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Essays on Intrahousehold Allocation

by

Jennifer L. Ward-Batts

A dissertation submitted in partial fulfillment  
of the requirements for the degree of

Doctor of Philosophy

University of Washington

1999

Approved by *Shelley J. Lundberg*  
Chairperson of Supervisory Committee

Program Authorized  
to Offer Degree Economics

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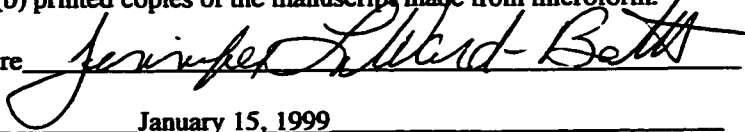
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**Doctoral Dissertation**

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Abstract

ESSAYS ON INTRAHOUSEHOLD ALLOCATION

by Jennifer L. Ward-Batts

Chairperson of the Supervisory Committee: Professor Shelly J. Lundberg  
Department of Economics

Using a change in the Family Allowance/Child Benefit policy in the UK as a natural experiment, several economic hypotheses of considerable importance are tested. These hypotheses concern the allocation of resources and welfare within families, and decision-making processes which generate that allocation.

Data on two-parent families is used to test the income-pooling hypothesis implied by unitary household models. Both expenditure patterns and labor supply behavior responded to the change in the distribution of household income among members in a way that is not consistent with unitary models. These results imply that targeted welfare improvements will not necessarily be negated by the household allocation mechanism, in contrast to the implications of unitary models.

Private transfer income received by lone mothers does not respond negatively to an increase in a public transfer, as some economic models would predict. Results for private transfer income are more consistent with exchange and "warm glow" motives than with altruism. Labor supply and earnings also do not adjust downward when the Child Benefit increases for the sample of lone mothers who work in the market. Changes in expenditure patterns among lone-mother families are not generally towards child goods, as would be consistent with a labeling effect. Expenditure results are suggestive of low bargaining power held by children in these household.

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## **DEDICATION**

**This thesis is dedicated to the memory of**

**Julia Elizabeth Owenby.**

## **Chapter One**

### **Introduction to Essays on Intrahousehold Allocation**

Economies are made up of small groups (or not so small, as the case may be) we call families.<sup>1</sup> These families are in turn made up of individuals. These essays are about economic choices made by families, and the individuals within them.

Economics of the family is a growing area in the discipline. Strides continue to be made in this area toward reconciling what we experience as family members and what we claim as economists to be the fundamental considerations in determining our choices. This dissertation is a further contribution to that area. In it I will examine individual behavior and household behavior. We will see that answers to important policy questions depend on how interactions of individuals within families play out in the real world.

Economic theory is, at its core, based on a model of individual choice. However, if individuals' choices are made interdependently with those of other family members, then we must model those interdependencies in order to understand the basis for economic behaviors we observe. There are two important reasons why we need a model of the family. One is that the data typically used for empirical investigation of economic questions is collected, at least in part, at the household, not the individual, level. This is a data problem which could be solved with better data.

---

<sup>1</sup> There are also groups of individuals which comprise firms, but I will not deal with this type of group. I will typically use the terms "family" and "household" as interchangeable, although for some purposes and in some cultures, there are important distinctions between the two.

However, it is sufficient for analysis of many questions to use household data along with a theoretical model of the household, and this is often the most cost effective solution. A second reason for needing a model of the family is that there are some questions which explicitly require examining the family, as opposed to the individual (for instance, production and consumption of household public goods, or responses to policy which treats the household as a unit).

An economic model of the family would allow us to make predictions about responses to stimuli of families, and of individuals whose decisions are made within families. In order to assist in the formulation of effective policy, our model must appropriately represent the family decision-making process.

Economics has not traditionally dealt with constraints and interactions within families in a satisfactory way. An economic theory of the family should be two things. One, it should be consistent with the theory of individual rational choice. Second, it should be consistent with empirical evidence.

This dissertation consists of two major essays. The first (Chapter Two) addresses shortcomings of the traditional economic model of the family. Data on two-parent families are used to test the “income pooling” hypothesis implied by traditional unitary models. This hypothesis stems from the restriction implied by assuming individual family members pool income from all sources and maximize household utility subject to their pooled budget constraint. The household utility function is assumed to be independent of the make-up of income in the budget. This essay presents evidence that restrictions implied by this model do not hold, that use of this

model may therefore result in misleading predictions, and that important policy debates would benefit from a more general model of the family.

The second major essay (Chapter Three) examines economic choices in single-parent families. Hypotheses implied by economic theory are tested in examining responses of lone-mother families to a policy change in the UK. Lone-mother families receive a larger cash transfer as a result of this change in Child Benefit policy. This essay tests whether this increased income crowded out private transfer income or earned income. It also tests whether the additional income affected expenditure patterns by increasing or decreasing the share of the budget allocated to certain goods.

This dissertation is primarily empirical, relying on existing theoretical models of the family to approach several important questions regarding how families make decisions, and how the results of those decision-making processes affect the distribution of welfare among individuals in the family unit. It examines the effects of a government policy change, which is used as a natural experiment. Results herein point to some weaknesses in commonly used theoretical models.

The approach is straightforward. The policy change examined is exogenous to families and to individuals. I will present evidence that selection bias associated with receiving the "treatment" prescribed by this policy change is not a concern. An almost ideal natural experiment has occurred – a rare event in social science research.

In the United Kingdom in the late 1970s, the Family Allowance program was modified and renamed Child Benefit. The modification had the following effects for two primary family types that I examine:

- In two-parent families, about eight percent of average total expenditure was redistributed from the husband to the wife.
- In single-parent families, the real value of benefits received increased substantially.

A concern which must be addressed is that family structure and living arrangements may have responded to this policy change. For example, if childless couples were prompted to have children in response to the policy change, then the sample of families with children in the before-policy-change period may differ systematically from the sample representing the after-policy-change period. Likewise, if the number of lone-parent families increased in response to the greater Child Benefit payment, the group representing the after period will differ from that representing the before period.

Figures 1-1 through 1-4 present evidence that family structure and living arrangements did not change in response to this policy shift. Each figure shows the percent of households in the *FES* sample who fall into the specified category. Data from 1973 to 1976 and 1980 to 1983 are used, omitting the interim years of 1977 to 1979 when the policy change was being phased in. In Figure 1-1, the percent of households with no children who fall into each of four categories is remarkably constant across time. Skipping to Figure 1-3, households with one man, one woman, and one to three children also remained constant over the period. Figure 1-4 shows that households with children and two same-sex adults, three adults, and four adults

also remained fairly constant. There is no evidence of changing family structure or living arrangements coincident with the policy change.

Figure 1-2 does, however, indicate an increase in lone-parent families over the period. The increase, though, appears to continue throughout the period, rather than exhibiting a jump which we might expect in response to the policy change. This type of household, in particular, might be generated via voluntary changes in living arrangements, which could take place rather quickly. I believe that the increase in incidence of lone-parent families is driven by other factors, and not by this policy change. Changing divorce laws and social stigma associated with divorce are likely to be important factors. The age structure of the female population may also have some impact on this growth. Figure 1-5 shows that a large increase in the number of females aged 30 to 34, and a more modest increase in those aged 35 to 39, occurred between 1971 and 1981. The increase in these age ranges means there are a lot more women in the later year who are in the age ranges where most lone mothers lie. In other words, there are a lot more women who are at risk of being lone mothers. In Figure 1-6, we see that, in fact, much of the increase in numbers of lone mothers between 1973 and 1983 did occur in these two age ranges, although there are sizeable increases among women aged 20 to 29 as well.

Figure 1-7 shows a longer time-series of the percent of *FES* households consisting of lone-parent families. An upward trend is evident. Two vertical lines bound the policy-change-phase-in period. Table 1-1 shows regression results predicting the percent of lone-parent families in the *FES* data, dropping the three years

during which the policy change was phased in. Explanatory variables include a dummy variable representing the policy change, quadratic trend terms, and a constant. The null hypothesis that the policy change did not increase the percentage of lone-parent families cannot be rejected. The joint hypothesis that neither trend term affects this percentage is strongly rejected.

In 1994, the *Family Expenditure Survey* began to be operated on a financial year, rather than calendar year, basis. Thus, the latest three years included in this estimate are for financial years, beginning in April, whereas the earlier data are for calendar years. 0.25 is added to the trend term in order to appropriately control for the time at which the data were collected. Results of a regression excluding data for the latest three years are also shown, and have the same implication as those including these years. This insures that the change in timing of the survey year does not affect the outcome of the estimate. Linear and third-order polynomial trend specifications do not change the outcome of this hypothesis test.

Regardless of the cause, I must still deal with potential changes in composition of the group over time. In examining these families, I will use a control group, and present evidence that the composition of the treatment group is not changing over the period relative to the composition of the control group. Details of this argument will proceed in Chapter Three.

The remainder of this dissertation is arranged into three chapters. Chapter Two deals with two-parent families. In it, I examine the effects of the intrahousehold income redistribution generated by the policy change on expenditure patterns and

labor supply. This experimental redistribution allows tests of the "pooling hypothesis," – the implication of the altruist model that family income is pooled – in a more clear-cut way that has been possible in most prior work.

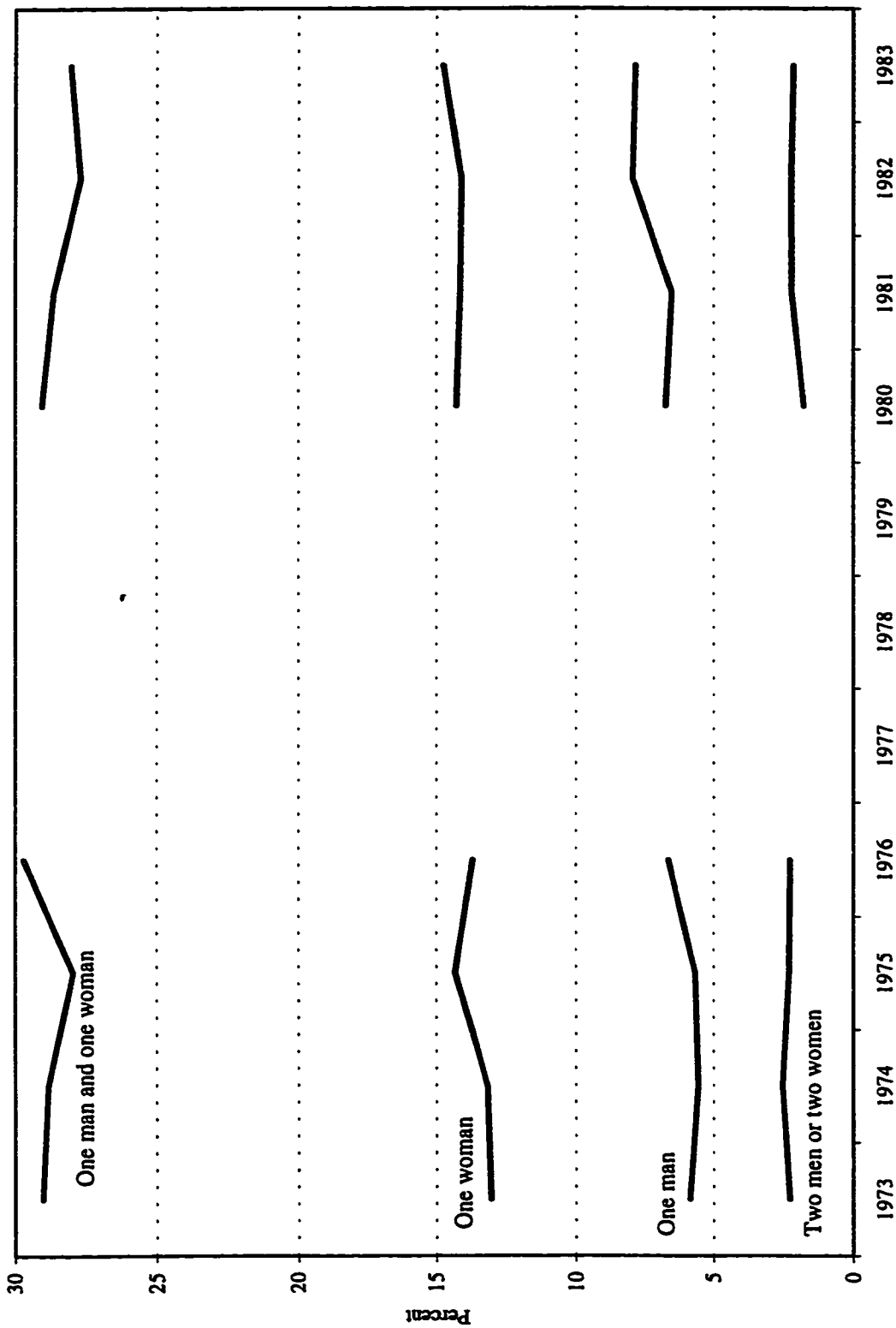
Chapter Three examines single-parent families. I test whether the increase in Child Benefit transfer payments crowded out earnings or private transfer income, examine expenditure patterns to determine how the additional income was allocated, and test for different income effects for public transfer income versus income from other sources.

Chapter Four summarizes and concludes the dissertation, and offers some suggestions for further work.

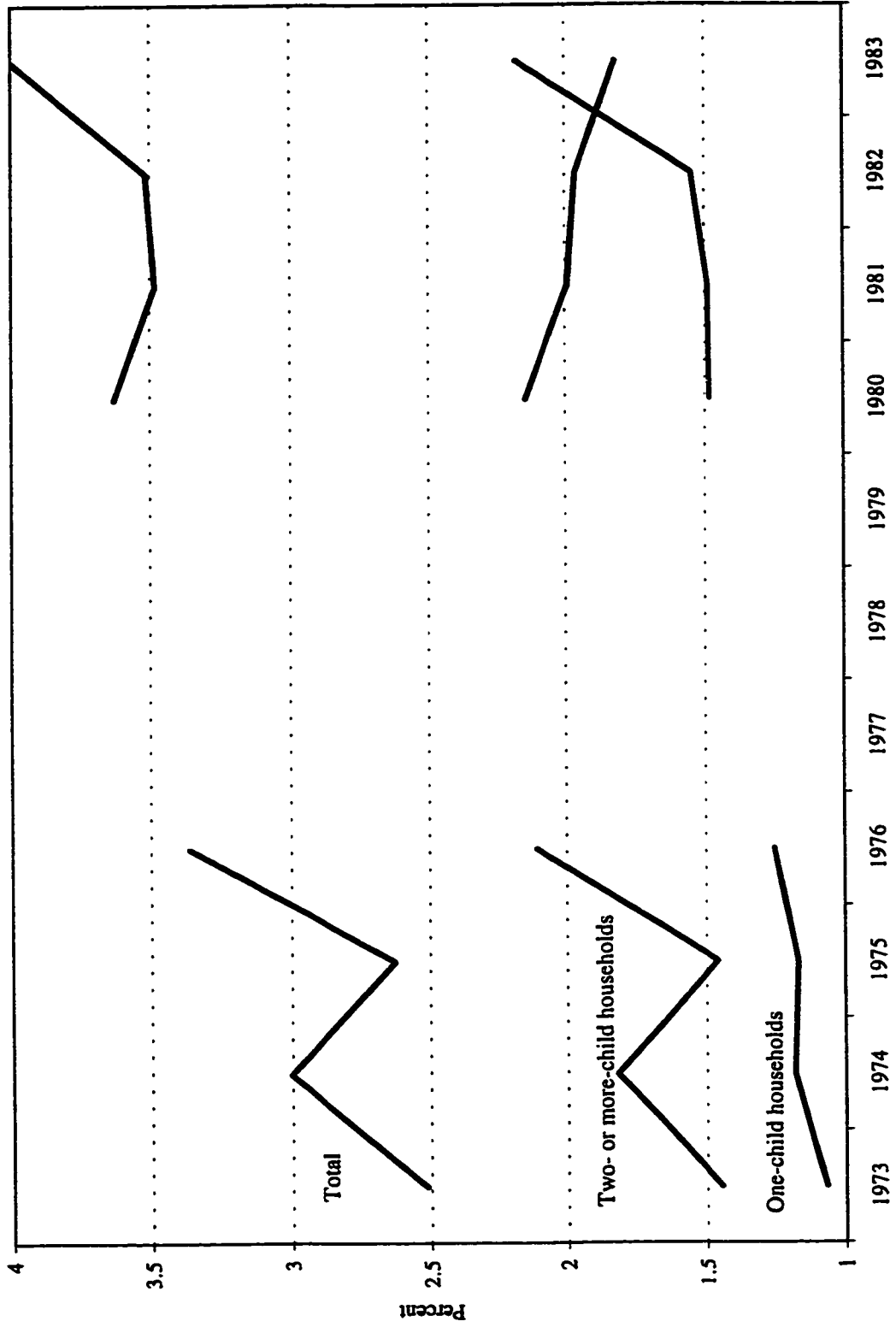
**Table 1-1**  
**Least Squares Estimates of Single-Parent Families as a Percent of FES**  
**Households**

	Sample = 1970 – 1996/97 <sup>†</sup>	Sample = 1970 – 1993 <sup>†</sup>
Constant	2.04263*** (0.37114)	1.98664*** (0.35861)
Policy change dummy	-0.332342 (0.59424)	-0.40159 (0.54118)
Trend	0.11564 (0.094461)	0.13185 (0.09429)
Trend squared	0.00206 (0.00253)	0.00162 (0.00283)
F stat for trend terms	39.36007***	25.56977***
n	24	21

<sup>†</sup> Both samples exclude data for 1977-79.  
Standard errors reported in parentheses.  
\*\*\* significant at one percent or better



**Figure 1-1**  
**Households with One or Two Adults and No Children, Percent of Total**



**Figure 1-2**  
**Single-Adult Households with Children, Percent of Total**

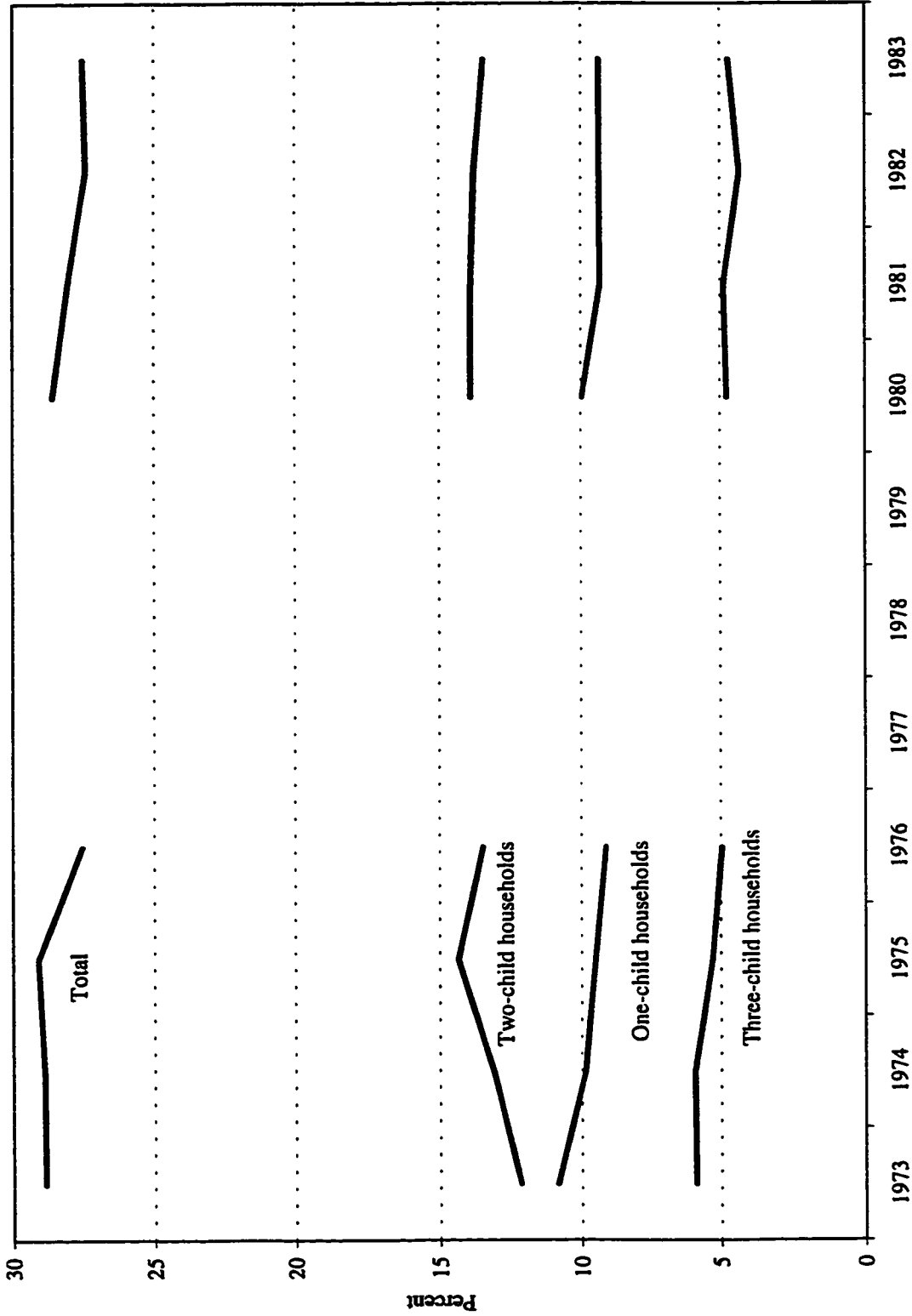


Figure 1-3  
Households with One Man, One Woman, and One to Three Children, Percent of Total

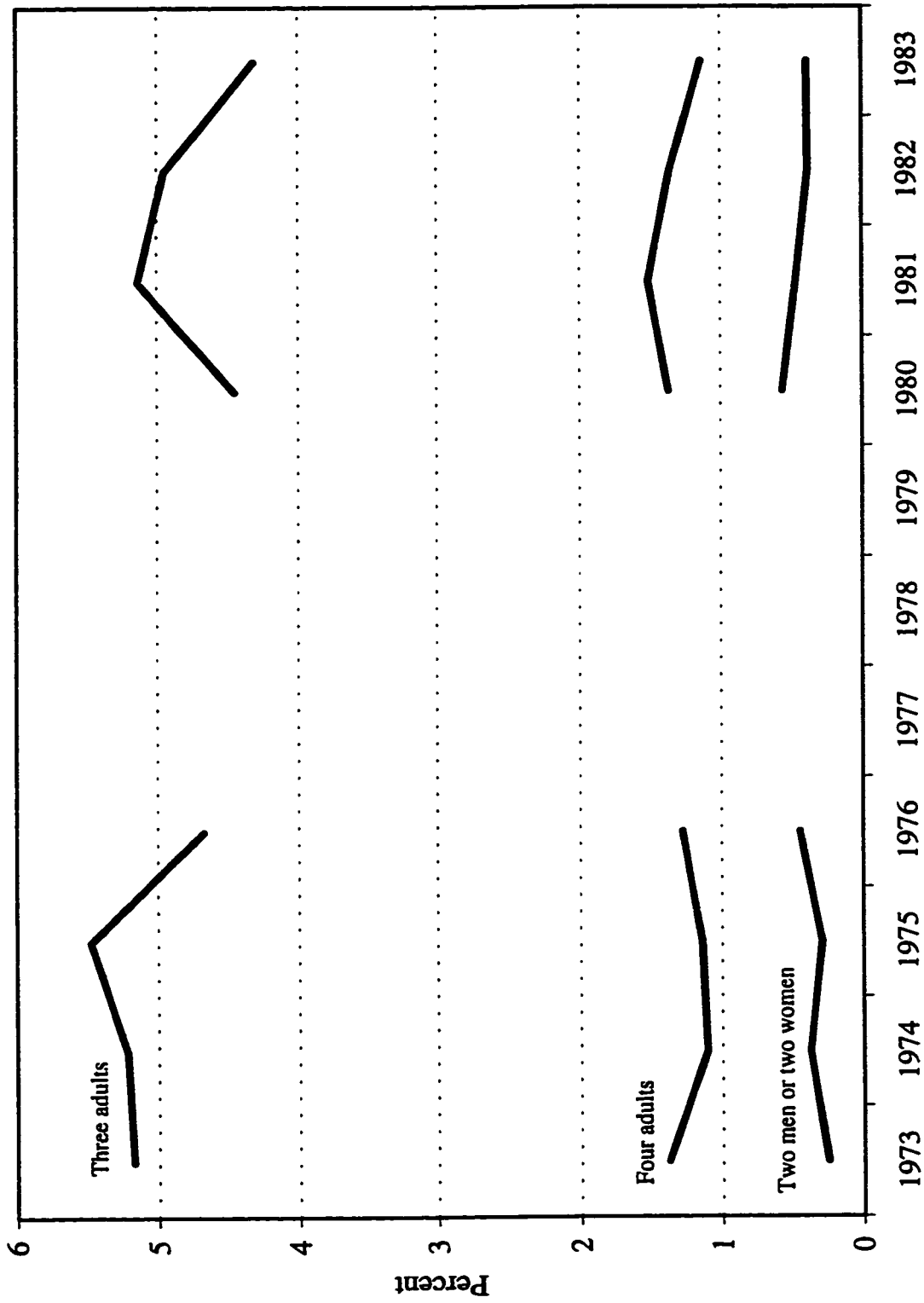
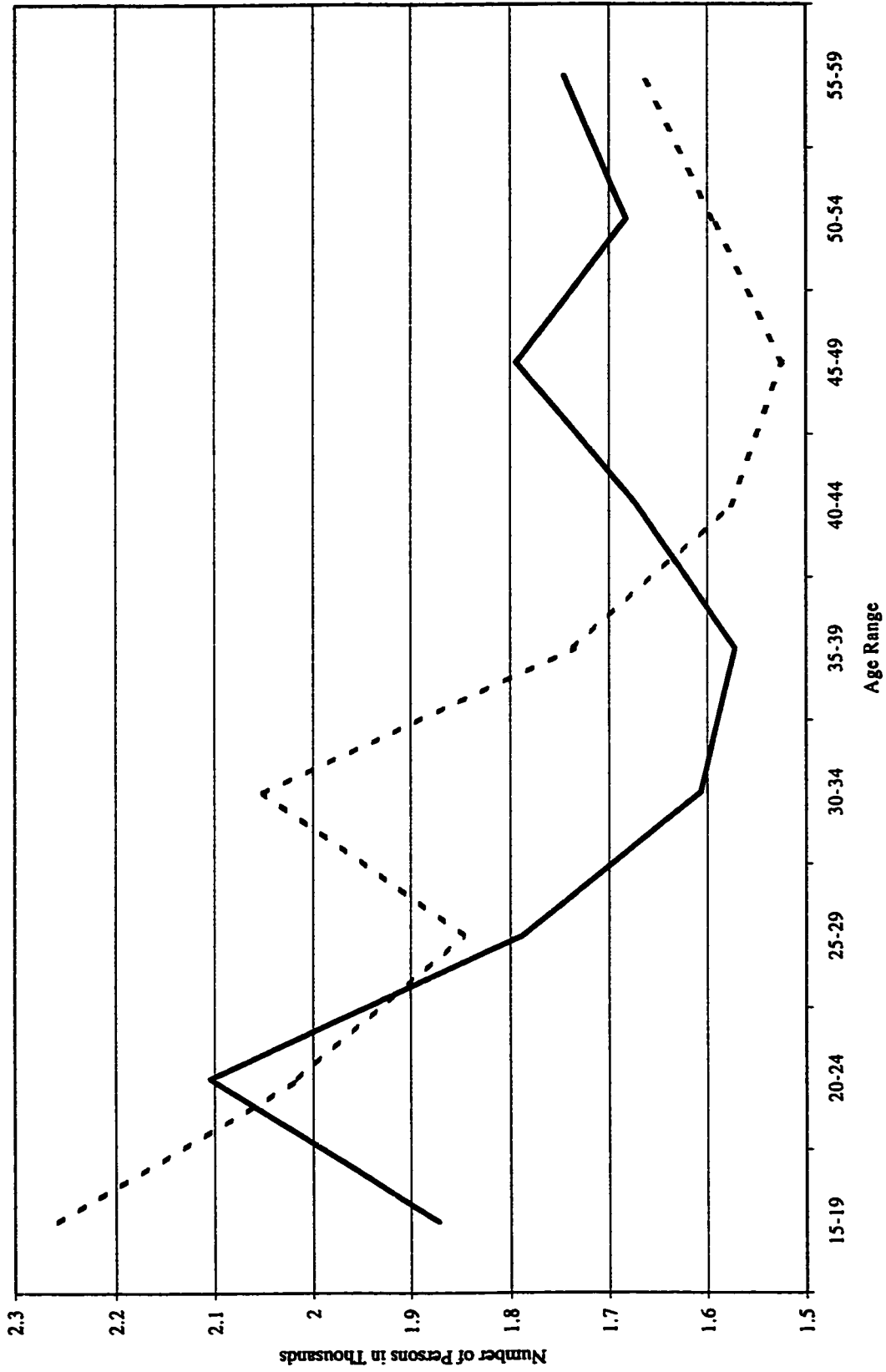
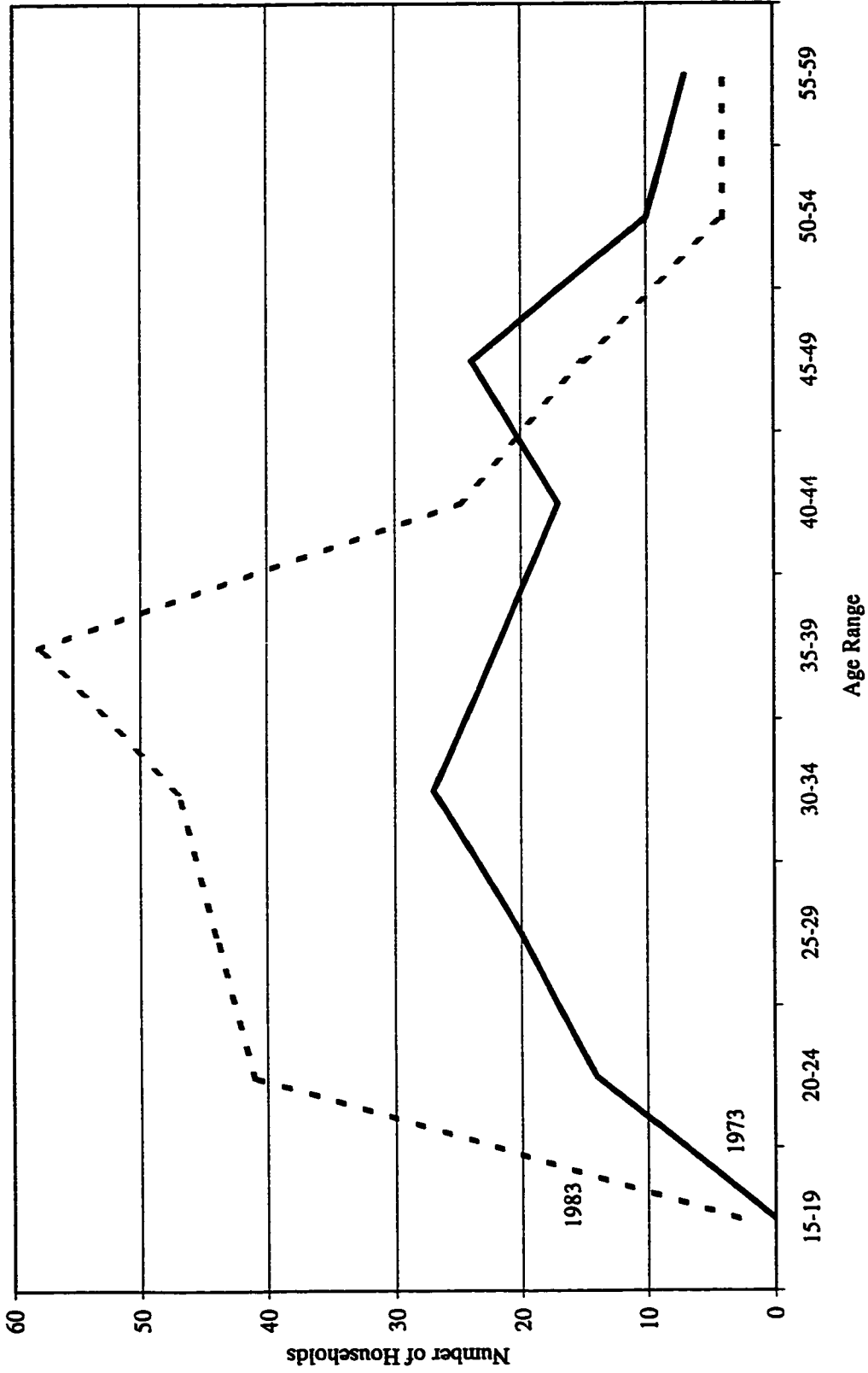


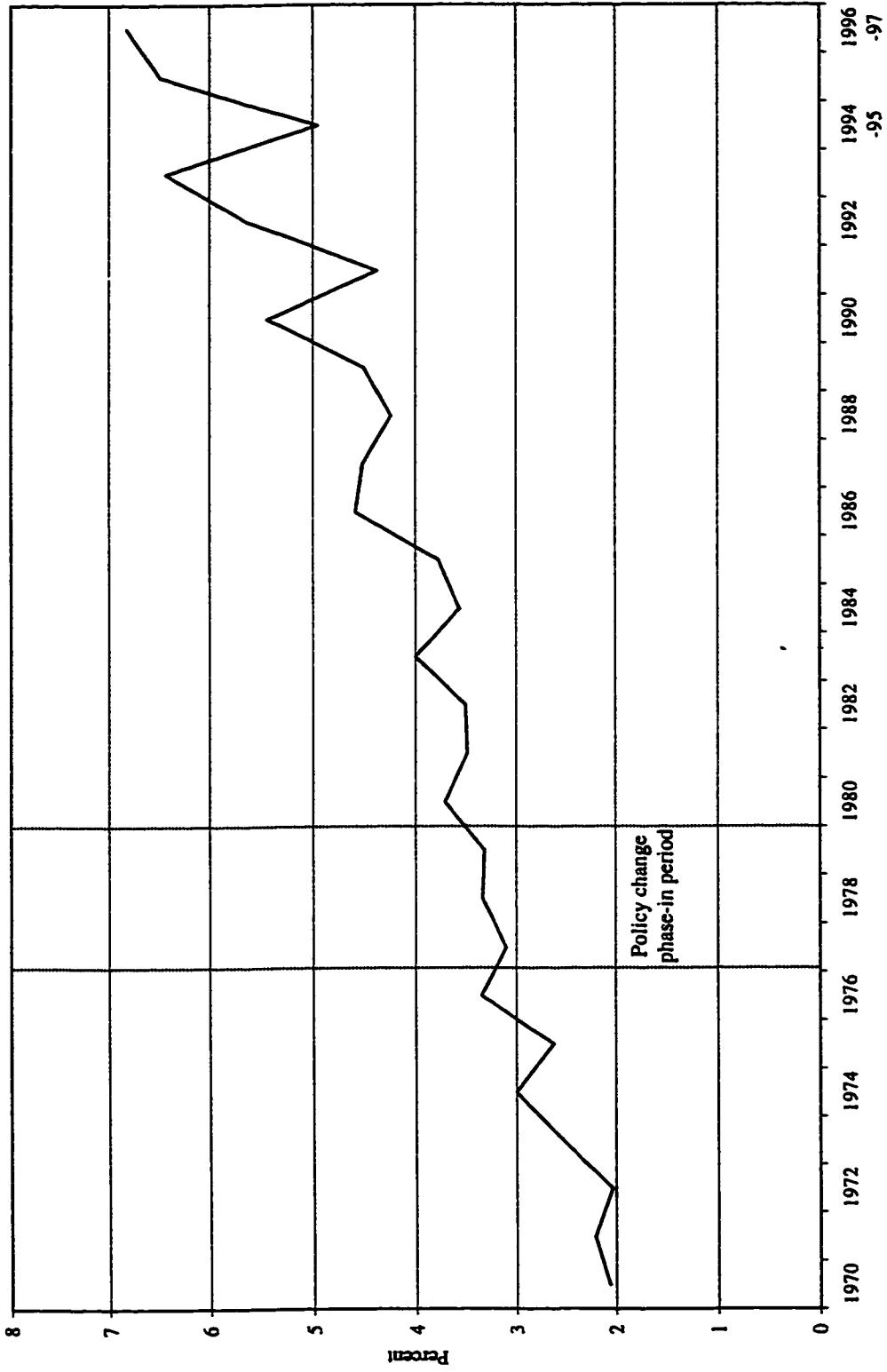
Figure 1-4  
Other Households with Children, Percent of Total



**Figure 1-5**  
**Age Structure of the Female Population Aged 15-59**



**Figure 1-6**  
**Age Structure of Lone Mothers in the FES**



**Figure 1-7**  
**Percent of FES Households with One Adult and One or More Children**

## **Chapter Two**

### **Testing the Income Pooling Restriction of the Unitary Model**

#### **Part A: Modeling Family Expenditures to Test Income Pooling**

##### **I. Introduction to Chapter Two, Part A**

In the past decade and a half, there has been much discussion of, and many attempts to test, the “pooling hypothesis” implied by unitary models of household decision-making against the set of alternative collective models.<sup>1</sup> Unitary models assert that a household behaves like an individual, maximizing a single objective function subject to a unified budget constraint. One implication of these models is that household members pool their income, and that who controls what proportion of that income does not affect household demands. The model does not allow for the household preference function or for individual consumption of each good to adjust when the distribution of income control changes.

Empirical tests of income pooling are typically plagued by potential biases due to the endogeneity of most measures of control over resources in the household. In cross section data, the magnitude and distribution of income in the household may be correlated with the preferences of and prices faced by family members. Clearly what

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<sup>1</sup> Lundberg and Pollak (1996) provide a comprehensive discussion of both the theoretical and empirical literature.

is needed for a test of pooling is an experiment generating variation in intra-household income control. In the late 1970s, the U.K. changed the form of its universal child benefit scheme, essentially shifting receipt of transfer income from fathers to mothers in two-parent families. This “natural experiment” provides an exogenous source of variation in the control of resources within the family. Using aggregated data, grouped by household composition and income, Lundberg, Pollak, and Wales (1997) find that ratios of children’s to men’s clothing expenditure and of women’s to men’s clothing expenditures in households with children in the U.K increased after this policy change took effect.

In this paper, I use micro data to perform a more extensive set of tests for changes in expenditure patterns for a broader range of goods. I use price indices for each of the three narrowly defined clothing categories. This is preferred to the aggregate clothing price index used by Lundberg, Pollak, and Wales, which cannot control for changes in relative prices of the three goods.

Micro data provide better controls for time trends, seasonal effects, and household composition than do the aggregated data. However, the high frequency of zeroes in household-level expenditure data presents a modeling challenge. Zero expenditures may be observed in survey data for several reasons. One possibility is a corner solution in which a household may choose not to consume a particular good due to realized values of prices and income. The tobit model is the appropriately specified model to deal with this possibility.

A second possible explanation for zeroes in the data is infrequent purchase of some goods which are durable or non-perishable to some extent. Such goods may be consumed during a survey period, but not purchased during that period. Budget surveys often collect information about whether households possess certain durable goods in order to deal with this problem. However, current expenditure is the only information collected for many goods which are purchased more frequently than, say, refrigerators, but less frequently than every two weeks (the typical survey period). If infrequent purchases and not zero consumption generates zero expenditure, then OLS is preferred to tobit. On average, unobserved consumption ( $y^*$ ) should equal observed expenditure ( $y$ ). The tobit censoring rule is not consistent with this requirement. If we are assured of some consumption during the survey period, as is the case with clothing, then a purchase-infrequency model can improve on OLS estimates by allowing two distinct vectors of variables to affect the probability of purchase in the period, and expenditure (or budget share) given a purchase occurs. Purchase-infrequency models treat zero expenditures as resulting from the durable or non-perishable nature of the good as opposed to non-consumption due to price and income considerations.

I use ordinary least squares, tobit, and purchase-infrequency models to estimate budget shares for a number of goods categories. Using the purchase-infrequency model, which is a more complicated but more appropriately specified empirical model, allows me to check whether results from tobit and OLS estimates of clothing expenditures, which appear to reject pooling, are robust.

I find evidence that significant changes in household expenditures were associated with this policy change. In examining a comprehensive set of eleven broad goods categories, the hypothesis that expenditure shares were unaffected by this shift is strongly rejected. While any significant change in expenditure patterns attributable to this policy change warrants a rejection of pooling, testing the pooling hypothesis using goods which are assignable to particular household members is comparatively more appealing.

We cannot assign consumption of most goods to any one person, and the possibility of interdependent preferences makes it even more problematic to assign utility from consumption. However, complete assignability is not required. Examining goods which are of greater interest to some household members than to others, such as the three clothing categories examined by Lundberg, Pollak and Wales, provides an intuitive means of testing the pooling hypothesis, as well as questioning whether any shifts in expenditure patterns are consistent with what we would expect in the context of collective models. I find shifts in expenditures on what I will call assignable goods which are generally in the direction we would expect given the direction of change in control over household income. For instance, men's clothing and a men's tobacco category - consisting of cigars, pipe tobacco, and snuff products - decline significantly in the budget, while children's clothing, domestic services, and expenditures on pets increase as a share of total expenditure.

This paper is organized as follows: Section one provides some theoretical and empirical background motivating this research, including a discussion of the change in

the Family Allowance policy. Section II discusses data; section III introduces the models used; section IV presents results and their implications; and section V concludes.

## **I. Background**

Traditional economic theory avoids the difficult issue of how decisions are made in households by assuming each household maximizes a single objective function subject to a unified budget constraint. Samuelson (1956) suggests that this objective function might be arrived at through consensus among family members. Becker (1981) proposes it may represent the preferences of an altruist (dictator) in the household. The restrictions imposed by the unitary models of Samuelson and Becker are strong ones. The household objective function is assumed to have the properties of a utility function, and to be invariant to who controls resources in the household. One restriction implied by such models is that household members pool their resources. The pooled income is then allocated to achieve the constrained maximum on the household objective function. This implies that only total household income, not its distribution, affects household demands.

The income pooling restriction has important practical implications for policies targeted at improving the welfare of particular household members, such as women or children. Income pooling results in transfers to targeted household members being neutralized by the household allocation mechanism. The welfare of the targeted member may be improved, but no more or less than if the transfer had been given to

another household member. Cash transfers, as well as transfers in kind, may be subject to this reallocation.

The concept of individual rational choice, which lies at the heart of microeconomic theory, compels us to consider the possibility that each person may have distinct preferences, that there may therefore be competing interests of individuals within a household, and that one's reward from may be linked with one's contribution to the household. Social choice theory has demonstrated that aggregating preferences is no simple matter, and that the aggregate function arrived at may be sensitive to the mechanism of aggregation. In light of these criticisms, if unitary models make poor predictions, then alternative models must be used to describe household behavior.

Recent theoretical work allows for the possibility that each adult in the household has distinct preferences, and analyzes how their competing interests are reconciled.<sup>2</sup> Models which do not impose pooling have been introduced, including general 'collective' models (Chiappori 1988, 1992), and both cooperative and non-cooperative bargaining models due to Manser and Brown (1980), McElroy and Horney (1981), Bergstrom (1996), and Lundberg and Pollak (1993, 1994), among others. These models allow income accruing to different family members to affect household demands differently. For instance, in Nash bargained solutions, each person's (potential) income can affect his or her reservation level of utility, or threat

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<sup>2</sup> Carolyn Moehling (1997) extends this to include children as household decision-makers.

point, and therefore his or her equilibrium level of utility in the household. Thus, these models allow for more effective targeted transfer policies.

Endogeneity of the distribution of income within the household creates obstacles to testing the pooling hypothesis. An obvious example is earned income. Its distribution and magnitude depend on hours worked by each spouse, which are determined jointly with household expenditures. Unearned income is also likely to be endogenous with respect to household behavior. For instance, income from assets may be correlated with past labor supply, and thus with current labor supply as well. Transfers, both public and private, are typically conditioned on some set of criteria over which household members exercise some control. Sources of unexpected unearned income which are not subject to these concerns tend to be sporadic and insignificant. Previous attempts to test the pooling hypothesis, including Thomas (1990), Schultz (1990), Phipps and Burton (1992), and Bourguignon, Browning, Chiappori, and Lechene (1993) have used some of these problematic sources of income. These tests have generally rejected pooling, but possible endogeneity biases call those results into question.

In the United Kingdom in the late 1970s, the child benefit scheme was altered in such a way as to shift income from fathers to mothers in two-parent households. Prior to 1977, the universal child benefit scheme in the U.K. consisted of a small taxable Family Allowance payment to the mother, and a more significant Child Tax Allowance, which reduced the amount of taxes withheld from earned income. The latter generally would have increased the father's take home pay. This two-part

program was phased out over the period April 1977 to April 1979 and replaced by the Child Benefit, a non-taxable cash payment to the mother. While the average amount of the total benefit stayed roughly constant, this policy change shifted apparent control of a portion of family income from fathers to mothers. The amount of income involved is a significant fraction of the average family's budget. For example, for a family with two children in 1980, the child benefit was approximately 500 British pounds per year<sup>3</sup> (approximately 206 pounds in 1974 currency), or about 8% of male manual earnings in the UK.<sup>4</sup> The real value of that benefit is 8.6% of average total expenditure among families with one to three children in the data used for this study.

Based on this policy shift,<sup>5</sup> which is clearly exogenous with respect to household expenditure decisions, Lundberg, Pollak and Wales (1997) present empirical evidence against the pooling hypothesis using grouped data on household expenditure in the U.K. Using expenditure data from before and after the policy change, they “find strong evidence that a shift towards relatively greater expenditures on women’s goods and children’s goods coincided with this income redistribution” (p.463). Limitations of the aggregated data dictated some shortcomings, such as a concentration on clothing without consideration of other goods, and limited demographic controls. Each cell in this data consists of the mean of expenditures on a category of goods for all families in the sample which fall into a particular income–

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<sup>3</sup> *Social Security Statistics* (1991), Table G1.01, p. 253.

<sup>4</sup> *U.K. House of Commons Hansard*, 14 January 1980, pp. 641-2.

<sup>5</sup> See Lundberg, Pollak, and Wales (1995) for a more detailed discussion of the policy change.

family-size group. Because of the small number of cells in the data, it is difficult to distinguish effects of the policy change from time trends. Another potential confounder in this study is the 1979 change in the value-added tax (VAT) rate. This rate rose from 8% to 15%, and at the same time, clothing and footwear for young children gained zero-rated status. This change, occurring around the time of the change in the child benefit, likely affected the price of adult clothing relative to children's clothing. Lundberg, Pollak, and Wales use a price index for the aggregate category, clothing and footwear. Thus, their results on the ratio of children's clothing expenditures to men's clothing expenditures may be attributable in part to changes in relative prices for which they are unable to control.

I use separate price indices for the three clothing categories for some of the estimates presented here. Since a change in the relative price of children's clothing is of primary concern in connection with the VAT change, this addresses whether mothers appear to allocate more resources to children than do fathers, as has been suggested by a number of other studies examining intra-household allocation issues.

Using micro data from the *Family Expenditure Survey*, I estimate budget shares for some narrow goods categories which may be to some extent assignable to certain members of the household, including men's, women's, and children's clothing and footwear. Since the policy change gives wives control over a greater proportion of household income, we would expect to see a shift in consumption toward goods which are of relatively greater interest to wives. Such shifts would warrant a rejection of pooling, and thus provide evidence against the unitary model. These shifts also have

important implications for the effectiveness of policies intended to improve welfare for targeted household members.

## II. Data

The *Family Expenditure Survey* is conducted annually in the U.K. Ten thousand households are randomly selected each year, approximately seventy percent of which complete the survey. One or more face to face interviews are conducted with one or more members of each household. In addition to these interviews, each “spender”<sup>6</sup> in the household completes a personal spending diary for a period of two weeks. From the interviews and the diaries, detailed information on household expenditures, income, and household demographics is compiled. Some expenditure items, such as food and clothing, are covered only in the diaries. For other items, such as fuel and housing expenditures, detailed interview questions supplement the information from the diaries. Expenditures are reported as weekly values.

