents may respond strategically when they anticipate increases in prices as a result of their survey responses (Whitehead et al., 2016). Protest responses occur when respondents report that they are not willing to pay anything even though their true valuation of the non-market good or service in question is higher (Heyes & Heyes, 1999). Both types of behavior would lead biased results, supporting the idea of favoring WTT over WTP for the assessment of consumer preferences. Existing research supports the use of WTT as monetary values resulting from WTT questions were found to be internally valid and temporally reliable (Whitehead & Wicker, 2018).

Even though respondents provide answers in non-monetary units, travel distances can be converted into monetary units and WTP estimates, respectively. Travel distances can be converted into travel costs when information about travel costs per mile is available (Bakhtiari, Jacobsen, & Jensen, 2014). While this exercise can be considered relatively straight forward for transport costs (e.g., fuel costs), assigning a monetary value to travel time is more difficult and has, therefore, been debated in existing research (e.g., Pascoe, Doshi, Dell, Tonks, & Kenyon, 2014). At the center of this debate were at least two questions. The first question is related to the value of journey time. Existing research has assumed that individuals derive no utility or disutility from traveling to the destination and, consequently, assigned a value of zero (e.g., Alberini, Zanatta, & Rosato, 2007).

The second question refers to the appropriateness of opportunity cost of time. On the one hand, the appropriateness has been questioned as there is a disconnection between foregone wages and a recreational activity that individuals perform in their leisure time (Pascoe et al., 2014), supporting again a zero value. On the other hand, prior studies assumed that the value of travel time is proportional to income (e.g., De Borger & Fosgerau, 2008; Douglas & Johnson, 2004). Moreover, in the present study it is plausible that participants take a day off from work to drive to the event, implying that opportunity costs in terms of foregone wages are relevant. The next question concerns the specific fraction of the wage rate. Following Parsons (2017), 33% can be considered the standard value in travel cost research and has, therefore, been used in prior studies on sport tourism (e.g., Whitehead & Wicker, 2018; Whitehead, Johnson, Mason, & Walker, 2013). The discussion reveals that the resulting monetary values are highly sensitive to the treatment of opportunity cost of time and the selected fraction of the wage rate which was also evident in previous research (e.g., Hynes, Hanley, & O'Donogue, 2009; Whitehead & Wicker, 2018).

**Contingent behavior method**

Similar to WTP that is elicited within a hypothetical scenario using CVM, WTT is also contingent on a hypothetical scenario and elicited using CBM (Whitehead & Wicker, 2018). CBM is a stated preference approach that asks how respondents would change their behavior as a result of hypothetical changes (Whitehead et al., 2013). Within sport-related travel, CBM has been applied in several contexts, including the demand for league games (Whitehead et al., 2013; Wicker, Whitehead, Johnson, & Mason, 2017) and the intention to revisit a participatory sport event (Whitehead et al., 2016; Whitehead & Wicker, 2018). Within the present research, CBM is applied to elicit respondents' WTT by assessing their intention to revisit the event contingent on different additional travel distances.

**Intention to revisit**

Since the WTT question is couched in a hypothetical scenario asking for respondents' return visitation, the literature studying intention to revisit a destination or an event informs the present study. Existing research has studied a variety of factors influencing an individual's intention to revisit a destination, including destination image, satisfaction, and perceived value (e.g., Eusebio & Vieira, 2013; Kim, Holland, & Han, 2013; Phillips, Wolfe, Hodur, & Leistritz, 2013). Following the theory of planned behavior (Ajzen, 1991), further factors are relevant which affect behavioral intentions, such as attitudes towards a specific behavior, subjective norms, and perceived behavioral control. These factors determine the extent to which behavioral intentions are associated with actual behavior.

The focus of the present research is on perceived behavioral control. This concept reflects the extent to which individuals believe that they can decide at will about their behavior and have volitional control over it. This control is affected by resources that are required to perform certain behaviors (Ajzen, 1985). For example, to revisit the BSG event, individuals need time and financial resources. In addition to paying the starting fee, participants must cover the fuel costs of their car which depend on the driving distance. They also need time as driving to the destination of the event takes time – depending on how far individuals live away from the event. Hence, the driving distance affects both time and financial resources which, in turn, affect volitional control. If resource requirements are high, individuals might feel that they have less control over their behavior – they may intend to visit the event, but have to realize that their available resources constrain them from event participation. Consequently, resource constraints and associated behavioral control represent the mechanism through which driving distances affect intention to revisit.

