

Table 1: Observations of Taxpayers Receiving Refunds^a

	1990	1991	1992	1993	Total
Observations of Taxpayers:					
Receiving Refunds					
Sample Size	31103	34986	34334	35376	135799
Average Refund	251.25	271.67	255.60	248.36	249.40
Contributing to the Nature Fund^b					
Sample Size	14012	16387	16221	17751	64371
Average Refund	266.13	277.38	276.54	259.83	269.88
Average Fund Contribution ^c	5.31	5.38	5.51	5.21	5.35
Contributing to the Child Fund^b					
Sample Size	16851	20146	18212	18318	73527
Average Refund	285.40	308.80	286.43	274.78	289.42
Average Fund Contribution ^c	5.20	5.35	5.22	4.84	5.16
Contributing to the Olympic Fund^b					
Sample Size	553	725	549	531	2358
Average Refund	521.59	477.75	536.14	505.06	507.78
Average Fund Contribution ^c	1.41	1.42	1.35	1.33	1.38
Contributing to the Veteran Fund^b					
Sample Size	---	---	4296	4664	8960
Average Refund	---	---	279.72	272.33	275.87
Average Fund Contribution ^c	---	---	4.44	4.66	4.56
Not Contributing to Any Fund					
Sample Size	9404	9382	9325	9381	37492
Average Refund	212.26	221.15	217.38	221.65	218.11

^a This table includes observations for those taxpayers receiving refunds, 1990-1993. The data set includes observations for every taxpayer contributing to any fund. The data set also includes a randomly drawn sample of approximately 9000 taxpayers who received refunds each year but did not contribute to any fund. All refunds and contributions are in 1993 dollars.

^b Taxpayers may have contributed to more than one fund.

^c All contributions were positive amounts – no zeroes.

Table 2: Description of Variable Names used in Regression Equations^a

Variable ^b	Brief Explanation
INCOME	KY gross income in \$1000's.
TAXPRICE	The price of a charitable contribution in cents/\$. 100 if not itemizing and (1-marginal tax rate) if itemizing.
REFUND	Refund due from taxes in \$10's.
YEAR91, YEAR92, YEAR93	Year of observation. Dummy variables. Base year of 1990=0.
EAST, EMBAYMENT, PLATEAU, WEST ^c	Physiographic Region of Kentucky. Dummy variables. Base Region of Bluegrass, which is the North Central Region of Kentucky, =0.
MARRIED	Married. 1=Yes 0=No
CHILDCARE	Deduction for Child Care. 1=Yes 0=No
DEPENDENTS	Number of dependents.
SEPARFILE	Married, Filing Separately. 1=Yes 0=No
MEDIANAGE ^d	County median age in years.
POPDEN ^d	County Population density in 100's per square mile.
PARKS ^e	Number of State parks with hiking trails in county or adjoining county
CREDIT	Credits refund forward to next year. 1=Yes 0=No
MISTAKE	Error on tax form. 1=Yes 0=No.

^a All dollar values are adjusted to base year 1993.

^b Source is Kentucky Individual Income Tax Form files unless indicated otherwise.

^c Source is Kentucky Geological Survey.

^d Source is 1990 Kentucky county census.

^e Source is Kentucky Geological Survey topological maps.

Table 3: Comparing Taxpayers with Positive Refunds to Taxpayers with No Refunds^a

Variable	Means for Observations with:	
	Positive Refunds	No Refund ^b
INCOME (\$1000) ^c	30.316	33.467
TAXPRICE (cents/\$) ^e	86.3	---
REFUND (\$10) ^d	25.7	-22.8
MARRIED (%)	46.7	61.8
CHILDCARE (%)	6.8	2.6
DEPENDENTS	0.9	2.9
MEDIANAGE (Years)	33.1	33.4
POPDEN (x100)	7.02	4.89
PARKS	1.38	1.42
MISTAKE (%)	0.5	2.3
N	135,799	36,723

^a For all variables listed the differences between the means for the two groups were found to be significant at the .05 level.

^b No Refund observations are for taxpayers either having no refund or having some tax due.

^c All dollar values are adjusted for inflation using the base year 1993.

^d The Refund variable used in the regressions is in tens of dollars.

^e Taxpayers who do not itemize have a TAXPRICE of 100 cent per dollar. The other possible values are 85, 72 and 69. The TAXPRICE of taxpayers without refund is not relevant.

