

# CONFOUNDING ISSUES IN THE DEADWEIGHT LOSS OF GIFT-GIVING

H. Kristl Davison, Mark N. Bing, E. Bruce Hutchinson, and Leila J. Pratt<sup>1</sup>

## Abstract

When a gift is given, someone other than the final consumer makes the consumption choice. Thus there is a possibility that the gift will not match the preferences of the receiver, i.e., the gift will represent a wise use of the money given the gift-giver's tastes but not necessarily a wise use of money given the recipient's tastes. In other words, gift giving can result in a deadweight loss. This paper addresses and clarifies the discrepancy between Waldfogel's (1993) finding of a deadweight loss from gift giving and Solnick and Hemenway's (1996) finding of a deadweight gain from gift giving. It also builds on some of the concerns raised by Ruffle and Tykocinski (2000).

JEL Classification Code(s): A2, D11.

## Introduction

During the past decade-plus several articles (Waldfogel 1993, 1996 and 1998; Solnick and Hemenway [hereafter SH] 1996, 1998 and 2000; List and Shogren [hereafter LS], and Ruffle and Tykocinski [hereafter RT]) contributed to a discussion regarding the existence of a deadweight loss for Christmas gift giving.

Two factors confound the above statistical efforts. First, while it is easy to instruct individuals to ignore sentimentality, it is often difficult for individuals to do so. A better approach is to remove sentimentality *a priori*. SH (1996, p. 1301-1303) report that "the greatest gain in value com[es] from gifts given by a 'spouse or significant other,'" and "gifts...specifically asked for were generally valued lower than gifts that had not been requested," a "common" explanation for the higher valuation of unexpected gifts was that they "showed a lot of thought." In addition, according to SH "experiments have demonstrated that the subjective value of an item can increase substantially after an individual has been given the item." Each of these findings represents a form of sentimentality. Sentimentality is likely to be especially true for Christmas gifts, the subject of much of this research, because of the giver's effort at creativity and originality.

Secondly, the appropriate measure for deadweight loss or gain is the difference between the market price of the gift and the amount the recipient would be willing to give up (pay) rather than do without the gift. Thus the market price of the good must be determined. Waldfogel, SH and LS use the recipient's estimate of the gift's price as a proxy. But this proxy may be biased; especially if the recipient is unfamiliar with the good and thus has no idea of its market price.<sup>2</sup> A biased proxy price causes measurement error in the deadweight loss or gain from gift giving. In

---

<sup>1</sup> H. Kristl Davison, Assistant Professor of Psychology, University of Hartford; Mark N. Bing, Assistant Professor of Psychology, University of Tennessee at Chattanooga; E. Bruce Hutchinson, Professor of Economics, University of Tennessee at Chattanooga; Leila J. Pratt, Hart Professor of Economics, University of Tennessee at Chattanooga.

<sup>2</sup> Admittedly, to obtain the prices for each of many gifts received in a survey such as Waldfogel's would be difficult – perhaps nearly impossible – but that does not change the correct measure of price.

particular, the amount of deadweight loss or gain should vary based upon the value the recipient is willing to give up rather than do without less the actual market price and not the recipient's over- or under-estimation of the market price.

Waldfogel (1993) used standard economic analysis to show that the market price of a gift will equal or exceed the value the recipient places on the gift provided that sentimental value is excluded. That is, a deadweight loss occurs. The 1996 article by SH, however, found a deadweight gain even though respondents were explicitly instructed to ignore any sentimental value attached to the gift. LS (1998; 1354) used auction data to provide support for Waldfogel's original point estimates and for SH's basic intuition. Waldfogel and SH both replied to LS. According to Waldfogel (1998, p. 1358) "studies of recipient valuation of gifts must be very careful to distinguish recipient valuation of gift objects from recipient valuation of gift receipt." SH (1998; 1356) stated their "concern that subjects may not have accurately valued their expensive gifts."

RT (2000) showed that gift valuations depend upon wording, and that valuations by economists and psychologists did not significantly differ. They concluded that "individuals do not always carry ... preformulated valuations of objects" and that excluding sentimentality is difficult. Replying to RT, SH (2000, p. 325) indicated that their results also "do not vary a good deal" among groups of undergraduates. More importantly, they note the poor cost estimation by RT's respondents: "For example, psychology students estimated the cost of the mask at 603 shekels and economics students at 375 shekels. Actual retail price was 800 shekels."