The survey is spread over the entire the year. This has two advantages. One is that those collecting and processing the data do so full-time, year-round. Thus they are generally experienced at collecting data, and are familiar with this particular survey. This provides a higher level of consistency in the data than that in many other data sets. The second advantage is that seasonal effects can be controlled for. The data

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<sup>6</sup> A spender is defined as anyone at least age 15 prior to 1973, or at least age 16 beginning in 1973.

also include the region in which the household is located. There are a total of twelve regions categories: Northern Ireland, Scotland, Wales, and nine regions in England.

One purpose of the survey is to provide the weights for construction of the Retail Price Index. However, the data are intended to also be useful for research purposes. They include detailed income information by source and by household member. The age and sex of each household member are reported, as well as the relationship of each to the head of the household. The data are collected by the Office of Population Censuses and Surveys Social Survey Division for the Department of Employment. The data archive is maintained by the Economic and Social Research Council Data Archive at the University of Essex.<sup>7</sup>

I use price indices from the Abstract of National Statistics. These indices are available quarterly for 11 broadly defined goods categories, as well as for all goods combined (the Retail Price Index). In some estimates on narrowly defined goods, I also use detailed price indices obtained from the Office for National Statistics in the U.K. These indices are available monthly for a number of narrowly defined goods, including men's clothing, women's clothing, and children's clothing. The two sets of price indices come from the same source, but the latter is aggregated to a lesser degree. Unfortunately, neither set is available by region.

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<sup>7</sup> Material from the *Family Expenditure Survey* is Crown Copyright, has been made available by the Central Statistical Office through the ESRC Data Archive, and has been used by permission. Neither the CSO nor the ESRC Data Archive bear any responsibility for the analysis or interpretation of the data reported here. The Data Archive can be found on the World Wide Web at <http://dawww.essex.ac.uk/>.

### III. Models

The basic empirical model is an adaptation of the Almost Ideal Demand System (AIDS) of Deaton and Muellbauer (1980). The budget share for each good can be estimated equation by equation using:

$$w_{ig} = \alpha_g + \gamma \log p_g + \beta \log \left( \frac{E_i}{p_i} \right) + f(D_i, H_i, R_i, Q_i) + t_g + \varepsilon_{ig} \quad (1)$$

where  $w_{ig}$  is the budget share for good category  $g$ ,  $p_g$  is the relative price for good category  $g$ , computed by dividing the national price index for that category by the Retail Price Index.<sup>8</sup>  $E_i$  is total household expenditure.  $p_i$  is the price index for all goods, approximated by,

$$\log p_i = \sum_g w_{ig} \log p_g \quad (2)$$

where  $i$  indicates household.<sup>9</sup>  $D$  is a set of dummy variables representing the policy change.  $H$ ,  $R$ , and  $Q$  are sets of dummies representing household composition, region, and season of the year<sup>10</sup> respectively.  $t$  is a linear time trend and  $\varepsilon$  is an error term.

I use ordinary least squares regression to estimate budget shares for eleven broadly defined goods categories, as well as for twelve narrowly defined goods. For those goods in both categories for which five percent or more households report zero

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<sup>8</sup> While inclusion of all prices is preferred, multicollinearity results if all prices are included due to the short time series and absence of cross-sectional price variation.

<sup>9</sup> According to Deaton and Muellbauer (1980b) this approximation was used by J. R. N. Stone. No particular work is cited. I use broad category expenditures and corresponding price indices to calculate this index.

<sup>10</sup> All estimations include 3 of 4 quarter dummies, except purchase-infrequency estimates include only dummies for the back-to-school (August and September; for children's clothing only) and Christmas (November and December) shopping seasons.

expenditures, I also estimate the budget share using a tobit model. Application of the OLS and tobit models to the above conceptual model is straightforward.

For the three clothing categories – men’s, women’s, and children’s clothing – I also estimate the expenditure share using a purchase-infrequency model. For this model, a more general form of the basic empirical model is required. The explanatory variables from equation (1) are included in the model, in addition to a dummy variable for whether the household has a car. This added variable is intended to capture costs of transactions, useful for predicting the probability of purchase of the good during a two-week period.

Purchase-infrequency models are designed to allow factors other than price and income (or total expenditure) to generate zeroes in the data through infrequent purchase of goods which are non-perishable or durable. More precisely, they allow the probability of purchase of a good during the survey period to be generated by a separate vector of factors from that which determines the expenditure on the good, or budget share, given purchase occurs.<sup>11</sup>

The purchase-infrequency model allows us to make inference about consumption, which occurs more-or-less continuously, in cases where purchases are lumped and therefore infrequent. I use a model suggested by Blundell and Meghir (1987), which is an extension of a model developed by Cragg (1971):  $y_i$  represents observed expenditure, while  $y_i^*$  is actual consumption. Let  $D_i$  represent the latent

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<sup>11</sup> See Cragg (1971).

decision to purchase, so that  $D_i > 0$  if and only if  $y_i > 0$ .  $P_i$  is the probability of purchase. Thus we have

$$E(y_i) = E(y_i | D_i > 0)P_i + E(y_i | D_i \leq 0)(1 - P_i) \quad (3)$$

Assuming  $E(y_i) = E(y_i^*)$ , this reduces to

$$E(y_i | D_i > 0)P_i = E(y_i^*) \quad (4)$$

Thus, the relationship of  $y_i$  to  $y_i^*$  can be written

$$P_i y_i = y_i^* + v_i = x_i \beta + e_i + v_i = x_i \beta + u_i \quad (5)$$

Assuming both error terms,  $e_i$  and  $v_i$ , have zero mean and constant variance, we can write the censoring rule for  $y_i$  as follows:

$$y_i = \begin{cases} (y_i^* + v_i) / P_i & \text{if } D_i > 0 \\ = 0 & \text{otherwise} \end{cases} \quad (6)$$

Note the difference between this censoring rule and that for the tobit model:

$$y_i = \begin{cases} y_i^* & \text{if } y_i^* > 0 \\ = 0 & \text{otherwise} \end{cases} \quad (6')$$

Note that this censoring rule is not consistent with the assumption made above that

$$E(y_i) = E(y_i^*).$$

Suppose the decision to purchase in a given period is a function of the vector  $z_i$ , which is generally different from the vector  $x_i$  in equation (5), and a normally distributed error term:

$$D_i = z_i \theta + w_i \quad (7)$$

Then we can rewrite equation (4) for the sample of households who purchase as

$$\Phi(z_i, \theta)y_i = x_i\beta + u_i \quad (8)$$

The log-likelihood function of this model is given by

$$\begin{aligned} \log L = & \sum_0 \log(1 - \Phi(z_i \cdot \theta)) \\ & + \sum_+ [\log \varphi((\Phi(z_i \cdot \theta)y_i - x_i \cdot \beta)/\sigma_u) - \log \sigma_u] \\ & + 2 \log \Phi(z_i \cdot \theta) \end{aligned} \quad (9)$$

where the first summation is over only observations reporting zero expenditure on the good of interest and the second is over only those reporting positive expenditure.  $z$  is a vector of factors affecting probability of purchase in the survey period. The  $x$  vector predicts the budget share given purchase occurs.  $\sigma_u$  is the standard error of the composite error term in equation (5). The marginal effect on consumption of a factor which appears in both explanatory vectors is simply the corresponding element of  $\beta$ .

This model does not allow for corner solutions. Rather, it assumes that the good is consumed in the survey period, implying that  $y_i^*$  is strictly positive for all households. It is possible to nest this and the tobit model within a larger model, allowing for corner solutions and in principle for a test of non-consumption. While this may be a desirable strategy for some goods, we can safely assume clothing consumption to be strictly positive among all households in this sample during the survey period for each of the three narrow clothing categories. Therefore, I do not consider that larger, more general model in the present analysis. Such a model may be useful for some goods examined here, but the data used in this analysis do not provide

sufficient information to identify corner solutions from purchase infrequency except by functional form.

The number of purchases of a particular good (versus the simple binary indicator) in the survey period may be used to improve on the purchase-infrequency model. In theory, this may allow separation of non-consumers from those who consumed but did not purchase the good during the survey period in an expanded model which allows for corner solutions or other processes generating zeroes. However, in addition to the lack of motivation for corner solutions for clothing, a two week survey period is sufficiently short that this additional information is unlikely to improve estimates of the probability of clothing purchase. For other goods, however, this extension to the purchase-infrequency model may provide more precise estimates.<sup>12</sup> The data being used for this analysis does not provide information on frequency of purchase during the survey period in all years. Application of this extension would therefore require either shortening the time series, or obtaining additional raw data from the *FES* some years.

In applying the purchase-infrequency model to the basic empirical model in equation (1), two separate vectors of explanatory variables must be specified. Clearly, the nature of the good has an effect on the frequency of purchase, but because the share for each good is estimated separately, this will not enter the equations explicitly. Additional variables are added which do not appear in equation (1) in order to improve

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<sup>12</sup> See Meghir and Robin (1992) and Robin (1993) for a discussion of this extension and some applications.

the prediction of the probability of purchase. Each factor may enter one or both of vectors  $x$  and  $z$  in equation (9). For instance, season affects clothing expenditures primarily through clumping of purchase rather than clumping of consumption (e.g., buying new school clothes at the beginning of the school year), and thus should affect timing of purchase, but not the expenditure share given purchase. Dummies for quarter of the year are excluded from both vectors for purchase infrequency estimates, with two dummy variables indicating the back-to-school shopping season and the Christmas shopping season entering in  $z$  only. A dummy variable indicating whether the family has a car is also added to the vector  $z$ . Other than these exceptions, all variables used in OLS and tobit estimates are included in both  $x$  and  $z$  for purchase infrequency estimates.

#### IV. Results

Approximately 7,000 households complete the *Family Expenditure Survey* in any given year. For this analysis, the sample is limited to households with one man, one woman, and one to three children. This results in a total sample size of 12,762 households for 7 years of data after excluding outliers.<sup>13</sup> I use data from 1973 to 1983, but drop the intermediate years, 1977-1979, during which the child benefit policy change was phased in.

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<sup>13</sup> Observations in which any share examined is more than five standard deviations above the mean is excluded from the sample.

Table 2-1 presents the means of budget shares for the goods of interest, and the mean real total expenditure for the sample. Section (a) of the table contains the broadly defined goods, section (b) the narrowly defined goods, and section (c) real total expenditure. Means are given for the full sample, as well as for a sample restricted to observations with positive expenditures on that category for goods which have five percent or more zero expenditures reported in the full sample.

Table 2-2 presents results for the set of expenditure share equations on the eleven broad goods categories. Because more than five percent of households report zero expenditures on alcohol, clothing, food out and tobacco, both OLS and tobit estimates are reported for these two categories. OLS estimates are reported for the remaining seven categories: durables, food for home consumption (food in), fuel and power not including fuel for automobiles), housing, services, transportation, and miscellaneous goods. The policy shift, indicated by D1, D2, and D3 (for one-, two-, and three-child families respectively), had a positive and significant effect on the expenditure shares for durables, food in, food out, fuel, clothing, and miscellaneous goods. It had negative and significant effects on the expenditure shares for housing and tobacco, but, surprisingly, no significant effect on alcohol. Phipps and Burton (1992) and Hoddinott and Haddad (1991) found negative effects of the wife's relative income on tobacco and alcohol. I find similar results for tobacco, but not for alcohol. Phipps and Burton (1992) found positive effects of the wife's income on restaurant meals. This could be interpreted as a price effect since the study uses earned income as the

key explanatory variable. The exogeneity of the policy change in the present analysis rules out such an interpretation here.

F-tests and likelihood ratio tests were used for each of the broad goods to test the joint hypothesis that the three policy shift dummies had no effect. These tests indicate that the policy shift did significantly affect budget shares for the majority of the categories. Table 2-2 also reports an F-statistic based on a seemingly unrelated regressions system of equations (using OLS) testing the joint hypothesis that the three policy shift dummies in all eleven equations are not significantly different from zero. This hypothesis is strongly rejected, indicating that the policy shift did significantly change overall expenditure patterns.

Table 2-3 reports results from expenditure share equations on the set of narrowly defined goods, excluding the three clothing categories, which appear in Table 2-4. All of these goods had more than five percent zero expenditures reported, so both OLS and tobit results are presented. Pets and books both increased as shares of the budget. Positive effects on domestic services are limited to one-child families. OLS shows an increase in children's pocket money, but this does not persist in the tobit estimates. Cigarettes were not significantly affected, but the budget share for other tobacco declined for all three family sizes. This is consistent with the hypothesis that shares for men's goods should decrease as a result of the policy change. Hairdressing and toys are unaffected by the policy change, while cosmetics expenditures show a significant negative effect for one-child families.

Table 2-4 reports OLS, tobit, and purchase-infrequency results for the three narrow clothing categories. All three models show strong positive effects of the policy change on children's clothing. There are negative effects on men's clothing and positive effects on women's clothing in OLS and tobit models. Although none of the three policy shift dummies is individually significant in purchase-infrequency estimates for either adult clothing category, likelihood ratio tests of the hypothesis that the three coefficients are jointly zero is rejected for all three clothing categories.

Results found here on men's, women's, and children's clothing are consistent with those found by Lundberg, Pollak, and Wales (1997). They found that the ratio of children's clothing expenditures to men's clothing expenditures increased when the child benefit policy changed. They also found an increase in the ratio of expenditures on women's clothing to that on men's clothing. As discussed earlier, those results may be attributable in part to the 1979 change in VAT rates. The decline in men's clothing relative to women's clothing is unlikely to have been driven by a change in tax rates, since the tax rate change affected both goods, but the effective price of children's clothing relative to adult clothing may have declined significantly. Thus, the result on children's relative to men's clothing expenditures is of particular concern. The results I have presented here are compelling given that narrow price indices with VAT added<sup>14</sup> were used to control for prices of the three separate clothing categories. These results demonstrate that the increase in the relative share of children's goods was not solely

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<sup>14</sup> VAT rates were 10% in 1973, changing to 8% in 1974, and to 15% in 1979. Young children's clothing and footwear became zero-rated in 1979. (Prest, 1980)

reliant on tax rate changes, but is attributable in part to the child benefit policy change, and to the apparent tendency of mothers to allocate more of the family budget to children's goods.

The magnitudes of changes in budget shares these results suggest are certainly plausible given the amount of income being shifted from men to women. For instance, for the average two-child family, the change in expenditures on the broad category "food in" attributable to the policy change is £32 per year. As a result of the policy change, the same family increased its fuel expenditures by £17, decreased its housing expenditure by £65, increased children's clothing expenditures £16, and decreased men's clothing expenditures £12. These are reasonable changes relative to the approximately £190 per year shifted from husband to wife.<sup>15</sup>

## V. Conclusion

I use micro data to examine how budget shares changed in two-parent families with children in the U.K. when a change in Family Allowance policy shifted transfer income from fathers to mothers. Shifts in expenditure patterns due to this change are inconsistent with the unitary model of household decisions. I find significant changes in expenditures on broadly defined goods, as well as on some narrowly defined assignable goods. Although the broad goods categories do not represent assignable goods, a discrete change in shares in the before versus after period which is not

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<sup>15</sup> The quoted magnitudes of change are in 1974 currency, and are based on tobit results where presented, or OLS otherwise.

attributable to other factors indicates that there has been a shift of power over decision making in the household, and that a systematic difference in preferences over allocation of household income exists between husbands and wives. Closer examination of expenditures on narrow goods within these broad categories produces further insights. These shifts indicate that women and children benefited at the expense of men when this new policy took effect.

Results on narrow goods generally point to an increase in the budget share allocated to some women's and children's goods, along with a decline in that for some men's goods.<sup>16</sup> Such changes in consumption patterns resulting from a shift in the control of income in the household adds evidence to the growing case against the unitary model — evidence which is particularly convincing given the exogeneity of this policy shift.

Rejection of the unitary model has important implications for the effectiveness of policies aimed at improving welfare of targeted members of households. The unitary model implies neutralization of targeted transfers. Some alternative collective models allow for more effective transfer policy. As Alderman, et. al. put it, it may be "time to shift the burden of proof." Analyzing the household allocation process within the framework of collective models will allow the development and application of more effective policies in areas of health, education, and welfare.

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<sup>16</sup> One exception is the negative effect on cosmetics expenditures.

## **Part B: Examining Family Labor Supply to Test Income Pooling**

### **I. Introduction to Chapter Two, Part B**

The unitary model has traditionally been the model of choice for examining family labor supply behavior. By assuming the household has a single preference function, demands for leisure are determined by optimizing subject to a pooled resource constraint.

This model does not allow for the resolution of conflicts among household members regarding the household preference function, or for exogenous changes in a household member's constraints to affect the allocation of welfare within the family. This part of Chapter Two will test the pooling hypothesis as it applies to the determination of labor supplies. Section II discusses theory and provides background information relevant to the methods used. Section III discusses estimation techniques and results. Section IV consists of a brief conclusion, including some suggestions for further work.

### **II. Theory and Background**

The theoretical model of individual labor supply is very similar to a model which includes only consumption goods. Leisure is added to the model as an additional good, and endowments rather than money income constrain the set of feasible choices. One difference between leisure and other goods is that a change in its price results in income and substitution effects which operate against one another,

whereas changes in the price of a normal consumption good generate income and substitution effects which work in the same direction. However, note that having the income effect of a change in the price of leisure work against its own substitution effect depends on leisure being a normal good. I will come back to this assumption, and discuss why it may be inappropriate in standard labor supply models, particularly for women.

In an individual-based model, demands for goods and leisure, and thus supply of labor, are determined by maximizing utility subject to a resource constraint. If members of families make choices regarding labor supply interdependently, then we need a model which describes the framework in which such choices are made. The traditional neoclassical model of family labor supply relies on the assumption that a single preference function exists for the household. Maximizing household utility or welfare consists of finding the constrained maximum on this function. Constraints are based on prices, time endowments, and other resource endowments (i.e., exogenous unearned income). The solution to this problem includes demand functions for leisure – and thus labor supply functions – for each household member.

With two potential earners in the household, the model is the following:

$$\text{maximize } U(L_1, L_2, C) \quad (10)$$

$$\text{subject to } PC \leq Y + \sum_i [w_i(T - L_i)]$$

$$0 \leq L_i \leq T \quad i = 1, 2 \quad (11)$$

where  $L_i$  is leisure consumption of person  $i$ ,  $C$  is a composite good consumed by the

household,<sup>17</sup> and  $Y$  is total household unearned income.  $T$  is the fixed time endowment, so that  $(T - L_i)$  is hours worked,  $H_i$ . Given a well-behaved preference function, the model can be solved for demand functions for leisure and consumption goods:

$$L_i(w_1, w_2, P, Y) \quad i = 1, 2 \quad (12)$$

$$C(w_1, w_2, P, Y) \quad (13)$$

One implication of this model is that all income is pooled, so that an increase in unearned income will have an identical effect on these demands, regardless of which household member receives the income. This implies that redistributing receipt of some portion of  $Y$  from the husband to the wife should have no effect on labor supplies of either individual. Another way of framing the interpretation is that a one dollar increase in unearned income accruing to the wife should have the same effect on labor supplies as a one dollar increase in unearned income accruing to any other member of the household.

Household bargaining models provide an alternative framework for the determination of individual labor supplies within the context of family membership. A general household decision model could allow for the possibility that changes in income “owned” by the wife affect labor supplies differently than changes in income “owned” by the husband. For example, consider the divorce-threat model of Manser

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<sup>17</sup> One could generalize the model by specifying good consumption for each member separately. However, individual consumption data is difficult to obtain, so the benefits to empirical work of such a generalization would be limited.

and Brown(1980) and McElroy and Horney (1981). If some change occurs which shifts the distribution of endowments in the family, and this shift would persist in the event of divorce, then the threat points will be shifted by such a change.<sup>18</sup> Shifting threat points results in a change in the distribution of the surplus of marriage, whereby the member with increased income will now enjoy a greater share of the marital surplus. One way of doing so might be through increased leisure consumption.<sup>19</sup>

We typically assume leisure to be a normal good, implying that an increase in exogenous unearned income will increase leisure consumption, and that the income effect of changes in the wage – the price of leisure – are positive (i.e., when wages rise, the income effect acts to increase leisure and thereby reduce labor). Most labor supply analyses also assume, implicitly or otherwise, that leisure and home production can be lumped together. However, these two assumptions, taken together, may not be innocuous. Presumably, work, be it home production or work for a wage, generates disutility. We work because the net benefits of doing so are positive. Home production is thought to produce outputs which generate utility for the producer, to some degree resulting from her altruism towards other household members. But women may also derive utility from some aspects of market work (e.g., the social

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<sup>18</sup> Property rights laws and laws governing marriage and divorce, have important implications for the distribution of welfare in families through their effects on threat points.

<sup>19</sup> The policy change examined qualifies as a threat point shifter in the divorce-threat model, as the increased Child Benefit is payable to the parent with whom children reside in the case of marriage dissolution (usually the mother). However, results consistent with the divorce threat model do not preclude other bargaining models, such as the “Separate Spheres” model of Lundberg and Pollak (1993).

outlet a job provides). It is plausible that, at the margin, some women prefer market work to home work.<sup>20</sup> By this argument, it is possible that increasing her bargaining power in the household may prompt the wife to work in the market more rather than less. Empirical analyses of labor supply typically consider leisure to be defined as time not spent working for pay. Lack of data on time use dictates this approach. However, if forced to lump leisure and home work together in empirical analyses, we should take care not to use an overly simplified model to formulate hypotheses.

This suggests that the alternative hypothesis may not point to a one-tailed test, but that a change in exogenous unearned income accruing to the wife might result in her adjusting her labor supply either upward or downward, or perhaps not at all, depending on her preferences. However, any change in the wife's labor supply when her exogenous income changes, *ceteris paribus*, would be inconsistent with the traditional model of family labor supply.

Assuming leisure, defined as time not spent working for pay, to be a normal good for men may be more acceptable. While assuming men's time is divided between two activities rather than three is not correct, it may be a safer assumption than a similar one for women. This is because married men spend on average far less time in non-market work than married women, and so the alternative use of an hour is more likely to be true leisure than home production.

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<sup>20</sup> I am not suggesting that women may derive utility directly from work, but from some incidental effects of working outside the home.

### III. Estimating the Effects of the Policy Change on Labor Supplies

The increase in Child Benefits in the UK in the late 1970s increased unearned income accruing to the wife in families with children, while decreasing income accruing to the husband.<sup>21</sup> This provides an opportunity to test the income pooling restriction imposed by the unitary model of family labor supply.

To estimate the effect of the change in Child Benefit policy on family labor supply, I again employ *FES* data. While this survey is not ideal for examination of labor supply behavior, it is the most reasonable to use because of its large scale and consistency across years. The downfall of these data is that they do not provide good predictors of wages, which are typically used to estimate potential wages of persons who do not work. Educational attainment and work experience were not obtained as part of the survey in the years of interest here.<sup>22</sup> However, since wage effects are not central to this analysis, it is not necessary to have such wage predictors. Having such information would provide more precise estimates, but is not crucial for examining shifts in behavior in response to this policy change.

The standard approach is to estimate husband's and wife's labor supplies as functions of wages, prices, unearned (exogenous) income, and family demographics.

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<sup>21</sup> This change also resulted in a decrease in income accruing to fathers by doing away with Child Tax Allowances. Though tax allowances may be viewed as unearned income in a sense, one must have sufficient earned income to benefit from them. In addition, their removal resulted in changes in the marginal tax rate some working fathers faced, changing the net marginal wage.

<sup>22</sup> Age of cessation of full-time education is reported beginning in 1982, but this information cannot be used in this analysis since it is not available for earlier years.

The opportunity cost of (the wife) working in the market is an important factor in the labor supply of both husband and wife. As child care is a large part of home production, the number and ages of children in the family are important predictors of that opportunity cost.

Normalizing the price of consumption goods in equation (12) to unity, hours supplied,  $H=T-L$ , is a function of wages and endowments (income). The labor supply equations are estimated by

$$H_i = f_i(w_1, w_2, Y, Z, X) \quad i = 1, 2 \quad (14)$$

where  $Y$  is exogenous or predetermined household income.  $Z$  is a vector of demographic variables, including four of five dummies for number of children in the household (zero, one, two, three, and four or more), three dummies indicating the presence of at least one child in each of three age categories (under five, aged five through twelve, and thirteen and older), and age of the husband and wife.  $X$  is a vector of variables representing the labor market, including a quarterly unemployment rate by region, twelve region dummies, and in estimates where individual wage cannot be used, the real average hourly wage of full-time male workers and that of female workers in Great Britain.<sup>23</sup>

The labor supply equations are estimated using the Heckman selection model. In the selection equation, the full sample of observations is used, and since a wage is

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<sup>23</sup> Nominal wage is taken from *Social Security Statistics* (various years), measured in April of each year, and deflated by the second quarter RPI. Nominal wage is not available for Northern Ireland or for the UK as a whole.

not available for all, the average full-time wage for the relevant gender is used. The individual reported wage, computed as normal weekly gross earnings divided by normal weekly hours worked, is used in the equation estimating hours worked. The model is estimated using maximum likelihood when possible.

I estimate husbands' and wives' labor supply separately, estimating each with three different specifications. Since good predictors of potential wages are not available in the data, it is not clear how one should represent the wage of persons who do not work in estimates of their spouses' labor supplies. I use three different approaches to insure that reported results do not hinge on this choice. For women's hours, Model 1 includes the husband's wage, where his wage is zero if he does not work. Model 2 instead uses husband's earnings, with a zero value if he does not work. Model 3 uses the husband's wage, restricting the sample to household's in which the husband works and therefore has a positive wage.

For men's hours estimates, I take a slightly different approach: Model 4 estimates the husband's labor supply, excluding any measure of the wife's wage or earnings. Model 5 includes the average full-time female wage to control for wife's earning power, and Model 6 uses the wife's actual reported wage, but restricts the sample to households where the wife works and so reports a strictly positive wage. As in estimates of wives' hours, I use a selection model for husbands. Fourteen percent of males in this sample report no work for pay in the thirteen weeks prior to their being surveyed. If their selection into the labor force is not endogenous, then the selection coefficient should not have a strong impact on model marginal effects, and estimates

of hours in the selected sample will determine these effects.

The difference in approach for wives' versus husbands' labor supply is guided by existing empirical evidence. Husbands have very high participation rates compared to wives, and their participation and hours are thought to be much less sensitive to the wife's earning power than her participation and hours are to his earning power. If he does not participate, or works few hours, it is likely due to some factor which we might think of as constraining his choice, such as injury or disablement, or involuntary unemployment. On the other hand, the wife's labor force participation typically exhibits more responsiveness to the variables controlled for in this analysis, such as family demographics. She is more likely to be out of the labor force, or to work only part-time, and to spend her time, instead, in home production.

The termination of child tax allowances may have had effects on labor supplies independently of increases in Child Benefit payments to the mother. For both husbands and wives, I control for the level of total tax allowances available to the family.

## **Results**

Summary statistics for several variables of interest appear in Table 2-5.

Marginal effects on women's labor supply for Models 1, 2, and 3 are found in Tables

2-6, 2-7, and 2-8 respectively.<sup>24</sup> For convenience, means of explanatory variables for the relevant two samples (full and selected) are provided in each table.

The three models used to estimate women's labor supply produce similar results with respect to the variables of interest. The total marginal effect of the Child Benefit amount is positive and significant in all three models. This implies that women **increased** their hours of paid work when the child benefit increased. In contrast, when other household unearned income rises, women's market work hours decline. This effect is significant in Models 1 and 2. That these two types of unearned income have such different effects on women's labor supply implies that the unitary model's income pooling restriction does not hold.

Examining in more detail the origin of the marginal effects for the model, we see that effects on the participation decision and those on the hours choice given participation are very different. In all three models, both Child Benefit income and other household unearned income have a significantly negative effect on the probability of participation. However, given participation, Child Benefit has a positive significant effect, while the effect of household unearned income remains significantly negative. Given these data, we cannot examine time use to determine how women allocate their home time. As a result, it is impossible to say whether women who are

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<sup>24</sup> Reported marginal effects and their standard deviations are calculated based on two-step correction model results. Estimated effects of some explanatory variables are sensitive to the estimation method used (i.e., two-step versus maximum likelihood), but effects of the policy change are consistent across estimation methods. Further research, using non-parametric or semi-parametric methods, is required to determine the cause of this sensitivity.

increasing (decreasing) market work are doing so at the expense (to the benefit) of home production or of true leisure time.

This pattern of results is consistent with the notion that, when their bargaining power in the family increases, some women may choose to increase market work, while others choose to decrease time spent in this activity. If preferences for market work are heterogeneous among married women, then those with more distaste for market work are more likely to be at the margin for purposes of the participation decision. These women, if working prior to the CB increase, will be more likely to drop out of the market after this increase, generating a significant negative effect for participation. Because they are less likely to participate in the labor force, these women are less likely to be accounted for in the sample used to estimate the choice of hours. Their counterparts, who have a stronger preference for paid work, and who will increase market work when their bargaining power rises, are disproportionately represented in the selected sample, generating a significant positive effect on hours, given participation.<sup>25</sup>

Similar results (not shown) are found when using a dummy variable, rather than a continuous benefit amount, to represent the policy change. Results are also very similar when a difference-in-difference estimator, which allows for a discrete change in labor supply behavior of women with no children, is used. A more complex

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<sup>25</sup> Note that removing women who would work few hours, given participation, from the selected sample will increase mean hours worked among that sample, holding hours worked among remaining participants constant.

polynomial trend specification does not affect implications of these results.

Results on men's hours also provide some evidence of the failure of the traditional family model. Marginal effects from Models 4, 5, and 6 appear in Tables 2-9, 2-10, and 2-11 respectively. Although the overall effect of other unearned income is not generally significantly different from zero, a test of the equality of this effect with that of Child Benefit income is always rejected. The latter effect is significantly greater than the former in all three models, with a significance level of one percent in Models 4 and 6, and ten percent in Model 5.

This difference implies that the unitary model is not appropriate for modeling family labor supply decisions. If we can safely assume that leisure is a normal good when defined as time not spent working for pay, then household bargaining models would generally predict that the leisure time of the husband would decline when the wife's bargaining power increases. The findings here are consistent with this prediction.

Using a dummy variable to represent the policy change also results in a positive and significant effect on men's hours.

Results presented here for men's hours, like those for women's hours, utilize a selection correction model. This model is used because fourteen percent of men in the sample do not work. Using ordinary least squares to estimate hours worked for a subsample of men who work, implications are similar, but the effect is not always significant. Using a more complex polynomial trend specification, and using a difference-in-difference estimator, allowing for a discrete change in hours worked by

men with no children, generally imply a positive effect on hours of the policy change, but this effect is not always significant.

#### **IV. Conclusion**

The implications in this examination of family labor supply are that the traditional unitary model of family labor supply, and of economic decision-making more generally, is not consistent with behavior exhibited in empirical data. Using an experimental increase in women's share of household income, this analysis shows that married men's hours worked tend to increase when the wife's relative resources increase. Although some women exit the labor force, the overall effect is to increase hours of market work among women. This finding is not inconsistent with a household bargaining framework and individual utility maximization when we consider that true leisure and home-work time are necessarily lumped together as time not spent working for pay in this study due to data limitations. Gray (1998) also finds increases in women's market work hours associated with a redistribution of household property rights in their favor.

In thinking about how future work might build on this investigation, note that unearned income used for this analysis may be endogenous. For individuals who are relatively new to the labor market, income from assets and investments is likely to be mostly exogenous, as it comes from endowments rather than from past labor income. For slightly older individuals, income from assets and investments may reflect past labor supply behavior, and thus be positively correlated with current labor supply. For

yet older persons, this correlation may reverse if someone has planned for early retirement. Since males are typically the primary earners in married couples, the correlation between their labor supply and unearned income may be of greater concern than the correlation for women (i.e., the relationship may be more endogenous for men than for women). One could stratify by age of the husband to see if the apparent “effects” of unearned income are related to age, and thus potentially life-cycle effects. While it would not allow a test for a difference between the effect of one type of unearned income versus another, which is important in addressing the question posed in this study, it may be interesting to see if results would differ on the variables of interest if the potentially endogenous unearned income were excluded from these models.

An alternative explanation for these findings is that the Child Benefit may have a labeling effect – that is, parents may allocate this income differently from other income because it is intended by the government to support children. Such an explanation has been suggested by Peter Kooreman (1998) in his examination of parental response to changes in the value of the Dutch equivalent of Child Benefit. With no binding constraints on the use of the transfer, this explanation is unlikely to be valid. At least, there is no foundation in economic theory to support it.

Ideally, one would have information on time use which provides more detail than that in the data used for this analysis. Longitudinal data, while introducing additional life-cycle concerns, may make it possible to get at heterogeneous preferences of women regarding paid versus home work, and to separate these

preference effects from differences in constraints among women (the opportunity cost of an hour of market work is an hour of home work for some and an hour of true leisure for others). It would be helpful to have other analyses of this issue using quasi-experimental changes in factors which contribute to determination of threat points. Attitudes regarding marriage and family have changed in the past few decades, and laws governing marriage, divorce, and property rights related to these have changed as well. Changes in these laws may provide further opportunities to explore household bargaining, and may make it possible to use more contemporary data than that used for this study. It would also be beneficial to have experimental studies, like this one, using data from countries other than the UK.

**Table 2-1**  
**Means of Budget Shares and Real Total Expenditure**

	Mean (full sample) <sup>†</sup>	Mean (if share>0) <sup>‡</sup>	Number of positive observations
<b>(a) Broad Goods</b>			
Alcohol	0.04366	0.05218	10678
Clothing	0.07613	0.08183	11872
Durables	0.06034	—	12324
Food (in)	0.25863	—	12762
Food out	0.01446	0.01601	11527
Fuel	0.06137	—	12735
Housing	0.14895	—	12749
Misc.	0.08234	—	12761
Services	0.08101	—	12749
Tobacco	0.03730	0.05649	8426
Transport	0.13581	—	12538
<b>(b) Narrow Goods</b>			
Books	0.00278	0.00804	4414
Toys	0.00589	0.01640	4558
Pets	0.00694	0.01384	6408
Children's pocket money	0.00392	0.01030	4855
Cosmetics	0.00472	0.00774	7765
Hairdressing	0.00484	0.01350	4567
Domestic services	0.00256	0.01816	1796
Cigarettes	0.03524	0.05846	7694
Other tobacco	0.00206	0.01392	1882
Men's clothing, footwear	0.01388	0.04256	4164
Women's clothing,	0.02312	0.03480	8475
Children's clothing,	0.02510	0.04004	7999
<b>(c) Total Expenditure</b>			
Real total expenditure <sup>††</sup>	46.255	—	12762

<sup>†</sup> Mean based on 12762 observations after excluding outliers.

<sup>‡</sup> Mean for positive observations only is reported if 5% or more of households report zero expenditure for the good.

<sup>††</sup> Weekly value, £, 1974 currency.

**Table 2-2 (a)**  
**Least Squares Estimates of Budget Shares for Broad Good Categories**

	<b>Durables</b>	<b>Food (In)</b>	<b>Fuel</b>	<b>Housing</b>	<b>Misc.</b>	<b>Services</b>	<b>Transport</b>
<b>D1 (policy shift, 1 child families)</b>	0.01348** (0.00555)	0.00779 (0.00504)	0.00771*** (0.00295)	-0.02401*** (0.00534)	0.00735** (0.00314)	0.00233 (0.00430)	0.00541 (0.00705)
<b>D2 (policy shift, 2 child families)</b>	0.01219** (0.00531)	0.01342** (0.00489)	0.00716** (0.00287)	-0.02724*** (0.00520)	0.00650** (0.00299)	0.00148 (0.00410)	0.00051 (0.00674)
<b>D3 (policy shift, 3 child families)</b>	0.01557*** (0.00597)	0.00602 (0.00538)	0.00960*** (0.00308)	-0.02770*** (0.00568)	0.00583* (0.00342)	0.00302 (0.00467)	0.00305 (0.00768)
<b>Own price</b>	-0.07275** (0.03562)	0.30656*** (0.02803)	0.06399*** (0.01203)	0.08954*** (0.01473)	0.10142*** (0.02657)	-0.00699 (0.02791)	-0.08356 (0.05182)
<b>Log total expenditure</b>	0.05410* (0.00181)	-0.12963*** (0.00154)	-0.03395*** (0.00076)	-0.04638*** (0.00158)	0.00208* (0.00111)	0.04038*** (0.00152)	0.08709*** (0.00250)
<b>Trend</b>	-0.01068*** (0.00154)	0.01105*** (0.00064)	0.00190*** (0.00071)	0.01087*** (0.00065)	-0.00070 (0.00044)	-0.00376*** (0.00062)	-0.00903*** (0.00109)
<b>Intercept</b>	0.34542*** (0.11262)	0.66700*** (0.04620)	0.23387*** (0.05228)	-0.20549*** (0.04667)	0.10444*** (0.03142)	-0.01117 (0.04443)	0.07874 (-0.01462)
<b>R<sup>2</sup></b>	0.0717	0.4055	0.1956	0.1640	0.0511	0.0773	0.0976
<b>F stat</b>	2.42557*	4.03988***	3.29101**	9.58577	1.90914	0.17458	0.49267

**Table 2-2 (b)**  
**Least Squares and Tobit Estimates of Budget Shares for Broad Good Categories**

	Alcohol		Clothing		Food out		Tobacco	
	<u>OLS</u>	<u>Tobit</u>	<u>OLS</u>	<u>Tobit</u>	<u>OLS</u>	<u>Tobit</u>	<u>OLS</u>	<u>Tobit</u>
D1 (policy shift, 1 child families)	-0.00349 (0.00300)	-0.00430 (0.00351)	0.00770* (0.00461)	0.00841* (0.00490)	0.00281** (0.00118)	0.00387*** (0.00129)	-0.00615* (0.00287)	-0.00792* (0.00416)
D2 (policy shift, 2 child families)	-0.00221 (0.00286)	-0.00236 (0.00334)	0.01067** (0.00439)	0.01223*** (0.00467)	0.00309*** (0.00114)	0.00415*** (0.00125)	-0.00460** (0.00274)	-0.00657* (0.00397)
D3 (policy shift, 3 child families)	-0.00509 (0.00327)	0.00587 (-0.00383)	0.01118** (0.00498)	0.01267** (0.00529)	0.00135 (0.00124)	0.00235* (0.00136)	-0.00179 (0.00309)	-0.00265 (0.00448)
Own price	-0.02605* (0.01485)	-0.03082* (0.01739)	-0.00096 (0.02134)	-0.00405 (0.02267)	0.00676 (0.00746)	0.00498 (0.00814)	-0.01210 (0.00830)	-0.02417 (0.01213)
Log total expenditure	0.00476*** (0.00107)	0.01054*** (0.00126)	0.04396*** (0.00157)	0.04915*** (0.00168)	0.00513*** (0.00033)	0.00668*** (0.00036)	-0.02742*** (0.00096)	-0.03270*** (0.00141)
Trend	-0.00026 (0.00042)	-0.00086* (0.00049)	-0.00744*** (0.00134)	-0.00846*** (0.00142)	-0.00104*** (0.00013)	-0.00128*** (0.00014)	0.00311*** (0.00047)	0.00332*** (0.00068)
Intercept	0.00678 (0.03030)	-0.01056 (0.03543)	0.21334** (0.09771)	0.23595** (0.10382)	0.04752*** (0.00927)	0.04973*** (0.01014)	0.06147* (0.03388)	0.08437* (0.04898)
R <sup>2</sup>	0.0370		0.0757		0.0401		0.0948	
Log Likelihood	14415.605		13781.097		30828.822		8659.7659	
F stat	0.98836		2.31565*		4.12057***		2.38343*	
LR stat	3.21984		8.29466**		15.2223***		5.59428	

F stat for LS system, H<sub>0</sub>: D1=D2=D3=0: 3.233\*\*\*

**Notes for Tables 2-2:**

Standard errors are reported in parentheses.

Eleven region dummies, nine household composition dummies, and three season dummies are included in regressions, but not shown in tables.

F-statistics and likelihood ratio statistics are for the joint hypothesis:  $H_0: D1=D2=D3=0$ .

\*, \*\*, \*\*\* significant at 10%, 5%, and 1% level respectively

**Table 2-3**  
**Least Squares and Tobit Estimates of Budget Shares for Narrow Good Categories**

	Cosmetics		Hairdressing		Domestic svcs		Cigarettes		Other tobacco	
	OLS	Tobit	OLS	Tobit	OLS	Tobit	OLS	Tobit	OLS	Tobit
D1(policy, 1child families)	-0.00036 (0.00023)	-0.00058** (0.00029)	-0.00002 (0.00030)	0.00007 (0.00077)	0.00014 (0.00029)	0.00317* (0.00181)	-0.00261* (0.00144)	-0.00304 (0.00227)	-0.00048** (0.00024)	-0.00364*** (0.00142)
D2(policy, 2 child Families)	-0.00014 (0.00022)	-0.00032 (0.00027)	0.00021 (0.00028)	0.00049 (0.00073)	-0.00013 (0.00028)	0.00077 (0.00171)	-0.00179 (0.00138)	-0.00245 (0.00217)	-0.00052** (0.00023)	-0.00355*** (0.00134)
D3(policy, 3 child families)	-0.00022 (0.00025)	-0.00045 (0.00031)	-0.00011 (0.00032)	-0.00055 (0.00084)	0.00043 (0.00032)	0.00293 (0.00194)	-0.00053 (0.00155)	-0.00048 (0.00245)	-0.00040 (0.00026)	-0.00286** (0.00154)
Own price	0.00145 (0.00193)	0.00143 (0.00243)	-0.00079 (0.00192)	-0.00053 (0.00497)	0.00045 (0.00188)	0.00909 (0.01152)	-0.00566 (0.00416)	-0.1335** (0.00663)	-0.00047 (0.00069)	-0.00433 (0.00417)
Log total expend	.00055*** (0.00008)	.00111*** (0.00010)	.00064*** (0.00010)	.00353*** (0.00027)	.00145*** (0.00010)	.01051*** (0.00064)	-.01381*** (0.00048)	-.01795*** (0.00077)	0.00009 (0.00008)	.00302*** (0.00048)
Trend	-.00012*** (0.00003)	-.00020*** (0.00004)	-.00011*** (0.00004)	-.00061*** (0.00011)	-.00021*** (0.00004)	-.00161*** (0.00026)	.00151*** (0.00024)	.00166*** (0.00037)	0.00004 (0.00004)	0.00003 (0.00023)
Intercept	.00634*** (0.00228)	0.00637** (0.00287)	0.00503 (0.00306)	0.00952 (0.00789)	0.00338 (0.00300)	-0.00055 (0.01856)	0.03347** (0.01700)	0.05378** (0.02672)	-0.002876 (0.00281)	-.04356*** (0.01668)
R <sup>2</sup>	0.0315		0.0267		0.0366		0.0954		0.0037	
Log Likelihood		26185.95		10464.99		1870.753		12016.78		2219.491
F stat	1.14841		1.02305		2.31176*		1.89397		1.77756	
LR stat		5.54434		3.39903		7.05352*		3.52395		7.61693*

Table 2-3 (continued)

	Books		Toys		Pets		Pocket money	
	OLS	Tobit	OLS	Tobit	OLS	Tobit	OLS	Tobit
D1 (policy shift, 1 child families)	0.00052** (0.00022)	0.00118** (0.00054)	0.00024 (0.00045)	0.00167 (0.00110)	0.00118** (0.00047)	0.00173** (0.00087)	0.00050** (0.00023)	0.00085 (0.00054)
D2 (policy shift, 2 child families)	0.00050** (0.00021)	0.00126** (0.00051)	0.00024 (0.00043)	0.00111 (0.00104)	0.00091** (0.00046)	0.00113 (0.00084)	0.00042* (0.00022)	0.00072 (0.00050)
D3 (policy shift, 3 child families)	0.00055** (0.00024)	0.00118** (0.00059)	-0.00036 (0.00049)	-0.00051 (0.00119)	0.00114** (0.00050)	0.00163* (0.00092)	0.00006 (0.00025)	0.00038 (0.00056)
Own price	0.00012 (0.00187)	0.00027 (0.00448)	0.00452 (0.00383)	-0.00052 (0.00894)	0.00187 (0.00261)	0.00083 (0.00481)	0.00194 (0.00195)	0.00385 (0.00451)
Log total expenditure	0.00081*** (0.00008)	0.00316*** (0.00019)	0.00121*** (0.00016)	0.00446*** (0.00039)	-0.00110*** (0.00014)	-0.00080*** (0.00026)	-0.00032*** (0.00008)	0.00036* (0.00019)
Trend	-0.00014*** (0.00003)	-0.00046*** (0.00008)	-0.00013** (0.00006)	-0.00066*** (0.00015)	0.00005 (0.00006)	0.00003 (0.00011)	-0.00007** (0.00003)	-0.00026*** (0.00007)
Intercept	0.00387* (0.00221)	0.00201 (0.00542)	-0.00117 (0.00453)	-0.00538 (0.01095)	0.01005** (0.00431)	0.00503 (0.00794)	0.01129*** (0.00230)	0.01751*** (0.00531)
R <sup>2</sup>	0.0247		0.1154		0.0188		0.1555	
Log Likelihood		11517.385		9328.9961		16274.908		13901.336
F stat	2.13892		1.23492		2.27511*		3.08668**	
LR stat		6.04553		7.49636*		4.94741		3.16645

**Notes for Table 2-3:**

Standard errors are reported in parentheses.

Eleven region dummies, nine household composition dummies, and three season dummies are included in regressions, but not shown in table.

F-statistics and likelihood ratio statistics are for the joint hypothesis:  $H_0: D1=D2=D3=0$ .

\*, \*\*, \*\*\* significant at 10%, 5%, and 1% level respectively

**Table 2-4**  
**Least Squares, Tobit, and Purchase-Infrequency Estimates of Budget Shares for Narrow Clothing Categories**

Predictors of budget share <sup>2</sup>	Children's clothing		Men's clothing		Women's clothing	
	OLS	Tobit	OLS	Tobit	OLS	Tobit
		Purchase infreq. <sup>1</sup>		Purchase infreq. <sup>1</sup>		Purchase infreq. <sup>1</sup>
D1 (policy shift, 1 child families)	0.00449*** (0.00122)	0.00719*** (0.00185)	0.00410** (0.00230)	-0.00428 (0.00284)	0.00102 (0.00125)	0.00209 (0.00176)
D2 (policy shift, 2 child families)	0.00396*** (0.00116)	0.00681*** (0.00176)	0.00368** (0.00224)	-0.00492* (0.00270)	0.00224** (0.00119)	0.00405** (0.00168)
D3 (policy shift, 3 child families)	0.00433*** (0.00132)	0.00746*** (0.00198)	0.00401** (0.00240)	-0.00280 (0.00305)	0.00244** (0.00135)	0.00356* (0.00191)
Own price	-0.01044** (0.00564)	-0.03189*** (0.00855)	0.00713 (0.00838)	0.02422* (0.01321)	0.00547 (0.00577)	0.00038 (0.00815)
Log total expenditure	0.00335*** (0.00042)	0.00723*** (0.00064)	-0.00044 (0.00060)	0.02465*** (0.00100)	0.01014*** (0.00042)	0.01630*** (0.00061)
Trend	-0.0153*** (0.00035)	-0.0341*** (0.00054)	-0.00010 (0.00035)	-0.00160* (0.00082)	-0.0141*** (0.00036)	-0.0280*** (0.00051)
Intercept	0.09386*** (0.02583)	0.18927*** (0.03910)	0.02877 (0.02562)	-0.12862** (0.06025)	0.02104 (0.02644)	0.06042 (0.03716)

Table 2-4 (continued)

Predictors of probability of purchase	Children's clothing		Men's clothing		Women's clothing	
	OLS	Tobit	OLS	Tobit	OLS	Tobit
		Purchase infreq.		Purchase infreq.		Purchase infreq.
D1 (policy shift, 1 child families)	-0.23445** (0.10079)		-0.0101 (0.0942)		-0.0575 (0.0805)	
D2 (policy shift, 2 child families)	-0.18532* (0.09789)		0.00189 (0.0917)		-0.0465 (0.0768)	
D3 (policy shift, 3 child families)	-0.20208* (0.10707)		0.0278 (0.1042)		-0.11513 (0.0903)	
Own price	-0.23361 (0.37455)		-0.42858 (0.3823)		0.14226 (0.3031)	
Log total expenditure	0.11412*** (0.02790)		0.0446 (0.0317)		0.0876*** (0.0284)	
Trend	0.00587 (0.01568)		-0.0134 (0.0200)		-0.0161 (0.0236)	
Intercept	-0.82517 (1.1686)		1.1208 (1.482)		1.2482 (1.749)	
Aug, Sep	-.15467*** (0.01583)					
Nov, Dec	-.06311*** (0.02083)		0.0776*** (0.0188)		-0.0653 (0.0178)	
Has car	0.07159*** (0.01639)		0.0134 (0.0171)		0.00542 (0.0181)	

**Table 2-4 (continued)**

	Children's clothing			Men's clothing			Women's clothing		
	<u>OLS</u>	<u>Tobit</u>	Purchase infreq <sup>1</sup>	<u>OLS</u>	<u>Tobit</u>	Purchase infreq <sup>1</sup>	<u>OLS</u>	<u>Tobit</u>	Purchase infreq <sup>1</sup>
R <sup>2</sup>	0.0393			0.0433			0.0627		
Log Likelihood		14649.819	10758.32		4155.4772	-10743.9		16386.613	12004.23
F stat	4.82319***			2.45357*			2.09425		
L.R stat		17.4071***	24.4***		3.86264	9.9**		8.08857**	7.4*

Standard errors are reported in parentheses.