## Methods

### Sampling

The data for this research were gathered by surveys that were emailed to registered riders after the 2014, 2015, and 2016 BSG rides. In 2014, 2015, and 2016, email invitations were sent to 1315, 1281, and 1384 riders who had registered for the ride and provided useable email addresses. After a reminder email, each year 440, 418, and 519 riders completed the survey. The completed response rates are 33.4% (2014), 32.6% (2015), and 37.5% (2016). Respondents who did not participate in the ride at least one year and those who did not answer all of the stated preference questions were removed from the empirical analysis. The total sample includes 976 riders. The stated preference sample sizes are 388, 374, and 495 for the 2014, 2015, and 2016 survey years.

### Questionnaire and variables

Each survey included two return visitation questions. The following explanations use the example of the 2014 survey. The first return visit intention question was: "Do you plan to participate in the 2015 Blood Sweat and Gears?" The second question read as follows: "Suppose that you had to drive further to get to Blood Sweat and Gears in 2015 compared to your driving distance in 2014. For example, you might move further away from Valle Crucis. Would you plan to participate in the 2015 Blood Sweat and Gears if you had to drive XX more one-way miles?" Respondents were provided with a payment card including several additional one-way driving distances (i.e., 30, 60, 90, 120, and 150 miles; Figure 1). They were asked to state their likelihood of return visitation for each additional driving distance on a five-point scale. The answer categories were *definitely yes, probably yes, maybe, probably no*, and *definitely no*. Respondents answering no to the first question were assigned an additional travel distance of zero miles in the data set. Similar questions were asked in the 2015 survey and to about 50% of the respondents in the 2016 survey. These are referred to as the payment card treatments. One response from the six potential additional driving distances was randomly selected from the payment card questions for the empirical analysis.

In the 2016 survey, the other half of respondents received only one additional travel distance which was randomly assigned, i.e., 30, 60, 90, 120, or 150 miles. Likewise, respondents who answered no to the first return visitation question were assigned an additional travel distance of zero miles. Similar to the payment card format, respondents could answer *definitely yes, probably yes, maybe, probably no*, or *definitely no*. These responses are referred to as *random* treatments.

Insert Figure 1 here

In the BSG context, there is considerable uncertainty in the stated preference data. The post-event surveys are conducted about six months ahead of the BSG registration date and almost a full year ahead of the participation date. Given that the BSG requires preparation and rigorous, injury free training, many respondents may be relatively certain that they are willing to participate, but less certain if they will be able to participate. Further, respondents may be willing and able to participate at the time of registration, but unable to register given the derby-style online process.

To address these issues, existing research (Whitehead et al., 2016; Whitehead & Wicker, 2018) has investigated alternative recodings of the stated preference variable (e.g., *definitely yes* vs. *probably and definitely yes*). Whitehead et al. (2016) have found that the *probably* and *definitely yes* respondents more accurately predicted actual behavior. Whitehead and Wicker (2018) have documented that *definitely yes* models are less statistically robust than models including *probably and definitely yes* answers. In light of these findings, the stated preference return visit variable is equal to one if the respondent answered *probably* or *definitely yes,* zero otherwise.

**Empirical model**

The empirical analysis is grounded in utility theory. Suppose that BSG participants have the utility function $u(X, BSG = 1)$, where $X$ is a compositive commodity and $BSG = 1$ is BSG participation, and face the budget constraint, $Y = pX + cBSG$, where $Y$ represents income, $p$ is the price of the composite commodity, and $c$ captures the total cost of participation in BSG. Participation cost is the sum of the registration fee and travel cost, $TC$. Maximization of the utility function subject to the budget constraint yields the indirect utility function $v(p, c, Y)$. Respondents are presented with a scenario where they face an increase in travel cost, $\Delta TC$, and determine whether they intend to participate in BSG, $v(p, c + \Delta TC, Y|BSG = 1) \gtreqless v(p, c = 0, Y|BSG = 0)$. If utility with the higher cost and participation, $BSG = 1$, is greater than utility with a cost of zero and no participation, respondents will choose to participate in the hypothetical scenario.