SH go on to point out that, while RT's (2000, p. 320) choice of a "practical" and a "decorative" gift may avoid sentimentality, they fail to consider that students may have no knowledge of the market for a "table lamp with a gold base and a glass...shade" or of a "brown, hand-carved African wooden mask" and thus no idea of the value of these goods.

The present research contributes to this on-going discussion through: (1) consideration of the "judgmental anchor upon which to base value estimates" (RT, p. 319); (2) finding that the determination of a deadweight loss depends on wording of the questions asked and used to measure deadweight loss; and (3) support for SH's conclusion that there is no statistical difference among responses of different groups of undergraduates. In particular this paper focuses on the relevancy of a recipient's knowledge of the market price of a gift, wording issues, and whether or not responses differ among undergraduate groups. We use mean responses to demonstrate that the deadweight varies between a loss or a gain based upon different types of measurement.<sup>3</sup>

## Experiment and Data

During the first three weeks of the Fall 2001 semester, a questionnaire (see Appendix) was administered to students in Principles of Economics and Introduction to Psychology at UTC (University of Tennessee at Chattanooga) concerning gift giving of two goods, a UTC logo sweatshirt and a large pizza.<sup>4</sup> Although LS (1998, p. 1350) noted deficiencies of a questionnaire approach, this approach parallels that of Waldfogel, SH and RT.

<sup>3</sup> The authors recognize that no deadweight loss or gain occurs unless the gift is actually purchased and given. Our use of mean differences between estimated retail price, willingness-to-pay and actual retail price, etc. in Table 3 seeks to clarify how different deadweight measures can change a deadweight loss into a gain.

<sup>4</sup> For the few students enrolled in both courses, only the questionnaire from the first surveyed course was included.

Sentimentality was substantially, if not totally, removed by the setting, timing, and the gifts selected. In particular, we expect undergraduates to attach no sentimental value to pizza and, while some sentimental value may apply to a sweatshirt embossed with their University's logo, this is likely minimized by the fact that introductory courses – populated mostly by freshmen and sophomores – were surveyed at the beginning of the academic year.

In addition, U.S. undergraduates are likely to be very knowledgeable about the prices – another confounding factor – of pizza and a school-logo sweatshirt. Classroom discussions reveal undergraduates to be regular purchasers of pizza and classroom observations show undergraduates to be frequent wearers of UTC-logo sweatshirts. While it might be argued that the value of a pizza would vary with the student's level of hunger, the wording of the cost/price questions works to avoid that issue. Of course, some students may dislike pizza or sweatshirts. In this case, they would be expected to assign low values to these gifts as would anyone with an undesirable object, especially when sentimentality is omitted. Still, most undergraduates are apt to be near their margins for pizza and sweatshirts.

The students received neither gift. The intention of the experiment and our measurement of deadweight loss were to focus on the undergraduates' knowledge of market price and its impact on deadweight measurement. The questionnaire used also partially addressed Waldfoegel's (1998, p. 1359) concern "that recipients would have made *inframarginal* purchases" that would therefore be valued above their cost.

One major thrust of our study and its questionnaire was to resolve the discrepancy between the deadweight loss found by Waldfoegel, which is expected by standard economic theory, and the deadweight gain found by SH (1996). To accomplish this, the questionnaire asks each respondent three questions regarding the price of a large Domino's three-topping pizza and a UTC-logo sweatshirt: What is your estimate of the retail price (to the nearest dollar) of the gift? What amount (to the nearest dollar) would you be willing to pay to obtain this gift if you had not already received it? What is the minimum (to the nearest dollar) that you would accept for this gift? An important change from Waldfoegel's questionnaire was our identification of two specific gifts, whereas Waldfoegel referenced gifts actually received by the respondent.

Because we believe that an individual's valuation of a gift is at least partially determined by that individual's perception of its price, we chose items commonly purchased by college students. In addition, because we believe a student's expectation is impacted by familiarity with the price of a particular gift, we chose gifts that will likely vary in frequency of purchase – a pizza being purchased more frequently than a sweatshirt.