Eleven region dummies, nine household composition dummies, and three season dummies are included in OLS and tobit regressions, but not shown in table. Purchase infrequency estimates include nine household composition dummies not shown in table. See Appendix A. F-statistics and likelihood ratio statistics are for the joint hypothesis:  $H_0: D1=D2=D3=0$ .

<sup>1</sup> Purchase-infrequency results include data from 1983, and use narrow clothing price indices with VAT added. OLS and tobit estimates use broad clothing price index exclusive of VAT.

<sup>2</sup> given purchase for purchase infrequency model

\*, \*\*, \*\*\* significant at 10%, 5%, and 1% level respectively

**Table 2-5**  
**Means of Labor Supply Related Variables,**  
**One-Man–One-Woman Households**

	<b>Full Sample</b>	<b>Households with Children</b>	<b>Households without Children</b>
Husband's participation rate	0.85711	0.84951	0.87533
Wife's participation rate	0.55767	0.47499	0.75152
Household unearned income (weekly)	1.26616 (6.4070)	0.98124 (5.88919)	1.95011 (7.46181)
Husband's normal hourly wage <sup>†</sup>	1.18406 (0.57536)	1.19926 (0.55811)	1.14865 (0.61225)
Husband's normal weekly hours <sup>†</sup>	26.01514 (14.14722)	26.43066 (14.43580)	25.04710 (13.40223)
Wife's normal hourly wage <sup>†</sup>	0.71696 (0.52099)	0.68862 (0.53810)	0.75969 (0.46392)
Wife's normal weekly hours <sup>†</sup>	15.48686 (10.79619)	13.12523 (9.91117)	19.04804 (11.09601)
n	22940	16194	6746
<b>Sub-sample of Households in which the Husband Works</b>			
Wife's participation rate	0.57904	0.49269	0.78019
Household unearned income	1.06741 (5.75603)	0.83253 (5.30126)	1.61460 (6.66526)
Wife's normal hourly wage <sup>†</sup>	0.41376 (0.52069)	0.68296 (0.52347)	0.76107 (0.46814)
Wife's normal weekly hours <sup>†</sup>	9.16437 (11.37724)	13.40663 (9.98287)	19.38783 (11.13337)
n	19662	13757	5905

<sup>†</sup> for a sub-sample of working husbands or wives.

Both adults must be under age 60 to be included in the sample.

**Table 2-6**  
**Marginal Effects on Wife's Hours<sup>†</sup>**  
**Model 1: Using Husband's Wage = 0 if He Does Not Work**

Variable	Total model marginal effect	Direct effect (hours equation)	Indirect effect (selection equation)	Mean of X (full sample)	Mean of X (selected sample)
<b>Constant</b>		20.57179*** (1.33880)	2.40649*** (0.19693)		
<b>His wage</b>	0.02485 (0.11004)	0.01390 (0.10975)	0.01095 (0.00805)	1.01500	1.02200
<b>Her wage<sup>‡</sup></b>		-0.21465* (0.12174)	-0.14991 (0.22693)	0.75460	0.71700
<b>Trend</b>	-3.01870*** (0.10158)	-3.17710*** (0.10134)	0.15840*** (0.00704)	5.83700	5.95900
<b>Unemployment</b>	0.38136*** (0.06069)	0.45054*** (0.06055)	-0.06919*** (0.00414)	7.06600	7.13100
<b>His age</b>	-0.00268 (0.01722)	0.00296 (0.01716)	-0.00564*** (0.00142)	37.87000	38.78000
<b>Her age</b>	-0.14841*** (0.02976)	-0.09729*** (0.02973)	-0.05112*** (0.00147)	35.43000	36.35000
<b>Under 5 dummy</b>	-3.27687* (1.67400)	-0.71026 (1.67380)***	-2.56661*** (0.02001)	0.32820	0.15210
<b>Age 5-12 dummy</b>	-0.89347** (0.41315)	-1.49297 (0.41272)	0.59951*** (0.01870)	0.43530	0.40980
<b>Age 13-17 dummy</b>	2.09532*** (0.77229)	0.67789 (0.77204)	1.41744*** (0.01978)	0.22690	0.27120
<b>0 children dummy</b>	17.57724*** (0.93186)	16.06339*** (0.93057)	1.51386*** (0.04899)	0.29410	0.39870
<b>1 child dummy</b>	7.51198*** (0.32161)	7.51706*** (0.32051)	-0.00508 (0.02661)	0.21410	0.17980
<b>3 children dummy</b>	-5.78109*** (0.34497)	-5.73751*** (0.34378)	-0.04358 (0.02859)	0.11900	0.10140
<b>4+ children dummy</b>	-12.16788*** (0.75690)	-11.61018*** (0.75466)	-0.55770*** (0.05827)	0.05026	0.03432
<b>Tax allowance</b>	0.51077*** (0.03639)	0.50320*** (0.03625)	0.00757** (0.00320)	16.89000	16.50000
<b>Unearned income</b>	-0.05137 (0.03447)	-0.00363 (0.03445)	-0.04774*** (0.00122)	1.26600	1.02500
<b>CB amount</b>	3.76565*** (0.19904)	3.99178*** (0.19855)	-0.22613*** (0.01407)	1.33800	1.06700

<sup>†</sup>Marginal effects calculations are based on two-step model results.

<sup>‡</sup> Her wage is average female wage for selection equation, individual wage for hours equation. Standard errors reported in parentheses.

\*, \*\*, \*\*\* Significant at 10, 5, and 1 % respectively.

**Table 2-7**  
**Marginal Effects on Wife's Hours<sup>†</sup>**  
**Model 2: Using Husband's Earnings = 0 if He Does Not Work**

Variable	Total model marginal effect	Direct effect (hours equation)	Indirect effect (selection equation)	Mean of X (full sample)	Mean of X (selected sample)
<b>Constant</b>		20.62526*** (1.3077)	3.345365*** (0.19826)		
<b>His earnings</b>	0.012713*** (0.00475)	0.016927*** (0.00474)	-0.00421*** (0.000306)	25	24.29
<b>Her wage<sup>‡</sup></b>		-0.25796** (0.11916)	-0.44482* (0.2277)	0.7546	0.717
<b>Trend</b>	-2.95351*** (0.098293)	-3.13919*** (0.098037)	0.185683*** (0.007098)	5.837	5.959
<b>Unemployment</b>	0.369614*** (0.060873)	0.452156*** (0.060731)	-0.08254*** (0.004151)	7.066	7.131
<b>His age</b>	-0.00338 (0.017695)	0.00395 (0.017638)	-0.00733*** (0.001416)	37.87	38.78
<b>Her age</b>	-0.1516*** (0.029576)	-0.08853*** (0.029539)	-0.06307*** (0.001478)	35.43	36.35
<b>Under 5 dummy</b>	-3.19598* (1.6524)	0.017113 (1.6523)	-3.21309*** (0.021129)	0.3282	0.1521
<b>Age 5-12 dummy</b>	-0.87347** (0.41205)	-1.62067*** (0.41162)	0.747193*** (0.018779)	0.4353	0.4098
<b>Age 13-17 dummy</b>	2.147704*** (0.76297)	0.379735 (0.7627)	1.767969*** (0.020171)	0.2269	0.2712
<b>0 children dummy</b>	17.49222*** (0.94201)	15.60421*** (0.94073)	1.888013*** (0.049139)	0.2941	0.3987
<b>1 child dummy</b>	7.421598*** (0.32946)	7.425177*** (0.32839)	-0.00358 (0.026591)	0.2141	0.1798
<b>3 children dummy</b>	-5.69975*** (0.3544)	-5.64003*** (0.35324)	-0.05972** (0.028587)	0.119	0.1014
<b>4+ children dummy</b>	-11.9161*** (0.78621)	-11.1858*** (0.78405)	-0.7303*** (0.058324)	0.05026	0.03432
<b>Tax allowance</b>	0.496309*** (0.037645)	0.485182*** (0.037509)	0.011126*** (0.003198)	16.89	16.5
<b>Unearned income</b>	-0.05136 (0.033912)	0.007568 (0.03389)	-0.05893*** (0.001225)	1.266	1.025
<b>CB amount</b>	3.702345*** (0.1983)	3.98196*** (0.1978)	-0.27961*** (0.01407)	1.338	1.067

<sup>†</sup>Marginal effects calculations are based on two-step model results.

<sup>‡</sup>Her wage is average female wage for selection equation, individual wage for hours equation. Standard errors reported in parentheses.

\*, \*\*, \*\*\* Significant at 10, 5, and 1 % respectively.

**Table 2-8**  
**Marginal Effects on Wife's Hours<sup>†</sup>**  
**Model 3: Using Husband's Wage, Include Household Only if He Works**

Variable	Total model marginal effect	Direct effect (hours equation)	Indirect effect (selection equation)	Mean of X (full sample)	Mean of X (selected sample)
Constant		22.08646*** (1.3085)	8.33643*** (0.22059)		
His wage	-0.7188856** (0.29765)	0.5522874* (0.2974)	-1.27117*** (0.012083)	1.184	1.148
Her wage <sup>‡</sup>		0.172481 (0.1189)	-2.33891*** (0.24662)	0.7525	
Trend	-3.021966*** (0.10626)	-3.45662*** (0.10596)	0.43465*** (0.0079331)	5.712	5.885
Unemployment	0.41223*** (0.06733)	0.53113*** (0.06718)	-0.11891*** (0.0044811)	6.921	7.067
His age	-0.00632 (0.022588)	-0.0131102 (0.022535)	0.00679*** (0.001544)	37.74	38.71
Her age	-0.16704*** (0.031968)	-0.0281116 (0.031923)	-0.13893*** (0.0017054)	35.37	36.31
Under 5 dummy	-2.91357** (1.4171)	3.36534** (1.4168)	-6.27891*** (0.032334)	0.3253	0.1461
Age 5-12 dummy	-0.76346* (0.42573)	-2.30887*** (0.42522)	1.54541*** (0.020854)	0.4249	0.4039
Age 13-17 dummy	2.60401*** (0.70312)	-1.051651 (0.70263)	3.65566*** (0.026142)	0.2219	0.2715
0 children dummy	18.30053*** (0.97274)	14.70758*** (0.9711)	3.59296*** (0.056357)	0.3003	0.4047
1 child dummy	7.60634*** (0.4077)	7.579394*** (0.40665)	0.02694 (0.02926)	0.218	0.1815
3 children dummy	-5.89993*** (0.43797)	-6.17256*** (0.43683)	0.27263*** (0.03161)	0.1147	0.1009
4+ children dummy	-12.67226*** (0.92314)	-11.47287*** (0.92083)	-1.19939*** (0.06527)	0.0443	0.03162
Tax allowance	0.52297*** (0.046713)	0.50214*** (0.046578)	0.02083*** (0.0035511)	16.9	16.49
Unearned income	-0.03252 (0.03398)	0.06955** (0.033939)	-0.10207*** (0.0016571)	1.067	0.8845
CB amount	3.82922*** (0.21809)	4.381637*** (0.21749)	-0.55242*** (0.016082)	1.257	1.023

<sup>†</sup>Marginal effects calculations are based on two-step model results.

<sup>‡</sup>Her wage is average female wage for selection equation, individual wage for hours equation. Standard errors reported in parentheses.

\*, \*\*, \*\*\* Significant at 10, 5, and 1 % respectively.

**Table 2-9**  
**Marginal Effects on Husband's Hours<sup>†</sup>**  
**Model 4: Using No Measure of Wife's Wage**

<b>Variable</b>	<b>Total model marginal effect</b>	<b>Direct effect (hours equation)</b>	<b>Indirect effect (selection equation)</b>	<b>Mean of X (full sample)</b>	<b>Mean of X (selected sample)</b>
Constant		26.9122*** (1.4245)	11.4181*** (0.22881)		
His wage <sup>‡</sup>		-1.9491*** (0.13773)	1.86304*** (0.20283)	1.071	1.184
Trend	-4.56699*** (0.11068)	-4.61282*** (0.1106)	0.04584*** (0.00422)	5.837	5.712
Unemployment	0.83399*** (0.10784)	1.08806*** (0.10778)	-0.25407*** (0.00378)	7.066	6.921
His age	0.00753 (0.03932)	0.10993*** (0.03929)	-0.1024*** (0.00133)	37.87	37.74
Her age	-0.00212 (0.03495)	-0.07433** (0.03493)	0.0722*** (0.00116)	35.43	35.37
Under 5 dummy	-0.0779 (0.38179)	0.31029 (0.38159)	-0.38819*** (0.01241)	0.3282	0.3253
Age 5-12 dummy	-0.28882 (0.39636)	0.24742 (0.39614)	-0.53624*** (0.01329)	0.4353	0.4249
Age 13-17 dummy	-1.15851*** (0.38106)	-1.3278*** (0.38086)	0.16928*** (0.01245)	0.2269	0.2219
0 children dummy	10.5922*** (1.0086)	12.1346*** (1.0082)	-1.54239*** (0.03026)	0.2941	0.3003
1 child dummy	5.71074*** (0.52984)	6.35705*** (0.52958)	-0.64631*** (0.01652)	0.2141	0.218
3 children dummy	-5.26758*** (0.52585)	-5.3446*** (0.5256)	0.07702*** (0.01636)	0.119	0.1147
4+ children dummy	-13.974*** (1.0212)	-13.5931*** (1.0207)	-0.38083*** (0.03139)	0.05026	0.0443
Tax allowance	1.05936*** (0.06437)	1.17458*** (0.06434)	-0.11522*** (0.00207)	16.89	16.9
Unearned income	0.08265** (0.04042)	0.16879*** (0.04041)	-0.08614*** (0.00098)	1.266	1.067
CB amount	3.56744*** (0.31324)	4.15139*** (0.31311)	-0.58395*** (0.00897)	1.338	1.257

<sup>†</sup>Marginal effects calculations are based on two-step model results.

<sup>‡</sup>His wage is average male wage for selection equation, individual wage for hours equation. Standard errors reported in parentheses.

\*, \*\*, \*\*\* Significant at 10, 5, and 1 % respectively.

**Table 2-10**  
**Marginal Effects on Husband's Hours<sup>†</sup>**  
**Model 5: Using Average Full-Time Female Wage**

Variable	Total model marginal effect	Direct effect (hours equation)	Indirect effect (selection equation)	Mean of X (full sample)	Mean of X (selected sample)
Constant		66.87124*** (6.3769)	-21.0125*** (0.2772)		
His wage <sup>‡</sup>		-1.90795*** (0.21451)	7.63318*** (0.29307)	1.071	1.184
Avg. female wage	-58.7527*** (7.3123)	-47.64049*** (7.3087)	-11.1123*** (0.23093)	0.7546	0.7525
Trend	-3.28442*** (0.22458)	-3.28511*** (0.22454)	0.00069 (0.00446)	5.837	5.712
Unemployment	0.90255*** (0.17882)	0.51168*** (0.17876)	0.39087*** (0.00457)	7.066	6.921
His age	0.00493 (0.0635)	-0.16491*** (0.06348)	0.16984*** (0.00176)	37.87	37.74
Her age	0.01322 (0.05631)	0.13300** (0.05629)	-0.11978*** (0.00142)	35.43	35.37
Under 5 dummy	-0.01243 (0.61655)	-0.67264 (0.61641)	0.66022*** (0.01323)	0.3282	0.3253
Age 5-12 dummy	-0.19456 (0.64034)	-1.11080* (0.64017)	0.91624*** (0.01472)	0.4353	0.4249
Age 13-17 dummy	-0.84089 (0.61501)	-0.61395 (0.61488)	-0.22695*** (0.01255)	0.2269	0.2219
0 children dummy	3.29003* (1.7622)	1.42661 (1.7618)	1.86343*** (0.03442)	0.2941	0.3003
1 child dummy	1.9721** (0.92501)	1.26591 (0.92484)	0.70618*** (0.01817)	0.2141	0.218
3 children dummy	-1.70925* (0.93315)	-1.94050** (0.93298)	0.23125*** (0.01787)	0.119	0.1147
4+ children dummy	-6.30303*** (1.9231)	-7.85686*** (1.9227)	1.55384*** (0.03825)	0.05026	0.0443
Tax allowance	0.65147*** (0.11351)	0.51796*** (0.11349)	0.13351*** (0.00239)	16.89	16.9
Unearned income	-0.06787 (0.06519)	-0.21132*** (0.06517)	0.14346*** (0.00141)	1.266	1.067
CB amount	1.11118** (0.55111)	0.36121 (0.551)	0.74997*** (0.01076)	1.338	1.257

<sup>†</sup>Marginal effects calculations are based on two-step model results.

<sup>‡</sup>His wage is average male wage for selection equation, individual wage for hours equation. Standard errors reported in parentheses.

\*, \*\*, \*\*\* Significant at 10, 5, and 1 % respectively.

**Table 2-11**  
**Marginal Effects on Husband's Hours<sup>†</sup>**  
**Model 6: Using Wife's Wage, Include Household Only if She Works**

Variable	Total model marginal effect	Direct effect (hours equation)	Indirect effect (selection equation)	Mean of X (full sample)	Mean of X (selected sample)
Constant		23.7259*** (0.95068)	3.64712*** (0.26303)		
His wage <sup>‡</sup>		-2.2081*** (0.11421)	0.84966*** (0.25301)	1.073	1.148
Her wage	-0.18082 (0.13515)	-0.18886 (0.1349)	0.00804 (0.00823)	0.717	0.7146
Trend	-4.63748*** (0.06713)	-4.64956*** (0.06692)	0.01208** (0.00533)	5.959	5.885
Unemployment	0.90132*** (0.05702)	0.96756*** (0.05689)	-0.06624*** (0.00383)	7.131	7.067
His age	0.02146 (0.02021)	0.04415** (0.02017)	-0.02269*** (0.00122)	38.78	38.71
Her age	-0.01597 (0.01913)	-0.03036 (0.01909)	0.01439*** (0.00121)	36.35	36.31
Under 5 dummy	0.03509 (0.32942)	0.45624 (0.32896)	-0.42115*** (0.01744)	0.1521	0.1461
Age 5-12 dummy	-0.12336 (0.26189)	-0.01868 (0.26135)	-0.10467*** (0.01694)	0.4098	0.4039
Age 13-17 dummy	-0.96315*** (0.26162)	-1.20665*** (0.26112)	0.24349*** (0.01605)	0.2712	0.2715
0 children dummy	13.1778*** (0.61086)	13.4271*** (0.60961)	-0.24933*** (0.03901)	0.3987	0.4047
1 child dummy	6.99147*** (0.3311)	7.01461*** (0.33037)	-0.02314 (0.02199)	0.1798	0.1815
3 children dummy	-6.75673*** (0.40354)	-7.13514*** (0.40282)	0.37841*** (0.02402)	0.1014	0.1009
4+ children dummy	-16.8458*** (0.69603)	-16.8212*** (0.69459)	-0.02452 (0.04471)	0.03432	0.03162
Tax allowance	1.20453*** (0.04143)	1.24454*** (0.04135)	-0.04*** (0.00252)	16.5	16.49
Unearned income	0.08828 (0.05535)	0.1607*** (0.05533)	-0.07243*** (0.00152)	1.025	0.8845
CB amount	4.30218*** (0.1928)	4.48078*** (0.19248)	-0.1786*** (0.01116)	1.067	1.023

<sup>†</sup>Marginal effects calculations are based on two-step model results.

<sup>‡</sup>His wage is average male wage for selection equation, individual wage for hours equation. Standard errors reported in parentheses.

\*, \*\*, \*\*\* Significant at 10, 5, and 1 % respectively.

**Chapter Three**  
**Effects on Single-Parent Families:**  
**How Expenditures and Income Respond to a Public Transfer Payment**

**Introduction to Chapter Three**

This essay examines the effects on single-parent families of an increase in a public transfer payment they received in the United Kingdom. Specifically, it explores effects of this increase in government transfer income on other income and on expenditure patterns in these families.

Lone-mother families, and especially children in these families, have become a focus of welfare policy in developed nations, and the well-being of such families is a growing concern worldwide. Their increasing numbers, and the realization that children from such families do not fare as well on average as other children in terms of health status, educational attainment, and other measures of welfare put policy affecting them in the spotlight. As a group, children have a high incidence of living in poverty. Those in single-parent families are at considerably higher risk than those in two-parent families of falling below the poverty line or similar threshold.

Governments and aid organizations are interested in finding the most effective ways of improving the welfare of single-parent families, and of the children who live in them. Evaluating the effects of welfare policies is typically complicated by endogeneity of selection into these programs. For example, the effects of the generosity of programs like AFDC in the US have been the subject of much investigation. In the late 1970s, the UK's Family Allowance/Child Benefit scheme

was altered in such a way as to significantly increase benefits to single-parent families. Because Child Benefit is universal, this change provides a natural experiment which allows straightforward testing of several hypotheses which have important policy implications. There is no equivalent experiment in US welfare policy which allows for such tests.

Economic theory implies that an increase in public transfer income will crowd out earned income, as well as altruistically motivated private transfers from absent fathers and other relatives or friends. To the extent that private transfers and earnings decrease in lone-parent families in response to an increased public transfer payment, increased access to market goods and services, which may be the aim of such an increase, is moderated.

In addition, the effectiveness of the transfer increase in targeting the welfare of children depends critically on how the income is allocated in the family. Cash benefits have been touted by economists as the most efficient means of increasing the welfare of an individual. Cash benefits allow the recipient to use the income to maximize his utility without requiring that anyone else know the utility function, and tend to have lower administrative costs than other types of income redistribution mechanisms. However, a problem with cash transfers is that they cannot always be given directly to the targeted individual.<sup>1</sup> For instance, children and other persons who are deemed

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<sup>1</sup> Perhaps I should say they are “typically not” given directly to the targeted individual. This may be due to a legal environment in which the person cannot own the income. Alternatively, policy makers may either assume that the individual is not capable of maximizing her own utility, or they may desire to increase some other measure of

incapable of managing their personal affairs, such as the mentally ill, are often targeted by welfare policy. Transfers for these individuals are typically paid to a parent or legal guardian. Effecting a welfare increase for such an individual depends on having the guardian allocate the transferred income to goods and services which provide welfare to the targeted individual.

This chapter evaluates the effects of the change in Child Benefit policy. It addresses how the additional public transfer income was allocated within the household, and how other household income responded to the increase. Specifically, it examines four important questions regarding the effect of government transfer policy on single-parent families:

- Do public transfers crowd out private interhousehold transfers?
- Do public transfers crowd out earnings?
- How do households allocate additional public transfer income to goods and services?
- Are budget share income elasticities different for public transfer income than for other types of income?

Based on economic theory, we would expect some crowding out of earnings and private transfer income. Earnings should decrease if leisure is a normal good. Private transfer income should decrease if such income is based on altruism or insurance. I test for a negative effect of the policy change on private transfer income. I also test for a negative effect on labor supply, and separately on earnings. Earnings

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welfare and not specifically utility.

are examined separately because they may fall, holding hours constant, if lone mothers choose a wage-hours package when selecting a job. Mothers may choose to change jobs for a more flexible schedule or a place of work closer to home, and accept a lower wage in exchange for this convenience.

It has been suggested by some researchers that certain benefits may have a labeling effect. The existence or size of a Child Benefit may affect parents' preferences for child goods, or for child welfare more generally. Peter Kooreman (1998) finds evidence that the generosity of the Dutch equivalent of Child Benefit is positively associated with expenditures on child goods. Since we cannot measure preferences, such an effect is difficult to show convincingly. The possibility of such an effect is not the central purpose of hypotheses tests, but will be addressed when interpreting results of those tests.

Allocation of the additional income within the family is also examined. I test whether the increase in Child Benefit income significantly increased the share of the budget allocated to goods of particular interest. These goods include some which may affect child welfare (e.g., alcohol, tobacco, children's clothing), goods which are likely to be consumed by the mother (e.g., women's clothing, cosmetics), and some public and commonly consumed goods (e.g., housing, power and light). I also test for differing income effects of the public transfer versus income from other sources.

In exploring expenditure patterns, I will address an additional question which has implications for the effectiveness of public transfers: Does the income effect of increased Child Benefit income differ from that of changes in other types of income?

There are several possible explanations for observing such a difference, some of which imply that the mechanism for increasing money income in families does matter in determining how the increased income is allocated.

The remainder of this chapter is organized into four major parts, plus a concluding section. Part A introduces the main issues and methods relevant to the empirical analyses to follow. This includes discussions of the policy change as it applied to lone-parent families, the data and sample selection, and the motivation for and logistics of using a control group. Part B examines the policy change's effects on labor supply and earnings, Part C looks at effects on private transfer income received by lone-parent households, and Part D investigates effects on expenditure patterns. Parts B, C, and D are each arranged in sections as follows: Section I gives a short motivating introduction, followed by Section II, which provides background information and establishes a theoretical basis for the empirical research questions posed. Section III lays out the empirical issues and strategies, including empirical and statistical models utilized. Section IV presents results and Section V concludes. Part D is followed by a conclusion to Chapter Three, which makes some suggestions for further work.

## **Part A: Technical Details**

This part of Chapter Three will discuss the policy change, data to be used for analyses, and methods considerations, including use of a control group and the difference-in-difference method.

### **I. The Child Benefit Policy Change**

A substantial change in the amount of benefit received by single-parent families from the Family Allowance/Child Benefit program in the U.K. is analyzed in this paper for the purpose of discerning the effects of the increase in benefit on single-parent families. These benefits are not means tested and are thus available to all lone mothers regardless of income, unless the mother receives support from Supplementary Benefit (SB). (Use of lone-mother families who receive SB as a control group will be discussed shortly.) The total program analyzed herein consists of three parts:

- A Child Tax Allowance for families who paid income tax. This was phased out by April 1979.
- A Single Parent's Additional (tax) Allowance, which was not phased out, and whose value increased so as to maintain a gap in total benefit between those lone parents who pay tax and those who do not.
- A universal cash benefit, referred to as Family Allowance in the earlier period and as Child Benefit in the later period. The real value of this transfer increased dramatically, and beginning April 1977 was greater in real terms than the value of

the tax allowances and Family Allowance combined had been in the 1973-1976 period.<sup>2</sup> In the earlier period, Family Allowance was not payable for the first child in the family. A benefit for the first child in single-parent families began in 1976, and slightly later was instated for the first child in all families.

The policy change was phased in over the period April 1976 to April 1979.<sup>3</sup> For most of the analyses in the paper, I use data before and after this change, with 1973-1976 representing the “before period” and 1980-1983 the “after period.” I omit data for the interim years of 1977 through 1979 (as well as April to December of 1976 for some estimates).

Figures 3-1, 3-2, and 3-3 show the effect of the policy change on the value of benefits for one-, two-, and three-child families respectively. Each figure shows the real value of benefits based on monthly calculations for the period beginning January 1973 and ending December 1983. In each figure, the upper series shows the total benefit to single-parent families who have income high enough that they pay income tax. This total benefit is calculated based on the assumption that the standard tax rate applies. In the earlier period, the cash payment from Family Allowance was accompanied by a child tax allowance which effectively increased take-home pay for those parents who worked and paid income tax. While the Child Tax Allowance was phased out as part of the overall change in the Child Benefit program, an additional tax allowance for single parents was maintained over the entire period. Maintaining

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<sup>2</sup> The tax allowance is valued for families who pay tax at the standard rate.

this allowance insured that the total benefit to working single parents remained above that for those who did not earn enough to pay tax, thus minimizing the policy change's disincentives for single parents to work. The total tax allowance for a single-parent family with one child aged ten or under and one child aged eleven to fifteen averaged £1126 in the four years before and £781 in the four year period following the policy change.<sup>4</sup> These figures include the single parent's personal allowance, and, for the prior period, the Child Tax Allowance. The total tax allowance is the amount of income the family can have without paying any income tax. The annual tax allowance values given above translate to £21.65 per week before the policy change, or £15.02 after.

The size of the Child Tax Allowance depended on the age of each child, in accordance with the idea that older children are more costly to provide for. Figures 3-1 through 3-3 each have two or three separate lines which comprise the upper series through March of 1979. These separate lines show the total benefits to families with children of different ages. For Figure 3-1, for one-child families, three separate lines correspond to distinct age groups to which the tax allowance applies: under eleven years, aged at least eleven but less than sixteen, and aged 16 or older.<sup>5</sup> In Figure 3-2, for two-child families, I include separately calculations of benefits for a family with two children younger than eleven, and that for a family with one child under eleven

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<sup>3</sup> The process actually began in 1976 for lone-parent families with the beginning of coverage for the first child in those families.

<sup>4</sup> Values are in real terms, 1974 currency.

and one in the eleven to fifteen age range. Figure 3-3 showing benefits for three-child families includes separate series for a family with three children under eleven, and for a family with one child under eleven and two aged eleven but less than 16. These groupings were arbitrarily chosen for the simple purpose of illustrating that the program has been simplified, and that differences in benefits due to ages of children were phased out with the implementation of this policy change.

For ease of exposition, I hereafter refer to the entire benefit package as the Child Benefit (CB) program, or simply as CB.

In the empirical analysis, omitting data for the years of the phase-in process is perhaps more straightforward than including it. There may be lags in responses to changes in the value of the total benefit, as it may take time for people to adjust their behavior, or perhaps even to realize that the real value of their total benefit has increased. In addition, there may have been confusion due to adjustments in the timing of the implementation process. As a result, lone parents may have been less confident and less informed about benefit levels at any given time during the phase-in process. The eventual level of benefit was announced well ahead of time, but there were some last-minute adjustments in parliament regarding the details of the implementation, including how quickly the change would be put in place. Arguably, by the time the phase-in was complete, mothers were aware of the new level of total benefit, and therefore of the substantial increase in their benefit from CB.

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<sup>5</sup> Child Benefit applies to children until they reach age 19 if they are continuously enrolled in full-time education.

## II. Data and Sample Selection

The data used in this chapter are from the *Family Expenditure Survey*, a household survey conducted annually in the U.K. for the Department of Employment by the Office of Population Censuses and Surveys – Social Survey Division. These data are available for academic research purposes from the ESRC Data Archive at the University of Essex in Colchester<sup>6</sup>. I use observations from the years 1973 through 1976 and 1980 through 1983.

Approximately seven thousand households complete the survey each year, providing detailed information about their income and its sources, expenditures, possession of durable goods, and household composition. Expenditure diaries are completed for a period of two weeks by each person aged 15 or over in the household, providing very detailed expenditure information, albeit over a short period of time. Less frequent purchases and payments of particular types are recorded via a series of interviews.

The *FES* provides time-series–cross-section data. A random sample of ten thousand households is chosen annually, of which approximately seventy percent complete the survey. This response rate is reasonable for such an involved survey, and the *FES* data are generally claimed to be fairly representative of the UK population, excluding certain groups. These problematic groups include merchant seamen and fishermen, persons living in institutions, and members of the armed

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<sup>6</sup> The Data Archive can be found on the World Wide Web at <http://dawwww.essex.ac.uk/>.

forces.<sup>7</sup> For the purpose of examining families with children, particularly lone-mother families, these selection issues are of little concern.

The data are collected throughout the year, making it possible to control for seasonal variations in income and expenditures.

For the estimations in this chapter, I use a sample from the data which consists of households with one woman and at least one child, but no other adults. For the household to be included in the sample, the woman must be aged at least 18 but less than 60 years, and there must be no report of an allowance received from a husband who is temporarily away. I do not require that the adult female be the mother of the children in the household.

I focus on lone-mother households and not more generally on single-parent families. If households headed by lone fathers were included in the analysis, they should be distinguished from lone-mother households due to potentially important differences between the two types of families.<sup>8</sup> However, there are too few lone-father families in the data to include them, while distinguishing them from lone-mother households. The Child Benefit policy change was arguably a more important one for

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<sup>7</sup> See Atkinson, et al (1984) for a discussion of these and other issues of concern in using *FES* data

<sup>8</sup> There are vast differences in labor market opportunities for men versus women. This could result in observing different responses to the policy change in labor supply behavior, earnings, expenditure patterns, and private transfer income. Other differences may stem from differential selection into the state of lone-parenthood by men and women. Since custody of children was typically given to mothers by default during the time period being examined, something out of the ordinary would be required in order for the father to have the children living with him.

lone mothers than for lone fathers because the former are more likely than the latter to be poor due to the relatively superior labor market opportunities for men in the UK during this time period.

Another sample selection issue involves the endogeneity of household composition. Increasing benefits to single-parent families via the Child Benefit program may encourage the formation of this type of household. If lone-parent households do form endogenously in response to this policy change, then selection bias could be a problem if only those households are used in estimates of the effect of the policy change.

There are a number of routes by which a lone-mother household may be created. For instance, a single mother may initially live with relatives, and later move out on her own. A single woman may have a child and remain living alone with the child. A married mother may separate from her husband, and so on. A higher public transfer to single mothers could arguably contribute to the probability that any of these events will occur. Thus, it is conceivable that the policy change may have affected fertility, marriage and divorce decisions, and living arrangements in such a way as to create additional lone-mother families.

In Chapter One, I presented evidence that household structure in the UK did not change in response to the CB policy change. Figures 1-1 through 1-4 show the proportion of households which fall into specific household composition categories in the *FES* data in each year from 1973 to 1976 and 1980 to 1983. All of these show relatively constant proportions over time, with the exception of single-parent families.

Table 1-1 presents regression results indicating that the Child Benefit policy change did not increase the proportion of single-parent families.<sup>9</sup> households over the period. There is an upward trend in this series, but that trend seems to be fairly constant over the entire period, and does not appear to change at the time of the Child Benefit policy change.

I find no evidence that the Child Benefit policy change had any effect on family formation, fertility, or living arrangements. Given this, I will proceed under the assumption that the treatment (policy change) was truly exogenous to the household, and that household composition did not change in any way that is problematic for the straightforward sample selection I use.

### **III. A Control Group and the Difference-in-Difference Method**

Lone-mother families who receive Supplementary Benefit will be used as a control group. Because the Child Benefit they receive is deducted in full from their SB receipts, the change in CB rates did not affect their income.<sup>10</sup>

A control group is useful in this analysis because there is no cross-sectional variation in the "treatment." Changes in the CB policy occurred solely across time. Other changes may also have occurred over time which affect the behaviors to be analyzed. If these changes are not controlled for, they may confound the effects of the

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<sup>9</sup> By "single-parent families" here I am referring to households with one adult under age 60 and one or more children.

<sup>10</sup> I will refer to households who do not collect SB, and therefore were affected by changes in CB, as CB households or families.

change in CB through omitted variables bias. If there are trends in behavior or preferences, or changes in the economic environment over time which are not included as factors in the analysis, then a control group which is subject to these same changes provides a valuable benchmark. For example, if the level of enforcement of child support payments from fathers increased over the period, CB and SB households would be similarly affected. Likewise, if there is a trend toward dressing children in branded clothing, as suggested by Lundberg, Pollak, and Wales (1997), SB families would be affected by this trend in a similar way as the “treatment group” -- lone-mother families who are affected by the change in CB policy. What we need for a valid control group is that there be no (unexplained) trend in the gap between the groups’ pre-treatment measures of the outcome variable.<sup>11</sup>

Given the existence of a valid control group, there are two ways to incorporate it into the analysis. Perhaps the most efficacious of these is the “difference-in-difference” approach.<sup>12</sup> This method involves taking the difference in the responses of two groups to a “stimuli,” where one group receives the treatment, while the other does not.

In a clinical experimental setting, one would begin with a treatment group and control group which have the same distribution of relevant characteristics and initial value for the measured outcome of interest. The difference in the final outcome would be interpreted as the effect of the treatment. This controls for what would have

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<sup>11</sup> See Card 1992

happened to the treatment group had they not received the treatment by using measures of what actually happened to the control group, who did not receive the treatment.

Such controlled conditions are not typically possible in social science “experiments.” However, even if levels of characteristics and the measured outcome differ at the outset, the difference-in-difference method can provide an accurate measure of the effect of the treatment. By taking the difference in the **change** in the measured outcome for the two groups over the period of treatment, we can effectively control for any time-variant factors which may affect the outcome of interest. If there are no differences between the groups in any uncontrolled stimuli over the period of treatment, and these stimuli can reasonably be expected to have similar effects on the two groups, then their effects can be differenced out, leaving us with a measure of the effect of the treatment. Simply examining the difference in the difference in the mean for the two groups before versus after treatment can provide an accurate measure of the treatment’s effect under certain conditions.

Changes in composition of the two groups over the period may require examining this difference in difference separately for certain categories of individuals. If such changes have occurred along multiple dimensions, categorizing along all relevant dimensions may result in very small group sizes. In such a case, a regression analysis can be used to control for these changes.

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<sup>12</sup> For examples of application of this method, see Card, 1992; Card and Krueger, 1994; Dwyer, 1996; and Feldstein, 1996.

To illustrate, consider the following regression equation:

$$Y_1 = \alpha_1 + X_1\beta + \gamma_1 D_1 + \varepsilon_1 \quad (1)$$

where subscript 1 represents the treatment group. Suppose we want to ascertain the change in a variable,  $Y$ , coincident with some policy change which takes place at a point in time. We will include in the set of explanatory variables, represented by vector  $X$ , measurable variables which we believe to affect  $Y$ . We then create a dummy variable,  $D$ , to distinguish the period after the policy change from that before. The coefficient on this variable represents the effect on  $Y$  of any changes over time which are not controlled for in  $X$ . While this will include the effect of the policy change, it may also include effects of other changes for which we have been unable to control. Thus,  $\gamma_1$  cannot generally be interpreted as the true causal effect we seek to measure.

Now suppose we have a control group which does not receive the treatment (i.e., is not subject to the policy change), but does experience the same unmeasured changes over time experienced by the treatment group. We can construct a similar equation to estimate  $Y$  for this group:

$$Y_2 = \alpha_2 + X_2\beta + \gamma_2 D_2 + \varepsilon_2 \quad (2)$$

where the subscript 2 denotes the control group.  $Y_1$  and  $Y_2$  measure the same variable; vectors  $X_1$  and  $X_2$  contain the same variables.  $D_2$  behaves in the same way as  $D_1$ , taking the value zero before the policy change and unity afterwards. Note that  $\gamma_2 \neq \gamma_1$  if there is in fact any effect of the policy change on  $Y$ . The difference between these two coefficients,  $\gamma_1 - \gamma_2$ , captures the true effect of the treatment – the

policy change – and is the difference-in-difference estimator of that effect. We estimate this effect by pooling observations for both groups and stacking the vectors so that

$$Y = \begin{matrix} Y_1 \\ Y_2 \end{matrix}, X = \begin{matrix} X_1 \\ X_2 \end{matrix}, \alpha = \begin{matrix} \alpha_1 \\ \alpha_2 \end{matrix}, \text{ and } \varepsilon = \begin{matrix} \varepsilon_1 \\ \varepsilon_2 \end{matrix} \quad (3)$$

to arrive at the following regression equation:

$$Y = \alpha + X\beta + \gamma_1 D_1 + \gamma_2 D_2 + \varepsilon \quad (4)$$

where  $D_1$  is always zero for the control group and  $D_2$  is always zero for the treatment group.<sup>13</sup>

The strength of this estimation technique is that it allows us to control for all sorts of time-variant factors that we don't have measures for. It controls for these effects in a non-parametric way, requiring only that the effects of the unmeasured changes on the treatment and control groups are roughly the same.

Here, I have assumed that  $\beta$ , which represents the effect of measured factors other than the policy change, is common to both groups. If we have reason to believe this is not the case for some factors, then separate slopes should be introduced for the two groups for those factors. For example, receipt of transfer income may be more sensitive to changes in unemployment rates in SB families than in non-SB families. Lone mothers on SB who work, as well as potential transfer contributors to SB

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<sup>13</sup> Note that for ease of estimation, we can rewrite this equation  $Y = \alpha + X\beta + (\gamma_1 - \gamma_2)D_1 + \gamma_2(D_1 + D_2) + \varepsilon$  so that the coefficient on  $D_1$  is the difference-in-difference estimator.

families, may be more likely to work in sectors of the labor market which are more cyclical, such as services and retail trade, than their non-SB counterparts.

I claimed that there are two ways to incorporate the control group into analyses. Let me illustrate the second by example. Suppose the policy change referred to above involves increasing a government transfer payment to households in the treatment group, while keeping government transfers to the control group relatively constant in real terms. We can pool the data and estimate parametrically the effect of government transfer income on the dependent variable:

$$Y = \alpha + X\beta + f(Z) + \varepsilon \quad (5)$$

This involves choosing a particular function for the effect of  $Z$  on  $Y$ . Here,  $Z$  is a measure of government transfer income, and we would typically constrain the effect of a one unit increase in that income to be the same for both treatment and control group, although we might prefer to relax this assumption and allow these effects to differ. The latter may be advisable if levels of  $Z$  differ for the two groups due to restrictions inherent in choice of functional form. The presence of the control group will help to identify the effects of time-variant factors ( $X$ ) other than the policy change, providing for a better estimate of the effect of  $Z$ . This is particularly helpful if some of these time-variant variables are highly correlated with the change(s) in government transfer income in the control group. In such cases, effects of those variables may not be distinguishable from effects of the policy change were a control group not available.

Both methods have their merits. They also may have some pitfalls, depending on the particular situation. For example, suppose the policy change is not discrete, but

continuous in nature. In this case, a dummy variable cannot fully represent the change, making the difference-in-difference method problematic. This method may also be inappropriate when the composition of the groups under consideration is changing in dissimilar ways over time.

In applying the parametric method, suppose we do not have measures for all of the time-variant factors affecting the dependent variable. If the omitted variables are correlated with included explanatory variables, estimates can be biased. We might expect the implications of results obtained from application of the two methods to differ due to the different assumptions under which each operates. If neither set of assumptions is violated, then implications of results from the two methods should be very similar. Where differences arise, judgement must be made regarding which set of assumptions is more likely the offending one if results are to be interpreted usefully.

### **Validity of the Control Group**

Barring (relative) changes in the composition of the two groups over the period, SB families comprise a good control group for comparison with the CB families – the "treatment group." However, the possibility of endogenous selection into these groups must be addressed. It is plausible that an increase in the real value of CB could draw some families out of the SB group and into the CB group, changing the composition of the two groups over time. Figure 3-4 shows the real value of SB over the period of analysis. The series in this graph include only the benefit paid in respect of persons in the household. An additional rent allowance is provided which is

calculated on a case-by-case basis, and thus cannot be included in these figures. There are also other discretionary additions which may be made to SB which are not reflected here.

The amount of SB, like the Child Tax Allowance, depends on the ages of children in the household, with higher benefit levels for families with older children. Figure 3-4 shows the SB amounts payable to a single-adult household with one child aged 8 years, one with two children aged 8 and 11, and one with three children aged 8, 11, and 13. The real value of these benefits has remained roughly constant over time, abstracting from short-term fluctuations due to periodic adjustments to accommodate for inflation. The figure includes a horizontal line for each series showing average real benefits for the periods 1973-76 and 1980-83. The average real benefit increased 3.4 percent for one-child families from the early to the late period, 7.8 percent for two-child families, and 6.7 percent for three-child families.

In late 1973, a higher long-term Supplementary Benefit rate was introduced.<sup>14</sup> The long-term addition was made only for adults in qualifying households, with payments in respect of children having only one rate. Figure 3-5 shows the real values of SB for a one-child-lone-parent family for both the standard and long-term rates. Because determination of eligibility for the long-term rate is complex, and requires information not available in the *FES* data, I use the standard rate in analyses which

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<sup>14</sup> The rationale for having the long-term rate be higher is that families who are on SB temporarily can draw from savings or other resources during that time. A family who must remain on this assistance program for a longer period will have exhausted those resources, and thus require more assistance (see Brown, 1984).

utilize the household's potential benefits from SB. However, in some analyses, the actual amount of SB collected as reported by individual households is used. This figure is presumably based on the higher long-term rate in households which qualify.

Figure 3-6 shows that increases in SB were hardly in line with those in CB over the period. The ratio of CB to SB benefits is shown for the same three index families used in Figure 3-4. From the early to the late period, there is a sizeable increase in this ratio. Note that, while the ratio has increased, it remains well below unity. Even though the value of CB relative to SB has increased, the value of SB remains higher than that of CB. If additional rent allowance and discretionary allowances SB provides were taken into account, this ratio would be even smaller. Note that before April 1976, the ratio was fairly constant; it was again constant, but at a higher level, beginning in 1980. Data will be omitted for the period between in order to avoid questions of transition. Discussion of this strategy will follow shortly.

Although the benefit levels of SB are consistently higher than that for CB, the increase in CB relative to SB makes the former relatively more attractive. It is conceivable that families may switch from SB to CB as a result. For single parents whose earnings capacity is sufficient, they may benefit from the Additional Single Parent's (tax) Allowance, increasing the relative value of the CB program above that shown in Figure 3-6. The percentage increase in total benefit from the CB program for families who pay tax, however, is substantially smaller than for those who do not. Persons who work full-time cannot collect SB, regardless of their earnings level. This creates a disincentive to work full-time for those who would otherwise be eligible for

SB. That the Single Parent's (tax) Allowance was maintained as the cash benefit from CB increased may make working more and switching to CB an attractive option for some lone mothers on SB.

The possibility that endogenous switching between the two groups may have occurred over the period is of concern if SB families are to serve as a control group.<sup>15</sup> Changes in the composition of the SB or CB group in response to the changes in CB would result in selection bias, making the SB group an invalid control group for this study, and requiring that some mechanism be used to correct for selection into the CB group. Furthermore, significant changes in relative composition of the groups over time, unrelated to the policy change, will make the analyses less than straightforward.

I test whether families tended to exit the SB program when the value of Child Benefit increased. Using a sample consisting of lone-mother families, I estimate the probability that a family received SB using a probit model. Explanatory variables include some representation of the CB policy change (discussed further below), age of the mother and its square, real value of SB the family would receive if they collected SB<sup>16</sup> and that amount squared, regional monthly unemployment rate and its square, one lag of the unemployment rate, and dummies for household composition (categorizing by number of children and their age ranges), region of the U.K., and quarter of the year. Quadratic controls for trend are also included to capture any

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<sup>15</sup> The concern over change in composition of the CB group would exist even if the SB group were not being used as a control group.

<sup>16</sup> Calculated using standard SB rates.

changes over time in unmeasured factors, such as social stigma associated with participating in means-tested public assistance programs.

As in many of the statistical analyses in this paper, I use three different specifications to represent the CB policy change. In Model 1, I use a simple dummy variable which takes the value one in the after-policy-change period (1980-1983). Model 2 uses a set of four dummy variables which are constructed by interacting the policy dummy with a set of four family size dummies indicating one-, two-, and three-child families, and families with four or more children. This allows the CB increase to have different effects for families of different sizes. For these two models, I use data for January 1973 through March 1976 and January 1980 through December 1983. If we exclude that period in Figure 3-6, we see a fairly constant level before and after, but with a discrete jump between the two levels. By using only data from these two periods, I ensure that a mere dummy variable is adequate to represent the change.

Model 3 uses actual Child Benefit rates to capture the increase in benefit levels. I calculate for each family what their benefit would have been had they collected CB, not including any tax allowances, and introduce this amount quadratically. Note that it cannot enter in log form as benefits were zero for one-child families prior to April 1976. This strategy, unlike Models 1 and 2, does not require that I exclude observations from the last three quarters of 1976, so I use all observations for 1973 through 1976 and 1980 through 1983.

Results of these probit estimates, appearing in Table 3-2, are consistent across the three models. In all three, the SB benefit terms are both significant at five percent.