If the indirect utility function is linear, $v = \alpha + \beta p + \gamma c + \delta Y + e$, where the Greek letters are parameters and $e$ is an error term, then the difference across scenarios is

$\Delta v = a^* + \gamma^* \Delta TC + e^*$, where $\alpha^* = \alpha_1 - \alpha_0$, $\gamma^* = \gamma_1 - \gamma_0$, $e^* = e_1 - e_0$, where the subscript 1, 0 indicates BSG = 1, 0. If the error term, e*, is distributed logistically, the probability of participation is $\pi = \frac{1}{1+\exp(-\Delta V)}$.

The change in travel cost ($\Delta TC$) is measured as the sum of out-of-pocket travel costs and the opportunity cost of time using the following equation:

$$\Delta TC = (c \times 2 \times \Delta d) + \big(\theta \times w \times (2 \times \Delta d/mph)\big),$$

where $c = 0.13$ is the operating cost per mile (American Automobile Association, 2015), $\Delta d$ is the change in one-way distance (in miles), $\theta = 0.33$ is the fraction of the wage rate, and $w = Y/2000$, and $mph$ is 50 miles per hour – the average driving speed in North Carolina. Hence, this study uses the common fraction of the wage rate of 33% (Parsons, 2017), which can be considered a conservative measure (Whitehead & Wicker, 2018; Whitehead et al., 2013). Average additional travel costs amount to $87 (*n*=1,257). Income is measured in thousand US dollars and its mean value is $136 (*n*=976).

The three revealed preference observations and the stated preference observations available from the three survey years were combined into one sample (*n*=4,185). The following random parameter logistic regression model was estimated for intended visitation:

$$\ln\left(\frac{\pi}{1-\pi}\right) = \alpha^* + \gamma^* \Delta TC + \delta^* Y + e_{it}^*$$

where $Y$ is included to provide a determinant for the RP observations and $SP = 1$ for the stated preference observations; and $e_{it}^*$ is a random error term, $t = 1, 2, 3$. The random parameters logit allows for preference heterogeneity across individuals. For the fixed coefficient logit model, the parameter vector, $\beta$, is assumed to be constant across individuals. To allow for preference heterogeneity, we assume that individual preferences randomly vary according to a population distribution such that $\beta_i = \beta + \sigma_i$, where $\beta$ is an unknown, but constant locational parameter for preferences, and $\sigma_i$ is an individual specific random error component for preferences that are distributed across individuals.

The monetary value of a revisit is the difference between what the consumer is willing and able to pay and the actual cost. In a simple linear logit model with just constant and slope terms, the monetary value (i.e., WTP for the event) is the consumer surplus area from the probabilistic demand curve bounded by the probability of intended visitation at an additional travel cost of zero and the additional travel cost that makes this probability equal to zero: $WTP = \frac{-1}{\gamma^*} \ln{(1 + \exp[\alpha^*])}$ (Hanemann, 1989).

**Results and discussion**

Table 1 and Figure 2 present the stated preference return visitation responses. For each year, the percentage of BSG participants who state that they will return the following year ("Yes") is declining as the additional miles increase. The only exception is the difference between 0 and 30 miles in 2014 and between 90 and 120 miles in the 2016 payment card question. These two exceptions are due to the random sampling that was implemented to create the pseudo-random selection data from the payment card questions. Comparing the payment card responses over the three years, the overall return visitation is lower in 2014 compared to 2015 and 2016. The corresponding revealed preference visitation rates are 51% (2014), 57% (2015), and 67% (2016).

Comparisons between the payment card and random treatments in 2016 reveal that the effect of additional miles appears to be smaller in the random selection data (Figure 2).

While there is little difference in return visitation at 0 and 30 miles, return visitation is 18, 25, 20, and 25 percentage points higher at additional miles equal to 60, 90, 120, and 150 in the random selection data. One reason for this result may be that respondents are yea-saying in the randomly selected question, indicating return visitation at distances that they would not be able to make.