## Results

After deleting questionnaires with incomplete responses and those that contained obviously insincere responses (for example, the pizza price exceeding \$100), our sample consisted of 464 student.<sup>5</sup> At the time the questionnaire was administered, the actual price (in whole dollars) for a large 3-topping pizza was \$12 and for a logo sweatshirt purchased at the campus bookstore was \$20.<sup>6</sup>

<sup>5</sup> The deletion of insincere responses was arbitrary. For example, a price of \$100 for a large pizza in Chattanooga, TN, is nonsensical, while a zero price or value would be correct for the student who detests pizza. We sought to be inclusive rather than exclusive. Out of over 400 responses that some should be insincere or extreme does not surprise. Indeed, SH (1996, p. 1300) mention that five of their 209 surveys showed extreme yields – more than five standard deviations above the mean – so their results were tabulated with and without the outliers.

<sup>6</sup> The questionnaire did not stipulate whether or not the "actual price" included sales tax (9.25% in Chattanooga, TN) though it does stipulate price to the nearest dollar. In retrospect we believe that students took

Fifty-six percent of all respondents were females and 42% males (2% did not indicate a gender). Seventy-four percent of the respondents were 20 or younger. The racial composition of the sample was: 67% Caucasian, 24% African-American, 5% Asian, 3% Hispanic, and 1% Native American. With regard to religion, 36% indicated that they were Protestant, 9% Catholic; 51% indicated no religious preference. Seventy-nine percent of the students surveyed were freshman (47%) or sophomores (32%). Seventeen percent were juniors (17%) and four percent were seniors. By major, 34% were in Business; 14% were in Education, Nursing, or Social Work; 17% were in Science, Mathematics, Engineering, or Computer Science; 10% were in the Social Sciences; and, 25% listed their major as "Other." Forty-three percent of the students were not employed; 51% worked part-time (between 1 and 25 hours per week). Of those who reported being employed, 82% earned less than \$10 per hour. Finally, 43% lived with a parent or guardian – the University of Tennessee at Chattanooga is a "commuter" school.

Table 1 shows the descriptive statistics for the estimated retail price, price the student was willing-to-pay, and price at which the student was willing-to-sell the sweatshirt or the pizza.<sup>7</sup>

Table 1  
Descriptive Statistics for Prices of Items

	Min.	Max.	Mean	St.Dev.
Sweatshirt (Price = \$20.00)				
Est. Retail Price	0	55	25.29	8.27
Price to Pay	0	60	17.39	8.60
Price to Sell	0	50	15.66	8.27
Pizza (Price = \$11.00)				
Est. Retail Price	0	40	13.09	3.45
Price to Pay	0	30	10.70	3.82
Price to Sell	0	25	9.07	4.17

Tables 2A and 2B present bar graphs comparing the student responses according to estimated retail price, price willing-to-pay, and price willing-to-sell respectively from the sweatshirt and pizza data. (The reader should note carefully that the ranges represented on the horizontal axes are different.) The graphs show the distributions to be quite similar except for the \$16-\$20 data in Table 2A. Generally, students who provided low dollar estimates for the retail price also provided low price estimates for willing-to-pay and even lower price estimates for willing-to-sell. Students who gave high dollar estimates for the retail price also gave high