For Model 3, the table shows the marginal effect of the CB amount, in addition to the coefficients for the linear and quadratic benefit amount terms. In none of the three models does the policy change achieve significance at ten percent or better. Trend terms are not significant,<sup>17</sup> while age is a significant predictor of SB take-up -- both linear and quadratic terms are significant at one percent. The marginal effect of age, evaluated at the mean of the sample, is negative, implying that younger women are more likely than older women to collect SB

These results do not indicate a significant switching out of the SB program in response to increases in benefits from CB.

There is an upward trend in the number of lone-mother households over the entire period, as Figure 1-2 revealed earlier. Figure 3-7 shows the percent of lone-mother families comprised by CB and SB groups. CB households are more numerous than SB households in the beginning of the period. This relationship switches between 1981 and 1982. There is no evidence that this growth in SB relative to CB households was associated with the CB increase; it occurred well after the increase in CB was completely phased in. Even so, an increase in SB take-up coincident with an increase in CB rates would be in direct contrast to our expectations about the direction of endogenous switching. Unemployment rates also rise sharply in these two years. Because these rates differ substantially across regions, I have used regional rates in the

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<sup>17</sup> If trend terms are excluded, the lagged unemployment rate is significantly positive (at the 5% level), but other results are qualitatively unaffected. These results are not shown.

probit estimates shown in Table 3-2. These regional rates are only available annually, and it may be that this frequency is not adequate to demonstrate the true relationship between macroeconomic conditions and the probability of a family collecting Supplementary Benefit.

Figures 3-8 through 3-11 show how composition of the two groups changed over time along various dimensions. Figure 3-18 plots the mean age of the household head in the SB and CB groups. The levels are different, but the downward trend appears to be similar in both groups. What we need for a simple estimate using SB families as a control group is not that the composition of both groups remain unchanged, but that changes over time be similar in the two groups.

Figure 3-9 shows the mean number of children in the two groups. Though the pattern is different, the overall trend appears quite similar, with the number of children per household declining in both groups. Figure 3-10 plots the mean number of children under age five per household for the two groups. Again, a slightly different pattern of movement, but the overall trend does not appear substantially different. A similar picture exists for the mean number of teenaged children per household, shown in Figure 3-11. Note that SB families have more children under five, but fewer teens compared to CB families. This difference in levels, again, is not a concern. What needs to be similar is the overall changes over time in the two groups relative to one another.

The evidence presented here does not point to any significant convergence or divergence between these two groups over time. The SB group seems a valid one to

use as a control group for analyzing the effects of changes in the CB program on lone-mother families affected by it. I will proceed, utilizing both the difference-in-difference method and the more parametric method discussed above.

### **Part B: Effects on Labor Supply and Earnings**

This part of Chapter Three addresses the question, “Do public transfers crowd out earnings?” This question is examined by investigating effects on both labor supply and earnings independently.

#### **I. Introduction to Chapter Three, Part B**

The policy shift which increased Child Benefit amounts was a movement towards a more completely universal benefit. This should particularly benefit lower income families who gained little or nothing from Child Tax Allowances. One might speculate that the aim of policy makers in taking such a step was to increase access to market goods for families with children, and particularly those families with lower incomes.<sup>18</sup> The extent to which this increase achieved that goal depends on whether and to what extent total household income was actually increased.

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<sup>18</sup> Note that the change in total benefit was nil on average for two-parent families, who were more likely to reap higher benefit from the tax allowances.

Other household income may be sensitive to this increase in unearned income. Responses of private transfer income were considered previously. We also may expect labor income to decline in response to this public transfer increase. This part of Chapter Three deals the response of labor supply in lone-mother families to the increase in Child Benefit rates. I will first discuss theory and background in Section II, which will provide a framework for the empirical discussion which follows in Section III, including the strategy for estimation and Results. Section IV will conclude this part of this chapter.

## **II. Theory and Background**

Assuming leisure is a normal good,<sup>1</sup> we would expect lone mothers' labor supply to decline when their benefits from CB increase, *ceteris paribus*. The effectiveness of the Child Benefit increase in providing enhanced access to market goods and services is mitigated to the extent that lone mothers decrease their labor supply in response to the increased income.<sup>20</sup>

Since they are heads of households, we might expect labor supply of lone mothers to be less income-elastic than that of married women. While there is much empirical literature on the latter, there is relatively little on the former. A wide range

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<sup>19</sup> I argued in Chapter Two that this may not be the case when leisure is defined as time not spent working in the market.

<sup>20</sup> Decreased work hours may mean increased hours spent directly caring for children. I will not argue the relative benefits of time working in the market versus time spent in the home, but will simply evaluate the effects of the policy on labor supply, and on earned income.

of total-income elasticities has been found for married women, as reported in Table 2.26 of Killingsworth and Heckman (1986), ranging from zero to  $-0.89$ . They report this elasticity to be in the range  $-0.12$  to  $-0.24$  for female heads in a single study by Hausman (1981). Rebecca Blank (1988) estimates both weeks and hours of labor supplied by female household heads. Her results imply an income elasticity for hours of work between zero and  $-0.08$ .<sup>21</sup>

The basic theoretical model proceeds as follows. In single-adult households, we can assume a single-decision-maker model. The household head maximizes a utility function  $U(L, C)$ , subject to a budget constraint:  $P_C C \leq Y + w(T - L)$ , where  $C$  is a composite good consumed by the household and  $P_C$  the price of that good.  $Y$  is unearned (exogenous) household income;  $T$  represents the time constraint, and  $L$  is leisure, or non-market time.  $H = T - L$  is then hours worked in the market. If the utility function is well-behaved, the effect on  $H$  of an increase in  $Y$  is negative, given the assumption that leisure is a normal good. The increase in Child Benefit represents an “experimental” increase in  $Y$ .

Many sources of unearned income may be correlated with labor supply behavior. For example, private transfer income received may depend in part on earned

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<sup>21</sup> Blank (1988) finds that hours and weeks are in fact distinct choices. Due to data limitations, weeks worked per year will not be addressed in the present study. FES data do not provide information on variation in hours worked over the course of the year.

income in the household, or perhaps more directly on perceived work effort.<sup>22</sup> Income received from government transfer programs often depends on choices made by the potential recipient. Changes in the maximum amount available to a family through such programs are, however, exogenous to the household.

Changes in the Child Benefit / Family Allowance program were not strictly limited to changes in the cash transfer amount. There was also a phasing out of child tax allowances. These allowances reduced taxes on income for families who had sufficient income that they paid tax. This change in tax allowances effectively increased the marginal tax rate for some families, reducing the marginal wage for affected individuals.

Earnings is really what I'm interested in. It is decreases in earnings, and not directly in hours worked, which decrease a family's access to market goods. By the usual definitions, earnings is the product of hours supplied and hourly wage, the latter usually assumed to be exogenous. This implies that one can estimate hours, and simply multiply effects by the wage to find effects on earnings. However, there is the possibility that choosing a job involves choosing among a set of wage-hours packages, in which case the wage is endogenous. Mothers may also choose a lower wage in order to work in a place which is more conveniently located, accessible by public transportation, etc.

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<sup>22</sup> In the standard model of altruism, transfers depend on endowments, and not on choice variables, such as labor supplied. However, I will not make the assumption that private transfer income is exogenous with respect to labor supply choices, as such an assumption would be problematic, and is not necessary for analysis of labor supply.

To the extent that a particular job involves a particular hours commitment, changing hours supplied may involve changing jobs, which may also involve a change in hourly wage. In order to cover this possibility I estimate the effect of the change in policy on earnings, in addition to estimating the effect on hours.

### **III. Estimating Effects on Labor Supply and Earnings**

Forty-six percent of lone mothers in the sample used for this analysis work for pay. Among the CB families, over 72 percent work in the market, while this percentage is a mere 18 for heads of SB families (who do not benefit from the increase in CB rates). Among those who work, the average hours supplied in a typical week averages 27.4. But again, there is a large difference between the two groups: CB moms average 31 hours per week while their SB counterparts work only 12.

Hours of labor supplied, and consequently earned income, are observed to be zero for many lone mothers in *FES* data. Thus, hours or earnings might be estimated in one of two ways. One is to use a tobit model, which assumes hours (earnings) are truncated at zero. The problem with this approach is that the wage a woman could earn in the market is not observed for those who do not work. An alternative is to use a selection model, due to Heckman (1979), which treats the decision to participate in the market as distinct from the choice of hours given participation. This method allows use of the actual measured wage of women who work, while not requiring that we know the wage of those who don't.

The equation which determines sample selection (i.e., selection into the group for whom wages are measured) estimates the probability that a woman participates in the labor market based on variables which affect her potential wage – the wage she could earn in the market – and her reservation wage. Her reservation wage will depend on her resources if she does not work (e.g., unearned income) as well as on the value of time spent in home production. The latter depends on how many children she has and their ages. Money costs of childcare and any disutility associated with putting children in childcare are thought to be among the most significant determinants of the reservation wage. The potential wage may be affected (or predicted) by education, experience, work effort, and innate ability, as well as macro factors which affect (or measure) the types of jobs available to women and the state of the labor market in those sectors.

Variables used in the participation equation are the following:

❖ Family demographics:

- Number of children, indicated by a set of four dummy variables for one-, two-, three-child families, and those with four or more children.
- Dummy variables indicating one or more children in each of three age ranges: under 5, 5 through 12, and 13 through 17.
- Three dummy variables for age range of household head (under 25, 26 through 40, and over 40).

- ❖ **Labor market measures:**
  - Average real wage earned by women working full time in Great Britain,<sup>23</sup> measured annually in April and deflated by the second quarter RPI.
  - Regional unemployment rate (quarterly, from *Social Security Statistics*)
- ❖ **Time of survey and location of residence:**
  - Linear trend (annual).
  - Dummy for quarter of the year (omitted category is first quarter).
  - Interaction of dummy for third quarter (roughly the summer months) and a dummy indicating one or more children aged 5 through 12. This allows for mothers to take summers off or reduce hours if they have school-aged children who are not yet teens.
  - Eleven dummies for region of the UK (omitted category is Greater London).
- ❖ **Policy measures and other income (real weekly values):**
  - Real predetermined (unearned) household income.
  - The amount a family could collect from Child Benefit / Family Allowance.
  - The amount a family could collect from Supplementary Benefit.
  - Total of tax allowances for income tax purposes (i.e., the maximum income on which no tax is owed).
  - Earnings disregard for SB (the amount of earnings which is completely disregarded for purposes of determining SB eligibility and benefit level).

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<sup>23</sup> This wage is taken from *Social Security Statistics* (various years), and is not available for Northern Ireland or for the UK as a whole.

Unfortunately, *FES* data from the period 1973 to 1983 contain no information about educational attainment,<sup>24</sup> work experience, or availability and cost of childcare. The head's age range may proxy for potential experience, as well as pick up some cohort differences in average schooling attained.

The variables listed above, with one exception, are also used in a linear regression to predict hours worked (earnings) among the working sample. The average wage for women overall is replaced by the individual's normal hourly wage. The equation of interest – that predicting hours or earnings – is estimated as part of the Heckman selection model using maximum likelihood estimation.

For the purpose of evaluating the effects on labor supply (earnings) of changes in the amount of Child Benefit available to a family, I take a standard approach, controlling for non-earned income which is predetermined. This includes Widow's Pension, any proceeds from the pension of a previous or estranged spouse, and income from investments. The real amount of benefit each family could collect from CB and the potential benefit from SB,<sup>25</sup> pick up the effects of changes in the real value of these programs. Both amounts enter for each family, regardless of whether the family participates in the SB program.

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<sup>24</sup> Beginning in 1982, the data record the age at which full-time education ceased. This measure cannot be used since it is not available in earlier years. I experimented with constructing a measure of potential education using the age of the head less the age of the oldest child in the household less five (age of starting school). The association between this calculated measure and a similar measure using the reported age of school leaving less five was not close enough to warrant using it as a proxy.

<sup>25</sup> SB calculation is based on standard rates and does not include housing benefit, which differs case-by-case.

The percentage increase over time in total benefits from the CB program is smaller for those who benefited from child tax allowances than for those who do not. While a significant gap in total benefit is maintained between the two groups, as can be seen in Figures 3-1, 3-2, and 3-3, the decline in tax allowances reduces the marginal benefit of working. Therefore, the change in the CB program has a price effect, in addition to an income effect. It is also the case that the marginal value of working, given a market wage, was changing over time for lone mothers on SB. The earnings disregard was adjusted upward only once during the period, so its real value was diminishing throughout the period except for that single jump. I include both measures as control variables to roughly approximate the kinked budget constraint faced by lone mothers.

In response to this increase in marginal tax rate due to the disappearance of Child Tax Allowances, we would expect labor supplied to fall. There would also be an income effect of this price change, and that effect would tend to work against the substitution effect. The decreased value of one's time endowment makes one feel poorer, and since leisure is a normal good, this effect will act to reduce leisure and increase hours worked. We don't know what the net effect of this will be. We also expect a decline in hours due to the income effect of the increased cash transfer from CB. We would expect, given this, that the total net effect would be to reduce hours worked.

In estimating the log of earnings, I use the same estimation strategy as that for hours. I exclude the hourly wage in the estimation of earnings since one reason for

estimating earnings, in addition to hours, is that women may be forced to choose wage-hours packages. If this is so, then wage is part of this choice, and does not belong on the right-hand side of the equation. other than this difference, the sets of variables included in each part of the model is the same as for estimation of hours, as discussed above.

## **Results**

Results from estimates of hours of labor supplied per week appear in Table 3-3. The CB amount coefficient is negative in both the participation and hours equations. The negative effect on participation is significant, but the total marginal effect (the effect on hours, controlling for sample selection) is not. This implies that, among women who continued to work, this policy change did not affect their hours worked.

As we would expect, the higher the total tax allowance, the more likely women are to participate in the labor market, but given participation, there is no significant effect of this variable on hours worked. Unearned income and earnings disregard (for calculation of SB eligibility) both have positive effects on participation, but do not significantly affect hours, given participation. Among the policy and income variables, only unearned income has a total marginal effect which is statistically different from zero in it's effect, and it is significantly negative in both equations.

3-3(b) shows marginal effects, including direct, indirect, and total model effects. The mean of each explanatory variable for both the full sample and selected

sample are shown for convenience. Here again, neither CB nor SB amounts significantly affect labor supply behavior when the whole model is taken into account. The negative and significant direct effects come from two-step model results, which differ from the MLE results. This difference in implications between the two estimation techniques demands further attention.

Looking through effects of other variables, those having to do with family demographics tend to be significant, while most other variables do not appear to have a significant effect on these two outcomes when examined separately. Having a child under age five significantly reduces the probability of participating in the labor force. While presence of children under five significantly affects participation, having school-age children under 13 years of age in the household significantly reduces hours, given participation. The probability of participation declines as the number of children rises (recall that the benchmark case is a two-child family). The coefficients on number of children dummies are also in the expected directions in the hours equation, and are significant in the MLE results, but not so in the two-step marginal effects with the exception of the direct effects (on hours given participation).

Conditional on participation, women over age 40 work fewer hours, while those under age 26 are less likely to participate. As we would expect, a higher wage increases hours supplied, given one works. The average wage paid to women working full-time does not significantly affect participation, and the coefficient is in the opposite direction of the expected outcome. It may be that this is a very poor measure of potential wage for women in this sample for various reasons. One is that there is no

cross-sectional variation in the average wage. Another is that it may reflect poorly what one might earn if one worked part-time. Women who choose not to work are arguably more likely to make a transition to part-time than to full-time work, so that a full-time wage is not very relevant for women at the margin in this determination. Note also that this average wage is for all women in Great Britain. Lone mothers are a very small minority among this group in the time period of interest. It is likely that lone mothers differ systematically and in important ways from women who live in different types of families, and that movements in the real wage women earn on average does not reflect what is happening to the potential wage of lone mothers. For instance, if there are rising returns to skill over the period, this may cause the average wage to rise, even though the wage at the bottom of the distribution may be stagnant.

Marginal effects on earnings estimates appear in Table 3-4. With earnings rather than hours as the dependent variable, we have to think a bit differently and perhaps more carefully about the choice being made. Here, wage is not controlled for, as it may be an endogenous variable. Instead, average full-time female wage is included to control for changes in women's labor market opportunities over time

In comparing earnings results to those estimating hours worked, note that having a child under age five does significantly reduce log earnings given participation, even though it did not significantly reduce hours given participation. This is consistent with mothers choosing a wage-hours package which suit their needs. Mothers with very young children may choose jobs which have more flexible hours, or which are closer to child care, and accept a lower wage in order to have these non-

monetary benefits. Also note that, even though women over 40 work significantly fewer hours conditional on participation, their earnings are not significantly lower given participation. This likely reflects their greater potential work experience, which results in a higher wage.

In earnings estimates, the sign of the effect of the Child Benefit amount is again negative, but also again not significant. The sign of the SB effect is reversed from that in the hours equation, but is not significant in either of the two. Note that the effect of unearned income, while negative, is not significant in the earnings equation. This may indicate that, while hours do respond negatively to unearned income, such income may be correlated with higher wages and/or better labor market opportunities, as those lower hours worked do not appear to translate into lower earnings.

#### **IV. Conclusion to Part B**

The implications of the findings of this analysis are that the increase in CB did not result in significant decreases in labor supply or earnings among lone mothers. This lack of a result is puzzling, but comforting. We would expect to find some negative response, even if small. However, I have argued elsewhere that leisure may not be a normal good for all women when it is defined as true leisure and home work lumped together. We do not see the split over the participation decision and the hours decision here which surfaced in Chapter Two's examination of married women's labor supply. However, it may be that those women who are less likely to participate among lone mothers are more likely to collect SB, and thus

do not exhibit a strong response to changes in CB. Using a double selection model may prove fruitful in further examining this possibility.

It is comforting, however, to not find that this policy change was undone by labor supply effects. Certainly, the welfare of the household, or someone in it, must go up when constraints are loosened. That mothers did not choose to consume this increased income through their own increased leisure is encouraging. This provides evidence that it is possible to administer cash transfers without the strong disincentive effects we typically expect.

### **Part C: Effects on Private Transfer Income**

This part of Chapter Three addresses the question: Do public transfers crowd out private interhousehold transfers?

#### **I. Theoretical and Empirical Background**

Attention paid to transfers between households in the economics literature has increased recently. One reason for the apparent increase in interest is the relatively recent collection of data which provide information about such transfers (see Schoeni 1997 for a survey), allowing researchers to address questions which previous data were not adequate to answer. While much of the empirical literature is new, private interhousehold transfers have long been recognized as important economic transactions, which may serve various purposes for the originators and the recipients.

The various bases for voluntary private interhousehold transfers include altruism, insurance, and exchange. The altruism story (Becker, 1974) is a well-known one: One individual (usually assumed to be a parent) cares about the utility of another (usually assumed to be the child). This is modeled by having the utility of the child appear as an argument in the parent's utility function,

$$U_p = U_p(C_p, U_c)$$

where  $U_p$  is the utility level of the parent,  $U_c$  the utility level of the child, and  $C_p$  the parent's consumption.  $U_c$  has the properties of other goods, that is, marginal utility in this "good" for the parent is positive and diminishing:

$$\partial U_p / \partial U_c > 0 \text{ and } \partial(\partial U_p / \partial U_c) / \partial U_c < 0$$

In the simplest version of the model, there is a single parent and a single child, and the altruism goes in one direction only, so that the child does not care about the utility of the parent (thus the "rotten kid" terminology). The child's utility is determined in the usual way, depending on income or endowments, and prices. The predictions of this model, assuming interior solutions and that utility functions are well-behaved, include the following:

- An increase in parental income, *ceteris paribus*, will lead to an increase in the amount of income transferred to the child.
- An increase in the child's income, *ceteris paribus*, will lead to a decrease in the amount of income transferred to the child.

The story can be complicated by adding additional children. The transfer provided to any child will then depend on how many siblings he has and the utility levels of each,

and thus on the incomes or endowments of each before the transfer. If one sibling's income falls, then the parent will increase the transfer to that child, while decreasing transfers to each of the others. Conversely, if a child's income increases, then that child should expect a decrease in the transfer he receives.

Suppose that, in addition to transfers from parents, individuals receive transfers from the government. These transfers will be included in the child's income for determining the level of the private transfer from the parent. Suppose there are two types of transfer recipients, A's and B's. If the government transfer to A's increases, the private transfers provided to those children will decrease. Consider the following two possible scenarios:

1. An A child has siblings which are all B's. The A child receives an increase in her public transfer, but B's do not get such an increase. The parent will decrease his transfer to the A child, increase his own consumption, and increase his transfers to his other (B) children, so that his marginal utility per dollar is equated between all goods in his utility function.
2. An A child has siblings which are all A's. Each of them receives an increase in the public transfer. The parent will decrease his transfer to each of his children and increase his own consumption so that his marginal utility per dollar is equated between all goods in his utility function.

The decrease in the parent's transfer to an A child will be greater in the first case than in the second for a given public transfer increase to each A child. There is also an

intermediate case in which an A child has siblings of both types. The decrease in the private transfer she receives will be between the above two cases in magnitude.

The presence of grandchildren will increase the transfer if the (grand)parent cares about their utility. This introduces additional factors into the determination of the private transfer received by a household, such as how many other grandchildren exist in how many other households.<sup>26</sup> This complicates the model significantly, but the prediction still holds that if the public transfer increases to a child's household, then the private transfer to that household will decrease.

Other relatives may also be potential sources of private transfer income. As the family network grows more complex, so does the determination of transfer income. If transfers are motivated by altruism, the simple prediction still holds: Anything which increases the utility of the child or grandchildren, including increases in cash or in-kind transfers from the government,<sup>27</sup> *ceteris paribus*, will decrease the size of the private transfer to the household if that transfer

Altruism may also explain voluntary private transfers from a father who does not live with his children to the household in which they reside. If he is not altruistic toward the mother, but cares about the utility of her children, he may transfer income to the mother rather than providing goods directly to the children.

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<sup>26</sup> Economies of scale in household production and the presence of household public goods can result in the number of grandchildren as well as their distribution among households affecting the determination of transfers.

<sup>27</sup> Bingley and Walker (1997) examine the extent to which free milk and school lunch programs are offset by decreased allocation to these goods in households with recipient children.

- Since the mother has custody, he cannot directly provide certain goods, such as housing, heat, and meals. If provision of these goods is what increases child utility, he can contribute to them by making a transfer to the mother, who then provides these goods.
- The mother may have better information about the child's utility function, current level of consumption of various goods, prices of goods the child might consume, and so on. In other words, she may be better informed than the father about how to achieve the greatest increase in the children's utility.
- Home produced goods and services may be involved in achieving the optimal utility level for the children. The mother may need to be compensated directly for providing these goods and services (this involves both altruism and exchange).
- Transactions costs associated with acquiring the optimal basket of goods for the child's consumption may be higher for the father than for the mother due to differences in their wages, current information held by each, and costs of acquiring information, among other factors.

This is not intended to be an exhaustive list, but does demonstrate that it may be optimal for the father to appoint the mother as the administrator of his contribution to the children's well-being. This can result in his making a transfer to her even if he does not care about her utility.<sup>28</sup> His giving the transfer to her rather than providing goods directly may thus have some surplus associated with it. Some or all of this

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<sup>28</sup> I am deliberately avoiding the possibility the he may derive utility from her disutility, and vice versa.

surplus may be captured by the mother. The existence of this surplus makes it possible to have a self-enforcing agreement between the mother and father in a repeated game framework.<sup>29</sup>

The above argument still holds even if parental preferences are paternalistic, and not purely altruistic. In other words, it may not be the children's utility level, but children's coconsumption of particular goods, or some other measure of welfare, which gives parents utility. If the single mother and her children's father have similar preferences when it comes to the children's consumption, then to the extent that the mother allocates a transfer from the father to the children, she will naturally do so in a way that he would find acceptable.

Altruism is not the only potential explanation for private interhousehold transfers. Andreoni (1989) introduces the "warm glow" motive. People may get utility directly from giving, rather than from the utility someone else derives from their contribution. A pure warm glow motive implies no change when the recipient's other income rises. Warm glow combined with altruism would serve to moderate the effect implied under pure altruism.

Private transfers may serve as insurance, with those having hard times being aided by those who are not, perhaps with an understanding that aid will be reciprocated at a later time if circumstances are reversed. Such aid may alternatively take the form of loans with an expectation that the money will be repaid in time. If transfers are a form of insurance, then if one's income falls, the size of any transfer

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<sup>29</sup> See Del Boca & Flinn (1994) for a discussion of such a model.

received is likely to increase. Conversely, if one's income rises, due, say, to an increase in a public transfer, then the size of any private transfer would decrease.

Transfers may alternatively be given, either implicitly or explicitly, in exchange for some good or service. For example, parents may transfer resources to their children expecting that, in return, their children will care for them in their old age. Fathers or grandparents may transfer income to a lone-mother in exchange for being allowed to spend time with the children. If transfers are based on exchange, then the predictions are not as straightforward as those discussed above. Exchange-based transfers do not imply any particular change in the amount of private transfer income when the recipient's other income rises.

Yet another potential motivation for interhousehold transfers exists. Some transfers may not be purely voluntary, particularly in the case of alimony or child support payments. Such transfers may be court mandated. However, it may be that the court decree is not binding in some child support cases – the father may transfer at least as much income as the court requires even in the absence of such a requirement. In addition, many agreements regarding child support are arrived at without court intervention.<sup>30</sup> Poor enforcement of agreed-upon or court required payments can further weaken the argument that such transfers are not voluntary.

To summarize the predictions of theoretical models: In the case of private transfers driven by altruism or insurance, the models generally predict a decrease in

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<sup>30</sup> I recognize that these agreements may be indirectly affected by the courts through the threat of taking the case to court if an amount cannot be agreed upon.

private transfers when the recipient's other income increases. This supports crowding out of private transfers by public transfers. In the case of insurance motivated private transfers, public transfers may make hard times less hard, resulting in the insurer being less willing to help, and/or the insured less compelled to ask for help. In the case of altruism, as I have argued above, private transfers will be lower the higher the recipient's income net of them. If exchange is the motivation for transfers, then predictions are less clear.

The general impression in most developed nations is that private transfers have been largely replaced by public assistance over time. This would seem to suggest that public transfers do crowd out private ones. However, Donald Cox and George Jakubson (1995) perform simulations which "indicate that marginal reductions in public transfers will not be met with a strong private-transfer response" (p. 153). They point out that their findings are consistent with those of Lampman and Smeeding (1983), who show that budget shares allocated to private transfers did not decline very much as public transfers increased over the period 1935 to 1979. These results indicate that crowding-out has not been as strong as we might have expected.

These studies focus on the population as a whole, and the effects of private transfers on income distribution within it. In this paper, I am concerned with a once small but growing segment of the population: lone-mother families. Since lone-mother families are more likely than the average household to be in a position of need, and are more likely, for this and other reasons, to be on the receiving end of altruistic

transfers,<sup>31</sup> responses of private transfers to public ones may be different in these households than in others. In any event, the responses of private transfer receipt in these households is, in some opinions at least, of greater policy relevance than those in more well-off households. I will estimate the effect of an increase in the amount of income received from the UK Child Benefit program on private transfer receipt in lone-mother households.

The data used in this paper, to be discussed in detail later, do not provide information on the identity of those who give transfers. For this reason, my theoretical reasoning focuses on decisions made by, and characteristics of, transfer recipients. However, characteristics of (potential) givers, which may matter in determining the existence and size of transfers, may be correlated with characteristics of recipient households. How these correlations may affect interpretation of results will be discussed in the results section of the paper.

## **II. Estimation Issues and Results**

Private interhousehold transfers are a significant portion of the average lone-mother household's budget in the UK during the period I examine. Pooling data for 1973-1976 and 1980-1983, mean private transfer income amounts to a sum equivalent

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<sup>31</sup> Note that the nature of private transfers received by lone mothers may differ from those received by other households. For example, while parents may give transfers to their children to help with large purchases, such as a college education, a car, or a first home, one would think that transfers received by single mothers are more likely to provide assistance in meeting the expenses of daily living.

to 10.7 percent of total expenditure in lone-mother households. Thirty-six percent of these households report receiving some such transfer income. In families with positive transfer income, this income represents 29.7 percent of total expenditure. (Table 3-1 presents means and standard deviations for these and other key variables.) Significant changes in such an important source of income can have large effects on household and child welfare. As I have argued above, there are theoretical reasons to believe that this private transfer income may respond negatively to an increase in Child Benefits.

Examining the mean of private transfer income for the two groups before versus after the policy change, I find that the mean increased very slightly for the CB group, while the mean for the SB group declined, although neither difference is statistically significant. The difference in these differences is given in Table 3-5, and is also not statistically significant. Based on this, it appears that the increase in Child Benefits had no affect on private transfer income in lone-mother families

The number of children in the family is likely to affect the amount of transfer income received. If there were any changes over the period in the family-size composition of the treatment and control group, then this change could affect the average level of transfers for that group. Consequently, I stratify each group into four family size categories and calculate the change in the mean for each of the eight resulting groups, and the difference in difference for each family size category. These means and differences are presented in Table 3-6. The difference in difference is

positive for all but three-child families, and is significantly different from zero in none of the four cases.

Another categorization which may be important is that by age of the household head. Again, this is a variable which may be correlated with transfer income received. If the age composition of the two groups changed differentially over the period, then a change (or lack of change) in mean transfer income in one group relative to another may reflect this compositional effect. I divide lone-mothers' ages into three categories: up to and including 25 years, over 25 and up to 40 years, and over 40 years. The difference in difference for the first two groups is negative, as reported in Table 3-7. This estimate of the policy effect is slightly positive for the eldest category. None of the three is statistically significant.

Finally, if there is a change over time in regional representation in one group relative to another, then any regional specific factors which may affect transfers may confound the estimated effect of the policy change provided by the difference in difference in means between the two groups. Such regional changes may be due to differential mobility or migration, or to sampling variability. Religious ideals, how urban or rural an area is, and differential sources of economic growth may affect migration in particular. Grouping families by region, I present the difference in difference in means for each of 12 regions in Table 3-8. These vary in sign and magnitude, but none are different from zero with statistical significance. Note that some of the region groups are thin, making statistical significance unlikely, even if an effect exists.

In order to control for more than one potentially confounding effect simultaneously, we could cross classify groups more finely. This would, however, produce very thin groups. An alternative is to use regression analysis, as suggested in the previous subsection.

To test the hypothesis that the increase in Child Benefits reduced the amount of private transfer income received by lone-mother families, I estimate the real value of this income using both ordinary least squares (OLS) and tobit models. A tobit model is used because the dependent variable is censored at zero. Negative transfers are not recorded in the data. We might think of negative transfer income as being realized when outgoing transfers are greater in magnitude than incoming transfers. The *FES* data report the gross amount of income received from interhousehold transfers.

I also estimate the probability of receiving a transfer using a probit model. If private transfers are crowded out by the increase in Child Benefits, it is conceivable that private transfer income may have been completely eliminated for some households. Estimating the probability of observing positive transfer income addresses to what extent this outcome was the response to the CB policy change.

OLS and tobit models estimating the real value of private transfers do so using the following equation:

$$T_i = \alpha + X_i\beta + f(CB_i) + \varepsilon_i$$

where  $i$  indicates household and  $T$  is the real value of private transfer income in the period covered by the survey. Three different specifications are used to introduce the CB policy change:

Model 1 :

$$f(CB) = \gamma(D - DSB)$$

Model 2 :

$$f(CB) = \gamma_1(D1 - D1SB) + \gamma_2(D2 - D2SB) + \gamma_3(D3 - D3SB) + \gamma_4(D4 - D4SB)$$

Model 3 :

$$f(CB) = \gamma_1 CBamount + \gamma_2 CBamount^2$$

These three specifications were also used in estimating the probability of SB take-up in the previous section, and will be used throughout this chapter. Models 1 and 2 are difference-in-difference models. Different levels for  $\alpha$ , as well as different elements of  $\beta$  for some factors are allowed for the two groups.  $D$  is a dummy variable which equals one after the policy change for non-SB households, and zero otherwise.  $DSB$  is the corresponding “placebo” indicator – a dummy variable equal to one for SB households after the CB policy change, and zero otherwise.  $D1$  to  $D4$  are dummy variables obtained by interacting  $D$  with a set of four dummy variables indicating membership in a family size group, representing one-child, two-child, three-child, and larger families respectively.  $D1SB$  to  $D4SB$  comprise the corresponding set of dummies for SB families, created by interacting the four family size dummies with  $DSB$ .

In Model 3,  $CBamount$  is the actual amount of Child Benefits received as reported by the household, converted to a real value using the quarterly RPI (Retail Price Index). This amount equals zero for SB families. Model 3 is not a difference-in-difference model, but observations for the control group are used in this estimation. The real value of the public transfer they receive – Supplementary Benefit – enters

quadratically in the vector  $X$  in this model. If all public transfer income has the same effect on private transfers, the sum of CB and SB income, rather than each amount separately, would enter the model. I allow for the possibility that income from the two programs may differ in their effects on private transfers, but test whether such a difference occurs. This test will be discussed further later in this section.

The vector  $X$  in the transfer equation includes dummy variables for household composition category (ten categories stratifying households by number and age ranges of children), region of the UK, and quarter of the year. It also includes trend, age of household head, and squares of both of these. In Model 3 only, the real amount of SB income and its square are included in  $X$ . Finally, in all three models,  $X$  includes a monthly regional unemployment rate and its square; one lag of the unemployment rate; and each of these three unemployment variables interacted with a dummy variable indicating whether the household collects SB. This strategy allows for the possibility that unemployment rates may affect transfers received by SB families differently from those of non-SB families. Transfers received by SB families may be more sensitive to changes in unemployment rates than those received by other lone-mother families. Persons who are potential transfer contributors to SB families may be more likely to be in a segment of the labor market which makes them more susceptible than other workers to loose a job, or to have their work hours cut in times of high unemployment.

Information about persons or households who contribute to lone-mother families via private transfers is lacking in *FES* data, as in most budget surveys. As a

result, explanatory variables in  $X$  are limited to information about the recipient households, plus some regional and national variables, such as unemployment rates and price indices. Household characteristics included in  $X$  may proxy for omitted variables which affect transfers, but which are not measured in the data, such as characteristics of potential givers. A lone mother's level of education, earnings capacity, preferences, and age are likely to be correlated with those of persons who are potential transfer contributors to her household, such as her parents and siblings, and the father of her children.

For example, since larger lone-mother families generally have greater material needs than smaller ones, and have more persons whose utility levels may matter to someone, then controlling for income net of private transfers, we would expect larger transfers to be received by larger families. Women with lower education levels and thus lower earning power are more likely to come from families with lower average education levels, and thus lower average earning power. If women with lower earning power tend to have more children than other women, as suggested by the demographic literature, then larger families may receive less in private transfer income, because they are more likely to have poor relatives. This is the reverse of what we would expect to observe if relatives (and ex-husbands) were randomly distributed.

My aim is to examine the causal effect on receipt of private transfers of an increase in a government transfer payment in lone-mother households. If omitted variables (such as characteristics of potential givers) are independent of the policy

change,<sup>32</sup> the effect of that change can be estimated in a straightforward way. I will focus on the effect of the policy change and, while I will use available household characteristics as explanatory variables, I will not attempt interpretation of their coefficients.

The models used here are reduced form specifications. Coefficients on some variables may represent cumulative effects operating through multiple pathways. For instance, unemployment rates may affect the endowments of transfer contributors, as well as those of transfer recipients. Trend terms may capture changes in child support enforcement (although difference-in-difference estimates in Models 1 and 2 will control for this), changes in preferences regarding utility or welfare of children, and changes in labor market prospects for women, and thus changes in their (potential) wage.

Probit estimates of the probability of positive private transfer income are like those estimating the amount of transfers discussed above, except that  $T$ , the real value of transfer income, is replaced by a binary indicator equal to one if that income is positive, and zero otherwise.

Models 1 and 2 are estimated using data for 1973 through 1983, excluding the period April 1976 through December 1979 for reasons discussed in the previous

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<sup>32</sup> What this means for the difference-in-difference models is that changes over time in the group of potential transfer contributors to SB families must be similar to changes in the group of potential contributors to CB families. If the SB and CB groups themselves did not change relative to one another, then it is unlikely their respective contributing groups did so.

subsection. Model 3 estimates instead exclude only 1977 through 1979. Each of the estimates is done including all of the factors in  $X$  described above, and then repeated excluding trend terms, and then excluding both trend and age terms.

The age of the head may serve as a proxy for earnings capacity, level of education, age of her children's father, or other unmeasured variables which may arguably affect transfer income. As I have already shown, her age is also an important predictor of whether she collects SB. Therefore, its inclusion may introduce bias through correlation with a binary indicator of SB participation, which implicitly underlies construction of the policy change variables. I will check whether results differ substantively when age terms are included versus excluded. If differences do exist, then further examination of this variable may be warranted.

Time trends are often included as explanatory variables in demand analyses to control for any trends in preferences.<sup>33</sup> It is not as well established that time trends should be included in estimates of private transfers received. To the extent that transfers are motivated by altruism, trends in preferences may affect transfers received, just as they may affect expenditures on running shoes. For that reason, I have done estimations both with and without time trends as a rough check of

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<sup>33</sup> Recall that in the previous subsection, I found that exclusion of time trends resulted in an unemployment rate being significant, whereas it had not been so when time trends were included, even though time trends were not themselves significant.

robustness. If implications of the results differ qualitatively, then further tests may be warranted.<sup>34</sup>

### **Results**

Tables 3-9, 3-10, and 3-11 present results of probit estimations for Models 1, 2, and 3 respectively of the probability that a given household receives some private transfer income. In Model 1 (Table 3-9), implications are fairly consistent across the three sets of results: Age terms are significant when included. Unemployment rates are not generally significant, but those rates interacted with an SB dummy variable do tend to be significant, indicating that unemployment affects transfer receipt in SB families differently than in non-SB families. The coefficient on neither policy dummy is significantly different from zero, except for one case of the “placebo” policy dummy for SB families, where the “effect” is positive at the five percent significance level when trend terms are excluded and age terms are included. The difference between coefficients on the two policy variables is not significantly different from zero. This difference-in-difference estimate is interpreted as the effect of the CB increase on the probability of private transfer receipt. These results indicate that this policy change did not significantly affect the probability of receiving some private transfer income in lone-mother households. In Model 2 (Table 3-10), results are

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<sup>34</sup> I am reluctant to use specific tests of the difference made by inclusion versus exclusion of time trends because these trends are not a central variable of interest here, and the results of such tests may be misleading in that their outcomes may depend critically on functional form assumptions.

generally similar, with the same implication that the CB increase did not affect the probability of receiving some interhousehold transfer income.

Table 3-11 presents Model 3 results. These are generally similar to those from Models 1 and 2, but with slightly weaker effects of some unemployment-SB interaction terms, and more significant effects for the lagged term. Recall that the coefficients of primary interest in Model 3 are those on the CB amount and its square, and not the difference between these and SB amount terms. The hypothesis being tested here is whether the effect of the increase in Child Benefits on the probability of receiving private transfer income is significantly negative. The marginal effect of CB income, shown near the bottom of the table, gives us the estimated effect on CB families per unit<sup>35</sup> of the increase in CB rates. This marginal effect is not significantly different from zero in the first two specifications. However, when both trend and age terms are excluded, the effect is positive at the five percent level of significance. Thus, we clearly reject the null hypothesis in all three cases.

Panel (a) of Tables 3-12 through 3-14 present results from estimates of the real value of private transfers received using Models 1 through 3 respectively. Again, each model is estimated three ways: including both trend and age terms, excluding trends, and then excluding both. Each of these three is in turn estimated using OLS and the tobit model. Recall that slightly over a third of the sample received some private transfer income. The high fraction of observations with zero transfer income suggests

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<sup>35</sup> Units are British pounds in 1974 currency.

that tobit results may be more reliable than those from OLS in cases where any difference in implications exists.

Because there was generally no significant effect of the CB policy change on the probability of receiving private transfer income, I have also estimated the real value of private transfer income using OLS on a sample limited to households with positive values. For consistency, these are also estimated first including both trend and age terms, then excluding trend, then excluding trend and age. These estimates appear in panel (b) of each of the Tables 3-12, 3-13, and 3-14.

In Model 1 (Table 3-12), the pattern of results is very similar to that in the probit models. Age terms are very significant when included, but trend terms are not. Unemployment rates interacted with the SB dummy tend to be significant, while unemployment rates alone do not. An exception is the squared unemployment rate, which is significant in OLS results, but not in those from the tobit model. There are some other differences between OLS and tobit results, but implications regarding the variables of interest, however, are stable across all specifications of Model 1. Neither of the policy dummies (for CB or for SB families), nor the difference between them is significantly different from zero. The point estimates of this difference-in-difference estimator are negative as expected, but these results imply that there is no significant effect of the CB increase on the amount of private transfers received by lone-mother families. OLS estimates using a sample with positive transfer income in Table 3-12 (b) show a very similar pattern, and have the same implications for the effect of the policy change.

Turning to Model 2 in Table 3-13, we again see a similar pattern, with one exception. One-child families appear to have experienced a decrease in private transfer income coincident with the increase in CB. The difference-in-difference estimate is significantly negative (at a five or ten percent level) according to OLS estimates, although the effect is not significant in the tobit results. In panel (b) of this table, we see that this effect for one-child families persists when an OLS model is used to estimate transfer income for the positive sample. Here, the effect is significant only at ten percent, and not even at that level when age and trend terms are both excluded from the model.

It is not surprising that this effect is significant for one-child families, even though it is not for families of other sizes. One-child families experienced the largest percentage increase in CB of all family sizes, as their benefits went from nothing to something. It is also worth noting that the mean level of SB income for one-child families did not experience the modest increase which took place for larger SB families. These two forces together drive a wedge between CB and SB families with a single child.

Estimates from Model 3 (Table 3-14) strongly reject the hypothesis being tested. In this model, the coefficients of interest are those on the CB amount and its square. A marginal effect calculated from these is reported near the bottom of the table. This effect is positive, significantly so in OLS results. This positive result is also significant in the tobit model when both age and trend terms are excluded. This

implies an increase in transfer income when CB rates increase. The hypothesis being tested is that private transfer income responds negatively to changes in Child Benefits.

I have also calculated the marginal effect on private transfer income of Supplementary Benefits (SB), which appears in the table just below that for CB. This effect is in the hypothesized direction, and is significant at one percent or better for all of the OLS and tobit results. I then calculate the difference in the two marginal effects, as well as the standard deviation of this difference. Clearly, if one marginal effect is significantly positive and the other significantly negative, then they must be significantly different from one another. It turns out that they are significantly different for all six sets of estimates.

Model 3 results differ from those in Model 1, which showed no relationship between changes in CB and the value of private transfers, and Model 2, which found a significant negative relationship only for one-child families. However, the overall implications are similar: The increase in Child Benefits does not appear to have been offset in lone-mother families by decreases in their private transfer income. The crowding-out effect in this case was either non-existent, or negligible.

The evidence presented here implies that crowding out of private transfer income by public transfer income was not significant among lone-mother families in the case of the CB increase in the late 1970s. The lack of a significant effect on private transfer income is more consistent with exchange or "warm glow" motives for transfers than with altruism. Cox (1987) and Cox and Jakubson (1995) also find that

empirical evidence is more consistent with exchange than with altruism. Schoeni (1997) finds that altruism alone cannot fully explain transfer behavior.

I find no evidence that government transfers crowded out private ones in lone-mother families. While this outcome may not be generalizable to other family types, or to changes in public transfers which are outside the range of changes in these data, it is nonetheless comforting to find that private transfers did not shrink in response to increasing government generosity among these families for whom both sources of income play such an important role in their well-being.

## **Part D: Effects on Expenditure Patterns**

### **I. Background and Theory**

Single-parent households seem to require a simpler model of household decision-making than two-parent families. One might assume that the single-decision-maker (or altruist) model is adequate, even appropriate. However, some possible complications to the model should be considered. For instance, it is conceivable that children in the household may have some influence over household decisions. If so, then the single-decision-maker model may not be adequate. Carolyn Moehling (1997) presents evidence that children who work for a wage have some power over household decisions. On the other hand, Paul Bingley and Ian Walker (1997) find evidence of reallocation of resources away from milk at home when milk is provided for children

at school, indicating that children have little bargaining power. Children affected by milk and school lunch programs in the latter study are generally below working age, so the results from these two studies do not necessarily contradict one another. My empirical analysis uses data from the U.K. in the 1970s and 1980s. Child labor laws, and the fact that there are relatively few children of legal working age in the sample I use, make it unlikely that children have any significant bargaining power in the households I examine. For that reason, I will assume throughout that the single-decision-maker model applies.

However, the simplest utility maximization model may not be adequate for lone-parent families. As Del Boca and Flinn (1986) outline (pp. 743-44), there are three general cases in which income from different sources may appear to generate different effects on expenditure patterns. First, the model may misspecify the objectives of the decision maker (for example, omitting leisure from the set of choice variables). Because of the trade-offs involved in acquiring labor income, this income may appear to have different effects on expenditures than other income if the labor-leisure choice is not fully and correctly specified in the model.

Second, constraints may exist which apply only to income from a particular source. Private transfers received by lone-mothers may have "strings attached." Repeated transfers may be contingent on her allocating those resources in such a way

that is consistent with the preferences of the giver.<sup>36</sup> If the mother fails to provide a certain level of well-being for the children out of this transfer, the giver may choose to provide in-kind transfers rather than cash transfers in the future. In-kind transfers might consist of clothing, books, toys, and so on. However, it is difficult for the altruistic giver to provide for some of the most important needs of the children through in-kind transfers if he does not reside with them. He can provide shelter, heating, and meals much easier via a cash transfer to their mother if she cooperates by allocating the transfer according to his wishes. Given this, there is some surplus associated with the cash transfer, part or all of which may be captured by the mother. Thus her compliance with the wishes of the giver may be a mutually beneficial arrangement, and may represent a self-enforcing equilibrium in a repeated game.

A government transfer payment generally cannot have strings attached, at least in practice. Enforcement and monitoring of such “strings” would be close to impossible in a free society like the UK. Of course there are circumstances under which the government could learn of abuse or neglect and remove children from their mother’s care, thereby ending her claim to the public transfer payment. However, abstracting from such extremes, a cash public transfer can be spent in any way the mother chooses.

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<sup>36</sup> While support payments from non-custodial fathers may be court mandated, there was little legal infrastructure dedicated to the enforcement of such payments during this period. For that reason, I will assume private transfers are voluntary on the part of the giver.

This difference in constraints attached to repeated transfers from public versus private sources could generate different effects on expenditure patterns for income from different sources. If constraints which accompany private transfer income are not fully and correctly specified in the model employed in an empirical investigation, that income might appear to have different effects on expenditures than other income.

Third, if public goods (e.g., children) are shared by more than one household, then income in all involved households will affect expenditure decisions in each, as it affects expenditures by each on the public good. If both parents make strictly positive contributions to the public good, then a redistribution of income from the father to the mother will increase her contribution to the public good and decrease his contribution.<sup>37</sup> This implies that income from private transfers may be allocated differently than income from other sources.

There may be other explanations for observing different income effects by source of income. In an economic environment where relative prices and income change over time, and where sufficient uncertainty exists, individuals may formulate rules of thumb whereby they allocate income to expenditures in an effort to approximately maximize utility. In essence, they may earmark<sup>38</sup> income from certain sources for certain types of expenditures. For example, they may designate an income

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<sup>37</sup> This result holds if the income redistribution does not change the set of contributors, is proven in Bergstrom, Blume, and Varian (1986), and is the basis for Del Boca and Flinn's (1994) paper, "Expenditure Decisions of Divorced Mothers and Income Composition," which examines expenditures on child goods using data on divorced-mother households.

tax refund for a particular purpose, such as vacation expenditures or home improvements. (Note that their receiving a refund in the first place indicates a sub-optimal choice.) For another illustration, suppose a household has a budget worked out which depends on income from earners working a regular full-time week. They may earmark any overtime income for a particular purpose, perhaps without knowing how much overtime income will be earned.

Due to earmarking, or perhaps to social pressures, people may allocate income from certain sources to certain types of goods. This could produce what is sometimes referred to as a “labeling effect.” Peter Kooreman (1998) claims that a Dutch child allowance, similar in nature to the UK Child Benefit I examine here, is allocated in a different way than other income, and attributes this difference to a labeling effect – a direct effect on parental preferences. If a government benefit labeled as a child benefit is more heavily allocated to children, then such labeling may provide greater benefit to children without additional cost to public funds.