Table 4: Frequency of Contribution to Different Combinations of Funds

Fund Combination				Number of Taxpayers
Nature Fund	Child Fund			33280
	Child Fund			31445
Nature Fund				22734
Nature Fund	Child Fund		Veteran Fund	6008
Nature Fund	Child Fund	Olympic Fund		1163
	Child Fund		Veteran Fund	978
			Veteran Fund	967
Nature Fund			Veteran Fund	537
Nature Fund	Child Fund	Olympic Fund	Veteran Fund	433
		Olympic Fund		320
Nature Fund		Olympic Fund		203
	Child Fund	Olympic Fund		202
	Child Fund	Olympic Fund	Veteran Fund	18
Nature Fund		Olympic Fund	Veteran Fund	13
		Olympic Fund	Veteran Fund	6

Table 5: Ordered Probit for Number of Funds to which a Taxpayer Contributes
(Independent Variable is the Number of Funds)

Dependent Variable	Coefficient ^a (Standard Error)
INCOME	0.0003* (0.0001)
TAXPRICE	-0.0069* (0.0004)
REFUND	0.0006* (0.0001)
YEAR91	0.0128 (0.0110)
YEAR92	0.1950* (0.0110)
YEAR93	0.2331* (0.0109)
EAST	-0.0123 (0.0148)
EMBAYMENT	-0.0056 (0.0217)
PLATEAU	-0.0274 (0.0146)
WEST	-0.0642* (0.0187)
MARRIED	0.0108 (0.0106)
CHILDCARE	-0.0622* (0.0150)
DEPENDENTS	0.0168* (0.0039)
SEPARFILE	-0.0770* (0.0301)
MEDIANAGE	-0.0112* (0.0022)
POPDEN	-0.0005 (0.0007)
CREDIT	0.1773* (0.0211)
MISTAKE	-0.6978* (0.0314)

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Table 5 continued from last page

N=98307 Log Likelihood=-87965.89
Cutoff 1 = -0.702
Cutoff 2 = 0.581
Cutoff 3 = 1.820

^a Values followed by an “*” are significant at the 0.05 level.

Table 6: Results of Heckman Selection Regressions

	Nature Fund Coefficient ^a (Standard Error)	Child Fund Coefficient (Standard Error)
Probit Specification:		
INCOME	0.0008* (0.0001)	0.0032* (0.0002)
TAXPRICE	-0.0072* (0.0004)	-0.0032* (0.0004)
REFUND	0.0002 (0.0001)	0.0008* (0.0001)
YEAR91	0.0429* (0.0099)	0.0865* (0.0099)
YEAR92	0.0482* (0.0099)	-0.0317* (0.0099)
YEAR93	0.1262* (0.0099)	-0.0546* (0.0099)
EAST	-0.3306* (0.0129)	-0.0697* (0.0127)
EMBAYMENT	-0.1214* (0.0192)	0.1423* (0.0191)
PLATEAU	-0.2918* (0.0127)	-0.0858* (0.0126)
WEST	-0.2774* (0.0163)	-0.1213* (0.0157)
MARRIED	-0.0793* (0.0095)	-0.1515* (0.0096)
CHILDCARE	-0.0603* (0.0142)	0.1851* (0.0146)
DEPENDENTS	-0.0813* (0.0036)	0.0877* (0.0036)
SEPARFILE	-0.2106* (0.0266)	0.1034* (0.0266)
MEDIANAGE	-0.0360* (0.0019)	-0.0233* (0.0019)
POPDEN	0.0042* (0.0006)	0.0151* (0.0007)
PARKS	0.0282* (0.0060)	---,---
CREDIT	0.3792* (0.0219)	0.2280* (0.0226)
MISTAKE	0.1465* (0.0281)	0.2627* (0.0285)

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Regression Specification:				
ln (INCOME)	0.2042*	0.1764*	0.1331*	0.1141*
	(0.0085)	(0.0086)	(0.0058)	(0.0059)
ln (TAXPRICE)	-0.5849*	-0.4127*	-0.2721*	-0.1667*
	(0.0626)	(0.0641)	(0.0392)	(0.0391)
ln (REFUND)	---	0.0845*	---	0.0640*
		(0.0059)		(0.0035)
		N = 135767		N = 135799 ^b
		Mills: -0.519*		Mills: -0.233*
		(0.049)		(0.032)

^a Values followed by an “*” are significant at the .05 level.

^b The difference in observations is due to the fact that some observations had an income of zero, but a positive refund, and a positive contribution to a particular fund. There are a different number of such observations for each Heckman.