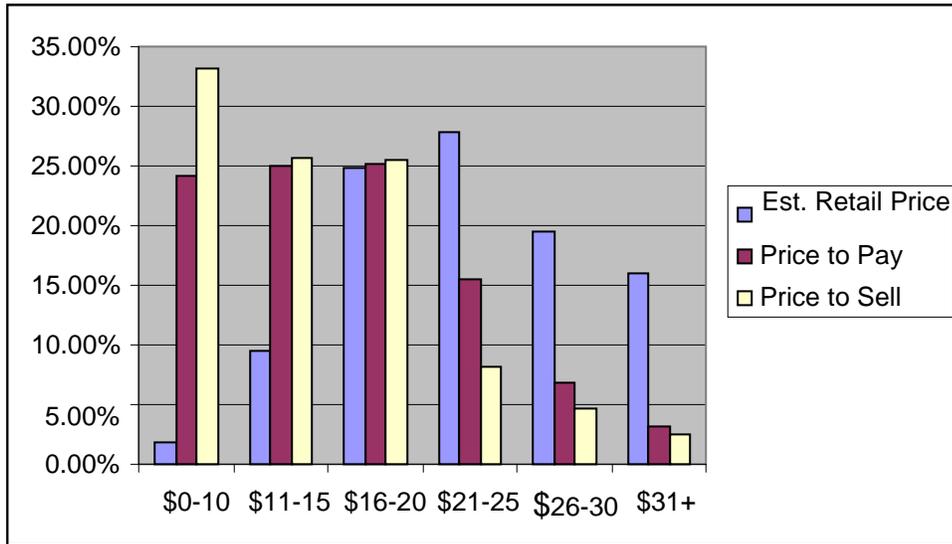
---

"actual price" to mean list price exclusive of sales tax. Moreover, no student asked "Does the price include sales tax?" or any version of this question. Thus, it would seem that the sales tax issue, which did not draw the concern of any of several professors who reviewed the questionnaire, also did not draw the concern of any of the students. Also, given the 'directness' of the questionnaire, we do not believe any students gave consideration to possible discounts available for purchasing a pizza or a part of a pizza. The gift was the whole pizza without the sharing of slices.

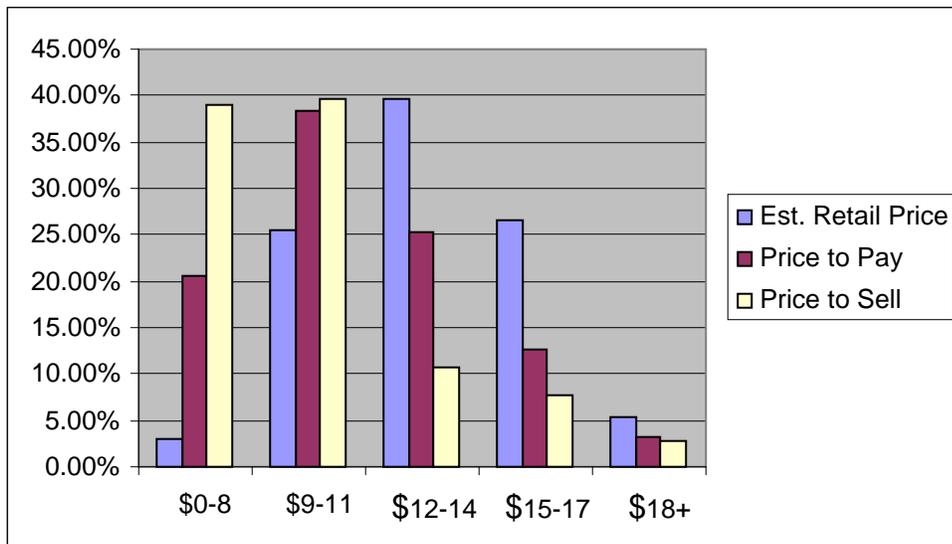
<sup>7</sup> The authors are aware that valuation studies typically observe that the average willingness-to-pay exceeds the average willingness-to-sell (see Shogren, et al 1994). We obtain the opposite result. We doubt, given the questions in our survey, that our result is due to an endowment effect. Waldfoegel (1993), SH (1996), and RT (2000) do not provide this information on the questions asked. Therefore, it is not possible to make a comparison.

price estimate compared to their price estimates for willing-to-pay and even higher price estimates for willing-to-sell.

**Table 2 A**  
**Distribution of Prices for Sweatshirts**



**Table 2 B**  
**Distribution of Prices for Pizza**



Of the 464 students sampled, 196 were enrolled in a (Macro- or Micro-) Principles of Economics class and 268 were enrolled in Introduction to Psychology. Table 3 shows the mean estimated retail price, price willing-to-pay and price willing-to-accept by the course in which the student was enrolled. For students enrolled in the Introduction to Psychology course, the mean estimated retail price, the mean price willing-to-pay, and the mean price willing-to-sell exceeded their counterparts for the students enrolled in Principles of Economics courses with the single exception of the willing to sell pizza price. A t-test on the equality of the means is statistically significant only for the willing-to-pay sweatshirt price. RT (p. 322) reported that the means estimated by psychology students exceeded those estimated by the intermediate microeconomics students. Like the present study, they also observed that the magnitude of the differences in mean estimates increased with product price.