Whatever the correct theoretical underpinning, the hypothesis that income from different sources may have different effects on expenditure patterns is one I will consider in the empirical analysis, and will discuss in further detail in section III.

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<sup>38</sup> Jan Pahl (1990, 1995), in her work on money in marriage, discusses earmarking from a non-economist’s perspective, focusing on husband’s versus wife’s earnings.

## II. Empirical Estimation Issues and Results

This section addresses the remaining two questions I propose to answer by examining how additional public transfer income is allocated among goods, and testing whether effects of this additional income differ from those of income from other sources.

Many budget surveys, including the *FES*, collect information about expenditures on goods and services, but not quantities purchased of those goods and services. Household demand analysis using such data must therefore focus on some measurable outcome other than quantity. The share of the budget devoted to each good or service category is one of the obvious choices. In this section, like in Chapter Two, I employ a variation of the Almost Ideal Demand System (AIDS) model of Deaton and Muellbauer (1980a and 1980b). The budget share for each good is estimated equation by equation using:

$$w_{ig} = \alpha_g + \sum_j \gamma_j \log p_j + \beta \log \left( \frac{E_i}{P_i} \right) + f(CB) + g(H_i, R_i, Q_i, t) + \varepsilon_{ig}$$

where  $w_{ig}$  is household  $i$ 's budget share allocated to good category  $g$ .  $p_g$  is the price for good category  $g$ .  $E_i$  is total household expenditure.<sup>39</sup>  $P_i$  is the price index for all goods, approximated by the Stone index:

$$\log P_i = \sum_g w_{ig} \log p_g$$

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<sup>39</sup> Total expenditure on a subset of goods and services will be used for some estimates, as will be discussed later in this section.

where  $i$  indicates household and  $g$  the good category.<sup>40</sup>  $D$  is a set of dummy variables representing the policy change. This set of dummy variables will be replaced by actual government transfer benefits received in some specifications of the model.  $H$ ,  $R$ , and  $Q$  are sets of dummies representing household composition, region, and season of the year respectively.  $t$  is a linear time trend and  $\epsilon$  is an error term, assumed to be normally distributed.

I use ordinary least squares regression, as well as the tobit model, to estimate budget shares for eleven broadly-, and thirteen narrowly-defined goods categories. The eleven broad goods categories are those grouped together as aggregates in the *FES*, and provide a comprehensive picture of household expenditures. Narrow goods were selected for their degree of assignability,<sup>41</sup> loosely speaking, and relevance to welfare of mothers versus children. These narrow goods include books, educational fees, cigarettes, tobacco net of cigarettes, domestic services, hairdressing, pets and pet care, children's pocket money, toys, and three narrow categories of clothing: men's, women's, and children's. Even though there are no men in these households by definition, there is some expenditure in this category. These expenditures may be for clothing for male teens in the household, or for gifts for persons not resident in the

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<sup>40</sup> This approximation is widely used in application of the AIDS model. Deaton and Muellbauer (1980b) credit J. R. N. Stone with its first use. I use broad category expenditures and corresponding price indices to calculate the index.

<sup>41</sup> In fact consumption of the good need not be assignable, but goods which are arguably of greater relative interest to a person or group of persons in the household make good candidates.

household. These two different possibilities suggest very different implications of any change in this share.

The tobit model is used because there is at least one household who reports zero expenditures for any given good category. Application of the OLS and tobit models to the above conceptual model is straightforward. Shares are estimated equation by equation, so I do not constrain the change in budget shares to sum to zero across the set of eleven broad goods. The change in shares across these eleven categories must, by construction, sum to one for each household, but the analysis would not benefit from imposing this restriction. I do not impose homogeneity or symmetry restrictions, as these are often rejected in demand analyses (e.g. Deaton and Muellbauer 1980a and 1980b), and not a central tenant of this paper.

I estimate the budget shares a second time, as described above, except that three of the broad categories are excluded. Housing, fuel and light,<sup>42</sup> and durables are omitted from the set of equations, as well as from the total expenditure figure used to calculate the share for included goods. The household-specific price index (the Stone index) used in these estimates is calculated excluding the price indices and weights for the three omitted categories, and the log prices for these three goods are omitted from the estimation equation.

There are two compelling reasons to estimate budget shares based on this truncated budget. One is that expenditures on these categories are relatively fixed in

the short run for individual households. They are often assumed, for the purpose of empirical work, to be separable from other good categories, and seem to require a more dynamic model of decision making than is practicable using most budget survey data. Much of the demand analysis literature consists of estimating systems or sets of equations, with some or all of these categories excluded from the set.

A second and perhaps more powerful reason for their exclusion is that the SB program may generate distortions in some of these expenditure categories (as well as in others when budget shares are the focus of the analysis). A rent allowance provided by SB, in essence, pays the housing costs of program participants. In addition, a housing benefit was available to some working poor who did not otherwise qualify for SB. The result is that participants have no incentive to adjust housing expenditures downward, even if housing prices rise, or if the household's overall disposable resources decline. This will not only create distortions in the share of the budget allocated to housing, but also in the share allocated to other goods if housing expenditure is included in total expenditure, the denominator in each share. Separate from the housing allowance provided by SB, an additional fuel allowance was available in cases "where the claimant, his partner or a dependant was in poor health or where the accommodation was damp or difficult to heat" (*Tax Benefit Reference Manual*, 1995/96, p. 9.11), so similar arguments for distortion in this category apply.

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<sup>42</sup> This category may hereafter be referred to simply as "fuel." It does not contain petrol for transportation purposes. These expenditures are included in the transportation category.

Excluding expenditure on these three items from the calculation of budget shares, and their prices from estimates of shares of other goods implies some restrictions on the utility maximization model. In essence, I am assuming a two-stage budgeting process exists, whereby expenditures on the excluded three goods, along with the total of expenditure on the remaining eight categories is determined first. Then, using this predetermined total expenditure, the household head maximizes utility over the remaining goods

As in estimations of private transfers, I use three different ways of introducing the policy change into the model. Models 1, 2, and 3 are discussed in detail in the previous section. To recap, Models 1 and 2 are difference-in-difference models with the former using one dummy variable to represent the policy change for CB families and another for SB families. Model 2 uses a set of four family-size specific dummy variables in place of each of the two used in Model 1. Models 1 and 2 are estimated using data for January 1973 through March 1976 and January 1980 through December 1983 in order to ensure the dummy variable is adequate to capture changes from the before-policy-change period to the after period.

Model 3 does not use the difference-in-difference approach, but instead uses actual benefit amounts to introduce the policy change. This model requires some adaptation of the Almost Ideal Demand equation detailed above. Note that in a restricted model, any income can only affect the budget share through its effect on total income (or expenditure). In order to allow for the possibility that the effects of income from different sources may differ, measures of that income must enter

separately. To illustrate, let  $X$  represent real income (total expenditure)<sup>43</sup> and let  $Z$  be a component of that income. Define  $NX$  as income net of  $Z$ , so that  $Z + NX = X$ . In the estimation equation given above, let us focus on the real income term,  $\beta \log X$ . If we substitute for  $X$ , so that we have  $\beta \log (Z + NX)$ , we cannot arrange to have  $Z$  have its own separate coefficient. An alternative would be to leave  $X$  intact, but also enter  $\log Z$  as a separate term to test whether it has any affect on the budget share. The problem with doing that in this case is that  $Z$  is Child Benefit income, which takes the value zero for one-child families prior to April 1976, and thus cannot be logged.

In order to facilitate separation of CB income from total expenditure net of it, I will replace the log term in the share equation with a quadratic for Model 3 estimates. This is a commonly used specification for income in demand analyses, and allows straightforward testing of hypotheses regarding equality of marginal effects of income from different sources on the budget share.

The following discussion makes explicit the logic for the hypothesis tests I perform using Model 3. I will use an oversimplified model to focus on income terms, and suppress subscripts for convenience. In the equations that follow,  $CB$  represents the real value of income from the CB program. Suppose the true model is given by

$$y = \alpha + \beta_1 X + \beta_2 X^2 + \varepsilon .$$

Let  $X = CB + NX$  . It follows that  $X^2 = CB^2 + NX^2 + 2 \cdot CB \cdot NX$  . Substituting into

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<sup>43</sup> For the purposes of this section, real values will be calculated using the Stone Index, rather than RPI, which is used elsewhere in this chapter.

the true model, we now have:

$$y = \alpha + \beta_1 CB + \beta_1 NX + \beta_2 CB^2 + \beta_2 NX^2 + \beta_2 (2 \cdot CB \cdot NX) + \varepsilon$$

Relaxing equality of like coefficients, we can rewrite this as

$$y = \alpha + \gamma_1 CB + \gamma_2 NX + \gamma_3 CB^2 + \gamma_4 NX^2 + \gamma_5 (2 \cdot CB \cdot NX) + \varepsilon,$$

and test the null hypothesis:

$$H_0 : \gamma_1 = \gamma_2 \text{ and } \gamma_3 = \gamma_4 = \gamma_5$$

Rejecting the null hypothesis implies that *CB* has an effect on *y* which differs from that of *NX* on *y*. In order to explore the nature of that difference (i.e., sign, magnitude, and variance), we must compare the marginal effects of the two explanatory variables.

We can calculate the marginal effect of *CB* on *y* as

$$\frac{\partial y}{\partial CB} = \gamma_1 + 2 \cdot \gamma_3 \cdot CB + 2 \cdot \gamma_5 \cdot NX.$$

Similarly, the marginal effect of *NX* on *y* is given by

$$\frac{\partial y}{\partial NX} = \gamma_2 + 2 \cdot \gamma_4 \cdot NX + 2 \cdot \gamma_5 \cdot CB.$$

The difference between these can be written

$$ME_{CB} - ME_{NX} = (\gamma_1 - \gamma_2) + 2 \cdot NX (\gamma_5 - \gamma_4) + 2 \cdot CB (\gamma_3 - \gamma_5).$$

The variance of this difference is given by

$$\begin{aligned}
& \text{var}(ME_{CB} - ME_{NX}) \\
&= \text{var}(\gamma_1) + \text{var}(\gamma_2) - 2\text{cov}(\gamma_1, \gamma_2) \\
&+ 4[\overline{CB}^2 \text{var}(\gamma_3) + \overline{NX}^2 \text{var}(\gamma_4) + (\overline{NX} - \overline{CB})^2 \text{var}(\gamma_5) + \overline{CB} \text{cov}(\gamma_1, \gamma_3) \\
&\quad - \overline{NX} \text{cov}(\gamma_1, \gamma_4) + (\overline{NX} - \overline{CB}) \text{cov}(\gamma_1, \gamma_5) - \overline{CB} \text{cov}(\gamma_2, \gamma_3) \\
&\quad + \overline{NX} \text{cov}(\gamma_2, \gamma_4) - (\overline{NX} - \overline{CB}) \text{cov}(\gamma_2, \gamma_5) - 2\overline{CB} \cdot \overline{NX} \text{cov}(\gamma_3, \gamma_4) \\
&\quad + 2\overline{CB}(\overline{NX} - \overline{CB}) \text{cov}(\gamma_3, \gamma_5) + 2\overline{NX}(\overline{CB} - \overline{NX}) \text{cov}(\gamma_4, \gamma_5)]
\end{aligned}$$

when evaluated at fixed values of  $CB$  and  $NX$ .

In practice, I subtract two components from  $X$ ,  $CB$  and  $SB$ , and then examine how the effects of these three components relate to one another. Note, however, that  $CB$  and  $SB$  cannot both be positive for any household by construction.<sup>44</sup> Therefore,  $NX$  is income net of  $CB$  or  $SB$  for any given household. Benefits received from these two programs enter separately from this net expenditure term, and separately from one another. Each of these three amounts enters both linearly and in squared form, and the appropriate interactions of each with  $NX$  are included as well.

Model 3 estimates use data for all of 1973 through 1976 and 1980 through 1983.

## Results

In interpreting effects from estimates of budget shares, note that a significant positive effect of the policy change on a share indicates not merely an increase in

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<sup>44</sup> For this reason, I did not need to include the interaction of  $CB$  with  $SB$  in estimates of transfers, since this interaction term is identically zero.

expenditure on that good, but that the increase in CB income was disproportionately allocated to that good.<sup>45</sup> Also note that a decrease in a share does not necessarily imply a reduction in expenditure on that category.

Tables 3-14 through 3-17 present the estimated effects of the Child Benefit increase on the expenditure shares allocated to various goods and services. The three tables present results from Models 1, 2, and 3 respectively. These tables provide the sign and significance level in the event the effect of the CB increase is significant. These effects are based on the difference-in-difference estimate for Models 1 and 2, and on the marginal effect per unit of income,<sup>46</sup> calculated from the coefficients on *CB* and its square, for Model 3. Detailed results, including point estimates and standard errors for the policy terms, as well as control variables, can be found in the appendix to this chapter.

Table 3-15 presents estimated difference-in-difference effects from Model 1 for both OLS and tobit models. Broad goods, and ten of the thirteen narrow goods (excluding narrow clothing) appear in panel (a) of the table. In an eleven-good budget, shares allocated to “food out”<sup>47</sup> is declining at one percent significance for OLS or five percent for tobit. The share spent on services is increasing at ten percent significance for both models. The broad category clothing is increasing significantly at ten percent in the OLS model, but is not changing significantly in the tobit

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<sup>45</sup> By “disproportionately,” I mean relative to the pre-policy-change allocation of expenditure among goods categories.

<sup>46</sup> Units are British pounds in 1974 currency.

specification. Using an eight-good budget which excludes durables, housing, and fuel for power and light, clothing and food out exhibit similar changes to those found in the eleven-good budget. Here, services are not changing significantly, but alcohol is increasing at the ten and one percent significance level for OLS and tobit models respectively. For both eleven- and eight-good budgets, remaining broad good categories are not changing significantly.

Among the narrow categories, cigarettes, cosmetics, hairdressing, and toys expenditures are generally declining significantly in the budget. However, there is no significant effect for cigarettes or cosmetics in the eight-good budget tobit model. The tobit results are preferred for these goods due to the large number of zero expenditures recorded, coupled with the strong possibility of non-consumption.<sup>48</sup> Children's pocket money declines significantly at ten percent significance in the eleven-good budget tobit model, but is not changing significantly in other specifications.

Narrow clothing estimates are shown separately in panel (b) of Table 3-15. 1974 is the first year for which a price index is available for children's clothing. Both men and women's clothing shares are estimated using data including that for 1973, as

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<sup>47</sup> "Food out" includes meals consumed away from home, as well as take-away meals, which may be consumed at home.

<sup>48</sup> OLS is preferred to tobit if infrequency of purchase is the sole reason for observing zero expenditure. This is because the expected value of consumption should be equal to that of expenditure in the infrequent purchase case, a relationship which is not supported in the tobit model. However, if zeros are recorded because the household truly does not consume the good, then tobit estimates are preferred.

price indices for these narrow categories are available in all of these years. These estimations include in the price controls price indices for men's clothing, women's clothing, clothing net of these two, and all broad categories except clothing. Omitting 1973 from the data, I estimate all three narrow clothing categories, adding a narrow price index for children's clothing, and recalculating the other clothing price index to cover total clothing net of the three narrow categories. Each set of estimates is done using OLS and tobit, and using the eleven-good budget, as well as the eight-good budget. Table 3-15 (b) indicates no significant effects on any clothing share, except that women's clothing decreased in the budget at ten percent significance in the OLS model which excludes 1973 data (and includes a control for price of children's clothing).

Table 3-16 presents results for Model 2. Again, budget share estimates for broad and narrow goods are performed using OLS and tobit models, and for eleven- and eight-good budgets. The sign, significance level if ten percent or better is achieved, of difference-in-difference estimates of the effect of the CB policy change is presented. As in the previous table, narrow clothing categories appear in panel (b), with all other goods shown in panel (a).

Overall, these results are similar to those found in Model 1, but show that responses which are significant for some family sizes are not so for others.<sup>49</sup> Effects on narrow categories are also similar to those found in Model 1. In panel (b), we

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<sup>49</sup> There are some apparent inconsistencies between Model 1 and Model 2 results which I am investigating.

again see similar results to those in Model 1. The women's clothing share is declining in an OLS model with an eight-good budget. Other results are not significant, except for a decline in children's clothing for one-child families in an OLS eight-good budget model.

Table 3-17 presents results from Model 3. Recall that the interpretation in this model differs from the previous two. In Models 1 and 2, dummy variables representing before and after periods allow us to ask whether shares changed from one period to the other, and did so differently from a control group. Model 3 uses actual benefit amounts, so the interpretation of the marginal effect is the absolute increase (decrease) in the share allocated to a good category when the benefit rises by one pound. A difference-in-difference estimator is not used here, but SB families are included in the estimation.

Significant results differ substantively in Model 3 versus Models 1 and 2. Here, there are no significant effects on alcohol, clothing, or food out. Services are found to be decreasing in the eight-good budget – they were increasing in the eleven-good budget in previous results. Miscellaneous goods are now found to be declining in the eight-good budget, and transport increasing in the eleven-good budget.

Narrow clothing results in panel (b) demonstrate a less dramatic switch from earlier models: The negative effect on the women's clothing share found earlier is not present here. Men's clothing expenditures now appear to be increasing in response to the policy change, but the effect is significant only at the ten percent level, and only in three of the eight specifications – OLS models in all three cases. If men's clothing

expenditures are on behalf of older male children in the household, then any zero expenditures recorded among those households are likely due to infrequent purchases, in which case the OLS model is preferred to tobit, and we can take this as an increase in clothing for teen male children. However, if this clothing is being purchased as gifts for non-members of the household, then the tobit, which does not find a significant effect, is the preferred model. It is possible that men's clothing purchases are made for both purposes. To the extent that these purchases are for children, OLS estimates indicate that they are increasing.

Table 3-16 presents the sign and significance level of the difference in the marginal effect of CB income on the budget share versus the effect of net income (expenditure) on that share. These results indicate that income from CB does in fact have a different affect on shares allocated to some goods than income from other sources. For the most part, differences which are significant are in the negative direction, indicating that the marginal effect of CB income is less than (or more negative than) that of other income.<sup>50</sup> This is the case for durables in the eleven-good budget, and for services and miscellaneous goods in the eight-good budget. For transport, in all four specifications, the difference is positive, indicating that the marginal effect of CB income is greater than that of other income.

Among the narrow goods, all significant differences are negative. Those include books in all specifications, educational fees in three of four, and children's pocket money in the tobit for and eleven-good budget. Table 3-16 (b) presents these

differences for narrow clothing categories. The only significant differences found are for men's clothing shares. CB income has a more positive effect on this share in four of the eight specifications.

### **III. Conclusion to Part D**

Hypotheses that mothers allocated additional CB income in ways that benefited them but not children are generally rejected. We generally do not see a disproportionate allocation, indicated by an increasing share, to "bads," such as alcohol and tobacco, or to goods which are likely consumed by the mother, such as women's clothing, cosmetics, and hairdressing. In fact we see some evidence of declines in the latter three. We see some evidence of increases in shares allocated to clothing for older male children, and to "food in," which is collectively consumed and may benefit children.

The results for expenditure shares from Model 3 differed markedly from those of Models 1 and 2. As I stated in Part A of this chapter, a breakdown of the assumptions underlying Model 3 versus Models 1 and 2 could generate such a difference. I am inclined to believe that the assumptions underlying Model 3 are more suspect in this case. Time series data are used, which span a period of eleven years. Many unmeasured factors which affect budget allocation may have changed over this period. If these factors are correlated with included variables, then omitted variables

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<sup>50</sup> Other income for these purposes does not include SB income.

bias may plague results. Note that this calls into question the differences in income effects alluded to in Table 3-16.

Models 1 and 2 were estimated excluding some data from 1976 which was included in estimates of Model 3. This does not explain the differences in results. If Models 1 and 2 are estimated including all 1976 data, results are very similar to those in Table 3-15.

The fact that there are relatively few significant changes in budget shares for any one specification seems to indicate that the income was allocated in much the same way as other income received by the family. Results in Table 3-16, however, indicate that there are some differences in the marginal propensity to spend on some goods out of CB income versus other income.

### **Conclusion to Chapter Three**

This chapter has shown that neither private transfer income nor earned income was significantly crowded out by public transfers in lone-mother families in the case of the late 1970s increase in the UK Child Benefit. This is encouraging news, but was not expected based on economic theory. These results have important policy implications. They indicate that lone-mothers did not significantly decrease their work hours when their cash benefits increased. Finding such a result may indicate one

or more of several possibilities. (1) The hypothesis that labor will decline when unearned income rises depends on the existence and availability (at the margin) of leisure, defined to be a good. It may be that lone-mothers would not be gaining an hour of true leisure (a good) if they reduced their work hours. (2) Lone-mothers who have a distaste for market work may not have been working in the first place. They may have been collecting SB, and felt little or no effect at the margin of the change in CB rates. (3) Lone mothers who were working prior to the policy change may have preferences regarding work which are similar to married men, implying small income elasticities with respect to labor supply.

No crowding out of private transfer income is also an important result. This indicates that giving lone-parent families more public benefits does not necessarily imply they will get less assistance from non-custodial fathers, other family, and friends. It also points toward motives other than altruism for private transfers. Various motives have different implications, and must be considered when private transfer income is of concern.

Issues which might be further explored in this area include examining private transfers from non-custodial fathers separately from those provided by others – something *FES* data did not allow in this analysis. Controlling for changes in child support awards and enforcement efforts may be important depending on the time frame and location from which the data are gathered. Clearly, having data on potential providers of transfers would improve on this analysis.

In looking at expenditure patterns, results are not quite as encouraging. Declines in budget shares for some child goods were found. These findings are not consistent with those of Kooreman (1998), who found that income from the Dutch equivalent of Child Benefit was more heavily allocated to child goods than are other types of income. These results are, however, consistent with findings of Bingley and Walker (1997) that in-kind transfers to children are to some extent reallocated within the family.

There is evidence of differing income effects by source of income. I outlined earlier several scenarios, in addition to a labeling effect, which might generate such a result. Further study, using data which allows for better models of the types suggested may illuminate to what extent each of the three scenarios is important in generating these differences.

What one can take from this is two-fold. First, these results generally do not indicate that the increase in CB income was disproportionately allocated to “bads” such as alcohol and tobacco (except for one positive result on alcohol in Model 1, which I have already discounted). Whether the income was allocated toward or away from goods which contribute to child welfare is less clear, but at least we can draw this one firm conclusion.

Second, as has been shown here, the choice of a model can make a large difference in the effects we find, or claim to find. Because of its largely non-parametric nature, and its ability to control for time-variant unobservables, the difference-in-difference model has great potential value. Finding a valid control

group, and proving its validity may be challenging. But given a valid control group, the method is arguably the best choice.

Further work here might explore quantities rather than budget shares, if data on quantities could be obtained. More generally, a joint estimation of all of the things which, in reality, may be determined jointly, would be ideal, but perhaps impossible in the purest sense.

**Table 3-1**  
**Summary Statistics for Key Variables**

	<b>Full Sample<sup>†</sup></b>	<b>Sub-Sample of Positive Observations for Item</b>	
	<b>Mean (Std. Dev.)</b>	<b>Mean (Std. Dev.)</b>	<b>Number of Observations</b>
Real total expenditure <sup>‡</sup>	278.2209367 (155.92126)	NA	NA
Real private transfer income <sup>‡</sup>	30.2681687 (63.4330990)	8.39355 (8.15990)	542
Private transfer income as a share of total expenditure	0.1070976 (0.2048383)	0.29699 (0.24493)	542
Age of head of household	35.4637392 (9.1503121)	NA	NA
<b>Expenditure Shares – Broad Goods</b>			
Alcohol	0.0125940 (0.0248510)	0.0282097 (0.0307130)	671
Clothing	0.0830405 (0.0842475)	0.0968269 (0.0833125)	1289
Durables	0.0511452 (0.0856425)	0.0607678 (0.0901692)	1265
Food in	0.2803895 (0.1041155)	0.2805761 (0.1038983)	1502
Food out	0.0106105 (0.0174601)	0.0170380 (0.0194960)	936
Fuel	0.0936658 (0.0550463)	0.0953819 (0.0539308)	1477
Housing	0.1989078 (0.1033077)	0.2006432 (0.1020648)	1490
Misc.	0.0848312 (0.0551735)	0.0849442 (0.0551232)	1501
Services	0.0830443 (0.0771571)	0.0844155 (0.0770147)	1479
Tobacco	0.0387078 (0.0447510)	0.0643560 (0.0409714)	904
Transport	0.0630635 (0.0814266)	0.0694419 (0.0828110)	1365

Table 3-1 (continued)

	Full Sample <sup>†</sup>	Sub-Sample of Positive Observations	
	Mean (Std Dev)	Mean (Std Dev)	Number of Observations
<b>Expenditure Shares – Narrow Goods</b>			
Books	0.0013874 (0.0051317)	0.0069977 (0.0096845)	298
Cigarettes	0.0224814 (0.0289085)	0.0378806 (0.0287191)	892
Cosmetics	0.0034245 (0.0062447)	0.0068902 (0.0073894)	747
Domestic services	0.0036466 (0.0174958)	0.0285457 (0.0411422)	192
Hairdressing	0.0029493 (0.0085137)	0.0133518 (0.0137695)	332
Kids clothing	0.0201077 (0.0333248)	0.0378720 (0.0376733)	798
Men's clothing	0.0026987 (0.0139050)	0.0335214 (0.0371248)	121
Women's clothing	0.0170576 (0.0319774)	0.0280806 (0.0370703)	913
Other tobacco	0.000115446 (0.0010466)	0.0052581 (0.0048502)	33
Pets	0.0053574 (0.0101943)	0.0114540 (0.0123461)	703
Kids' pocket money	0.0031101 (0.0070651)	0.0091838 (0.0095759)	509
Toys	0.0031905 (0.0132686)	0.0139806 (0.0249382)	343
Educational fees	0.0055936 (0.0297133)	0.0274745 (0.0611938)	306

† The full sample includes 1503 households.

‡ Real values are nominal values divided by the quarterly RPI (Retail Price Index).

**Table 3-2**  
**Probit Estimates of the Probability of SB Take-up**

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
<b>Intercept</b>	5.045894*** (1.109660)	5.068186*** (1.112813)	5.44923*** (1.127055)
<b>SB amount</b>	-0.242944** (0.102737)	-0.245724** (0.104249)	-0.278494** (0.114868)
<b>SB amount<sup>2</sup></b>	0.005386** (0.002663)	0.005502** (0.002718)	0.007031** (0.003251)
<b>Unemployment rate</b>	0.024331 (0.083885)	0.025581 (0.084033)	0.056390 (0.074882)
<b>Unemployment rate<sup>2</sup></b>	-0.001237 (0.003442)	-0.001298 (0.003458)	-0.002602 (0.002878)
<b>Unemployment rate lagged</b>	0.046872 (0.070126)	0.048977 (0.070274)	0.080434 (0.059710)
<b>Trend</b>	-0.00653 (0.125419)	-0.005989 (0.125605)	-0.018939 (0.113072)
<b>Trend<sup>2</sup></b>	0.005052 (0.010821)	0.004763 (0.010839)	0.000298 (0.00872)
<b>Head age</b>	-0.159416*** (0.037115)	-0.159581*** (0.037094)	-0.169242*** (0.035862)
<b>Head age<sup>2</sup></b>	0.001756*** (0.00047)	0.001762*** (0.00047)	0.00188*** (0.000454)

**Table 3-2 (continued)**

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
<b>Policy dummy</b>	<b>-0.507496</b> <b>(0.320488)</b>		
<b>Policy dummy for 1-child family</b>		<b>-0.442940</b> <b>(0.338684)</b>	
<b>Policy dummy for 2-child family</b>		<b>-0.520203</b> <b>(0.337269)</b>	
<b>Policy dummy for 3-child family</b>		<b>-0.575167</b> <b>(0.357827)</b>	
<b>Policy dummy for 4+ child family</b>		<b>-0.533662</b> <b>(0.431707)</b>	
<b>CB amount</b>			<b>-0.106898</b> <b>(0.129489)</b>
<b>CB amount <sup>2</sup></b>			<b>0.003622</b> <b>(0.009072)</b>
<b>Marginal Effect</b>			<b>-0.0344135</b> <b>(0.036707)</b>

N=1503

\*, \*\*, \*\*\* Different from zero at 10, 5, and 1% significance respectively.

Standard errors are shown in parentheses.

Regressions include dummy variables for 11 of 12 regions, 3 quarters of the year, and 9 of 10 household composition categories.

Joint test is for the null hypothesis that effects of the four family size specific policy change dummies are not significantly different from zero (Model 2) or that the effects of CB amount and its square are not significantly different from zero (Model 3). Test statistics shown are distributed chi-square with four (Model 2) or two (Model 3) restrictions.

**Table 3-3**  
**Marginal Effects for Selection Model of Hours Worked<sup>†</sup>**

<b>Variable</b>	<b>Total Model Marginal Effects</b>	<b>Direct Effects (Hours equation)</b>	<b>Indirect effects (selection equation)</b>	<b>Mean of X (full sample)</b>	<b>Mean of X (selected sample)</b>
Constant		16.95399 (14.079)	-15.1701*** (0.89007)		
Wage <sup>‡</sup>		7.507696*** (1.3863)	0.187882*** (0.010656)	77.02	0.6591
Trend	-0.34513 (0.89878)	-0.47076 (0.898)	0.125626*** (0.03743)	6.669	6.62
Unemployment	-0.1291 (0.48502)	-0.15397 (0.48453)	0.024869 (0.021777)	8.022	7.851
Under 26	-2.11361 (3.2299)	-4.20119 (3.2285)	2.087576*** (0.095045)	0.1378	0.0594
Over 40	-2.00719 (1.4529)	-2.40056 (1.4514)	0.393364*** (0.066172)	0.2608	0.3383
Under 5 dummy	-5.16695 (9.4796)	-13.0644 (9.4788)	7.897406*** (0.12066)	0.3047	0.1157
5 to 12 dummy	-3.73501** (1.981)	-4.10065** (1.9792)	0.365648*** (0.083314)	0.6291	0.6142
Teen dummy	0.981459 (2.1081)	1.93001 (2.1065)	-0.94855*** (0.083817)	0.4169	0.5223
1 child	1.401228 (4.0102)	4.015893 (4.0086)	-2.61467*** (0.11106)	0.4182	0.4807
3 children	-1.11383 (4.7349)	-4.3733 (4.7334)	3.25947*** (0.11884)	0.1703	0.135
4+ children	-4.26804 (12.461)	-13.4402 (12.458)	9.172134*** (0.268)	0.06824	0.0312
Allowance	-0.17467 (0.35626)	-0.26936 (0.35596)	0.094695*** (0.014585)	17.03	16.73
Disregard	1.718779 (2.4421)	0.130021 (2.4388)	1.588758*** (0.12733)	1.363	1.365
Unearned income	-0.12351 (0.0986)	-0.19756** (0.0985)	0.074053*** (0.002925)	2.786	2.878
SB amount	0.372868 (0.71335)	0.732285 (0.71281)	-0.35942*** (0.027586)	12.88	12.67
CB amount	-0.62688 (1.5802)	-0.25268 (1.579)	-0.37421*** (0.059632)	2.861	2.631

<sup>†</sup>Marginal effects calculations are based on two-step model results.

<sup>‡</sup> Wage is average wage for selection equation, individual wage for hours equation.

Standard errors reported in parentheses.

\*, \*\*, \*\*\* Significant at 10, 5, and 1 % respectively.

**Table 3-4**  
**Marginal Effects for Selection Model of Earnings<sup>†</sup>**

<b>Variable</b>	<b>Total Model Marginal Effects</b>	<b>Direct Effects (hours equation)</b>	<b>Indirect effects (selection equation)</b>	<b>Mean of X (full sample)</b>	<b>Mean of X (selected sample)</b>
Constant		29.32812 (31.712)	-31.25*** (0.93215)		
Avg. female wage	0.17381 (0.51697)	-0.21323*** (0.51685)	0.38704*** (0.01125)	77.02	76.81
Trend	-0.2231 (1.3327)	-0.48189 (1.3322)	0.25879*** (0.03751)	6.669	6.62
Unemployment	-0.087 (0.74397)	-0.13826 (0.74365)	0.05123** (0.02178)	8.022	7.851
Under 26	-2.9481 (5.6028)	-7.24849 (5.6019)	4.30042*** (0.10347)	0.1378	0.05935
Over 40	-2.02 (2.2986)	-2.83031* (2.2976)	0.81033**** (0.06666)	0.2608	0.3383
Under 5 dummy	-5.3343 (18.001)	-21.60303 (18.0)	16.2687*** (0.19584)	0.3047	0.1157
5 to 12 dummy	-3.8663* (3.0038)	-4.61957** (3.0026)	0.7532*** (0.08362)	0.6291	0.6142
Teen dummy	1.26985 (3.2223)	3.22387 (3.2212)	-1.954*** (0.08558)	0.4169	0.5223
1 child	1.16167 (6.7301)	6.54790 (6.729)	-5.3862*** (0.1222)	0.4182	0.4807
3 children	-0.9553 (8.1129)	-7.66986 (8.1118)	6.71453*** (0.13484)	0.1703	0.135
4+ children	-3.953 (21.827)	-22.84768 (21.825)	18.8947*** (0.32333)	0.06824	0.03116
Allowance	-0.1573 (0.56682)	-0.35241 (0.56663)	0.19507*** (0.0147)	17.03	16.73
Disregard	1.96919 (5.3298)	-1.30366 (5.3282)	3.27285*** (0.13099)	1.363	1.365
Unearned income	-0.1128 (0.17916)	-0.26538** (0.17913)	0.15255*** (0.00325)	2.786	2.878
SB amount	0.27287 (1.2617)	1.01327 (1.2613)	-0.7404*** (0.02853)	12.88	12.67
CB amount	-0.6711 (2.3014)	0.09972 (2.3006)	-0.7709*** (0.06006)	2.861	2.631

<sup>†</sup>Marginal effects calculations are based on two-step model results.

<sup>‡</sup>Wage is average wage for selection equation, individual wage for hours equation.  
Standard errors reported in parentheses.

\*, \*\*, \*\*\* Significant at 10, 5, and 1 % respectively.

**Table 3-5**  
**Mean Differences and Difference in Difference for Real Transfer Income**

	<b>Before</b>	<b>After</b>	<b>Change</b>	<b>Difference in Difference</b>
<b>CB Group</b>				
<b>Mean</b>	4.778746 (0.53158)	4.868545 (0.36384)	0.089799 (0.64417)	
<b>N</b>	266	435		
				0.246806 (0.68362)
<b>SB Group</b>				
<b>Mean</b>	1.210873 (0.19639)	1.053866 (0.11754)	-0.15701 (0.22887)	
<b>N</b>	225	444		

Standard error of Mean or difference shown in parentheses.

**Table 3-6**  
**Mean Differences and Difference in Difference for Real Transfer Income,**  
**By Family Size Category**

	<b>Before</b>	<b>After</b>	<b>Change</b>	<b>Difference in Difference</b>
<b>1 child</b>				
<b>CB Group</b>				
Mean	2.068367 (0.39010)	2.605088 (0.37064)	0.536721 0.538107	
N	154	204		
<b>SB Group</b>				
Mean	0.60525 (0.22125)	0.519883 (0.11696)	-0.08537 0.250262	0.622088 (0.59346)
N	96	182		
<b>2 children</b>				
<b>CB Group</b>				
Mean	7.30544 (1.00303)	6.807021 (0.69701)	-0.49842 (1.22144)	
N	114	158		
<b>SB Group</b>				
Mean	1.77713 (0.33775)	1.231532 (0.21985)	-0.5456 (0.40300)	0.047179 (1.28620)
N	92	147		
<b>3 children</b>				
<b>CB Group</b>				
Mean	7.529948 (1.68193)	6.74934 (1.04809)	-0.78061 (1.98176)	
N	44	63		
<b>SB Group</b>				
Mean	1.450142 (0.39265)	1.454886 (0.31617)	0.004744 (0.50412)	-0.78535 (2.04488)
N	66	82		
<b>4+ children</b>				
<b>CB Group</b>				
Mean	5.895792 (1.64178)	8.566146 (3.27101)	2.670354 (3.65991)	
N	19	10		
<b>SB Group</b>				
Mean	1.322471 (0.50586)	2.21097 (0.65379)	0.888499 (0.826642)	1.781855 (3.75210)
N	39	33		

Standard error of mean or difference shown in parentheses.

**Table 3-7**  
**Mean Differences and Difference in Difference for Real Transfer Income,**  
**By Age Range of Household Head**

	Before	After	Change	Difference in Difference
<b>Age &lt;= 25</b>				
<b>CB Group</b>				
Mean	6.335238 (2.72360)	4.037407 (1.38825)	-2.29783 (3.05700)	
N	14	25		
<b>SB Group</b>				
Mean	1.150859 (0.47727)	0.520662 (0.13095)	-0.6302 (0.49490)	-1.66763 (3.09680)
N	48	121		
<b>25 &lt; Age &lt;= 40</b>				
<b>CB Group</b>				
Mean	6.14588 (0.66759)	5.726051 (0.43110)	-0.41983 (0.79468)	
N	168	282		
<b>SB Group</b>				
Mean	1.384323 (0.21809)	1.371096 (0.17985)	-0.01323 (0.28269)	-0.4066 (0.84346)
N	186	259		
<b>Age &gt;= 40</b>				
<b>CB Group</b>				
Mean	3.177753 (0.68846)	3.141685 (0.72323)	-0.03607 (0.99852)	
N	149	128		
<b>SB Group</b>				
Mean	0.951872 (0.32018)	0.778165 (0.24469)	-0.17371 (0.40298)	0.137639 (1.07677)
N	59	64		

Standard error of mean or difference shown in parentheses.

**Table 3-8**  
**Mean Differences and Difference in Difference for Real Transfer Income,**  
**By Region of Residence**

	<b>Before</b>	<b>After</b>	<b>Change</b>	<b>Difference in Difference</b>
<b>Region 1</b>				
<b>CB Group</b>				
Mean	2.1217 (1.39957)	3.899126 (1.47660)	1.777426 (2.03448)	
N	18	20		
<b>SB Group</b>				
Mean	0.670932 (0.45497)	0.629096 (0.26097)	-0.04184 (0.52450)	1.819262 (2.10101)
N	15	31		
<b>Region 2</b>				
<b>CB Group</b>				
Mean	6.209113 (2.08612)	4.965865 (0.88058)	-1.24325 (2.26436)	
N	21	32		
<b>SB Group</b>				
Mean	2.382378 (0.60440)	0.988326 (0.39121)	-1.39405 (0.71997)	0.150804 (2.37606)
N	35	59		
<b>Region 3</b>				
<b>CB Group</b>				
Mean	7.831756 (2.63745)	4.090321 (1.38503)	-3.74144 (2.97900)	
N	19	21		
<b>SB Group</b>				
Mean	2.213763 (1.03068)	0.739826 (0.39215)	-1.47394 (1.10276)	-2.2675 (3.17656)
N	12	20		
<b>Region 4</b>				
<b>CB Group</b>				
Mean	3.274819 (2.00391)	5.722319 (1.71847)	2.4475 (2.63985)	
N	8	21		
<b>SB Group</b>				
Mean	0 0	0.567531 (0.37338)	0.567531 (0.37338)	1.879969 (2.66612)
N	7	16		

Table 3-8 (continued)

<b>Region 5</b>				
<b>CB Group</b>				
Mean	4.252081 (0.96100)	4.365639 (1.32084)	0.113558 (1.63344)	
N	51	65		
<b>SB Group</b>				
Mean	1.811334 (0.66371)	1.299749 (0.45017)	-0.51159 (0.80198)	0.625143 (1.81970)
N	43	58		
<b>Region 6</b>				
<b>CB Group</b>				
Mean	8.358514 (1.74500)	7.335557 (0.96147)	-1.02296 (1.99235)	
N	52	84		
<b>SB Group</b>				
Mean	1.593696 (0.48595)	1.502835 (0.37870)	-0.09086 (0.61608)	-0.9321 (2.08543)
N	41	55		
<b>Region 7</b>				
<b>CB Group</b>				
Mean	4.190988 (1.47589)	6.424402 (1.27250)	2.233414 (1.94872)	
N	24	28		
<b>SB Group</b>				
Mean	2.222955 (0.80747)	1.193924 (0.37337)	-1.02903 (0.88962)	3.262445 (2.14218)
N	16	23		
<b>Region 8</b>				
<b>CB Group</b>				
Mean	3.763797 (1.59123)	4.319582 (1.23151)	0.555785 (2.01211)	
N	12	19		
<b>SB Group</b>				
Mean	1.601034 (0.69277)	1.016642 (0.39720)	-0.58439 (0.79856)	1.140177 (2.16479)
N	20	26		
<b>Region 9</b>				
<b>CB Group</b>				
Mean	3.959476 (1.00966)	4.07033 (0.93236)	0.110854 (1.37431)	
N	29	45		
<b>SB Group</b>				
Mean	0.377375 (0.20170)	0.958129 (0.33677)	0.580754 (0.39256)	-0.4699 (1.42927)
N	35	41		

Table 3-8 (continued)

<b>Region 10</b>				
<b>CB Group</b>				
Mean	5.100913 (1.42356)	3.883 (0.72017)	-1.21791 (1.59536)	
N	51	47		
<b>SB Group</b>				
Mean	0.396421 (0.23887)	1.337918 (0.30898)	0.941497 (0.39055)	-2.15941 (1.64247)
N	41	65		
<b>Region 11</b>				
<b>CB Group</b>				
Mean	1.656761 (0.49736)	3.464096 (1.12090)	1.807335 (1.22629)	
N	40	40		
<b>SB Group</b>				
Mean	0.343804 (0.25371)	0.623199 (0.26582)	0.279395 (0.36746)	1.52794 (1.28016)
N	25	45		
<b>Region 12</b>				
<b>CB Group</b>				
Mean	2.102102 (2.10210)	0.671018 (0.67102)	-1.43108 (2.20660)	
N	6	13		
<b>SB Group</b>				
Mean	0 0	0 0	0 0	-1.43108 (2.20660)
N	3	5		

Standard error of mean or difference shown in parentheses.

Table 3-9

**Probit Estimates of the Probability of Receiving Private Transfers, Model 1,  
Difference-in-Difference Estimates**

	With trend & age	No trend	No trend or age
Intercept	-2.401111*** (0.751529)	-2.083912*** (0.706206)	0.115286 (0.199974)
Unemployment rate	-0.045365 (0.091583)	-0.033138 (0.065790)	-0.060060 (0.06383)
Unemployment rate <sup>2</sup>	-0.002396 (0.003709)	-0.001474 (0.002823)	-0.000525 (0.002759)
Unemployment rate lagged	0.119760 (0.078133)	0.052711 (0.048307)	0.072517 (0.047705)
Unemployment rate interacted with SB	-0.171448** (0.072325)	-0.171963** (0.072329)	-0.127136* (0.070512)
Unemployment rate <sup>2</sup> Interacted with SB	0.014328*** (0.002416)	0.014371*** (0.002415)	0.012922*** (0.002354)
Unemployment rate lagged interact w/SB	-0.139166** (0.068087)	-0.138728** (0.067578)	-0.155560** (0.066662)
Trend	0.136959 (0.123530)		
Trend <sup>2</sup>	-0.013188 (0.011158)		
Head age	0.143716*** (0.035764)	0.143889*** (0.035768)	
Head age <sup>2</sup>	-0.002201*** (0.000472)	-0.002206*** (0.000472)	
Policy dummy for non- SB families	0.20006 (0.34289)	0.253756 (0.213052)	0.325967 (0.207071)
Policy dummy for SB families	0.491252 (0.36425)	0.543657** (0.259649)	0.482902 (0.251353)
Difference in difference estimate	-0.29119 (0.491252)	-0.289901 (0.275666)	-0.156935 (0.266924)

N=1370.

\*, \*\*, \*\*\* Different from zero at 10, 5, and 1% significance respectively.

Standard errors are shown in parentheses.

Regressions include dummy variables for 11 of 12 regions, 3 quarters of the year, and 9 of 10 household composition categories.

**Table 3-10**  
**Probit Estimates of the Probability of Receiving Private Transfers, Model 2**  
**Difference-in-Difference Estimates**

	<b>With trend &amp; age</b>	<b>No trend</b>	<b>No trend or age</b>
Intercept	-2.284205*** (0.757105)	-1.978461*** (0.710641)	0.205024 (0.211396)
Unemployment rate	-0.042065 (0.091686)	-0.033070 (0.065939)	-0.059687 (0.06400)
Unemployment rate <sup>2</sup>	-0.002535 (0.003733)	-0.001540 (0.00284)	-0.000650 (0.002776)
Unemployment rate lagged	0.120255 (0.078563)	0.054449 (0.04843)	0.075447 (0.04786)
Unemployment rate interacted with SB	-0.162057** (0.072675)	-0.162104** (0.072606)	-0.118526* (0.07088)
Unemployment rate <sup>2</sup> Interacted with SB	0.014163*** (0.002435)	0.014190*** (0.00243)	0.012889*** (0.002389)
Unemployment rate lagged interact w/SB	-0.145063** (0.068285)	-0.144757** (0.06777)	-0.164398** (0.066776)
Trend	0.129392 (0.123626)		
Trend <sup>2</sup>	-0.012790 (0.123626)		
Head age	0.141778*** (0.035798)	0.141922*** (0.035787)	
Head age <sup>2</sup>	-0.002177*** (0.000473)	-0.002182*** (0.00047)	

Table 3-10 (continued)

	With trend & age	No trend	No trend or age
Policy dummy, 1 child, no SB	0.227895 (0.359579)	0.264679 (0.235514)	0.373604 (0.22727)
Policy dummy, 2 children, no SB	0.127739 (0.362465)	0.172467 (0.24338)	0.209461 (0.23883)
Policy dummy, 3 children, no SB	0.349471 (0.400368)	0.390074 (0.29774)	0.433119 (0.29508)
Policy dummy, 4+ children, no SB	0.102259 (0.597066)	0.146745 (0.530605)	0.180392 (0.527589)
Policy dummy, 1 child, with SB	0.503535 (0.395001)	0.537280* (0.298825)	0.556823* (0.288678)
Policy dummy, 2 children, with SB	0.307095 (0.387158)	0.343059 (0.289436)	0.254549 (0.28130)
Policy dummy, 3 children, with SB	0.619633 (0.407887)	0.662379** (0.321223)	0.607132* (0.31495)
Policy dummy, 4+ children, with SB	0.732978 (0.462349)	0.784169** (0.380077)	0.662895* (0.37688)
Difference in difference, 1 child	-0.275641 (0.305446)	-0.272600 (0.306835)	-0.183219 (0.29731)
Difference in difference, 2 children	-0.179356 (0.308232)	-0.170592 (0.308723)	-0.045088 (0.30205)
Difference in difference, 3 children	-0.270162 (0.348357)	-0.272304 (0.348934)	-0.174013 (0.343626)
Difference in difference, 4+ children	-0.630720 (0.556108)	-0.637424 (0.55605)	-0.482503 (0.551529)

N = 1370

\*, \*\*, \*\*\* Different from zero at 10, 5, and 1% significance respectively.

Standard errors are shown in parentheses.

Regressions include dummy variables for 11 of 12 regions, 3 quarters of the year, and 9 of 10 household composition categories.