Insert Table 1 and Figure 2 here

Table 2 shows the results of the regression analysis. The coefficient on the additional travel cost variable is negative and statistically significant. This finding is in accordance with economic theory and suggests that the results are internally valid – similar to previous research (Whitehead & Wicker, 2018). The income effect is positive, indicating that a return visit is a normal good. The additional travel cost variable is interacted with the random selection indicator variable for the 2016 survey. This functional form outperformed a model with a random selection dummy variable. The coefficient on this variable is positive and statistically significant, reflecting the visual evidence in Figure 2.

The stated preference dummy variable is positive and statistically significant, indicating that the stated preference data overstate actual return visitation behavior. The marginal effect of the hypothetical bias is $\Delta SP = 0.21$, indicating that return visitation is overestimated by 21% when only stated preference data is employed to forecast demand (and the *probably yes* coding of return visitation is used).

The random parameter model in the bottom part of Table 2 is estimated with normally distributed coefficients and 500 Halton draws. These estimates give information about the level of heterogeneity. The standard deviation on the travel cost coefficient is about 81% of the coefficient, indicating that less than 33% of the individual conditional mean coefficient estimates are greater than zero (i.e., have the wrong sign). Moreover, the standard deviation on the travel cost and random selection interaction is 250% greater than its coefficient, suggesting that there is significant heterogeneity in how respondents answered these two question versions.

On the contrary, the standard deviation of income is equal to its coefficient, implying a low degree of heterogeneity. Likewise, the standard deviation of the stated preference dummy variable is less than 10% of the coefficient estimate and it is not statistically different form zero. Re-estimating the model with a fixed coefficient on the stated preference variable indicates that the fixed parameter model is no worse ($\chi^2$=0.24[1 df]). The marginal effect of the stated preference variable in this model is no different than in the model with a random parameter. This finding suggests that hypothetical bias is a robust result across the entire sample. Altogether, these results indicate that there is significant heterogeneity in the model estimates for additional travel costs and the interaction term with random selection, but not for income and stated preferences.

Insert Table 2 here

Table 3 displays the WTP estimates. The four WTP estimates reflect all combinations of the question format (payment card and random selection) and the type of preferences assessed (stated and revealed preferences). The stated preference variable being equal to zero simulates the revealed preference value of a return visit. Standard errors are estimated using the Delta method. WTP estimated with the randomly selected question is $92 greater than in the payment card when the stated preference variable is equal to 1. When the stated preference variable is equal to zero, this difference is $79 greater.

Comparisons between question formats show that WTP is $35 less when the revealed preference data is simulated (SP=0) with the payment card data and $58 less with the random selection format.

Insert Table 3 here

## Conclusion

This study set out to value non-market benefits generated by competition in a participatory cycling event using a unique panel data set. It applied CBM to estimate participants' WTT additional distances for a return visitation to this event in the following year. WTT estimates were converted into WTP estimates based on travel costs, including opportunity cost of time. The focus of this study was on a methodological comparison of WTP estimates resulting from different question formats and an assessment of the magnitude of hypothetical bias. The results reveal that respondents are more likely to indicate a return visit in the randomly selected question and that WTP estimates are sensitive to the question format, with the random selection format producing larger estimates than the payment card. Regarding hypothetical bias, respondents who indicated that they would probably return to the event were found to overstate their return visitation by about 20%.

This research makes at least two contributions to the literature. The first contribution is the presentation of empirical evidence for differences between two question formats. Without any evidence that one method is superior to the other, the range of WTP estimates can be considered useful for sensitivity analysis. Our second contribution is an estimate of hypothetical bias in return visitation questions assessing WTT. This estimate can be used for sensitivity analysis of demand forecasting.

The present research has implications for valuing non-market benefits in general and studies relying on WTT questions. More broadly, WTP estimates obtained by CBM and WTT questions can be integrated into cost-benefit analyses of participatory sport events. These analyses typically include market goods and services. Integrating non-market goods into such analyses provides a more holistic picture of benefits and costs. Otherwise, non-market benefits of participants are overlooked, meaning that overall benefits are likely underestimated. However, valuation studies are advised to carefully choose the question format and whether WTP estimates are based on revealed or stated preference data. As evident in this study, resulting monetary values are highly sensitive to the question format and the type of data.