Table 3  
Statistics for Means of Estimates

	Econ. Mean	Psych. Mean	Econ. Std. Dev.	Psych. Std. Dev.	Std. Error Difference	t-Test for Equality
Sweatshirt						
Est. Retail Price	24.80	25.65	8.034	8.433	0.777	-1.103
Price to Pay	16.10	18.32	8.145	8.829	0.803	-2.767
Price to Sell	15.39	15.85	8.297	8.253	0.777	-0.589
Pizza						
Est. Retail Price	12.91	13.21	2.978	3.755	0.325	-0.944
Price to Pay	10.60	10.78	3.438	4.088	0.360	-0.484
Price to Sell	9.30	8.91	3.821	4.413	0.393	1.005

The retail price estimates by students were 9 percent and 26 percent higher than the actual price for the pizza and sweatshirt respectively. The amount a student was willing to pay and the minimum a student was willing to accept, however, were below the actual retail price by an average of 3% and 18% for pizza and 13% and 22% for the sweatshirt (see Table 1).

Also, note that though the actual price of the sweatshirt (\$20) was not quite twice the price of the pizza (\$12), the standard deviation of the estimated price of the sweatshirt was more than twice the standard deviation of the estimated price of the pizza (see Table 1). This comparison holds individually for students enrolled in economics and psychology classes (see Table 3). These data comparisons demonstrate that students understandably estimate with better accuracy the actual price of a more frequently purchased product or better known product (pizza) than a less known product (sweatshirt).

The economists' traditional deadweight loss measure, the excess of the amount the individual would be willing-to-pay rather than do without the good after deducting the price the individual is made-to-pay (market price) is upheld by our results. This conclusion supports Waldfogel's (1993). Indeed, the deadweight loss estimates range between 2 percent and 24 percent of market price comparing well with Waldfogel's estimates (1993, p. 1328) that "gift-giving destroys between 10 percent and a third of the value of gifts."

Paired-sample t-tests (Table 4) reveal that, for both of the items, the estimated retail price was significantly higher than the price the student was willing-to-pay (sweatshirt,  $t = -20.76$ ,  $df =$

Table 4  
Difference Tests

Pairing	Pizza		Sweatshirt	
	Mean Difference	t-Test*	Mean Difference	t-test**
Est. Retail - Retail	\$ 1.09	6.77	\$ 5.29	13.78
Will. To Pay - Retail	\$ (1.30)	-1.69	\$ (2.61)	-6.54
Will. To Pay - Est. Retail	\$ (2.38)	-13.25	\$ (7.91)	-20.76
Will. To Sell - Will. To Pay	\$ (1.62)	-8.27	\$ (1.73)	-4.62

Note. All t-tests are significant at  $p < 0.001$ .

() indicates a negative number.

\*  $df = 462$ , except for retail v. willing to pay ( $df = 463$ ).

\*\*  $df = 463$ .

463,  $p < 0.001$ ; pizza,  $t = -13.25$ ,  $df = 463$ ,  $p < 0.001$ ); paired-sample t-tests for both items also indicate that willingness-to-pay was significantly higher than the price at which the student was willing-to-sell (sweatshirt,  $t = -4.62$ ,  $df = 462$ ,  $p < 0.001$ ; pizza,  $t = -8.27$ ,  $df = 462$ ,  $p < 0.001$ ). The mean differences reported in Table 4 indicate that the measurement of deadweight loss or gain is clearly sensitive to the wording of the questions as well as to whether actual or estimated retail price is used, and to the way in which the recipient's willingness-to-pay is determined.<sup>8</sup> Our study finds that respondents substantially, though by less than one standard deviation, over-estimate the retail price of a gift. RT (pp. 320 and 322) found that respondents under-estimated the retail price. According to our study, this over-estimation is true even for gifts (goods) whose prices ought to be well known by the respondent.