Table 3-11

## Probit Estimates of the Probability of Receiving Private Transfers, Model 3

	With trend & age	No trend	No trend or age
Intercept	-2.419786*** (0.721448)	-2.087443*** (0.699904)	0.062245 (0.20636)
Unemployment rate	-0.107595 (0.08337)	-0.035535 (0.05380)	-0.060506 (0.05309)
Unemployment rate <sup>2</sup>	0.001051 (0.00334)	0.000243 (0.002726)	0.000634 (0.00267)
Unemployment rate lagged	0.111104 (0.06863)	0.035416 (0.049456)	0.058906 (0.048705)
Unemployment rate interacted with SB	0.122750* (0.07306)	0.126165* (0.07268)	0.140188* (0.071865)
Unemployment rate <sup>2</sup> Interacted with SB	0.004804 (0.00377)	0.004619 (0.00378)	0.004848 (0.003729)
Unemployment rate lagged interact w/SB	-0.215455*** (0.07201)	-0.214334*** (0.071318)	-0.234046*** (0.070789)
Trend	0.185176* (0.102355)		
Trend <sup>2</sup>	-0.015171* (0.008904)		
Head age	0.147445*** (0.03536)	0.146636*** (0.035506)	
Head age <sup>2</sup>	-0.002241*** (0.00047)	-0.002231*** (0.000473)	
CB amount	0.035502 (0.09023)	0.053534 (0.087431)	0.156489* (0.08454)
CB amount <sup>2</sup>	0.001084 (0.014309)	-0.001587 (0.014048)	-0.013419 (0.013654)
SB amount	0.036097 (0.04113)	0.037082 (0.041399)	0.054841 (0.040454)
SB amount <sup>2</sup>	-0.005402*** (0.001714)	-0.005452*** (0.001731)	-0.005814*** (0.001713)
Marginal Effect of CB income	0.01343 (0.022998)	0.01778 (0.0221369)	0.042632** (0.02242)
Marginal Effect of SB income	-0.016427*** (0.00629)	-0.01635*** (0.00630)	-0.012237** (0.00612299)
Difference in marginal effects of CB and SB	0.0298598 (0.023333)	0.03413* (0.02256969)	0.05486999*** (0.0229455)

N=1503

\*, \*\*, \*\*\* Different from zero at 10, 5, and 1% significance respectively.

Standard errors are shown in parentheses.

Regressions include dummy variables for 11 of 12 regions, 3 quarters of the year, and 9 of 10 household composition categories.

**Table 3-12 (a)**  
**Estimates of Private Transfers Received, Model 1**

	OLS with trend & age	Tobit with trend & age	OLS, no trend	Tobit, no trend	OLS, no trend or age	Tobit, no trend or age
Intercept	0.123102 (2.91055287)	-23.78923*** (7.637479)	0.10259866 (2.7783782)	-21.366802*** (7.319566)	5.0224706 (0.82015754)	0.71273123 (1.951462)
Unemployment rate	0.308813 (0.37321883)	-0.1432096 (0.900953)	0.37050658 (0.24546283)	0.40182204 (0.5708632)	0.31938877 (0.24599023)	0.22367597 (0.5714838)
Unemployment rate <sup>2</sup>	-0.021807 (0.01421364)	-0.0298649 (0.035993)	-0.02397522** (0.01080585)	-0.03786552 (0.02640713)	-0.02267072** (0.01084176)	-0.03279682 (0.02648115)
Unemployment rate lagged	0.097289 (0.30823065)	0.95387556 (0.726886)	0.12129515 (0.20998502)	0.46485331 (0.4767963)	0.17597754 (0.21024632)	0.63059528 (0.4765712)
Unemployment rate interacted with SB	-0.946069*** (0.26501343)	-1.713924 *** (0.651391)	-0.9458157*** (0.26477513)	-1.7059352*** (0.6504282)	- 0.87558267*** (0.26501444)	-1.4787565** (0.6524274)
Unemployment rate <sup>2</sup>	0.063366*** (0.00917126)	0.16468985*** (0.023874)	0.06324161*** (0.00914844)	0.16400449*** (0.02380359)	0.06143391*** (0.00913208)	0.15844206*** (0.02383871)
Interacted with SB	-0.314474 (0.27857200)	-1.8062657** (0.714185)	-0.31242409 (0.27819323)	-1.7886849** (0.7083065)	-0.34757805 (0.27896458)	-1.9263329*** (0.7131903)
lagged interact w/SB	0.056298 (0.45991272)	1.37432916 (1.095206)				
Trend	0.002143 (0.03878774)	-0.1022323 (0.092426)				
Trend <sup>2</sup>	0.319821** (0.13844337)	1.40706315*** (0.372994)	0.3201528** (0.13833844)	1.40303452*** (0.3722137)		
Head age	-0.004860*** (0.00178887)	-0.0211197*** (0.004897)	- 0.00486365*** (0.0017876)	- 0.02107624*** (0.00488772)		

Table 3-12 (a) (continued)

	OLS with trend & age	Tobit with trend & age	OLS, no trend	Tobit, no trend	OLS, no trend or age	Tobit, no trend or age
Policy dummy for non- SB families	-0.65535438 (1.34948166)	-1.2400251 (3.310521)	-0.39695971 (0.78014718)	-0.4420696 (1.751841)	-0.2511577 (0.78229363)	0.12426909 (1.760336)
Policy dummy for SB families	-0.03438843 (1.37297607)	919.08626 (3431.53)	0.21718398 (0.85322737)	1.57164085 (2.1513)	0.15263945 (0.85651763)	1.43656054 (2.162844)
Difference in difference estimate	-0.620966 (0.97747963)	-2.1591113 (2.395315)	-0.61414369 (0.97576901)	-2.0137105 (2.395555)	-0.40379714 (0.97794747)	-1.3122914 (2.405424)

N=1370

\*, \*\*, \*\*\* Different from zero at 10, 5, and 1% significance respectively.

Standard errors are shown in parentheses.

Regressions include dummy variables for 11 of 12 regions, 3 quarters of the year, and 9 of 10 household composition categories.

**Table 3-12 (b)**  
**Estimates of Private Transfers Received**  
**Using Only Positive Observations, Model 1**

	<b>OLS with trend &amp; age</b>	<b>OLS, no trend</b>	<b>OLS, no trend or age</b>
Intercept	4.91818 (7.62831)	2.953162 (7.34096957)	11.33084*** (1.74686)
Unemployment rate	0.63392 (0.81305)	0.687796 (0.50998162)	0.681908 (0.50946)
Unemployment rate <sup>2</sup>	-0.015238 (0.03363587)	-0.025434 (0.02449685)	-0.023840 (0.02446)
Unemployment rate lagged	-0.52248** (0.651369)	-0.031969 (0.41265551)	-0.058998 (0.41180)
Unemployment rate interacted with SB	-1.45123*** (0.63978690)	-1.47355** (0.63865803)	-1.49881** (0.63803)
Unemployment rate <sup>2</sup> Interacted with SB	0.093953*** (0.02394550)	0.09419*** (0.02379331)	0.09450*** (0.02379)
Unemployment rate lagged interact w/SB	-0.502144 (0.74519517)	-0.485011 (0.74061904)	-0.486178 (0.74036)
Trend	-0.535004 (0.99411559)		
Trend <sup>2</sup>	0.081375 (0.08384644)		
Head age	0.392289 (0.37904931)	0.409523 (0.37821374)	
Head age <sup>2</sup>	-0.004595 (0.00500182)	-0.004827 (0.00499061)	
Policy dummy for non- SB families	-3.481546 (3.03811293)	-2.305907 (1.50221176)	-2.271075 (1.49937)
Policy dummy for SB families	-0.690004 (3.21083784)	0.508389 (2.06689629)	0.576836 (2.06583)
Difference in difference estimate	-2.79154 (2.29613)	-2.81430 (2.28289)	-2.847911 (2.28134)

N=542

\*, \*\*, \*\*\* Different from zero at 10, 5, and 1% significance respectively.

Standard errors are shown in parentheses.

Regressions include dummy variables for 11 of 12 regions, 3 quarters of the year, and 9 of 10 household composition categories.

Table 3-13 (a)  
Estimates of Private Transfers Received, Model 2

	OLS with trend & age	Tobit with trend & age	OLS, no trend	Tobit, no trend	OLS, no trend or age	Tobit, no trend or age
Intercept	-0.14138151 (2.91827949)	-23.206348*** (7.655887)	-0.19360408 (2.7849386)	-20.865872*** (7.337315)	5.38467094*** (0.85342525)	1.66408026 (2.014456)
Unemployment rate	0.32471194 (0.37179661)	-0.09125532 (0.8985438)	0.3385932 (0.24463959)	0.36682972 (0.5695834)	0.29080172 (0.24502542)	0.18965181 (0.5700774)
Unemployment rate <sup>2</sup>	-0.02285234 (0.0141786)	-0.03264529 (0.03591985)	-0.0235605** (0.01076665)	-0.03813397 (0.02633293)	-0.02249707** (0.01079969)	.03345466 (0.02640702)
Unemployment rate lagged	0.12264023 (0.30804675)	0.9904036 (0.7268758)	0.1410121 (0.20971717)	0.50688173 (0.4771737)	0.19452589 (0.2097886)	0.68000368 (0.4766606)
Unemployment rate interacted with SB	- 0.85527934*** (0.26506057)	-1.5939126** (0.6515641)	- 0.85548462*** (0.26479634)	-1.5831236** (0.6505191)	- 0.79089033*** (0.26487137)	-1.3611781** (0.6520691)
Unemployment rate <sup>2</sup> Interacted with SB	0.06356837*** (0.00917282)	0.16456239*** (0.02387417)	0.06352501*** (0.0091525856)	0.16398654*** (0.02380604)	0.06228951*** (0.00914144)	0.15943558*** (0.02386721)
Unemployment rate lagged interact w/SB	-0.41951651 (0.27878522)	-1.9203854*** (0.7147978)	-0.41868299 (0.27844551)	-1.9087454*** (0.7093949)	-0.46279766* (0.27913282)	-2.0696917*** (0.7138933)
Trend	-0.00341972 (0.45865406)	1.24580467 (1.093792)				
Trend <sup>2</sup>	0.00269153 (0.03867996)	-0.09834976 (0.09223894)				
Head age	0.34482856** (0.13808861)	1.4167753*** (0.3725671)	0.34501885** (0.1379785)	1.41165403*** (0.371756)		
Head age <sup>2</sup>	- 0.00508713*** (0.0017836)	- 0.02116636*** (0.00489018)	- 0.00508877*** (0.0017822938)	- 0.02110917*** (0.00488031)		

Table 3-13 (a) (continued)

	OLS with trend & age	Tobit with trend & age	OLS, no trend	Tobit, no trend	OLS, no trend or age	Tobit, no trend or age
Policy dummy, 1 child, no SB	-0.75925741 (1.42278178)	-0.36054753 (3.497571)	-0.67209501 (0.8794504)	0.15837189 (2.042567)	-0.44320448 (0.88002447)	1.12950 (2.04254)
Policy dummy, 2 children, no SB	-0.33874413 (1.41729464)	-1.8583313 (3.431549)	-0.25466921 (0.91677273)	-1.3441749 (2.02649)	-0.1881875 (0.91996171)	-1.06185 (2.04055)
Policy dummy, 3 children, no SB	-0.24677623 (1.60360497)	-0.9260163 (3.808033)	-0.1630045 (1.18259142)	-0.40891799 (2.598656)	-0.09719508 (1.18688168)	-0.12594 (2.62012)
Policy dummy, 4+ children, no SB	3.25866771 (2.41984278)	3.00213359 (5.518896)	3.34536991 (2.14609982)	3.5372421 (4.686083)	3.31725407 (2.15352795)	3.56801 (4.7250)
Policy dummy, 1 child, with SB	1.50981495 (1.48058635)	2.70599578 (3.76315)	1.59743457 (0.99004161)	3.09801572 (26.118311)	1.69508706* (0.99218889)	3.58185 (2.63089)
Policy dummy, 2 children, with SB	-1.2523913 (1.45325049)	-1.0390999 (3.619616)	-1.16757952 (0.99755394)	-0.73262564 (2.484478)	-1.30476791 (1.00022993)	-1.11017 (2.49428)
Policy dummy, 3 children, with SB	-0.68397861 (1.55919711)	0.61782925 (3.883997)	-0.60155291 (1.15509297)	1.07145864 (2.850939)	-0.67740217 (1.15818574)	1.04176 (2.87164)
Policy dummy, 4+ children, with SB	1.22329939 (1.80828132)	4.63664893 (4.427195)	1.30721747 (1.445327)	5.14505588 (3.475961)	1.08159353 (1.44763619)	4.49738 (3.50292)
<b>Difference in difference estimates:</b>						
1-child families	-2.26907236** (1.0927602)	-3.0665433 (2.785566)	-2.26952958** (1.09113995)	-2.9396438 (2.783758)	-2.13829153* (1.0944104)	-2.4523591 (2.798039)
2-child families	0.91364717 (1.12475838)	-0.81923148 (2.715306)	0.91291031 (1.12224241)	-0.61154924 (2.712223)	1.11658041 (1.12442721)	0.04832068 (2.725502)
3-child families	0.43720238 (1.35445971)	-1.5438456 (3.190683)	0.43854841 (1.35272274)	-1.4803766 (3.1894499)	5.8020708 (1.35624899)	-1.1677009 (3.213883)
4+-child families	2.03536832 (2.30393854)	-1.6345153 (5.138763)	2.03815244 (2.30215535)	-1.6078138 (5.137229)	2.23566054 (2.30689942)	-0.92936824 (5.17179)

N=1370

\*, \*\*, \*\*\* Different from zero at 10, 5, and 1% significance respectively.

Standard errors are shown in parentheses.

Regressions include dummy variables for 11 of 12 regions, 3 quarters of the year, and 9 of 10 household composition categories.

**Table 3-13 (b)**  
**Estimates of Private Transfers Received,**  
**Using Only Positive Observations, Model 2**

	OLS with trend & age	OLS, no trend	OLS, no trend or age
Intercept	3.97836 (7.70357)	1.949750 (7.42047363)	11.62290*** (1.79715)
Unemployment rate	0.72949 (0.81528)	0.667260 (0.51125945)	0.663206 (0.51105944)
Unemployment rate <sup>2</sup>	-0.01890 (0.03382)	-0.025314 (0.02460079)	-0.023593 (0.02457952)
Unemployment rate lagged	-0.51054 (0.65633)	-0.031510 (0.4177249)	-0.063606 (0.41711998)
Unemployment rate interacted with SB	-1.423324** (0.64470)	-1.446470** (0.64355084)	-1.482610** (0.64313811)
Unemployment rate <sup>2</sup> interacted with SB	0.092803*** (0.02401)	0.093535*** (0.02385847)	0.094070*** (0.02386399)
Unemployment rate lagged interact w/SB	-0.507281 (0.75100)	-0.500927 (0.74666943)	-0.492581 (0.74678530)
Trend	-0.686637 (0.99935)		
Trend <sup>2</sup>	0.083615 (0.08415)		
Head age	0.455850 (0.38197)	0.471635 (0.38115822)	
Head age <sup>2</sup>	-0.005328 (0.00504)	-0.005544 (0.00502451)	

Table 3-13 (b) (continued)

	OLS with trend & age	OLS, no trend	OLS, no trend or age
Policy dummy,	-2.325446	-1.600655	-1.560447
1 child, no SB	(3.26814)	(1.84554)	(1.84076)
Policy dummy,	-3.147445	-2.414679	-2.416337
2 children, no SB	(3.11637)	(1.70912)	(1.70855)
Policy dummy,	-4.682362	-3.873937*	-3.783308*
3 children, no SB	(3.43341)	(2.18903)	(2.18887)
Policy dummy,	3.500974	4.383839	4.433177
4+ children, no SB	(5.05158)	(4.14285)	(4.14385)
Policy dummy,	2.38694	3.138285	2.874000
1 child, with SB	(3.66437)	(2.67574)	(2.67121)
Policy dummy,	-1.23742	-0.357446	-0.243477
2 children, with SB	(3.40647)	(2.40678)	(2.40661)
Policy dummy,	-2.05699	-1.286815	-1.080224
3 children, with SB	(3.67529)	(2.73450)	(2.73160)
Policy dummy,	1.03550	1.826757	2.069486
4+ children, with SB	(4.20868)	(3.33494)	(3.33245)
<b>Difference in difference estimates:</b>			
1-child families	-4.712381*	-4.738940*	-4.434447
	(2.82063486)	(2.80971)	(2.80178)
2-child families	-1.910023	-2.057233	-2.172860
	(2.58914619)	(2.56934)	(2.56824)
3-child families	-2.625368	-2.587123	-2.703084
	(2.94498718)	(2.93576)	(2.93582)
4+-child families	2.465479	2.557082	2.363691
	(4.63974507)	(4.62390574)	(4.62306)

N=542

\*, \*\*, \*\*\* Different from zero at 10, 5, and 1% significance respectively.

Standard errors are shown in parentheses.

Regressions include dummy variables for 11 of 12 regions, 3 quarters of the year, and 9 of 10 household composition categories.

**Table 3-14 (a)**  
**Estimates of Private Transfers Received, Model 3**

	<b>OLS with trend &amp; age</b>	<b>Tobit with trend &amp; age</b>	<b>OLS, no trend</b>	<b>Tobit, no trend</b>	<b>OLS, no trend or age</b>	<b>Tobit, no trend or age</b>
Intercept	1.54125 (2.90653)	-22.09322*** (7.56812)	1.78955462 (2.77078112)	-20.425226*** (7.254075)	6.60723677*** (0.86482362)	3.03784633 (2.010627)
Unemployment rate	0.03200 (0.33943)	-0.44801 (0.79341)	-0.27379296 (0.22046916)	-0.33968043 (0.5115479)	-0.33965433 (0.22070009)	-0.57951623 (0.5108305)
Unemployment rate <sup>2</sup>	-0.00326 (0.01348)	0.00293 (0.03276)	0.00646283 (0.0110785)	0.006314923 (0.02669264)	0.00754004 (0.01111849)	0.01126148 (0.02673132)
Unemployment rate lagged	0.03250 (0.28645)	0.60567 (0.66017)	-0.02008459 (0.20630756)	0.23211666 (0.4628608)	0.04235224 (0.20623227)	0.4167339 (0.4626803)
Unemployment rate interacted with SB	0.40376 (0.29074)	1.12908 (0.73463)	0.37316808 (0.28969103)	1.1290685 (0.7321392)	0.41594564 (0.29062827)	1.29075204* (0.7356523)
Unemployment rate <sup>2</sup> interacted with SB	0.00335 (0.01375)	0.05135 (0.03793)	0.00449916 (0.01371635)	0.05139709 (0.03778351)	0.00481189 (0.01376826)	0.05315566 (0.03779745)
Unemployment rate lagged interact w/SB	-0.24727 (0.27598)	-2.00340*** (0.73010)	-0.24701677 (0.27591282)	-2.0076735*** (0.7268977)	-0.29793152 (0.27674503)	-2.2122733*** (0.7306307)
Trend	-0.19993 (0.41948)	0.68054 (0.98674)				
Trend <sup>2</sup>	-0.00236 (0.03655)	-0.06865 (0.08635)				
Head age	0.32625** (0.13621)	1.53226*** (0.36638)	0.32664251** (0.13618933)	1.52850*** (0.36594)		
Head age <sup>2</sup>	-0.00493*** (0.00176)	-0.02280*** (0.00481)	-0.00495*** (0.00176)	-0.02276*** (0.00481)		

Table 3-14 (a) (continued)

	OLS with trend & age	Tobit with trend & age	OLS, no trend	Tobit, no trend	OLS, no trend or age	Tobit, no trend or age
CB amount	0.547883 (0.3779293)	0.39851348 (0.861033)	0.443146 (0.368469)	0.402531 (0.82766)	0.68746* (0.36402)	1.3221621 (0.81985)
CB amount <sup>2</sup>	0.023662 (0.06060661)	-0.0064413 (0.129162)	0.032302 (0.06006433)	-0.0126599 (0.127583)	0.004138 (0.05984903)	-0.1134983 (0.127758)
SB amount	-0.345928*** (0.11548669)	0.04381879 (0.360768)	-0.346205*** (0.115457)	0.04906 (0.36055)	-0.30892*** (0.11416)	0.18379 (0.35804)
SB amount <sup>2</sup>	0.002596 (0.00396342)	-0.0449068*** (0.014252)	0.002573 (0.00396114)	-0.0452792 (0.014245)	-0.308919 (0.11416095)	-0.048175*** (0.014241)
<b>Marginal Effects of Government Transfers<sup>†</sup></b>						
CB amount	0.5992611** (0.2695335)	0.3845275 (0.6314967)	0.5132838** (0.260809)	0.3750426 (0.5997925)	0.6964408*** (0.2570402)	1.0757234** (0.5922589)
SB amount	-0.306328*** (0.0630416)	-0.641124*** (0.1712463)	-0.306953*** (0.0630315)	-0.641568*** (0.1710359)	-0.281876*** (0.0623558)	-0.551006*** (0.16904)
Public transfer income (restricted model) <sup>‡</sup>	-0.197895** (0.0913723)	-0.66552*** (0.2700177)	-0.198726** (0.0906266)	-0.665722*** (0.2651804)	-0.197895** (0.0913723)	-0.551119** (0.2629667)
<b>Difference in marginal effects</b>						
ME <sub>CB</sub> - ME <sub>SB</sub>	0.9055895*** (0.2703783)	1.0256515* (0.6369929)	0.8202369*** (0.261809)	1.0166106** (0.6068342)	0.9783167*** (0.2595162)	1.6267292*** (0.6031801)

N=1503

\*, \*\*, \*\*\* Different from zero at 10, 5, and 1% significance respectively.

<sup>†</sup> Evaluated at the Mean level of the appropriate benefit for the sample.<sup>‡</sup> CB and SB taken together.

Standard errors are shown in parentheses.

Regressions include dummy variables for 11 of 12 regions, 3 quarters of the year, and 9 of 10 household composition categories.

**Table 3-14 (b)**  
**Estimates of Private Transfers Received Using Sample of Positive Observations, Model 3**

	<b>OLS with trend &amp; age</b>	<b>OLS, no trend</b>	<b>OLS, no trend or age</b>
Intercept	7.978296 (7.70513721)	6.389345 (7.38112589)	14.082776 (1.82906984)
Unemployment rate	0.585129 (0.71982923)	0.091520 (0.48718907)	0.079574 (0.48482521)
Unemployment rate <sup>2</sup>	-0.003048 (0.03090702)	0.005374 (0.02578063)	0.007505 (0.02567443)
Unemployment rate lagged	-0.536567 (0.60350179)	-0.166174 (0.41279693)	-0.191284 (0.41126503)
Unemployment rate interacted with SB	0.001050 (0.72938226)	-0.047253 (0.72705342)	-0.020110 (0.72578025)
Unemployment rate <sup>2</sup> interacted with SB	0.012770 (0.03948645)	0.017172 (0.03919565)	0.013433 (0.03901467)
Unemployment rate lagged interact w/SB	-0.082671 (0.77684338)	-0.143206 (0.77278157)	-0.110728 (0.77117098)
Trend	-1.052653 (0.90609532)		
Trend <sup>2</sup>	0.077290 (0.08008247)		
Head age	0.379914 (0.37812795)	0.388418 (0.37740347)	
Head age <sup>2</sup>	-0.004669 (0.00499075)	-0.004815 (0.00498223)	

Table 3-14 (b) (continued)

	OLS with trend & age	OLS, no trend	OLS, no trend or age
CB amount	-0.190824 (0.83599453)	-0.433811 (0.77376346)	-0.434956 (0.76084479)
CB amount <sup>2</sup>	0.003942 (0.11209373)	0.030260 (0.10897304)	0.029792 (0.10816308)
SB amount	-0.628142* (0.35864209)	-0.631315* (0.35841343)	-0.683220* (0.35398309)
SB amount <sup>2</sup>	0.007863 (0.01446526)	0.007957 (0.01444731)	0.010050 (0.01429643)
<b>Marginal Effects of Government Transfers<sup>†</sup></b>			
Public transfer income (restricted model) <sup>‡</sup>	-0.44407** (0.25847)	-0.45259** (0.24974)	-0.47086** (0.24484)
CB amount	-0.17693 (0.52695)	-0.32714 (0.47367)	-0.32993 (0.46402)
SB amount	-0.56434** (0.25147)	-0.56675** (0.25127)	-0.60166*** (0.24810)
<b>Difference in marginal effects</b>			
ME <sub>CB</sub> - ME <sub>SB</sub>	0.38741 (0.32813)	0.23961 (0.27697)	0.27174 (0.27063)

N=542

\*, \*\*, \*\*\* Different from zero at 10, 5, and 1% significance respectively.

<sup>†</sup> Evaluated at the Mean level of the appropriate benefit for the sample.<sup>‡</sup> CB and SB taken together.

Standard errors are shown in parentheses.

Regressions include dummy variables for 11 of 12 regions, 3 quarters of the year, and 9 of 10 household composition categories.

**Table 3-15 (a)**  
**Summary of Effects of CB Policy Change on Budget Shares, Model 1,**  
**Difference in Difference Estimate**

Good Category	11 Good Budget		8 Good Budget	
	OLS	Tobit	OLS	Tobit
<b>Broad Goods</b>				
Alcohol	+	+	+	+
Clothing	+	+	+	+
Durables	+	+	NA	NA
Food in	-	-	-	-
Food out	-.***	-.**	-.***	-.***
Fuel	-	-	NA	NA
Housing	-	-	NA	NA
Misc.	-	-	-	-
Services	+	+	+	+
Tobacco	-	-	+	+
Transport	-	-	+	+
<b>Narrow Goods</b>				
Books	-	-	-	+
Cigarettes	-.***	-.**	-.**	-
Cosmetics	-.**	-.**	-.*	-
Domestic services	-	+	-	-
Hairdressing	-.***	-.***	-.***	-.***
Other tobacco	-	-	-	-
Pets	-	-	-	-
Kids' pocket money	-	-.*	-	+
Toys	-.**	-.**	-.*	-.**
Educational fees	+	+	-	-

N=1370.

Sign of coefficient and level of significance in percent (1, 5, and 10% threshold levels) are given if and only if the coefficient is significant at 10% or better. A blank cell indicates this significance level was not achieved. See Appendix for detailed results.

**Table 3-15 (b)**  
**Summary of Marginal Effects of CB Policy Change on Narrow Clothing Budget Shares, Model 1,**  
**Difference in Difference Estimate**

Good Category	11 Good Budget			8 Good Budget		
	Including 1973	Excluding 1973		Including 1973	Excluding 1973	
	OLS	Tobit	OLS	Tobit	OLS	Tobit
Men's clothing	+	+	+	+	+	+
Women's clothing	-	-	-*	-	-	-
Children's clothing	NA	NA	-	+	NA	NA

N=1370 when 1973 is included, 1229 otherwise.

Sign of coefficient and level of significance in percent (1, 5, and 10% threshold levels) are given if and only if the coefficient is significant at 10% or better. A blank cell indicates this significance level was not achieved. See Appendix for detailed results.

Table 3-16 (a)  
 Summary of Effects of CB Policy Change on Budget Shares, Model 2,  
 Difference in Difference Estimate

Good Category	11 Good Budget								8 Good Budget							
	OLS				Tobit				OLS				Tobit			
	D1	D2	D3	D4	D1	D2	D3	D4	D1	D2	D3	D4	D1	D2	D3	D4
Broad Goods	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Alcohol	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+
Clothing	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Durables	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Food in	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food out	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***
Fuel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Housing	+	-	-	-	+	-	-	-	+	-	-	-	+	-	-	-
Misc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Services	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transport	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Narrow Goods																
Books	+	+	+	-	-	-	-	-	-	-	-	-	+	+	+	-
Cigarettes	-.***	-.***	-.***	-.**	-.**	-.**	-.**	-.*	-.**	-.**	-.*	-.*	-.*	-	-	-
Cosmetics	-.**	-.**	-.**	-.**	-.**	-.**	-.**	-.**	-.*	-.*	-.*	-.*	-	-	-	-
Domestic svcs	-	-	-	-	+	-	+	+	-	-	-	-	-	-	-	+
Hairdressing	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***	-.***
Other tobacco	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	+
Pets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kids' pkt money	-	-	-	-	-.*	-.*	-.*	-.*	-	-	-	-	+	+	+	+
Toys	-.**	-.*	-.**	-.**	-.**	-.**	-.***	-.**	-.***	-.**	-.***	-.**	-.***	-.**	-.***	-.*
Educational fees	+	-	+	+	+	+	+	+	-	-	-	-	-	-	-	-

N=1370

Sign of coefficient and level of significance (1, 5, and 10% threshold levels) are given if and only if the coefficient is significant at 10% or better. A blank cell indicates this significance level was not achieved. See Appendix for detailed results.

**Table 3-16 (b)**  
**Summary of Marginal Effects of CB Policy Change on Narrow Clothing Budget Shares, Model 2,**  
**Difference in Difference Estimate (Excludes Apr.-Dec.1976)**

Good Category	11 Good Budget							
	Including 1973				Excluding 1973			
	OLS		Tobit		OLS		Tobit	
	D1	D2	D3	D4	D1	D2	D3	D4
Men's clothing	-	-	-	+	+	-	+	+
Women's clothing	-	-	-	-	-	-	-*	-*
Children's clothing	NA	NA	NA	NA	NA	NA	+	+

Good Category	8 Good Budget							
	Including 1973				Excluding 1973			
	OLS		Tobit		OLS		Tobit	
	D1	D2	D3	D4	D1	D2	D3	D4
Men's clothing	+	-	+	-	+	-	+	+
Women's clothing	+	+	+	+	+	+	+	+
Children's clothing	NA	NA	NA	NA	NA	NA	-	-

N=1370 when 1973 is included, 1229 otherwise.

Sign of coefficient and level of significance in percent (1, 5, and 10% threshold levels) are given if and only if the coefficient is significant at 10% or better. A blank cell indicates this significance level was not achieved. See Appendix for detailed results.

**Table 3-17 (a)**  
**Summary of Effects of CB Policy Change on Budget Shares, Model 3**

Good Category	11 Good Budget		8 Good Budget	
	OLS	Tobit	OLS	Tobit
<b>Broad Goods</b>				
Alcohol	+	+	+	-
Clothing	+	-	-	-
Durables	-**	-**	NA	NA
Food in	+	+	+**	+**
Food out	-	-	-	-
Fuel	+	+	NA	NA
Housing	+	+	NA	NA
Misc.	-	-	-*	-*
Services	-	-	-*	-*
Tobacco	+	+	+	+
Transport	+***	+***	+	+
<b>Narrow Goods</b>				
Books	-**	-**	-*	-**
Cigarettes	+	+	+	+
Cosmetics	-	-	-	-
Domestic services	+	-	+	-
Hairdressing	-	-	+	+
Other tobacco	-	-	-	-
Pets	+	+	+	-
Kids' pocket money	-	-**	-	-
Toys	-	-	-	-
Educational fees	-***	-*	-***	-**

N=1503.

Sign of coefficient and level of significance in percent (1, 5, and 10% threshold levels) are given if and only if the coefficient is significant at 10% or better. A blank cell indicates this significance level was not achieved. See Appendix for detailed results.

**Table 3-17 (b)**  
**Summary of Marginal Effects of CB Policy Change on Narrow Clothing Budget Shares, Model 3**

Good Category	11 Good Budget				8 Good Budget			
	Including 1973		Excluding 1973		Including 1973		Excluding 1973	
	OLS	Tobit	OLS	Tobit	OLS	Tobit	OLS	Tobit
Men's clothing	+	+	+	+	+	+	+	+
Women's clothing	-	-	-	-	-	-	-	-
Children's clothing	NA	NA	+	+	NA	NA	+	+

N=1503 when 1973 is included, 1362 when excluded.  
 Sign of coefficient and level of significance in percent (1, 5, and 10% threshold levels) are given if and only if the coefficient is significant at 10% or better. A blank cell indicates this significance level was not achieved. See Appendix for detailed results.

**Table 3-18 (a)**  
**Summary of Difference in Marginal Effects on Budget Shares**  
**of CB versus Other Income, Model 3**

Good Category	11 Good Budget		8 Good Budget	
	OLS	Tobit	OLS	Tobit
<b>Broad Goods</b>				
Alcohol	+	+	+	+
Clothing	+	+	-	-
Durables	-*	-*	NA	NA
Food in	+	+	+	+
Food out	-	-	-	-
Fuel	-	-	NA	NA
Housing	+	+	NA	NA
Misc.	-	-	-*	-*
Services	-	-	-**	-**
Tobacco	+	+	+	+
Transport	+***	+***	+**	+**
<b>Narrow Goods</b>				
Books	-**	-*	-*	-**
Cigarettes	+	+	+	+
Cosmetics	-	-	-	-
Domestic services	+	-	+	-
Hairdressing	-	+	+	+
Other tobacco	-	-	-	-
Pets	+	+	+	-
Kids' pocket money	-	-*	-	-
Toys	-	-	-	-
Educational fees	-***	-	-***	-*

Difference shown is marginal effect of CB less marginal effect of other income. Thus, a negative difference indicates  $ME_{CB} < ME_{OTHER}$ .

N=1503.

Sign of coefficient and level of significance in percent (1, 5, and 10% threshold levels) are given if and only if the coefficient is significant at 10% or better. A blank cell indicates this significance level was not achieved. See Appendix for detailed results.

**Table 3-18 (b)**  
**Summary of Difference in Marginal Effects on Narrow Clothing Budget Shares**  
**of CB versus Other Income, Model 3**

Good Category	11 Good Budget			8 Good Budget		
	Including 1973	Excluding 1973	Including 1973	Including 1973	Excluding 1973	Excluding 1973
	OLS	Tobit	OLS	Tobit	OLS	Tobit
Men's clothing	+	+	+	+	+	+
Women's clothing	-	-	-	-	-	-
Children's clothing	NA	NA	+	+	NA	+

Difference shown is marginal effect of CB less marginal effect of other income. Thus, a negative difference indicates  $ME_{CB} < ME_{OTHER}$ .

N=1503 when 1973 is included, 1362 when excluded.

Sign of coefficient and level of significance in percent (1, 5, and 10% threshold levels) are given if and only if the coefficient is significant at 10% or better. A blank cell indicates this significance level was not achieved. See Appendix for detailed results.

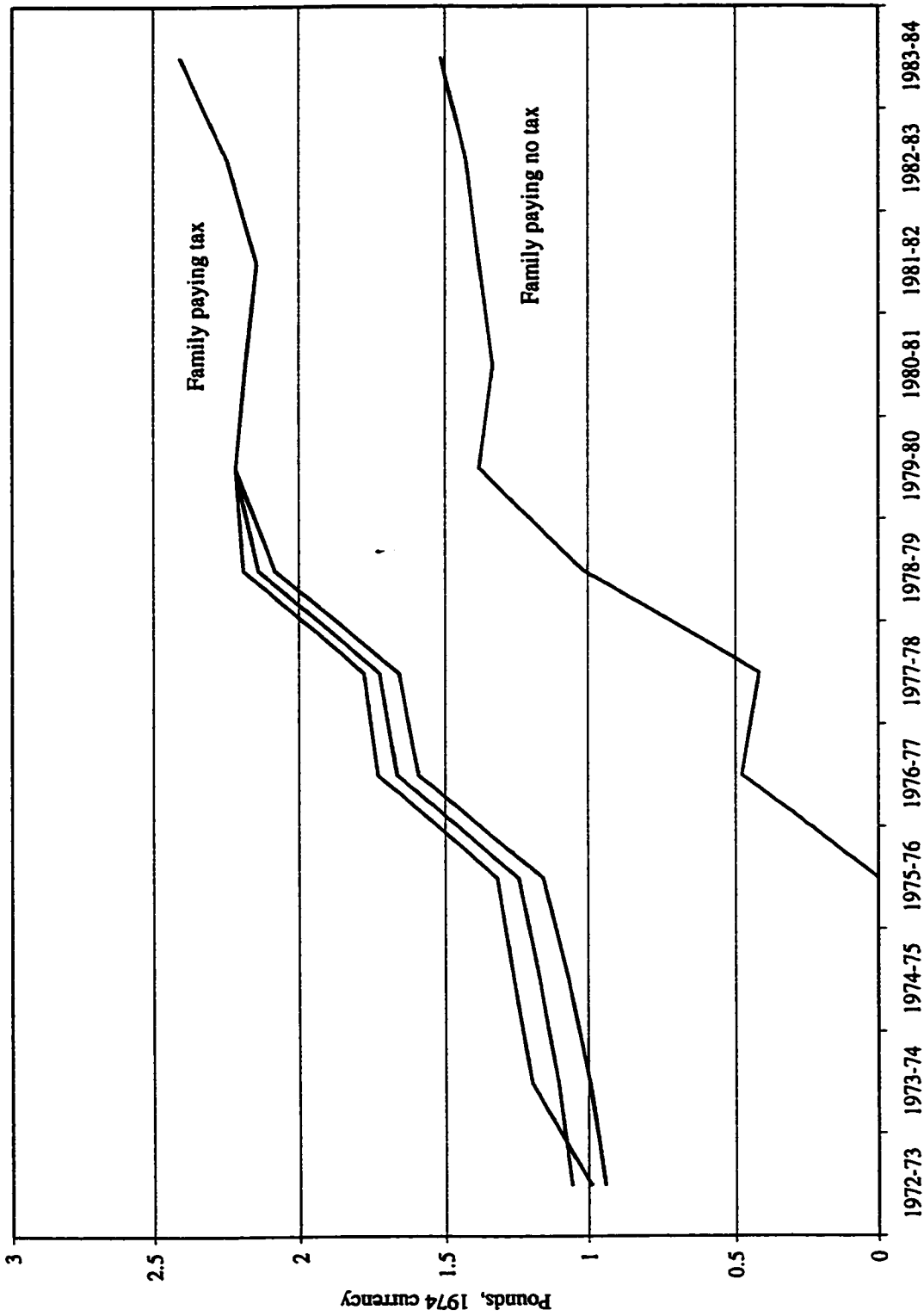
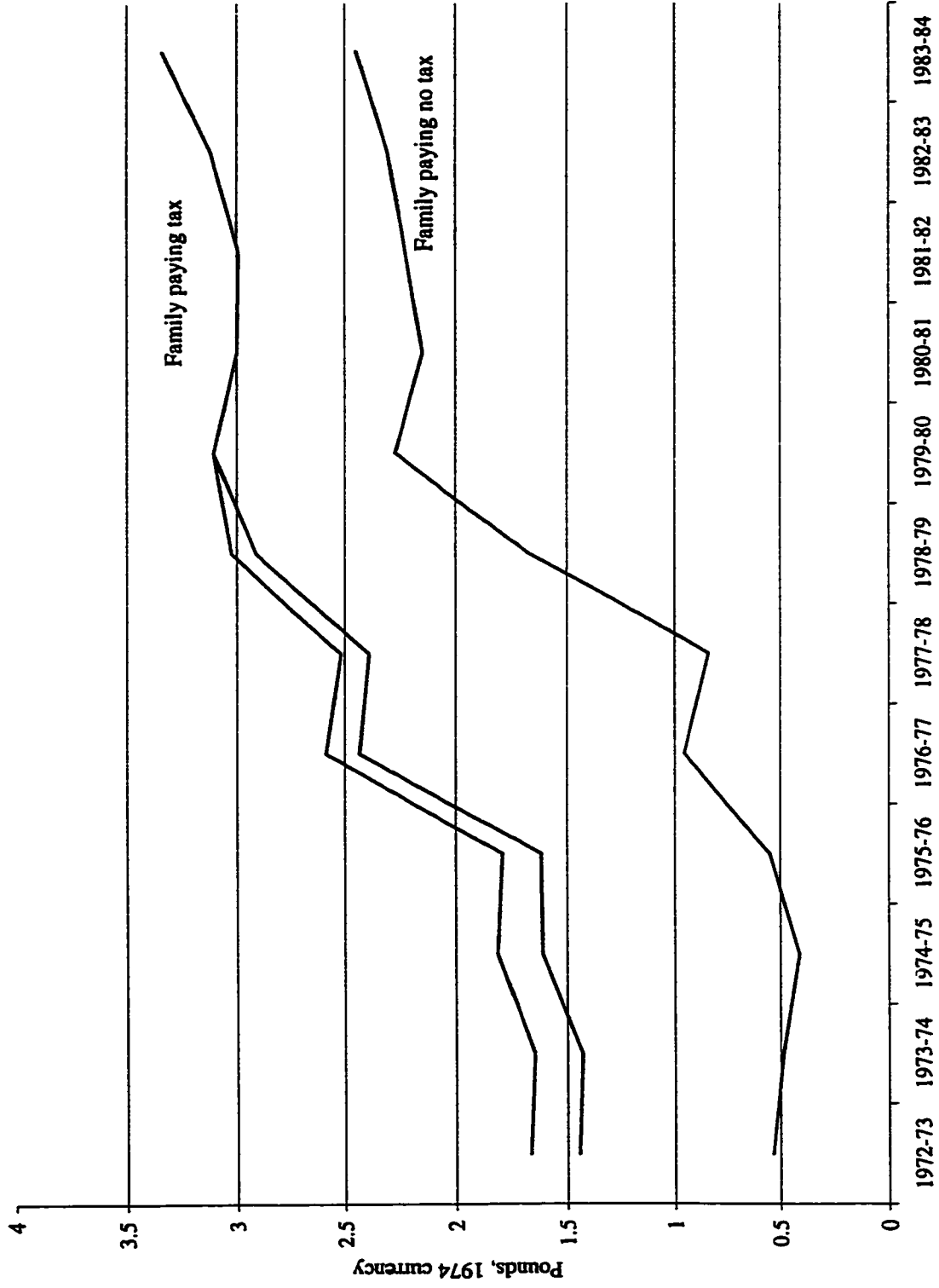
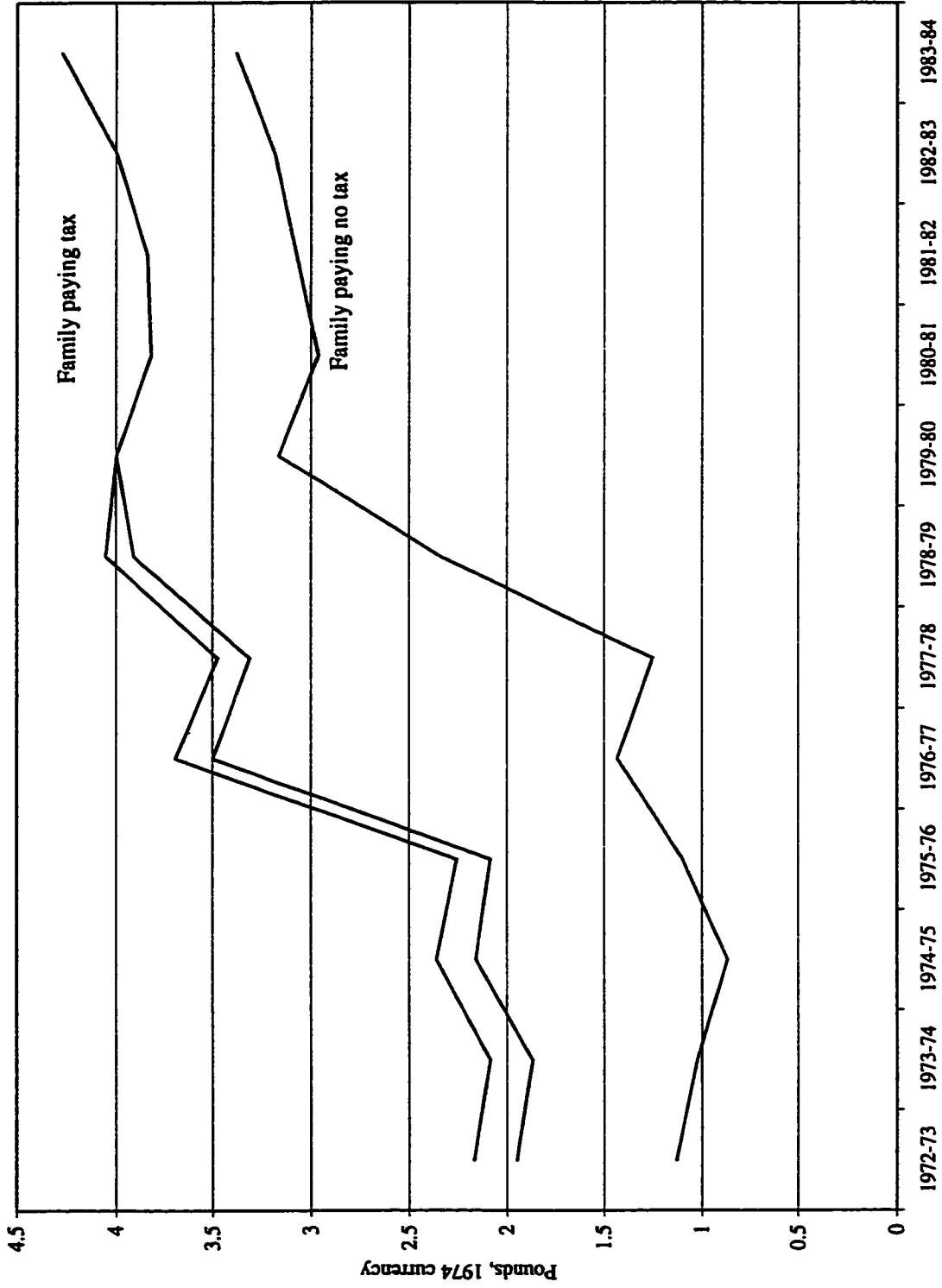


Figure 3-1  
Real Weekly Value of CB Program Including Tax Allowance, One-Child Family