This study has some limitations that can guide future research. It shares the criticism of all travel cost studies assigning a monetary value to travel time. Even though this research uses a common value for the fraction of the wage rate, the actual enjoyment of traveling may be worth exploring. For example, future research should study whether individuals receive utility or disutility from traveling and assign (positive or negative) monetary values accordingly. Another opportunity might be to consider self-reported values for travel time – similar to what is done in studies estimating the monetary value of voluntary work (Orlowski & Wicker, 2015). Another direction for future research would be to compare further question formats to enhance our understanding of the extent to which the methodological design affects WTP estimates and the magnitude of hypothetical bias.

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Table 1

*Stated preference return visitation (probably and definitely yes) responses*

| | 2014 | | 2015 | | 2016 Payment card | | 2016 Random selection | |
|---|---|---|---|---|---|---|---|---|
| ΔMiles | Yes | n | Yes | n | Yes | n | Yes | n |
| 0 | 78.0% | 59 | 84.7% | 59 | 83.3% | 36 | 83.7% | 43 |
| 30 | 85.2% | 61 | 83.1% | 59 | 79.5% | 39 | 77.6% | 49 |
| 60 | 56.3% | 64 | 54.1% | 61 | 55.6% | 36 | 73.7% | 38 |
| 90 | 29.0% | 69 | 45.5% | 66 | 34.3% | 35 | 59.6% | 57 |
| 120 | 18.9% | 74 | 20.3% | 69 | 36.6% | 41 | 56.1% | 41 |
| 150 | 9.8% | 61 | 20.0% | 60 | 17.5% | 40 | 42.5% | 40 |
| Total | 44.8% | 388 | 50.1% | 374 | 50.7% | 227 | 65.7% | 268 |

*Note:* The revealed preference visitation rates are 51% (2014), 57% (2015), and 67% (2016) (n=976).

Table 2

*Return visitation random parameter logit model (joint estimation of revealed and stated preference data)*

| Mean ($\beta$) | Coefficient | SE | t-stat |
|---|---|---|---|
| Constant | -0.032 | 0.058 | -0.54 |
| ΔTravel cost | -0.016 | 0.001 | -14.80*** |
| Income | 0.002 | 0.000 | 5.77*** |
| ΔTravel cost × Random selection | 1.730 | 0.218 | 7.92*** |
| Stated Preference (=1) | 0.860 | 0.101 | 8.49*** |
| Standard deviation ($\sigma$) | Coefficient | SE | t-stat |
| Constant | 0.000 | 0.035 | 0.01 |
| ΔTravel cost | 0.013 | 0.001 | 12.28*** |
| Income | 0.002 | 0.000 | 8.25*** |
| ΔTravel cost x Random selection | 4.371 | 0.457 | 9.56*** |
| Stated Preference | 0.098 | 0.075 | 1.31 |
| $\chi^2$ | 31.58 | | |
| Sample size | 4185 | | |
| Cases | 976 | | |

*Note:* SE=standard error; ****p*<0.01.

Table 3

*Willingness to pay estimates*

| | SP=1 | | | SP=0 | | |
|---|---|---|---|---|---|---|
| | WTP | SE | t-stat | WTP | SE | t-stat |
| Payment Card | 85.80 | 3.63 | 23.62*** | 50.87 | 3.64 | 13.96*** |
| Random selection | 177.87 | 12.10 | 14.70*** | 129.63 | 12.52 | 10.36*** |

*Note:* SE=standard error; ***$p$<0.01.

Figure 1

*Payment card format of the 2014 BSG survey*

Suppose that you had to drive further to get to Blood Sweat and Gears in 2015 compared to your driving distance in 2014. For example, you might move further away from Valle Crucis.

**22. Would you plan to participate in the 2015 Blood Sweat and Gears at the following additional driving distances (one-way)?**

| | Definitely no | Probably no | Not sure | Probably yes | Definitely yes |
|---|---|---|---|---|---|
| 30 more one-way miles | ○ | ○ | ○ | ○ | ○ |
| 60 more one-way miles | ○ | ○ | ○ | ○ | ○ |
| 90 more one-way miles | ○ | ○ | ○ | ○ | ○ |
| 120 more one-way miles | ○ | ○ | ○ | ○ | ○ |
| 150 more one-way miles | ○ | ○ | ○ | ○ | ○ |

Figure 2

*Stated preference return visitation responses (probably and definitely yes)*