We also investigated whether the usefulness, importance, and value of an item was related to the estimated retail price, the price the student was willing-to-pay, and the price at which the student was willing to sell the item. Descriptive statistics for usefulness, importance, and value for pizza and sweatshirts are in Table 5.

Table 6 shows that usefulness, importance and value were each significantly related to estimated retail price, the price the student was willing-to-pay, and the price at which the student was willing-to-sell for sweatshirts. The strongest relationship was with the price the student was willing-to-pay. Specifically, the more often a student expected to use the sweatshirt, the more important it was and the more the student valued it, the higher the estimated price. For the pizza, however, the relationships were less clear. Only the usefulness of the pizza was significantly related to the price the student was willing-to-pay. These negative findings, along with the low mean for importance and value, may be due to the fact that pizza is a consumable with no enduring value.

<sup>8</sup> Some may argue that a gift, pizza or sweatshirt, is given with consideration to the recipient's preferences. Namely, that a gift is likely given because the recipient has a strong preference for it. This would indicate our use of means is inappropriate. This may be true sometimes but not always. Gift givers in many cases do not know or know well the recipient's preferences. For example, a relative who rarely visits may not know or realize the correct age of the recipient which could impact preferences for a particular gift. Or, a gift may be given based on a general preference; such as giving an undergraduate economics major a copy of the **Wealth of Nations**. This argument would make an interesting topic for additional research.

Table 5  
Descriptive Statistics for Usefulness, Importance, and Value

	Min.	Max.	Mean	St.Dev.
Sweatshirt				
Usefulness	0	4	1.93	0.96
Importance	0	4	1.42	0.89
Value	0	4	1.62	0.97
Pizza				
Usefulness	0	4	2.05	1.11
Importance	0	4	1.31	1.06
Value	0	4	1.24	1.08

Table 6  
Intercorrelations of Usefulness, Importance, and Value with Item Prices

	Sweatshirt			Pizza		
	Est. Retail Price	Price to Pay	Price to Sell	Est. Retail Price	Price to Pay	Price to Sell
Sweatshirt Usefulness	0.20**	0.44**	0.22**			
Importance	0.10**	0.33**	0.16**			
Value	0.15**	0.32**	0.17**			
Pizza Usefulness				-0.08	0.14**	0.01
Importance				-0.08	0.07	0.03
Value				-0.05	0.03	0.09

\*\* significant at p<.01

We also considered the relationship of demographic characteristics to expected retail price, price willing-to-pay, and price willing-to-sell. Significant gender differences arose in these variables for the sweatshirt but not for the pizza (see Table 7). Women provided higher prices for each of these variables than men. No significant differences were found in any of the prices across the other demographic variables: age, class, major, employment, income, or living with parents/guardian.<sup>9</sup>

<sup>9</sup> Although there was a significant racial difference in the retail price estimate for the pizza and a significant religious difference in the price students were willing to pay for the pizza, such differences are not consistent across all the pricing variables, and were based on very unequal group sizes.

Table 7  
Descriptive Statistics for Prices of Items by Male/Female

	Male		Female		t	df
	Mean	St. Dev.	Mean	St. Dev.		
<b>Sweatshirt</b>						
Est. Retail Price	24.07	8.7	26.26	7.90	-2.80**	452
Price to Pay	15.49	8.87	18.89	8.14	-4.24**	452
Price to Sell	14.46	7.81	16.38	8.32	-2.50*	452
<b>Pizza</b>						
Est. Retail Price	13.03	3.56	13.10	3.33	-0.21	451
Price to Pay	10.84	3.59	10.62	3.99	0.61	451
Price to Sell	8.98	3.88	9.03	4.29	-0.13	451

\*significant at  $p < .02$ ; \*\*significant at  $p < .01$ .

### Conclusion

Our study provides credence for the contention that the phrasing of questions regarding the price a person would pay rather than do without a good is crucial to the determination of deadweight gain or loss. RT agree. They write (p. 323) that the “most significant result is that the form of the value question dramatically affects the apparent welfare yield of gifts.” Differences also result from whether the respondent is asked to estimate the retail price, the amount willing-to-be-paid, or the amount willing-to-be-accepted.