**Figure 3-2**  
**Real Value of CB Program Including Tax Allowance, 2-Child Family**



**Figure 3-3**  
**Real Value of CB Program Including Tax Allowance, 3-Child Family**

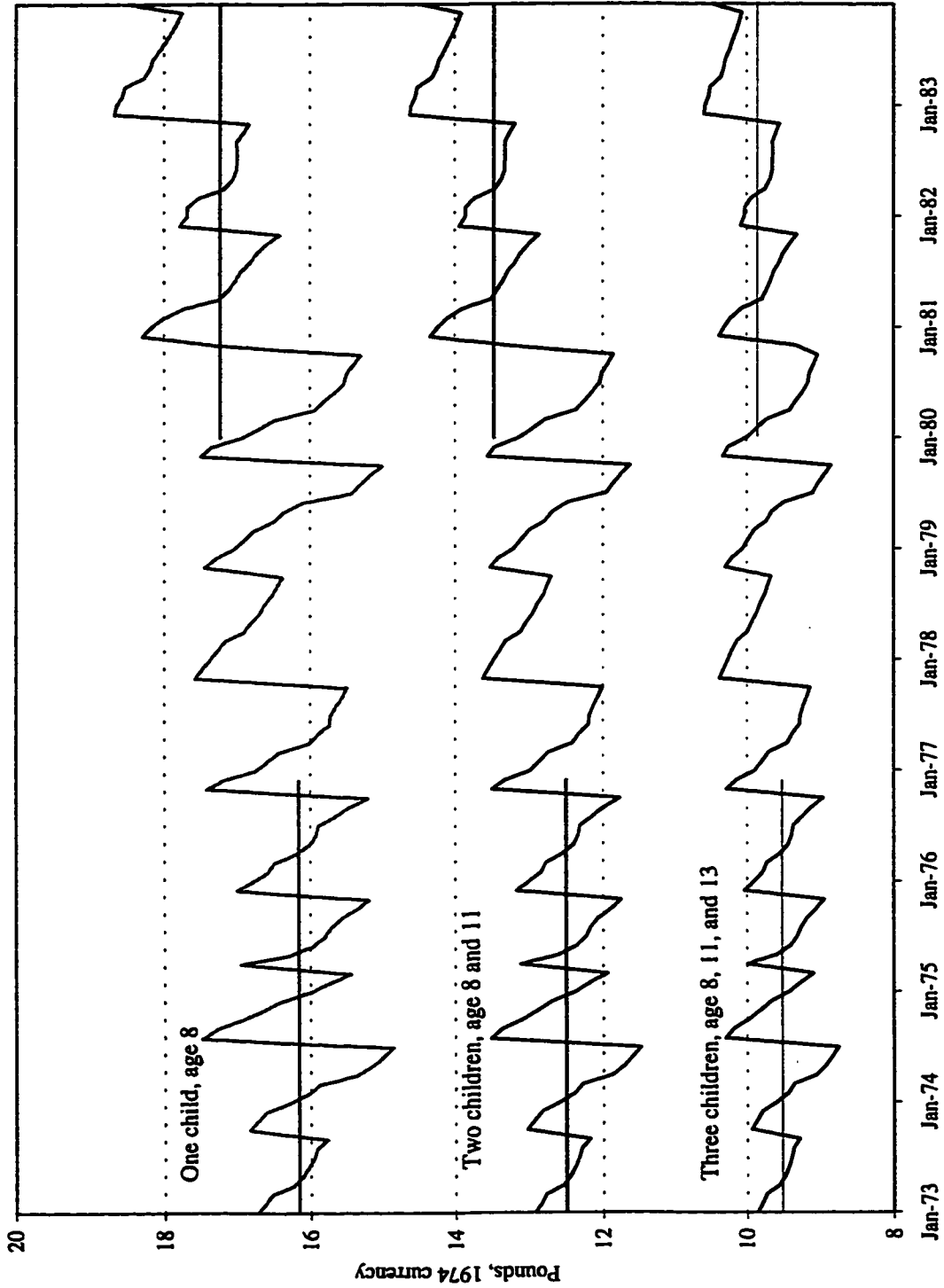
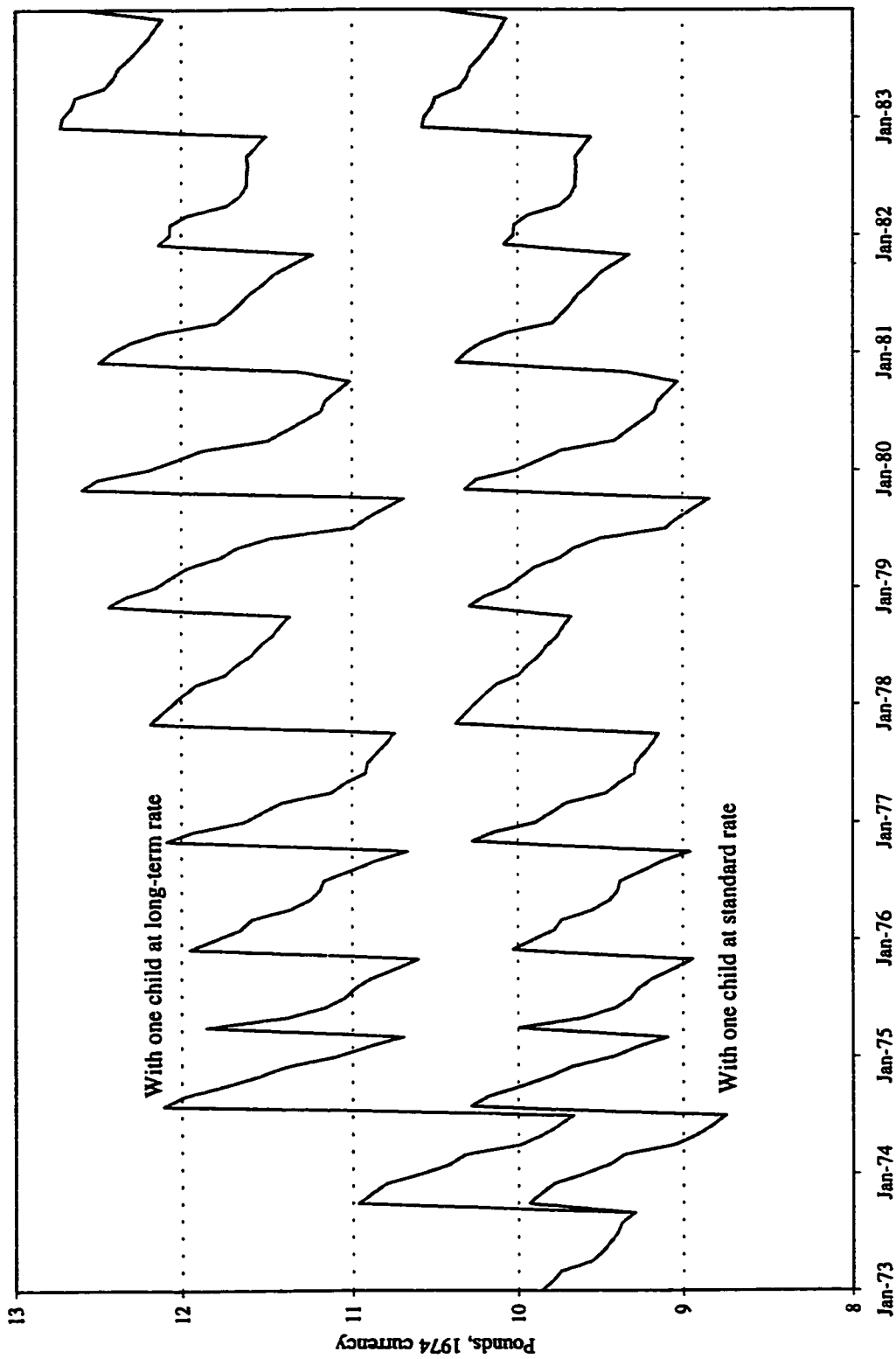
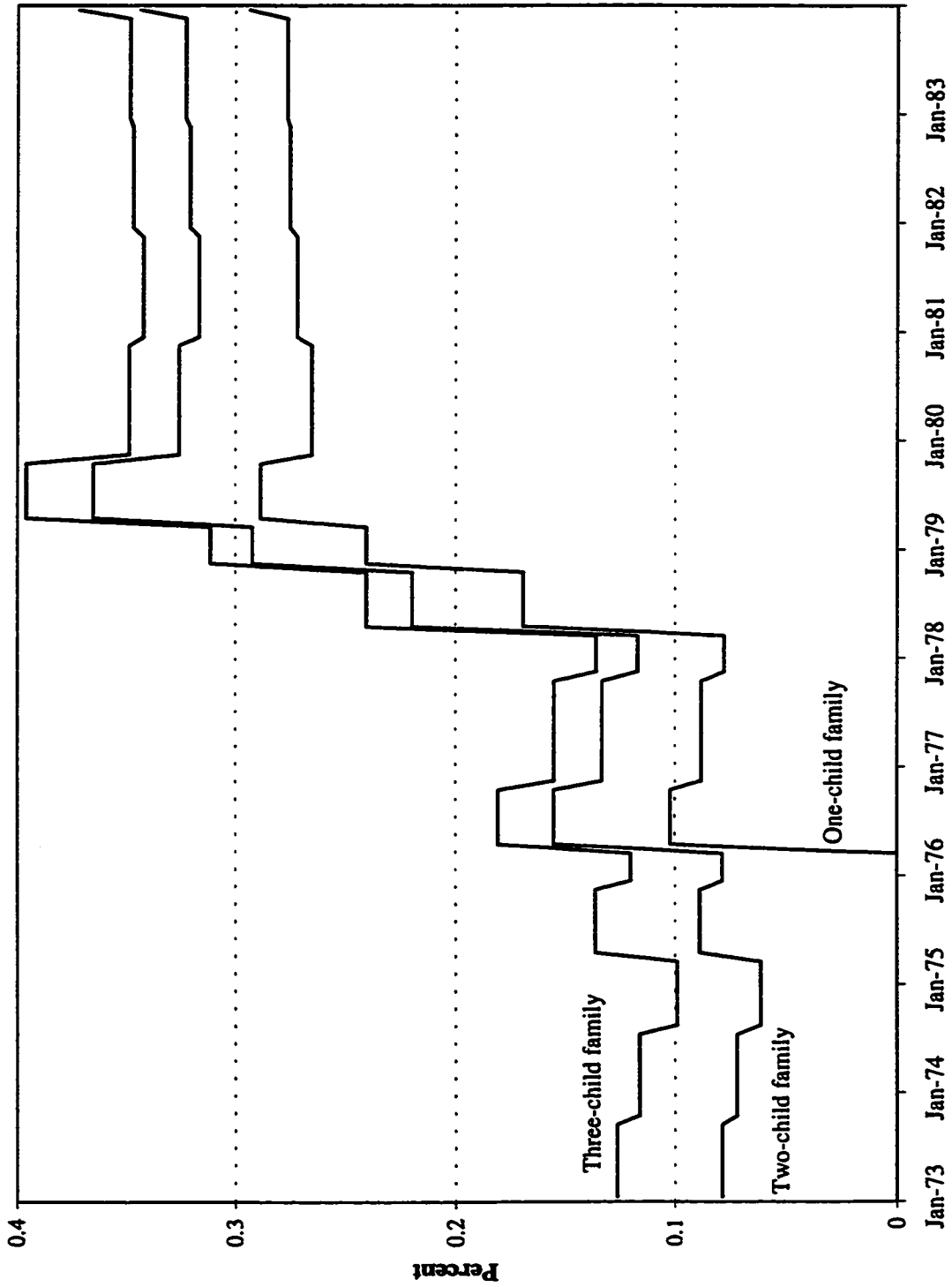


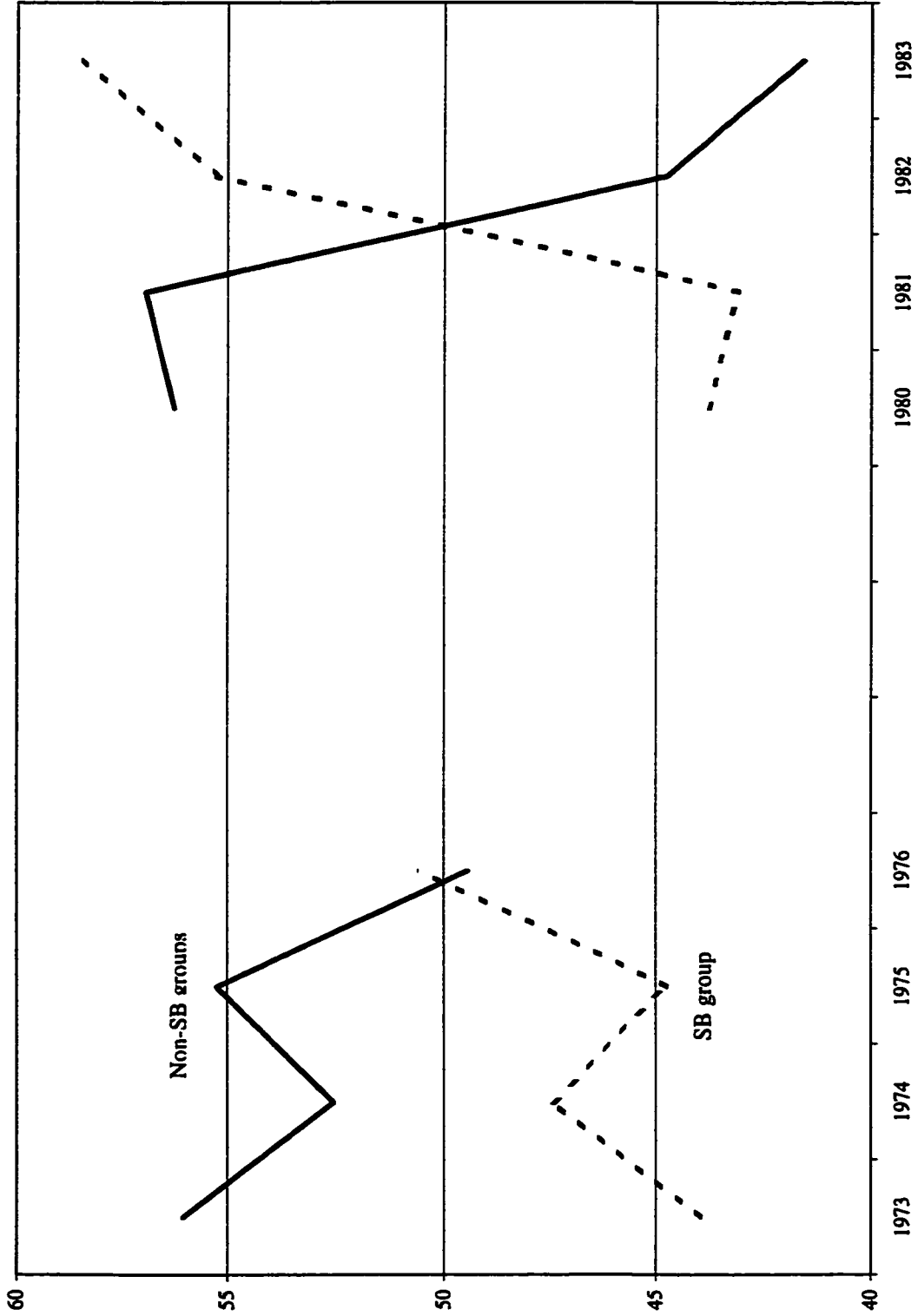
Figure 3-4  
Real Weekly Value of SB at Standard Rate



**Figure 3-5**  
**Real Weekly Value of SB, Standard versus Long-Term Rate**



**Figure 3-6**  
**Child Benefit as a Percent of Supplementary Benefit**



**Figure 3-7**  
**SB and Non-SB Groups as Percent of Total Lone-Mother Households**

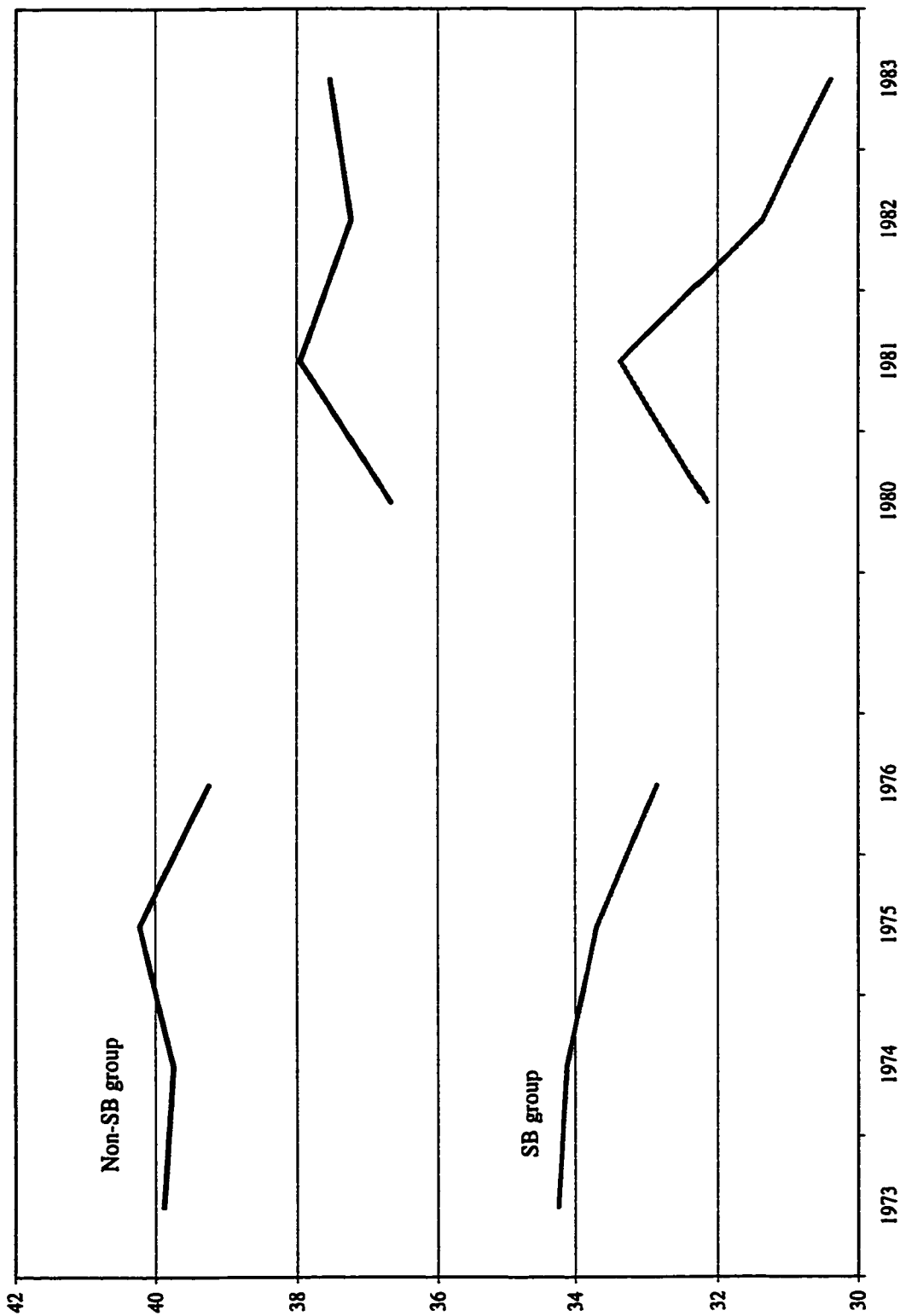
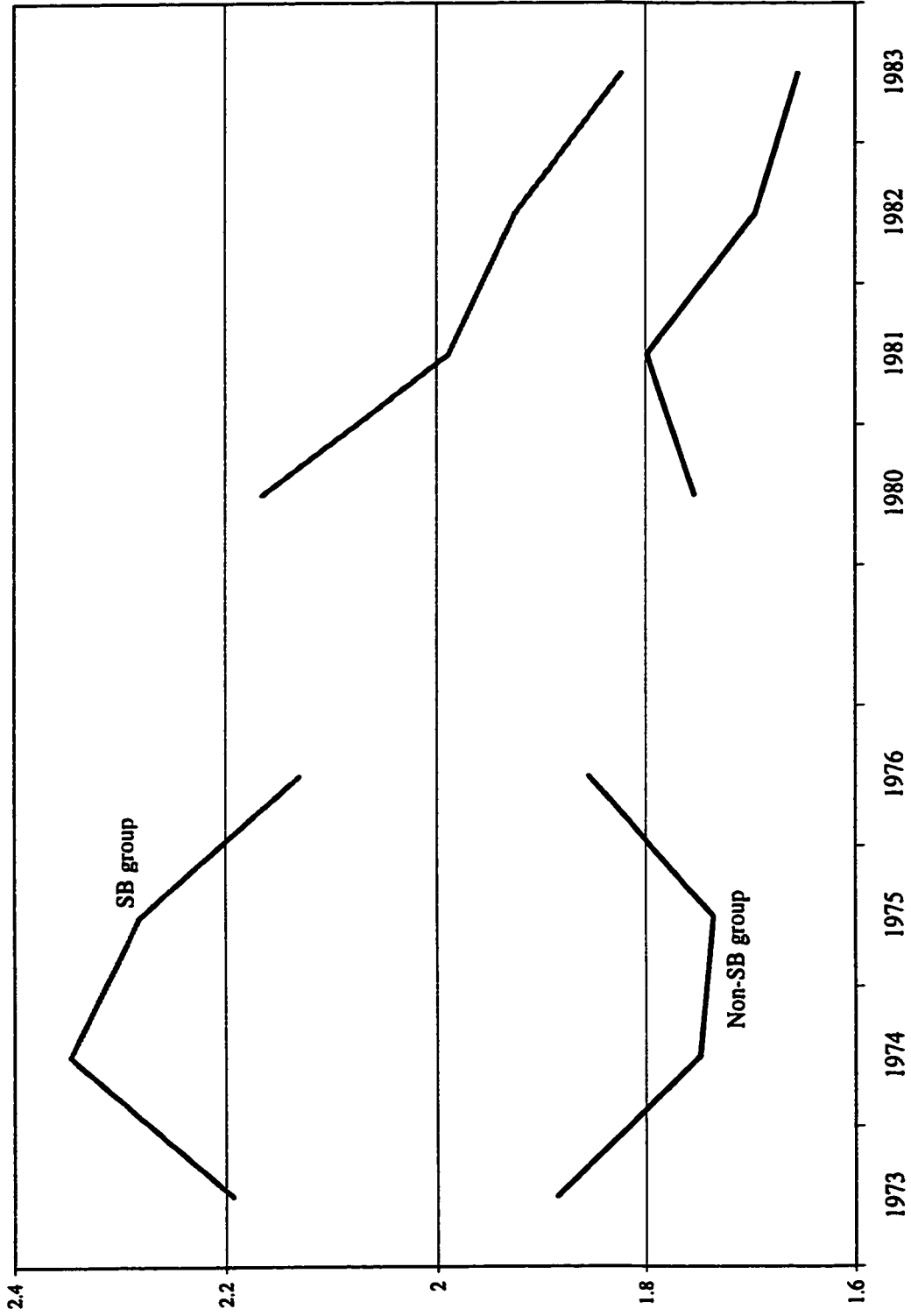
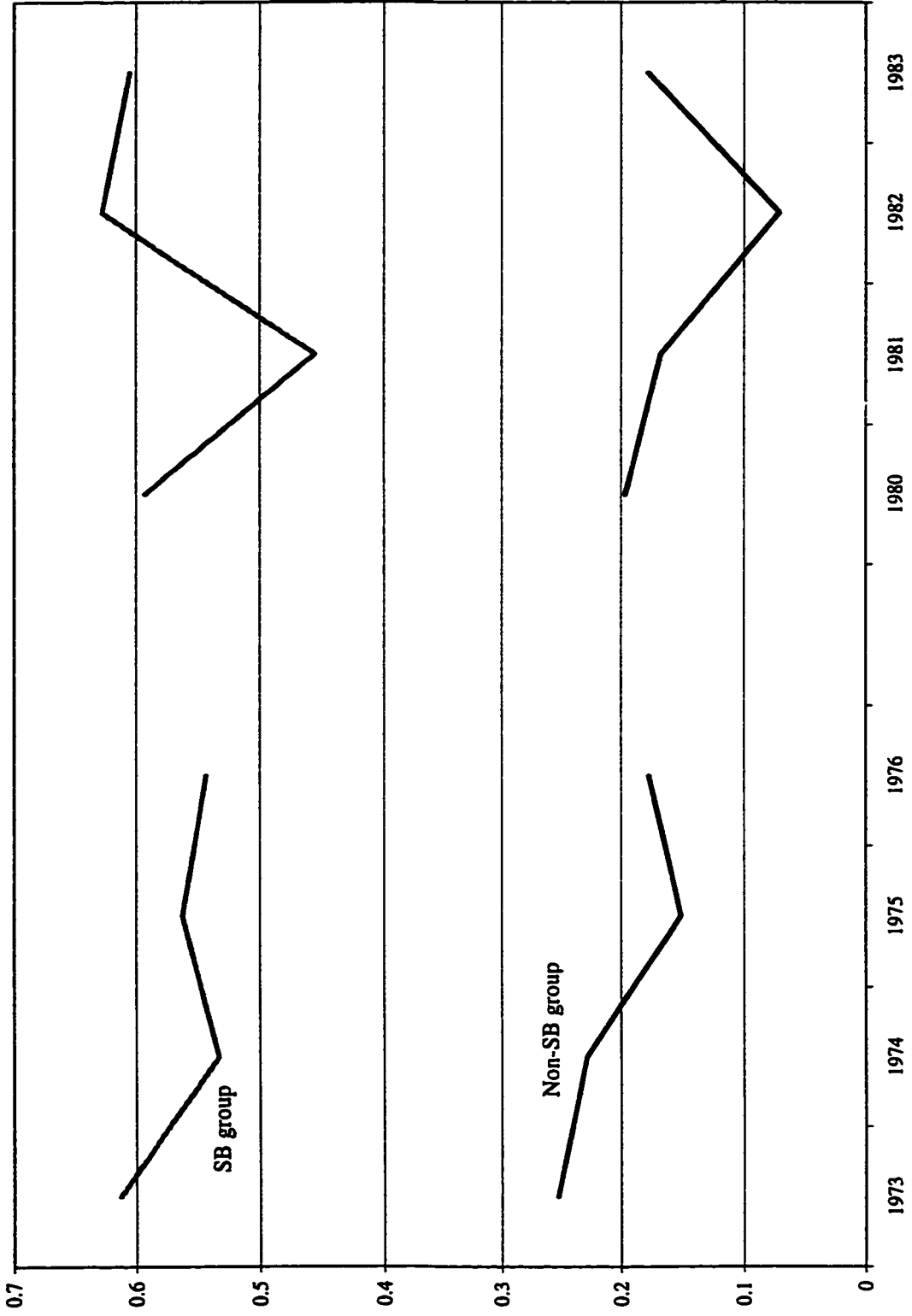


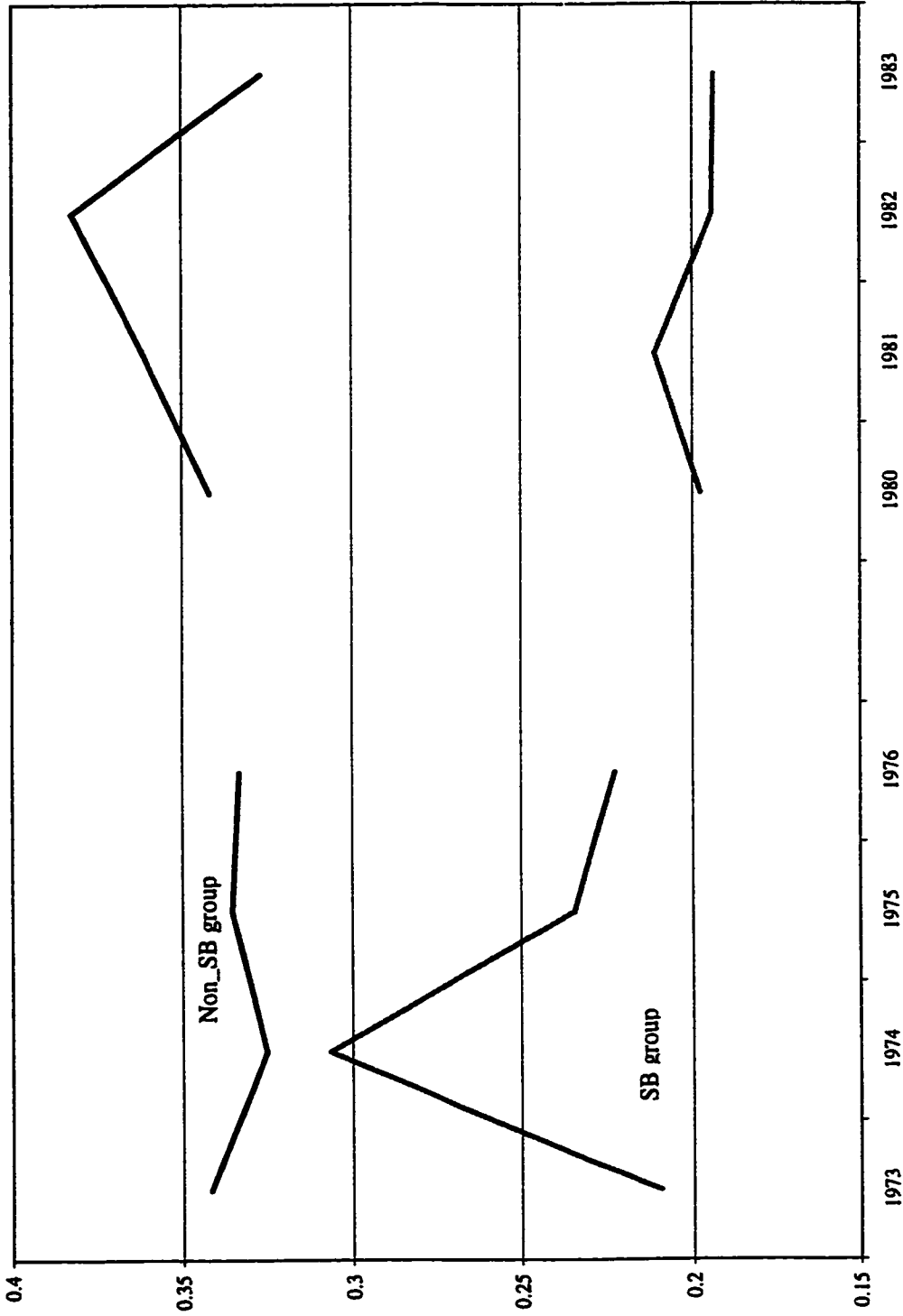
Figure 3-8  
Mean Age of Female Heads by Group



**Figure 3-9**  
**Mean Number of Children per Household by Group**



**Figure 3-10**  
**Mean Number of Children under Age 5 per Household by Group**



**Figure 3-11**  
**Mean Number of Children Aged 13 to 17 per Household by Group**

## **Chapter Four**

### **Conclusion to Essays on Intrahousehold Allocation**

This dissertation examines measurable outcomes of intrahousehold allocation decisions. In evaluating effects on expenditures, labor supply, and private transfer income of a Child Benefit policy change, it tests several implications of economic theories which are commonly applied to families.

Using data on two-parent families, results herein provide strong and convincing evidence against the traditional unitary model of the household. Significant shifts in both expenditure patterns and labor supply behavior occurred coincident with an exogenous shift in the apparent control of income in the household. These findings are inconsistent with the unitary model. A more general model of the household is required to accurately represent the process of decision making in families.

Using a model which is consistent with observed behavior is imperative for purposes such as predicting responses to changes in policy. For example, the unitary model predicts that the household allocation process will negate the effects of any effort to direct welfare improvements to particular members of households, such as children, women, the elderly, or the disabled. Although the latter two groups were not represented in the empirical work herein, the results of this work has implications for policy affecting these groups.

Further work might, given appropriate experiments and data, begin to test competing household bargaining models against one another. Changes in property rights laws as they pertain to women, changes in divorce laws, and changes in certain tax provisions may provide some basis for further exploring the process of household allocation. In particular, I would like to see further work examining labor supply with respect to household bargaining issues, using data better suited to an investigation of labor supply than that used in this study.

In lone-parent families, findings are equally interesting. The lack of significant crowding out of earned income and private transfer income begs us to reevaluate some of our assumptions. If private transfers are predominantly driven by altruism, then crowding out should be discernable. Lack of crowding out of private transfers may indicate that exchange and "warm glow" are primary motives for private transfer income provided to lone-mother families, and that altruism is not as important as may have been believed.

Inelastic labor supply of working lone mothers should perhaps not be quite so surprising. Since these women are heads of households, and presumably the only breadwinners in their families, we might expect their labor supply responses to be similar to those of married men. Results found here may suggest that there are differences in preferences among lone mothers regarding market work, and that those who have less distaste for market work may have inelastic labor supplies. Further analyses of lone mothers' responses to experimental changes in factors affecting their labor supply would benefit welfare reform debates.

These results did not find that lone mothers appeared to allocate Child Benefit primarily to child goods. Ensuring allocation of transfers to targeted individuals within families may depend on the bargaining power those individuals have within the family. If children do not have much bargaining power, then transfers to benefit them will be effective only to the degree that household members who do have power are altruistic towards them.

An overall theme here is that we should use great care in choosing an economic model when families are involved. Families are not individuals, and we cannot treat them as such. Even if there is apparently a sole decision maker, such as in the case of lone-parent households, we should consider the possibility that interhousehold or interfamily interactions may play a role.

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## Appendix: Detailed Expenditures Estimates for Chapter Three

### Table A-1: Model 1 Results for 11 Good Budget

OLS Model		for SHRALCH				
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F	
Model	42	0.07960	0.00190	3.176	0.0001	
Error	1327	0.79197	0.00060			
C Total	1369	0.87158				
Root MSE	0.02443	R-square	0.0913			
Dep Mean	0.01276	Adj R-sq	0.0626			
C.V.	191.38366					

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.206486	0.34674228	-0.596	0.5516
SB	1	-0.005207	0.00236476	-2.202	0.0278
TREND	1	0.000966	0.01402970	0.069	0.9451
TRENDSQ	1	0.000388	0.00051881	0.747	0.4552
P_FOOD	1	-0.061975	0.09636046	-0.643	0.5202
P_ALCH	1	-0.013675	0.11209961	-0.122	0.9029
P_TOBCO	1	-0.013161	0.03827234	-0.344	0.7310
P_CLOTH	1	0.215830	0.18219977	1.185	0.2364
P_TSPRT	1	0.093833	0.07062319	1.329	0.1842
P_MISC	1	0.013519	0.09693533	0.139	0.8891
P_SVCS	1	0.083985	0.07393778	1.136	0.2562
P_FDOUT	1	-0.238620	0.13953903	-1.710	0.0875
P_HOUS	1	0.044978	0.05508088	0.817	0.4143
P_FUEL	1	-0.045860	0.04461524	-1.028	0.3042
P_DURBL	1	-0.028983	0.14989161	-0.193	0.8467
LRTOTEXP	1	0.007898	0.00169664	4.655	0.0001
DREG1	1	-0.002919	0.00330929	-0.882	0.3778
DREG2	1	0.001914	0.00281169	0.681	0.4961
DREG3	1	-0.001631	0.00348803	-0.468	0.6401
DREG4	1	0.000658	0.00407481	0.161	0.8718
DREG6	1	-0.004220	0.00245763	-1.717	0.0862
DREG7	1	0.004467	0.00322171	1.387	0.1658
DREG8	1	0.005934	0.00348217	1.704	0.0886
DREG9	1	-0.004708	0.00280306	-1.679	0.0933
DREG10	1	-0.002334	0.00256750	-0.909	0.3634
DREG11	1	0.000594	0.00275303	0.216	0.8292
DREG12	1	0.003410	0.00529778	0.644	0.5199
DHHC0	1	-0.004893	0.00304638	-1.606	0.1085
DHHC1	1	0.001288	0.00379852	0.339	0.7347
DHHC2	1	0.001287	0.00208620	0.617	0.5375
DHHC3	1	0.010053	0.00221396	4.541	0.0001
DHHC4	1	-0.007564	0.00427483	-1.769	0.0771
DHHC6	1	0.000052591	0.00306192	0.017	0.9863
DHHC7	1	-0.005874	0.01021681	-0.575	0.5655
DHHC8	1	-0.002039	0.00247272	-0.824	0.4099
DHHC9	1	-0.007360	0.00510947	-1.440	0.1500
DHHC10	1	-0.001156	0.00355748	-0.325	0.7453
DQTR2	1	0.003176	0.00504864	0.629	0.5294
DQTR3	1	0.006801	0.00593364	1.146	0.2520
DQTR4	1	0.007501	0.00707945	1.060	0.2895
HEADAGE	1	-0.000313	0.00008996	-3.481	0.0005
DPOL	1	0.000373	0.02227319	0.017	0.9866
DPOL_SB	1	0.000952	0.02223944	0.043	0.9659
TESTPOL	1	0.000952	0.02223944	0.043	0.9659

Table A-1 (continued)

Tobit Model for SHRALCH  
 Noncensored Values= 619 Right Censored Values= 0  
 Left Censored Values= 751 Interval Censored Values= 0

Log Likelihood for NORMAL 683.86646971

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.6232831	0.69369	0.80731	0.3689
SB	1	-0.0174333	0.00493	12.50212	0.0004
TREND	1	0.00999792	0.02795	0.127956	0.7206
TRENDSQ	1	0.00128405	0.00103	1.553421	0.2126
P_FOOD	1	-0.0656517	0.190746	0.118462	0.7307
P_ALCH	1	0.06881883	0.230434	0.089191	0.7652
P_TOBCO	1	-0.0724122	0.077234	0.87903	0.3485
P_CLOTH	1	0.71490066	0.377021	3.595512	0.0579
P_TSPRT	1	0.06073766	0.143156	0.180011	0.6714
P_MISC	1	-0.1894963	0.197287	0.92258	0.3368
P_SVCS	1	0.17221908	0.14812	1.351868	0.2450
P_FDOUT	1	-0.7907163	0.295291	7.170374	0.0074
P_HOUS	1	0.0937703	0.109469	0.733756	0.3917
P_FUEL	1	0.00658491	0.089375	0.005428	0.9413
P_DURBL	1	0.1380938	0.297906	0.214876	0.6430
LRTOTEXP	1	0.02697347	0.003419	62.23485	0.0001
DREG1	1	0.0037489	0.006462	0.336619	0.5618
DREG2	1	0.00749423	0.00558	1.803741	0.1793
DREG3	1	0.00306848	0.006905	0.197486	0.6568
DREG4	1	0.00579391	0.007851	0.544669	0.4605
DREG6	1	-0.004326	0.004879	0.786184	0.3753
DREG7	1	0.01224752	0.006286	3.796001	0.0514
DREG8	1	0.01447526	0.006817	4.509512	0.0337
DREG9	1	-0.0051286	0.005628	0.830423	0.3622
DREG10	1	-0.000465	0.005135	0.008198	0.9279
DREG11	1	0.00382819	0.005415	0.499791	0.4796
DREG12	1	0.00988277	0.010378	0.906856	0.3410
DHHC0	1	-0.0110549	0.006233	3.146064	0.0761
DHHC1	1	0.00522376	0.007517	0.482982	0.4871
DHHC2	1	0.00398577	0.004095	0.947439	0.3304
DHHC3	1	0.0188065	0.004267	19.42508	0.0001
DHHC4	1	-0.0211577	0.009409	5.056133	0.0245
DHHC6	1	-0.0028304	0.006229	0.206465	0.6496
DHHC7	1	-0.0222468	0.026494	0.70511	0.4011
DHHC8	1	-0.0023111	0.004859	0.226243	0.6343
DHHC9	1	-0.0253672	0.011784	4.633827	0.0313
DHHC10	1	-0.0071709	0.007464	0.923104	0.3367
DQTR2	1	0.01654333	0.010264	2.597857	0.1070
DQTR3	1	0.02748186	0.012114	5.14668	0.0233
DQTR4	1	0.03109695	0.01463	4.518211	0.0335
HEADAGE	1	-0.0007077	0.00018	15.46402	0.0001
DPOL	1	0.01939044	0.044638	0.188698	0.6640
DPOL_SB	1	0.02954391	0.044655	0.437728	0.5082
TESTPOL	1	0.02954391	0.044655	0.437728	0.5082

Table A-1 (continued)

OLS Model		for SHRCLOTH			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	1.90233	0.04529	7.552	0.0001
Error	1327	7.95893	0.00600		
C Total	1369	9.86126			
Root MSE	0.07744	R-square	0.1929		
Dep Mean	0.08309	Adj R-sq	0.1674		
C.V.	93.20786				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.864407	1.09920564	-0.786	0.4318
SB	1	0.004901	0.00749652	0.654	0.5134
TREND	1	-0.034182	0.04447547	-0.769	0.4423
TRENDSQ	1	0.001781	0.00164467	1.083	0.2792
P_FOOD	1	0.248335	0.30547173	0.813	0.4164
P_ALCH	1	0.263970	0.35536630	0.743	0.4577
P_TOBCO	1	0.160960	0.12132690	1.327	0.1848
P_CLOTH	1	0.805186	0.57759041	1.394	0.1635
P_TSPRT	1	-0.086511	0.22388217	-0.386	0.6993
P_MISC	1	-0.444776	0.30729412	-1.447	0.1480
P_SVCS	1	0.231184	0.23438971	0.986	0.3242
P_FDOUT	1	-0.343694	0.44235187	-0.777	0.4373
P_HOUS	1	-0.225150	0.17461158	-1.289	0.1975
P_FUEL	1	-0.038926	0.14143452	-0.275	0.7832
P_DURBL	1	-0.335159	0.47517050	-0.705	0.4807
LRTOTEXP	1	0.077522	0.00537849	14.413	0.0001
DREG1	1	0.027077	0.01049078	2.581	0.0100
DREG2	1	0.020081	0.00891332	2.253	0.0244
DREG3	1	0.020165	0.01105740	1.824	0.0684
DREG4	1	-0.003154	0.01291755	-0.244	0.8072
DREG6	1	-0.005698	0.00779092	-0.731	0.4647
DREG7	1	-0.001183	0.01021312	-0.116	0.9078
DREG8	1	0.010269	0.01103880	0.930	0.3524
DREG9	1	0.003606	0.00888595	0.406	0.6849
DREG10	1	0.010680	0.00813920	1.312	0.1897
DREG11	1	0.022330	0.00872737	2.559	0.0106
DREG12	1	0.014009	0.01679446	0.834	0.4043
DHHC0	1	-0.006909	0.00965732	-0.715	0.4745
DHHC1	1	0.045462	0.01204166	3.775	0.0002
DHHC2	1	0.015659	0.00661344	2.368	0.0180
DHHC3	1	0.005822	0.00701846	0.830	0.4070
DHHC4	1	0.008431	0.01355161	0.622	0.5340
DHHC6	1	0.005283	0.00970657	0.544	0.5863
DHHC7	1	0.007724	0.03238824	0.238	0.8115
DHHC8	1	-0.002077	0.00783875	-0.265	0.7911
DHHC9	1	-0.010028	0.01619749	-0.619	0.5359
DHHC10	1	-0.011171	0.01127755	-0.991	0.3221
DQTR2	1	0.019641	0.01600466	1.227	0.2200
DQTR3	1	0.015423	0.01881020	0.820	0.4124
DQTR4	1	0.022066	0.02244252	0.983	0.3257
HEADAGE	1	-0.000674	0.00028518	-2.364	0.0182
DPOL	1	0.129797	0.07060810	1.838	0.0662
DPOL_SB	1	0.116940	0.07050113	1.659	0.0974
TESTPOL	1	0.116940	0.07050113	1.659	0.0974

Table A-1 (continued)

Tobit Model for SHRCLOTH  
 Noncensored Values= 1178 Right Censored Values= 0  
 Left Censored Values= 192 Interval Censored Values= 0

Log Likelihood for NORMAL 1065.3937927

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-1.1630801	1.227822	0.897323	0.3435
SB	1	0.00650423	0.008411	0.597973	0.4394
TREND	1	-0.0400836	0.049706	0.650303	0.4200
TRENDSQ	1	0.00243411	0.001835	1.758812	0.1848
P_FOOD	1	0.14979263	0.340708	0.193293	0.6602
P_ALCH	1	0.19811194	0.398367	0.247317	0.6190
P_TOBCO	1	0.17997104	0.135717	1.758469	0.1848
P_CLOTH	1	0.96120851	0.646878	2.207953	0.1373
P_TSPRT	1	-0.1147509	0.250999	0.20901	0.6475
P_MISC	1	-0.5684264	0.34289	2.74814	0.0974
P_SVCS	1	0.24080815	0.263341	0.836192	0.3605
P_FDOUT	1	-0.3926389	0.497455	0.622987	0.4299
P_HOUS	1	-0.1643027	0.19496	0.71023	0.3994
P_FUEL	1	-0.0006346	0.157566	0.000016	0.9968
P_DURBL	1	-0.1825932	0.531794	0.117892	0.7313
LRTOTEXP	1	0.09456458	0.006168	235.0346	0.0001
DREG1	1	0.03379186	0.011683	8.36572	0.0038
DREG2	1	0.02700536	0.009971	7.335567	0.0068
DREG3	1	0.02512508	0.012379	4.119742	0.0424
DREG4	1	-0.0004759	0.014479	0.00108	0.9738
DREG6	1	-0.0038456	0.008724	0.194334	0.6593
DREG7	1	0.0037086	0.011414	0.105571	0.7452
DREG8	1	0.01313836	0.012429	1.117367	0.2905
DREG9	1	0.00763114	0.009942	0.589167	0.4427
DREG10	1	0.01669776	0.009093	3.372456	0.0663
DREG11	1	0.02642825	0.009755	7.339048	0.0067
DREG12	1	0.01602176	0.018966	0.713607	0.3982
DHHC0	1	-0.0085199	0.010794	0.62306	0.4299
DHHC1	1	0.05103524	0.013423	14.45644	0.0001
DHHC2	1	0.01938546	0.007393	6.874969	0.0087
DHHC3	1	0.00794327	0.007859	1.021436	0.3122
DHHC4	1	0.01110827	0.015121	0.539682	0.4626
DHHC6	1	0.0102125	0.010779	0.897627	0.3434
DHHC7	1	0.02103228	0.035539	0.350233	0.5540
DHHC8	1	-0.0021011	0.008754	0.057608	0.8103
DHHC9	1	-0.0190419	0.018502	1.059181	0.3034
DHHC10	1	-0.0145021	0.012766	1.290481	0.2560
DQTR2	1	0.01966355	0.017884	1.208929	0.2715
DQTR3	1	0.01290279	0.021021	0.376764	0.5393
DQTR4	1	0.02203772	0.025102	0.77076	0.3800
HEADAGE	1	-0.0009902	0.000322	9.45424	0.0021
DPOL	1	0.12290324	0.078969	2.422198	0.1196
DPOL_SB	1	0.10760395	0.078865	1.861599	0.1724
TESTPOL	1	0.10760395	0.078865	1.861599	0.1724

Table A-1 (continued)

OLS Model for SHRDURBL					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	1.31665	0.03135	4.876	0.0001
Error	1327	8.53197	0.00643		
C Total	1369	9.84862			
Root MSE	0.08018	R-square	0.1337		
Dep Mean	0.05098	Adj R-sq	0.1063		
C.V.	157.27170				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	2.749529	1.13808925	2.416	0.0158
SB	1	0.003687	0.00776170	0.475	0.6349
TREND	1	-0.000110	0.04604876	-0.002	0.9981
TRENDSQ	1	-0.000941	0.00170285	-0.552	0.5807
P_FOOD	1	0.547626	0.31627758	1.731	0.0836
P_ALCH	1	-0.904940	0.36793713	-2.459	0.0140
P_TOBCO	1	0.288211	0.12561876	2.294	0.0219
P_CLOTH	1	-1.459530	0.59802226	-2.441	0.0148
P_TSPT	1	0.116531	0.23180184	0.503	0.6152
P_MISC	1	0.415914	0.31816443	1.307	0.1914
P_SVCS	1	-0.426391	0.24268108	-1.757	0.0791
P_FDOUT	1	1.047460	0.45799975	2.287	0.0224
P_HOUS	1	-0.184555	0.18078834	-1.021	0.3075
P_FUEL	1	-0.043848	0.14643766	-0.299	0.7647
P_DURBL	1	0.050708	0.49197931	0.103	0.9179
LRTOTEXP	1	0.060568	0.00556875	10.876	0.0001
DREG1	1	0.025559	0.01086188	2.353	0.0188
DREG2	1	0.004731	0.00922862	0.513	0.6083
DREG3	1	0.021872	0.01144854	1.910	0.0563
DREG4	1	0.012876	0.01337450	0.963	0.3359
DREG6	1	-0.001352	0.00806652	-0.168	0.8669
DREG7	1	0.009338	0.01057440	0.883	0.3774
DREG8	1	0.009736	0.01142929	0.852	0.3944
DREG9	1	0.027687	0.00920028	3.009	0.0027
DREG10	1	0.004938	0.00842712	0.586	0.5580
DREG11	1	0.003935	0.00903610	0.436	0.6633
DREG12	1	0.012115	0.01738856	0.697	0.4861
DHHC0	1	-0.013824	0.00999894	-1.383	0.1670
DHHC1	1	0.021849	0.01246763	1.752	0.0799
DHHC2	1	0.021247	0.00684738	3.103	0.0020
DHHC3	1	0.018561	0.00726674	2.554	0.0108
DHHC4	1	0.016951	0.01403099	1.208	0.2272
DHHC6	1	0.002467	0.01004994	0.245	0.8061
DHHC7	1	0.014126	0.03353395	0.421	0.6737
DHHC8	1	-0.003043	0.00811604	-0.375	0.7077
DHHC9	1	-0.003624	0.01677047	-0.216	0.8290
DHHC10	1	0.010400	0.01167649	0.891	0.3733
DQTR2	1	-0.009983	0.01657081	-0.602	0.5470
DQTR3	1	0.006295	0.01947560	0.323	0.7466
DQTR4	1	-0.007494	0.02323640	-0.323	0.7471
HEADAGE	1	-0.000809	0.00029527	-2.739	0.0062
DPOL	1	0.061563	0.07310581	0.842	0.3999
DPOL_SB	1	0.055056	0.07299506	0.754	0.4508
TESTPOL	1	0.055056	0.07299506	0.754	0.4508

Table A-1 (continued)

Tobit Model for SHRDURBL  
 Noncensored Values= 1152 Right Censored Values= 0  
 Left Censored Values= 218 Interval Censored Values= 0