It seems that the estimate of the market price by a typical respondent - even for gifts the respondent is likely to buy frequently - significantly exceeds the actual market price. The typical respondent also significantly under-estimates the amount he is willing-to-pay or to-accept relative to the market price. Thus wording distinctions account for Waldfogel's (1993) finding of a deadweight loss associated with gift giving as expected by microeconomic theory's willingness-to-pay concept and SH's (1996) finding of a deadweight gain when estimated retail price and a consumer's willingness-to-pay are compared.

**Appendix:**

**HOLIDAY GIFT GIVING SURVEY**  
**CODE \_\_\_\_\_ (Link To Survey)**

**SECTION #1**

**INSTRUCTIONS:** In this part of the survey, imagine you have received a gift certificate for the two items identified below. It is very important that you complete/fill-in the **six** blank spaces below.

	<b>UTC Logo Sweatshirt</b>	<b>Dominos Large Pizza With 3 toppings</b>
What is your estimated retail price (to the nearest dollar) of the gift?	\$ _____	\$ _____
What is the amount (to the nearest dollar) you would be willing to pay to obtain the gift had you not already received it?	\$ _____	\$ _____
What is the minimum (to the nearest dollar) that you would accept for this gift?	\$ _____	\$ _____

**Begin using scantron form.**

*Use the following scale to indicate:*

**A. How often you expect to use each gift.**

1. UTC Logo Sweatshirt.

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Never	Rarely	Occasionally	Frequently	All the Time

2. Domino’s Large Pizza with 3 toppings.

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Never	Rarely	Occasionally	Frequently	All the Time

**B. How important is this gift to you?**

3. UTC Logo Sweatshirt.

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<i>Not Important At All</i>	<i>Not Very Important</i>	<i>Somewhat Important</i>	<i>Very Important</i>	<i>Extremely Important</i>

4. Domino’s Large Pizza with 3 toppings.

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<i>Not Important At All</i>	<i>Not Very Important</i>	<i>Somewhat Important</i>	<i>Very Important</i>	<i>Extremely Important</i>

**C. Indicate how valuable each gift is to you.**

5. UTC Logo Sweatshirt.

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<i>Very Little</i>	<i>Minimal</i>	<i>OK/Somewhat</i>	<i>High</i>	<i>Very High</i>

6. Domino’s Large Pizza with 3 toppings.

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<i>Very Little</i>	<i>Minimal</i>	<i>OK/Somewhat</i>	<i>High</i>	<i>Very High</i>

**SECTION #2**

*This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer on your answer form. To what extent do you generally feel this way, that is, how do you feel on the average? Use the following scale:*

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>Very Slightly or Not at All</b>	<b>A Little</b>	<b>Moderately</b>	<b>Quite a Bit</b>	<b>Extremely</b>

		Very Slightly or Not At All	A Little	Moderately	Quite a Bit	Extremely
7.	interested.....	A	B	C	D	E
8.	distressed.....	A	B	C	D	E
9.	excited.....	A	B	C	D	E
10.	upset.....	A	B	C	D	E
11.	strong.....	A	B	C	D	E
12.	guilty.....	A	B	C	D	E
13.	scared.....	A	B	C	D	E
14.	hostile.....	A	B	C	D	E
15.	enthusiastic.....	A	B	C	D	E
16.	proud.....	A	B	C	D	E
17.	irritable.....	A	B	C	D	E
18.	alert.....	A	B	C	D	E
19.	ashamed.....	A	B	C	D	E
20.	inspired.....	A	B	C	D	E
21.	nervous.....	A	B	C	D	E
22.	determined.....	A	B	C	D	E
23.	attentive.....	A	B	C	D	E
24.	jittery.....	A	B	C	D	E
25.	afraid.....	A	B	C	D	E

**SECTION #3**

**INSTRUCTIONS:** Read each statement below and decide whether or not it describes how you tend to act, think, or feel. Then, indicate your level of agreement with each statement using the following scale:

**A** = Strongly Agree   **B** = Agree   **C** = Neutral/Undecided   **D** = Disagree   **E** = Strongly Disagree

**In my personal relationships:**

- |     |  |          |          |          |          |          |
|-----|--|----------|----------|----------|----------|----------|
| 26. | It is more important for me to get from others.  | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> |
| 27. | It is more important for me to give to others.   | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> |
| 28. | It is more important for me to help others.  | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> |
| 29. | It is more important for me to watch out for my own good.  | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> |
| 30. | I am more concerned about what I received from others.   | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> |
| 31. | I am more concerned about what I contributed to others.  | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> |
| 32. | The hard work I do should benefit others.  | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> |
| 33. | The hard work I do should benefit me.  | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> |
| 34. | My personal philosophy in dealing with others would be if I don't look out for myself, nobody else will. | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> |
| 35. | My personal philosophy in dealing with others would be it's better for me to give than to receive.       | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> |

**SECTION #4**

**INSTRUCTIONS:** Please answer the following questions as accurately and honestly as possible.

36. How old are you?
- |             |             |             |             |                 |
|-------------|-------------|-------------|-------------|-----------------|
| <b>A</b>    | <b>B</b>    | <b>C</b>    | <b>D</b>    | <b>E</b>        |
| 16-18 Years | 19-20 Years | 21-22 Years | 23-30 Years | 30 Years & Over |
37. What sex are you?      **A.** Male      **B.** Female
38. What is your race?
- A. African American
  - B. American Indian/Native American
  - C. Asian American
  - D. Caucasian
  - E. Hispanic, Latino or Cuban
39. What religion do you practice?
- A. Catholic
  - B. Jewish
  - C. Moslem
  - D. Protestant
  - E. None/Other
- A. According to your earned credit hours, what class are you in at UTC?

- B. Freshman (0-23 semester hours earned)
  - C. Sophomore (24-59 semester hours earned)
  - C. Junior (60-89 semester hours earned)
  - D. Senior (90 or more semester hours earned)
41. What is your College/Major at UTC:
- A. Business (Accounting, Finance, Management, or Marketing)
  - B. Education, Nursing, or Social Work
  - C. Science, Mathematics, Engineering, or Computer Science
  - D. Social Science (Economics, Political Science, Psychology, or Sociology, etc.)
  - E. Other
42. Are you employed?
- A. Not employed
  - B. 1-15 hours per week
  - C. 16-25 hours per week
  - D. 26-35 hours per week
  - E. 35 or more hours per week
43. What is your income?
- A. \$5.99 per hour or less
  - B. \$6.00-\$7.99 per hour
  - C. \$8.00-\$9.99 per hour
  - D. \$10.00-\$11.99 per hour
  - E. \$12.00 or more per hour
44. Do you live with your parents/guardian?
- A. Yes
  - B. No

**References:**

- List, John A and Shogren, Jason F. 1998. "The Deadweight Loss of Christmas: Comment." *American Economic Review*, 88(5), 1350-55.
- Ruffle, Bradley J. and Tykocinski, Orit. 2000. "The Deadweight Loss of Christmas: Comment." *American Economic Review*, 90(1), 319-324.
- Shogren, Jason F., Shin, Seung Y., Hayes, Dermot J., and Kliebenstein, James B. 1994. "Resolving Differences in Willingness to Pay and Willingness to Accept." *American Economic Review*, 84(1), 255-270.
- Solnick, Sara and Hemenway, David. 1996. "The Deadweight Loss of Christmas: Comment." *American Economic Review*, 86(5), 1299-1305.
- \_\_\_\_\_. 1998. "The Deadweight Loss of Christmas: Reply." *American Economic Review*, 88 (5), 1356-57.
- \_\_\_\_\_. 2000. "The Deadweight Loss of Christmas: Reply." *American Economic Review*, 90(1), 325.
- Waldfogel, Joel. 1993. "The Deadweight Loss of Christmas." *American Economic Review*, 83(5), 1328-36.
- \_\_\_\_\_. 1996. "The Deadweight Loss of Christmas: Reply." *American Economic Review*, 86(5), 1306-08.
- \_\_\_\_\_. 1998. "The Deadweight Loss of Christmas: Reply." *American Economic Review*, 88(5), 1358-59.