Log Likelihood for NORMAL 993.79389835

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	2.88418821	1.284026	5.045442	0.0247
SB	1	0.00397019	0.008735	0.206582	0.6495
TREND	1	-0.0013883	0.051792	0.000718	0.9786
TRENDSQ	1	-0.0009352	0.001913	0.238941	0.6250
P_FOOD	1	0.67557939	0.355291	3.615625	0.0572
P_ALCH	1	-0.9866631	0.415697	5.633584	0.0176
P_TOBCO	1	0.32555986	0.141934	5.261268	0.0218
P_CLOTH	1	-1.520873	0.673204	5.103791	0.0239
P_TSPRT	1	0.08207822	0.261821	0.098276	0.7539
P_MISC	1	0.32990718	0.358823	0.845322	0.3579
P_SVCS	1	-0.5080483	0.273184	3.458593	0.0629
P_FDOUT	1	1.16322156	0.515806	5.08571	0.0241
P_HOUS	1	-0.1843858	0.204182	0.815494	0.3665
P_FUEL	1	-0.0166587	0.165471	0.010135	0.9198
P_DURBL	1	0.06280036	0.555611	0.012776	0.9100
LRTOTEXP	1	0.07408127	0.006326	137.117	0.0001
DREG1	1	0.03591303	0.012184	8.688096	0.0032
DREG2	1	0.00501982	0.010564	0.225784	0.6347
DREG3	1	0.02634593	0.012932	4.150668	0.0416
DREG4	1	0.01486653	0.015186	0.958339	0.3276
DREG6	1	0.00013357	0.009136	0.000214	0.9883
DREG7	1	0.01867057	0.011856	2.479835	0.1153
DREG8	1	0.01313819	0.012983	1.024091	0.3116
DREG9	1	0.03551621	0.010361	11.75104	0.0006
DREG10	1	0.00835346	0.009559	0.763598	0.3822
DREG11	1	0.00845465	0.010236	0.682294	0.4088
DREG12	1	0.00960868	0.01999	0.231054	0.6307
DHHC0	1	-0.0194269	0.011322	2.944047	0.0862
DHHC1	1	0.01321766	0.014532	0.827276	0.3631
DHHC2	1	0.023275	0.0077	9.137841	0.0025
DHHC3	1	0.01994963	0.008176	5.953577	0.0147
DHHC4	1	0.01188705	0.016095	0.545441	0.4602
DHHC6	1	0.00347681	0.011345	0.093921	0.7592
DHHC7	1	0.00455372	0.039235	0.01347	0.9076
DHHC8	1	-0.0058414	0.00916	0.406643	0.5237
DHHC9	1	-0.0072496	0.019208	0.142449	0.7059
DHHC10	1	0.00603508	0.01329	0.206223	0.6497
DQTR2	1	-0.0131521	0.01871	0.494129	0.4821
DQTR3	1	0.00837754	0.022019	0.144756	0.7036
DQTR4	1	-0.0104957	0.026256	0.159797	0.6893
HEADAGE	1	-0.0009059	0.000334	7.356537	0.0067
DPOL	1	0.06547553	0.082536	0.629313	0.4276
DPOL_SB	1	0.05324199	0.082369	0.417813	0.5180
TESTPOL	1	0.05324199	0.082369	0.417813	0.5180

Table A-1 (continued)

OLS Model		for SHRFDIN				
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F	
Model	42	5.89813	0.14043	21.591	0.0001	
Error	1327	8.63089	0.00650			
C Total	1369	14.52902				
Root MSE	0.08065	R-square	0.4060			
Dep Mean	0.27739	Adj R-sq	0.3872			
C.V.	29.07367					
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T	
INTERCEP	1	-0.569967	1.14466766	-0.498	0.6186	
SB	1	-0.001140	0.00780656	-0.146	0.8839	
TREND	1	-0.054981	0.04631493	-1.187	0.2354	
TRENDSQ	1	0.000324	0.00171269	0.189	0.8499	
P_FOOD	1	0.173168	0.31810573	0.544	0.5863	
P_ALCH	1	-0.216394	0.37006389	-0.585	0.5588	
P_TOBCO	1	0.021404	0.12634486	0.169	0.8655	
P_CLOTH	1	-0.415520	0.60147896	-0.691	0.4898	
P_TSPRT	1	0.015989	0.23314170	0.069	0.9453	
P_MISC	1	0.527703	0.32000349	1.649	0.0994	
P_SVCS	1	-0.028678	0.24408383	-0.117	0.9065	
P_FDOUT	1	0.410294	0.46064709	0.891	0.3733	
P_HOUS	1	-0.067553	0.18183334	-0.372	0.7103	
P_FUEL	1	-0.031197	0.14728410	-0.212	0.8323	
P_DURBL	1	-0.222056	0.49482306	-0.449	0.6537	
LRTOTEXP	1	-0.117393	0.00560094	-20.959	0.0001	
DREG1	1	0.002759	0.01092466	0.253	0.8007	
DREG2	1	0.007153	0.00928197	0.771	0.4411	
DREG3	1	-0.018770	0.01151472	-1.630	0.1033	
DREG4	1	-0.012291	0.01345180	-0.914	0.3610	
DREG6	1	-0.023304	0.00811315	-2.872	0.0041	
DREG7	1	-0.018684	0.01063552	-1.757	0.0792	
DREG8	1	0.007830	0.01149536	0.681	0.4959	
DREG9	1	-0.004136	0.00925346	-0.447	0.6550	
DREG10	1	-0.000192	0.00847583	-0.023	0.9820	
DREG11	1	0.009762	0.00908833	1.074	0.2830	
DREG12	1	-0.001800	0.01748907	-0.103	0.9180	
DHHC0	1	0.060857	0.01005674	6.051	0.0001	
DHHC1	1	-0.098751	0.01253969	-7.875	0.0001	
DHHC2	1	-0.054367	0.00688696	-7.894	0.0001	
DHHC3	1	-0.054737	0.00730874	-7.489	0.0001	
DHHC4	1	-0.028141	0.01411210	-1.994	0.0463	
DHHC6	1	-0.022945	0.01010803	-2.270	0.0234	
DHHC7	1	-0.051387	0.03372778	-1.524	0.1279	
DHHC8	1	0.025662	0.00816295	3.144	0.0017	
DHHC9	1	0.002835	0.01686741	0.168	0.8666	
DHHC10	1	0.032699	0.01174398	2.784	0.0054	
DQTR2	1	-0.012452	0.01666659	-0.747	0.4551	
DQTR3	1	-0.021129	0.01958817	-1.079	0.2809	
DQTR4	1	-0.043441	0.02337072	-1.859	0.0633	
HEADAGE	1	0.001664	0.00029698	5.602	0.0001	
DPOL	1	-0.025897	0.07352838	-0.352	0.7247	
DPOL_SB	1	-0.036400	0.07341699	-0.496	0.6201	
TESTPOL	1	-0.036400	0.07341699	-0.496	0.6201	

Table A-1 (continued)

Tobit Model for SHRPDIN  
 Noncensored Values= 1369 Right Censored Values= 0  
 Left Censored Values= 1 Interval Censored Values= 0

Log Likelihood for NORMAL 1522.5900632

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.5569811	1.116773	0.248743	0.6180
SB	1	-0.0012042	0.007641	0.024836	0.8748
TREND	1	-0.0545371	0.045276	1.450963	0.2284
TRENDSQ	1	0.00031363	0.001679	0.03489	0.8518
P_FOOD	1	0.17511594	0.311874	0.315278	0.5745
P_ALCH	1	-0.2178202	0.363252	0.359567	0.5487
P_TOBCO	1	0.02237818	0.123725	0.032714	0.8565
P_CLOTH	1	-0.4182796	0.590213	0.502245	0.4785
P_TSPRT	1	0.01642046	0.228989	0.005142	0.9428
P_MISC	1	0.52572566	0.313723	2.808181	0.0938
P_SVCS	1	-0.0281731	0.239726	0.013811	0.9064
P_FDOUT	1	0.40940696	0.452436	0.818834	0.3655
P_HOUS	1	-0.0695492	0.17748	0.153562	0.6952
P_FUEL	1	-0.0319833	0.144468	0.049012	0.8248
P_DURBL	1	-0.219111	0.485183	0.203947	0.6516
LRTOTEXP	1	-0.1176121	0.005035	545.6136	0.0001
DREG1	1	0.00272159	0.010725	0.064389	0.7997
DREG2	1	0.00707919	0.009088	0.606779	0.4360
DREG3	1	-0.0188305	0.011295	2.77927	0.0955
DREG4	1	-0.012316	0.013212	0.868919	0.3513
DREG6	1	-0.0233317	0.007965	8.58059	0.0034
DREG7	1	-0.0187244	0.01044	3.216819	0.0729
DREG8	1	0.00779108	0.011286	0.476567	0.4900
DREG9	1	-0.0041824	0.009078	0.212245	0.6450
DREG10	1	-0.0002488	0.008306	0.000897	0.9761
DREG11	1	0.00971512	0.008915	1.187431	0.2758
DREG12	1	-0.0009409	0.014814	0.004034	0.9494
DHHC0	1	0.06089423	0.009872	38.04696	0.0001
DHHC1	1	-0.0987796	0.012315	64.33575	0.0001
DHHC2	1	-0.0544228	0.006742	65.15758	0.0001
DHHC3	1	-0.0547581	0.007177	58.21791	0.0001
DHHC4	1	-0.0281458	0.013863	4.121915	0.0423
DHHC6	1	-0.0229292	0.009929	5.33345	0.0209
DHHC7	1	-0.0514104	0.033132	2.407684	0.1207
DHHC8	1	0.02583847	0.007818	10.92175	0.0010
DHHC9	1	0.00278634	0.016563	0.028301	0.8664
DHHC10	1	0.03268678	0.011536	8.028125	0.0046
DQTR2	1	-0.0123793	0.016356	0.572834	0.4491
DQTR3	1	-0.0209393	0.019147	1.195969	0.2741
DQTR4	1	-0.0432043	0.022833	3.580362	0.0585
HEADAGE	1	0.00166494	0.000291	32.6245	0.0001
DPOL	1	-0.0250834	0.071761	0.122179	0.7267
DPOL_SB	1	-0.0356253	0.071695	0.246914	0.6193
TESTPOL	1	-0.0356253	0.071695	0.246914	0.6193

Table A-1 (continued)

OLS Model		for SHRFDOU			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	0.11284	0.00269	11.018	0.0001
Error	1327	0.32360	0.00024		
C Total	1369	0.43644			
Root MSE	0.01562	R-square	0.2585		
Dep Mean	0.01084	Adj R-sq	0.2351		
C.V.	144.07299				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.112249	0.22164378	0.506	0.6126
SB	1	-0.007151	0.00151160	-4.730	0.0001
TREND	1	0.014065	0.00896803	1.568	0.1170
TRENDSQ	1	0.000333	0.00033163	1.005	0.3148
P_FOOD	1	-0.219369	0.06159531	-3.561	0.0004
P_ALCH	1	-0.030261	0.07165605	-0.422	0.6729
P_TOBCO	1	-0.062203	0.02446435	-2.543	0.0111
P_CLOTH	1	-0.010328	0.11646530	-0.089	0.9294
P_TSPRT	1	0.078983	0.04514359	1.750	0.0804
P_MISC	1	-0.025084	0.06196277	-0.405	0.6857
P_SVCS	1	0.048906	0.04726233	1.035	0.3010
P_FDOUT	1	-0.085902	0.08919581	-0.963	0.3357
P_HOUS	1	0.090835	0.03520867	2.580	0.0100
P_FUEL	1	-0.039350	0.02851885	-1.380	0.1679
P_DURBL	1	0.228140	0.09581336	2.381	0.0174
LRTOTEXP	1	0.002503	0.00108452	2.308	0.0211
DREG1	1	-0.002561	0.00211536	-1.211	0.2262
DREG2	1	0.002600	0.00179728	1.446	0.1483
DREG3	1	0.001388	0.00222961	0.623	0.5337
DREG4	1	-0.003599	0.00260469	-1.382	0.1673
DREG6	1	-0.002402	0.00157096	-1.529	0.1266
DREG7	1	-0.000530	0.00205937	-0.257	0.7971
DREG8	1	-0.000795	0.00222586	-0.357	0.7212
DREG9	1	-0.002881	0.00179176	-1.608	0.1081
DREG10	1	-0.001003	0.00164119	-0.611	0.5413
DREG11	1	0.000898	0.00175979	0.510	0.6099
DREG12	1	0.003003	0.00338644	0.887	0.3753
DHHC0	1	0.000633	0.00194730	0.325	0.7450
DHHC1	1	-0.002394	0.00242808	-0.986	0.3243
DHHC2	1	-0.000315	0.00133353	-0.236	0.8132
DHHC3	1	0.002113	0.00141520	1.493	0.1356
DHHC4	1	-0.002806	0.00273255	-1.027	0.3047
DHHC6	1	-0.001222	0.00195723	-0.624	0.5324
DHHC7	1	-0.007077	0.00653076	-1.084	0.2787
DHHC8	1	0.001518	0.00158060	0.960	0.3370
DHHC9	1	0.003480	0.00326606	1.065	0.2869
DHHC10	1	-0.003288	0.00227401	-1.446	0.1485
DQTR2	1	0.002771	0.00322718	0.859	0.3907
DQTR3	1	0.000317	0.00379289	0.084	0.9334
DQTR4	1	0.002192	0.00452531	0.484	0.6283
HEADAGE	1	-0.000025305	0.00005750	-0.440	0.6600
DPOL	1	-0.056692	0.01423741	-3.982	0.0001
DPOL_SB	1	-0.057110	0.01421584	-4.017	0.0001
TESTPOL	1	-0.057110	0.01421584	-4.017	0.0001

## Tobit Model for SHRFDOU

Noncensored Values= 850 Right Censored Values= 0  
 Left Censored Values= 520 Interval Censored Values= 0

Log Likelihood for NORMAL 1854.263263

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.677817	0.34772	3.799834	0.0513
SB	1	-0.0125004	0.002178	32.94878	0.0001
TREND	1	-0.0074247	0.014181	0.274125	0.6006
TRENDSQ	1	0.00157195	0.000502	9.80784	0.0017
P_FOOD	1	-0.2751573	0.095319	8.333104	0.0039
P_ALCH	1	0.29165725	0.106799	7.4578	0.0063
P_TOBCO	1	-0.0605238	0.041023	2.176641	0.1401
P_CLOTH	1	0.78097092	0.181537	18.5072	0.0001
P_TSPRT	1	0.43378134	0.078204	30.76712	0.0001
P_MISC	1	-0.5455035	0.102631	28.25145	0.0001
P_SVCS	1	0.30118844	0.075802	15.78758	0.0001
P_FDOUT	1	-0.4621527	0.133641	11.95887	0.0005
P_HOUS	1	0.04262845	0.05727	0.554037	0.4567
P_FUEL	1	0.03499281	0.041577	0.708354	0.4000
P_DURBL	1	-0.3926865	0.157394	6.224652	0.0126
LRTOTEXP	1	0.00726593	0.001605	20.48512	0.0001
DREG1	1	-0.0007889	0.003076	0.065792	0.7976
DREG2	1	0.00412098	0.002644	2.429419	0.1191
DREG3	1	0.00229856	0.003243	0.502322	0.4785
DREG4	1	-0.0024507	0.003642	0.452729	0.5010
DREG6	1	-0.003387	0.00231	2.149382	0.1426
DREG7	1	-0.0021364	0.003096	0.476195	0.4902
DREG8	1	-0.001607	0.003317	0.234659	0.6281
DREG9	1	-0.0031394	0.002653	1.400618	0.2366
DREG10	1	-0.002275	0.002402	0.896871	0.3436
DREG11	1	0.00190862	0.002534	0.567408	0.4513
DREG12	1	0.00574106	0.005045	1.295007	0.2551
DHHC0	1	0.00012858	0.002902	0.001963	0.9647
DHHC1	1	-0.0039747	0.003626	1.201282	0.2731
DHHC2	1	0.00054693	0.002024	0.073041	0.7870
DHHC3	1	0.00182265	0.001994	0.835303	0.3607
DHHC4	1	-0.0094827	0.004591	4.266772	0.0389
DHHC6	1	-0.0005152	0.002855	0.032555	0.8568
DHHC7	1	-0.020969	0.012582	2.777396	0.0956
DHHC8	1	0.00199434	0.00228	0.765068	0.3817
DHHC9	1	-0.000768	0.005254	0.021368	0.8838
DHHC10	1	-0.0060269	0.003538	2.902507	0.0884
DQTR2	1	-0.0004171	0.004709	0.007846	0.9294
DQTR3	1	-0.0068882	0.005666	1.477909	0.2241
DQTR4	1	0.00001826	0.006861	7.081E-6	0.9979
HEADAGE	1	-0.0000841	0.000085	0.974249	0.3236
DPOL	1	-0.0524279	0.022957	5.215256	0.0224
DPOL_SB	1	-0.051665	0.022957	5.064639	0.0244
TESTPOL	1	-0.051665	0.022957	5.064639	0.0244

Table A-1 (continued)

OLS Model		for SHRFUEL			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	1.19570	0.02847	12.166	0.0001
Error	1327	3.10515	0.00234		
C Total	1369	4.30085			
Root MSE	0.04837	R-square	0.2780		
Dep Mean	0.09490	Adj R-sq	0.2552		
C.V.	50.97276				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-1.395437	0.68658316	-2.032	0.0423
SB	1	0.016199	0.00468246	3.460	0.0006
TREND	1	-0.073805	0.02778016	-2.657	0.0080
TRENDSQ	1	0.001795	0.00102729	1.747	0.0809
P_FOOD	1	0.024359	0.19080301	0.128	0.8984
P_ALCH	1	0.007424	0.22196804	0.033	0.9733
P_TOBCO	1	0.043505	0.07578292	0.574	0.5660
P_CLOTH	1	-0.188325	0.36077312	-0.522	0.6018
P_TSPRT	1	0.282297	0.13984074	2.019	0.0437
P_MISC	1	0.318913	0.19194131	1.662	0.0968
P_SVCS	1	-0.040237	0.14640393	-0.275	0.7835
P_FDOUT	1	0.254865	0.27630075	0.922	0.3565
P_HOUS	1	0.114499	0.10906546	1.050	0.2940
P_FUEL	1	-0.183902	0.08834248	-2.082	0.0376
P_DURBL	1	-0.306915	0.29679984	-1.034	0.3013
LRTOTEXP	1	-0.047094	0.00335950	-14.018	0.0001
DREG1	1	0.017480	0.00655272	2.668	0.0077
DREG2	1	0.002504	0.00556742	0.450	0.6530
DREG3	1	0.012913	0.00690664	1.870	0.0618
DREG4	1	0.011334	0.00806853	1.405	0.1604
DREG6	1	0.012006	0.00486635	2.467	0.0137
DREG7	1	0.003509	0.00637929	0.550	0.5824
DREG8	1	0.012190	0.00689503	1.768	0.0773
DREG9	1	0.001079	0.00555032	0.194	0.8459
DREG10	1	0.006802	0.00508389	1.338	0.1811
DREG11	1	0.014517	0.00545127	2.663	0.0078
DREG12	1	0.044682	0.01049012	4.259	0.0001
DHHC0	1	0.010161	0.00603213	1.684	0.0923
DHHC1	1	-0.012592	0.00752143	-1.674	0.0943
DHHC2	1	-0.009151	0.00413087	-2.215	0.0269
DHHC3	1	-0.012751	0.00438386	-2.909	0.0037
DHHC4	1	0.028668	0.00846458	3.387	0.0007
DHHC6	1	0.010359	0.00606290	1.709	0.0878
DHHC7	1	0.030253	0.02023026	1.495	0.1350
DHHC8	1	0.000990	0.00489622	0.202	0.8398
DHHC9	1	0.017947	0.01011724	1.774	0.0763
DHHC10	1	-0.014568	0.00704416	-2.068	0.0388
DQTR2	1	-0.028992	0.00999679	-2.900	0.0038
DQTR3	1	-0.050823	0.01174918	-4.326	0.0001
DQTR4	1	-0.047633	0.01401799	-3.398	0.0007
HEADAGE	1	0.000650	0.00017813	3.649	0.0003
DPOL	1	-0.063586	0.04410306	-1.442	0.1496
DPOL_SB	1	-0.068369	0.04403625	-1.553	0.1208
TESTPOL	1	-0.068369	0.04403625	-1.553	0.1208

Table A-1 (continued)

**Tobit Model** for SHRFUEL  
 Noncensored Values= 1344 Right Censored Values= 0  
 Left Censored Values= 26 Interval Censored Values= 0

Log Likelihood for NORMAL 2127.2878653

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-1.4275578	0.688131	4.303735	0.0380
SB	1	0.01621575	0.004687	11.97081	0.0005
TREND	1	-0.0738199	0.027822	7.039956	0.0080
TRENDSQ	1	0.00179523	0.001029	3.044684	0.0810
P_FOOD	1	0.01297022	0.191094	0.004607	0.9459
P_ALCH	1	0.01153062	0.22234	0.002689	0.9586
P_TOBCO	1	0.03850893	0.075978	0.256891	0.6123
P_CLOTH	1	-0.1816066	0.361247	0.252729	0.6152
P_TSPRT	1	0.28222921	0.140036	4.061837	0.0439
P_MISC	1	0.32150562	0.192227	2.797354	0.0944
P_SVCS	1	-0.0341418	0.14657	0.05426	0.8158
P_FDOUT	1	0.25278403	0.276615	0.835119	0.3608
P_HOUS	1	0.1226912	0.109339	1.259153	0.2618
P_FUEL	1	-0.1887882	0.088474	4.553173	0.0329
P_DURBL	1	-0.304232	0.29727	1.047385	0.3061
LRTOTEXF	1	-0.0471649	0.00337	195.8598	0.0001
DREG1	1	0.01775353	0.006558	7.32854	0.0068
DREG2	1	0.00228163	0.005577	0.167354	0.6825
DREG3	1	0.01320555	0.006912	3.650036	0.0561
DREG4	1	0.01128124	0.008084	1.947657	0.1628
DREG6	1	0.01149777	0.004878	5.554652	0.0184
DREG7	1	0.00325733	0.006393	0.25962	0.6104
DREG8	1	0.01224592	0.006904	3.146278	0.0761
DREG9	1	0.00100974	0.005561	0.032973	0.8559
DREG10	1	0.00673387	0.005092	1.749063	0.1860
DREG11	1	0.01481312	0.005457	7.369646	0.0066
DREG12	1	0.04518398	0.010497	18.52839	0.0001
DHHC0	1	0.01004863	0.006038	2.769468	0.0961
DHHC1	1	-0.0133977	0.007537	3.159481	0.0755
DHHC2	1	-0.0095208	0.004142	5.284607	0.0215
DHHC3	1	-0.0128039	0.004391	8.501459	0.0035
DHHC4	1	0.02871989	0.00847	11.49814	0.0007
DHHC6	1	0.01021485	0.006069	2.832648	0.0924
DHHC7	1	0.03023754	0.020241	2.231695	0.1352
DHHC8	1	0.00090093	0.004903	0.033761	0.8542
DHHC9	1	0.01754035	0.010134	2.995988	0.0835
DHHC10	1	-0.0152382	0.007066	4.65101	0.0310
DQTR2	1	-0.0288906	0.01001	8.330175	0.0039
DQTR3	1	-0.0510989	0.011768	18.85522	0.0001
DQTR4	1	-0.0476976	0.01404	11.54108	0.0007
HEADAGE	1	0.00064966	0.000178	13.25495	0.0003
DPOL	1	-0.0679746	0.044198	2.36534	0.1241
DPOL_SB	1	-0.0720456	0.044127	2.665676	0.1025
TESTPOL	1	-0.0720456	0.044127	2.665676	0.1025

Table A-1 (continued)

OLS Model		for SHRHOUS			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	4.67929	0.11141	14.993	0.0001
Error	1327	9.86081	0.00743		
C Total	1369	14.54010			
Root MSE	0.08620	R-square	0.3218		
Dep Mean	0.19915	Adj R-sq	0.3004		
C.V.	43.28511				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.930817	1.22351103	0.761	0.4469
SB	1	0.034129	0.00834427	4.090	0.0001
TREND	1	0.117763	0.04950505	2.379	0.0175
TRENDSQ	1	-0.004123	0.00183066	-2.252	0.0245
P_FOOD	1	-0.347305	0.34001648	-1.021	0.3072
P_ALCH	1	0.632528	0.39555346	1.599	0.1100
P_TOBCO	1	-0.232772	0.13504735	-1.724	0.0850
P_CLOTH	1	0.476021	0.64290813	0.740	0.4592
P_TSPRT	1	-0.560865	0.24920023	-2.251	0.0246
P_MISC	1	-0.188729	0.34204496	-0.552	0.5812
P_SVCS	1	0.100122	0.26089604	0.384	0.7012
P_FDOUT	1	-0.512171	0.49237592	-1.040	0.2984
P_HOUS	1	0.139018	0.19435781	0.715	0.4746
P_FUEL	1	0.074210	0.15742886	0.471	0.6374
P_DURBL	1	0.208229	0.52890589	0.394	0.6939
LRTOTEXP	1	-0.045096	0.00598673	-7.533	0.0001
DREG1	1	-0.055855	0.01167714	-4.783	0.0001
DREG2	1	-0.058149	0.00992130	-5.861	0.0001
DREG3	1	-0.061181	0.01230784	-4.971	0.0001
DREG4	1	-0.041838	0.01437835	-2.910	0.0037
DREG6	1	-0.002907	0.00867197	-0.335	0.7375
DREG7	1	-0.035663	0.01136809	-3.137	0.0017
DREG8	1	-0.042148	0.01228714	-3.430	0.0006
DREG9	1	-0.020810	0.00989083	-2.104	0.0356
DREG10	1	-0.027473	0.00905964	-3.032	0.0025
DREG11	1	-0.075909	0.00971432	-7.814	0.0001
DREG12	1	-0.067730	0.01869369	-3.623	0.0003
DHHC0	1	-0.029840	0.01074943	-2.776	0.0056
DHHC1	1	0.040882	0.01340341	3.050	0.0023
DHHC2	1	0.004762	0.00736133	0.647	0.5178
DHHC3	1	0.012731	0.00781216	1.630	0.1034
DHHC4	1	0.024343	0.01508412	1.614	0.1068
DHHC6	1	0.003668	0.01080426	0.339	0.7343
DHHC7	1	0.031940	0.03605092	0.886	0.3758
DHHC8	1	-0.015592	0.00872520	-1.787	0.0742
DHHC9	1	-0.005967	0.01802921	-0.331	0.7407
DHHC10	1	0.005890	0.01255289	0.469	0.6390
DQTR2	1	0.019573	0.01781457	1.099	0.2721
DQTR3	1	0.024197	0.02093738	1.156	0.2480
DQTR4	1	0.042141	0.02498046	1.687	0.0918
HEADAGE	1	-0.000252	0.00031743	-0.795	0.4266
DPOL	1	-0.059837	0.07859293	-0.761	0.4466
DPOL_SB	1	-0.007657	0.07847386	-0.098	0.9223
TESTPOL	1	-0.007657	0.07847386	-0.098	0.9223

Table A-1 (continued)

**Tobit Model** for SHRHOUS  
 Noncensored Values= 1357 Right Censored Values= 0  
 Left Censored Values= 13 Interval Censored Values= 0

Log Likelihood for NORMAL 1391.1854139

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.88578412	1.214889	0.531597	0.4659
SB	1	0.03452556	0.008287	17.35716	0.0001
TREND	1	0.11802939	0.04915	5.766888	0.0163
TRENDSQ	1	-0.0041029	0.001818	5.095696	0.0240
P_FOOD	1	-0.3581484	0.337645	1.125135	0.2888
P_ALCH	1	0.64160555	0.392787	2.668218	0.1024
P_TOBCO	1	-0.2400354	0.134147	3.201746	0.0736
P_CLOTH	1	0.49716501	0.638394	0.60649	0.4361
P_TSPRT	1	-0.5778121	0.247546	5.448318	0.0196
P_MISC	1	-0.188792	0.339629	0.309	0.5783
P_SVCS	1	0.11442237	0.259119	0.194995	0.6588
P_FDOUT	1	-0.53354	0.489083	1.19006	0.2753
P_HOUS	1	0.14575022	0.193075	0.56986	0.4503
P_FUEL	1	0.07346132	0.156381	0.220672	0.6385
P_DURBL	1	0.22389274	0.525256	0.181693	0.6699
LRTOTEXP	1	-0.0444083	0.00595	55.70394	0.0001
DREG1	1	-0.0560529	0.011597	23.36248	0.0001
DREG2	1	-0.0582512	0.009854	34.94708	0.0001
DREG3	1	-0.0619246	0.012232	25.63003	0.0001
DREG4	1	-0.042148	0.014281	8.709853	0.0032
DREG6	1	-0.0027208	0.008608	0.099895	0.7520
DREG7	1	-0.0357391	0.011288	10.02469	0.0015
DREG8	1	-0.0419266	0.012197	11.81635	0.0006
DREG9	1	-0.0212466	0.009824	4.677785	0.0306
DREG10	1	-0.0272861	0.008993	9.205505	0.0024
DREG11	1	-0.0761229	0.009646	62.27187	0.0001
DREG12	1	-0.0692057	0.018612	13.82532	0.0002
DHHC0	1	-0.0298845	0.010683	7.824884	0.0052
DHHC1	1	0.04134567	0.013314	9.643228	0.0019
DHHC2	1	0.00530174	0.007312	0.52572	0.4684
DHHC3	1	0.01348341	0.007761	3.018447	0.0823
DHHC4	1	0.02495831	0.014974	2.777969	0.0956
DHHC6	1	0.0043089	0.010727	0.16136	0.6879
DHHC7	1	0.0326407	0.035785	0.83201	0.3617
DHHC8	1	-0.0149665	0.008664	2.98429	0.0841
DHHC9	1	-0.0052555	0.017898	0.08622	0.7690
DHHC10	1	0.00656003	0.012462	0.277089	0.5986
DQTR2	1	0.02008571	0.017695	1.288509	0.2563
DQTR3	1	0.0243379	0.020794	1.369896	0.2418
DQTR4	1	0.04236733	0.024812	2.915579	0.0877
HEADAGE	1	-0.0002519	0.000315	0.638567	0.4242
DPOL	1	-0.0602599	0.078076	0.595688	0.4402
DPOL_SB	1	-0.0079678	0.077956	0.010447	0.9186
TESTPOL	1	-0.0079678	0.077956	0.010447	0.9186

Table A-1 (continued)

OLS Model		for SHRMISC			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	0.29957	0.00713	2.456	0.0001
Error	1327	3.85342	0.00290		
C Total	1369	4.15299			
Root MSE	0.05389	R-square	0.0721		
Dep Mean	0.08553	Adj R-sq	0.0428		
C.V.	63.00690				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.759390	0.76484738	-0.993	0.3210
SB	1	-0.005433	0.00521621	-1.041	0.2978
TREND	1	-0.038904	0.03094684	-1.257	0.2089
TRENDSQ	1	0.001902	0.00114439	1.662	0.0968
P_FOOD	1	-0.159274	0.21255282	-0.749	0.4538
P_ALCH	1	-0.233230	0.24727037	-0.943	0.3457
P_TOBCO	1	-0.081712	0.08442148	-0.968	0.3333
P_CLOTH	1	0.104589	0.40189796	0.260	0.7947
P_TSPT	1	-0.084538	0.15578130	-0.543	0.5874
P_MISC	1	0.195080	0.21382087	0.912	0.3617
P_SVCS	1	0.035643	0.16309264	0.219	0.8270
P_FDOUT	1	0.063244	0.30779651	0.205	0.8372
P_HOUS	1	0.166553	0.12149793	1.371	0.1707
P_FUEL	1	0.107111	0.09841272	1.088	0.2766
P_DURBL	1	0.085262	0.33063231	0.258	0.7965
LRTOTEXP	1	-0.000784	0.00374245	-0.210	0.8340
DREG1	1	-0.007344	0.00729967	-1.006	0.3146
DREG2	1	-0.000762	0.00620205	-0.123	0.9022
DREG3	1	0.008265	0.00769394	1.074	0.2829
DREG4	1	0.021899	0.00898826	2.436	0.0150
DREG6	1	0.001528	0.00542107	0.282	0.7782
DREG7	1	0.000761	0.00710648	0.107	0.9147
DREG8	1	-0.007769	0.00768100	-1.011	0.3120
DREG9	1	-0.002280	0.00618301	-0.369	0.7123
DREG10	1	-0.004333	0.00566341	-0.765	0.4443
DREG11	1	-0.006619	0.00607267	-1.090	0.2759
DREG12	1	-0.025700	0.01168590	-2.199	0.0280
DHHC0	1	-0.002980	0.00671974	-0.443	0.6575
DHHC1	1	0.001585	0.00837881	0.189	0.8500
DHHC2	1	0.002995	0.00460175	0.651	0.5152
DHHC3	1	-0.003630	0.00488357	-0.743	0.4574
DHHC4	1	-0.021144	0.00942946	-2.242	0.0251
DHHC6	1	-0.005330	0.00675401	-0.789	0.4301
DHHC7	1	-0.029753	0.02253633	-1.320	0.1870
DHHC8	1	0.009056	0.00545434	1.660	0.0971
DHHC9	1	-0.005738	0.01127051	-0.509	0.6108
DHHC10	1	-0.018471	0.00784713	-2.354	0.0187
DQTR2	1	-0.009204	0.01113633	-0.826	0.4087
DQTR3	1	-0.011211	0.01308848	-0.857	0.3918
DQTR4	1	-0.001672	0.01561591	-0.107	0.9147
HEADAGE	1	-0.000010248	0.00019844	-0.052	0.9588
DPOL	1	-0.050448	0.04913041	-1.027	0.3047
DPOL_SB	1	-0.058040	0.04905598	-1.183	0.2370
TESTPOL	1	-0.058040	0.04905598	-1.183	0.2370

Table A-1 (continued)

Tobit Model for SHRMISC  
 Noncensored Values= 1368 Right Censored Values= 0  
 Left Censored Values= 2 Interval Censored Values= 0

Log Likelihood for NORMAL 2072.5470216

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.7669113	0.753747	1.035235	0.3089
SB	1	-0.0053367	0.00514	1.077948	0.2992
TREND	1	-0.0390017	0.030498	1.635454	0.2010
TRENDSQ	1	0.0019004	0.001128	2.839905	0.0919
P_FOOD	1	-0.1616881	0.209443	0.595971	0.4401
P_ALCH	1	-0.2306151	0.243648	0.895877	0.3439
P_TOBCO	1	-0.0827223	0.083188	0.988834	0.3200
P_CLOTH	1	0.10615603	0.396012	0.071857	0.7887
P_TSPRT	1	-0.0868833	0.153505	0.320352	0.5714
P_MISC	1	0.19585903	0.210696	0.864125	0.3526
P_SVCS	1	0.03533767	0.160701	0.048355	0.8260
P_FDOUT	1	0.06362332	0.303283	0.044009	0.8338
P_HOUS	1	0.16851036	0.11973	1.980818	0.1593
P_FUEL	1	0.10808269	0.096972	1.242284	0.2650
P_DURBL	1	0.08482048	0.325802	0.067779	0.7946
LRTOTEXP	1	-0.0004915	0.003694	0.01771	0.8941
DREG1	1	-0.0072744	0.007193	1.022851	0.3118
DREG2	1	-0.0006408	0.006112	0.010994	0.9165
DREG3	1	0.0083514	0.007581	1.213475	0.2706
DREG4	1	0.02192541	0.008856	6.128832	0.0133
DREG6	1	0.00157387	0.005342	0.086814	0.7683
DREG7	1	0.00082457	0.007002	0.013866	0.9063
DREG8	1	-0.0077003	0.007568	1.035157	0.3090
DREG9	1	-0.0022031	0.006093	0.130765	0.7176
DREG10	1	-0.0042423	0.005581	0.577873	0.4471
DREG11	1	-0.0067308	0.005985	1.264582	0.2608
DREG12	1	-0.0266146	0.011543	5.316428	0.0211
DHHC0	1	-0.0030207	0.006621	0.208127	0.6482
DHHC1	1	0.00166427	0.008256	0.040635	0.8402
DHHC2	1	0.00309652	0.004535	0.466286	0.4947
DHHC3	1	-0.0036233	0.004812	0.566958	0.4515
DHHC4	1	-0.0210936	0.009291	5.154125	0.0232
DHHC6	1	-0.0056266	0.006659	0.713877	0.3982
DHHC7	1	-0.0297487	0.022206	1.794757	0.1803
DHHC8	1	0.00887217	0.005377	2.722696	0.0989
DHHC9	1	-0.0056837	0.011105	0.261939	0.6088
DHHC10	1	-0.0184323	0.007732	5.682921	0.0171
DQTR2	1	-0.0092811	0.010973	0.715369	0.3977
DQTR3	1	-0.0113156	0.012898	0.769683	0.3803
DQTR4	1	-0.0017948	0.015389	0.013602	0.9072
HEADAGE	1	-0.0000114	0.000196	0.003381	0.9536
DPOL	1	-0.0513418	0.048416	1.124525	0.2889
DPOL_SB	1	-0.0589579	0.048342	1.487434	0.2226
TESTPOL	1	-0.0589579	0.048342	1.487434	0.2226

Table A-1 (continued)

OLS Model		for SHRSVCS			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	1.18062	0.02811	5.442	0.0001
Error	1327	6.85410	0.00517		
C Total	1369	8.03472			
Root MSE	0.07187	R-square	0.1469		
Dep Mean	0.08334	Adj R-sq	0.1199		
C.V.	86.24050				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.101532	1.02006275	-0.100	0.9207
SB	1	-0.019957	0.00695677	-2.869	0.0042
TREND	1	-0.034915	0.04127323	-0.846	0.3977
TRENDSQ	1	0.001298	0.00152625	0.851	0.3952
P_FOOD	1	0.158360	0.28347774	0.559	0.5765
P_ALCH	1	0.163740	0.32977990	0.497	0.6196
P_TOBCO	1	0.057406	0.11259136	0.510	0.6102
P_CLOTH	1	0.557593	0.53600385	1.040	0.2984
P_TSPRT	1	0.355297	0.20776263	1.710	0.0875
P_MISC	1	-0.210393	0.28516892	-0.738	0.4608
P_SVCS	1	-0.017102	0.21751363	-0.079	0.9373
P_PDOUT	1	-0.260062	0.41050250	-0.634	0.5265
P_HOUS	1	-0.248099	0.16203953	-1.531	0.1260
P_FUEL	1	0.224987	0.13125122	1.714	0.0867
P_DURBL	1	-0.724504	0.44095818	-1.643	0.1006
LRTOTEXP	1	0.037876	0.00499124	7.589	0.0001
DREG1	1	-0.017485	0.00973544	-1.796	0.0727
DREG2	1	0.008823	0.00827156	1.067	0.2863
DREG3	1	0.001108	0.01026126	0.108	0.9140
DREG4	1	0.011562	0.01198748	0.965	0.3350
DREG6	1	0.015685	0.00722998	2.169	0.0302
DREG7	1	0.004046	0.00947777	0.427	0.6695
DREG8	1	-0.009055	0.01024401	-0.884	0.3769
DREG9	1	-0.015106	0.00824616	-1.832	0.0672
DREG10	1	0.003801	0.00755318	0.503	0.6149
DREG11	1	0.005349	0.00809900	0.661	0.5090
DREG12	1	-0.003426	0.01558526	-0.220	0.8260
DHHC0	1	-0.015723	0.00896199	-1.754	0.0796
DHHC1	1	-0.008601	0.01117466	-0.770	0.4416
DHHC2	1	0.011600	0.00613727	1.890	0.0590
DHHC3	1	0.009057	0.00651313	1.391	0.1646
DHHC4	1	-0.007581	0.01257590	-0.603	0.5467
DHHC6	1	0.019926	0.00900770	2.212	0.0271
DHHC7	1	0.014982	0.03005628	0.498	0.6182
DHHC8	1	-0.006640	0.00727436	-0.913	0.3616
DHHC9	1	0.005834	0.01503127	0.388	0.6980
DHHC10	1	0.005547	0.01046557	0.530	0.5962
DQTR2	1	-0.010409	0.01485232	-0.701	0.4835
DQTR3	1	-0.002321	0.01745587	-0.133	0.8943
DQTR4	1	-0.016208	0.02082665	-0.778	0.4366
HEADAGE	1	0.000170	0.00026465	0.641	0.5214
DPOL	1	0.114042	0.06552431	1.740	0.0820
DPOL_SB	1	0.110423	0.06542504	1.688	0.0917
TESTPOL	1	0.110423	0.06542504	1.688	0.0917

**Table A-1 (continued)**

**Tobit Model** for SHRSVCS  
 Noncensored Values= 1348 Right Censored Values= 0  
 Left Censored Values= 22 Interval Censored Values= 0

**Log Likelihood** for NORMAL 1621.5924236

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.05701959	1.017728	0.003139	0.9553
SB	1	-0.0201231	0.006939	8.410217	0.0037
TREND	1	-0.031724	0.041167	0.593862	0.4409
TRENDSQ	1	0.00123633	0.001523	0.659302	0.4168
P_FOOD	1	0.1522494	0.282645	0.290154	0.5901
P_ALCH	1	0.12206691	0.328756	0.137863	0.7104
P_TOBCO	1	0.06043113	0.112189	0.290149	0.5901
P_CLOTH	1	0.51232778	0.534589	0.918449	0.3379
P_TSPRT	1	0.37913721	0.207236	3.347054	0.0673
P_MISC	1	-0.2166983	0.2843	0.580973	0.4459
P_SVCS	1	-0.0140696	0.216943	0.004206	0.9483
P_FDOUT	1	-0.2577106	0.409262	0.396516	0.5289
P_HOUS	1	-0.2608729	0.161557	2.607382	0.1064
P_FUEL	1	0.23851118	0.130946	3.317683	0.0685
P_DURBL	1	-0.6936306	0.439369	2.492289	0.1144
LRTOTEXP	1	0.03888116	0.00498	60.95644	0.0001
DREG1	1	-0.0173254	0.009724	3.174298	0.0748
DREG2	1	0.0096648	0.008254	1.371044	0.2416
DREG3	1	0.00227993	0.010224	0.049731	0.8235
DREG4	1	0.01244474	0.011941	1.086216	0.2973
DREG6	1	0.01652276	0.007211	5.250127	0.0219
DREG7	1	0.00514962	0.009445	0.297288	0.5856
DREG8	1	-0.0082149	0.010221	0.645969	0.4216
DREG9	1	-0.0150178	0.008241	3.321153	0.0684
DREG10	1	0.00431918	0.007539	0.328266	0.5667
DREG11	1	0.00625643	0.008084	0.59895	0.4390
DREG12	1	-0.0055161	0.015647	0.124288	0.7244
DHHC0	1	-0.0163504	0.008935	3.349009	0.0672
DHHC1	1	-0.0137915	0.011273	1.496763	0.2212
DHHC2	1	0.01083414	0.006118	3.13616	0.0766
DHHC3	1	0.00852601	0.006491	1.725485	0.1890
DHHC4	1	-0.0070378	0.012522	0.315903	0.5741
DHHC6	1	0.02047049	0.00897	5.20851	0.0225
DHHC7	1	0.00952217	0.030496	0.097493	0.7549
DHHC8	1	-0.0072488	0.007251	0.999266	0.3175
DHHC9	1	0.0051777	0.015022	0.118802	0.7303
DHHC10	1	0.00592948	0.01042	0.323815	0.5693
DQTR2	1	-0.0094883	0.01481	0.410465	0.5217
DQTR3	1	-0.001101	0.017413	0.003998	0.9496
DQTR4	1	-0.0152651	0.020769	0.540224	0.4623
HEADAGE	1	0.00019792	0.000264	0.561965	0.4535
DPOL	1	0.11941027	0.065301	3.343792	0.0675
DPOL_SB	1	0.1158894	0.065201	3.159249	0.0755
TESTPOL	1	0.1158894	0.065201	3.159249	0.0755

Table A-1 (continued)

OLS Model		for SHRTOBCO			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	0.29551	0.00704	3.696	0.0001
Error	1327	2.52628	0.00190		
C Total	1369	2.82179			
Root MSE	0.04363	R-square	0.1047		
Dep Mean	0.03923	Adj R-sq	0.0764		
C.V.	111.23117				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.628874	0.61928805	1.015	0.3101
SB	1	0.005908	0.00422351	1.399	0.1621
TREND	1	0.040574	0.02505730	1.619	0.1056
TRENDSQ	1	-0.001591	0.00092660	-1.717	0.0862
P_FOOD	1	-0.228093	0.17210155	-1.325	0.1853
P_ALCH	1	0.008952	0.20021195	0.045	0.9643
P_TOBCO	1	0.084723	0.06835509	1.239	0.2154
P_CLOTH	1	-0.057448	0.32541212	-0.177	0.8599
P_TSPRT	1	-0.028943	0.12613431	-0.229	0.8185
P_MISC	1	-0.144637	0.17312827	-0.835	0.4036
P_SVCS	1	0.046616	0.13205422	0.353	0.7241
P_FDOUT	1	0.004603	0.24921927	0.018	0.9853
P_HOUS	1	0.004503	0.09837546	0.046	0.9635
P_FUEL	1	-0.048393	0.07968364	-0.607	0.5437
P_DURBL	1	0.209820	0.26770915	0.784	0.4333
LRTOTEXP	1	-0.017715	0.00303022	-5.846	0.0001
DREG1	1	0.014850	0.00591046	2.512	0.0121
DREG2	1	0.010379	0.00502173	2.067	0.0389
DREG3	1	0.006934	0.00622969	1.113	0.2659
DREG4	1	-0.000159	0.00727769	-0.022	0.9826
DREG6	1	0.000518	0.00438937	0.118	0.9061
DREG7	1	0.006034	0.00575403	1.049	0.2946
DREG8	1	0.015979	0.00621922	2.569	0.0103
DREG9	1	0.004621	0.00500631	0.923	0.3562
DREG10	1	0.004639	0.00458560	1.012	0.3119
DREG11	1	0.021306	0.00491697	4.333	0.0001
DREG12	1	0.011527	0.00946193	1.218	0.2234
DHHC0	1	0.009392	0.00544090	1.726	0.0845
DHHC1	1	0.005535	0.00678422	0.816	0.4147
DHHC2	1	0.004001	0.00372598	1.074	0.2831
DHHC3	1	0.008132	0.00395417	2.057	0.0399
DHHC4	1	0.007459	0.00763493	0.977	0.3287
DHHC6	1	0.004100	0.00546864	0.750	0.4536
DHHC7	1	0.001874	0.01824740	0.103	0.9182
DHHC8	1	0.010057	0.00441632	2.277	0.0229
DHHC9	1	0.010248	0.00912560	1.123	0.2617
DHHC10	1	0.003573	0.00635373	0.562	0.5740
DQTR2	1	0.005438	0.00901696	0.603	0.5466
DQTR3	1	0.010556	0.01059759	0.996	0.3194
DQTR4	1	0.014002	0.01264402	1.107	0.2683
HEADAGE	1	-0.000353	0.00016067	-2.195	0.0283
DPOL	1	-0.001154	0.03978032	-0.029	0.9769
DPOL_SB	1	-0.002474	0.03972005	-0.062	0.9503
TESTPOL	1	-0.002474	0.03972005	-0.062	0.9503

Table A-1 (continued)

Tobit Model for SHRTOBCO  
 Noncensored Values= 824 Right Censored Values= 0  
 Left Censored Values= 546 Interval Censored Values= 0

Log Likelihood for NORMAL 663.47515094

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.4840078	0.974113	0.24688	0.6193
SB	1	0.01256296	0.006615	3.607188	0.0575
TREND	1	0.05138724	0.039557	1.687561	0.1939
TRENDSQ	1	-0.0021224	0.001464	2.102642	0.1470
P_FOOD	1	-0.4240909	0.274247	2.391296	0.1220
P_ALCH	1	0.10922124	0.317782	0.118128	0.7311
P_TOBCO	1	0.14002417	0.108134	1.676809	0.1953
P_CLOTH	1	0.11013655	0.510154	0.046608	0.8291
P_TSPRT	1	0.01804168	0.201781	0.007995	0.9288
P_MISC	1	-0.2709314	0.27367	0.980089	0.3222
P_SVCS	1	0.07274769	0.207248	0.123214	0.7256
P_FDOUT	1	0.00149111	0.390273	0.000015	0.9970
P_HOUS	1	0.02454044	0.155329	0.024961	0.8745
P_FUEL	1	-0.1129948	0.125152	0.81516	0.3666
P_DURBL	1	0.20437987	0.424846	0.231427	0.6305
LRTOTEXP	1	-0.0195598	0.004862	16.1847	0.0001
DREG1	1	0.02688346	0.009214	8.513264	0.0035
DREG2	1	0.0182961	0.007905	5.357447	0.0206
DREG3	1	0.01214068	0.009895	1.505368	0.2198
DREG4	1	0.00050479	0.011734	0.001851	0.9657
DREG6	1	0.00103155	0.007103	0.021093	0.8845
DREG7	1	0.00811942	0.009236	0.772772	0.3794
DREG8	1	0.02730504	0.009686	7.946209	0.0048
DREG9	1	0.01083195	0.007953	1.855081	0.1732
DREG10	1	0.00903779	0.007305	1.530843	0.2160
DREG11	1	0.03278063	0.007707	18.08973	0.0001
DREG12	1	0.01622948	0.014867	1.191752	0.2750
DHHC0	1	0.01627622	0.008494	3.672187	0.0553
DHHC1	1	0.00625478	0.01061	0.347552	0.5555
DHHC2	1	0.00464079	0.005961	0.606171	0.4362
DHHC3	1	0.01430854	0.006288	5.178651	0.0229
DHHC4	1	0.00883191	0.01198	0.543497	0.4610
DHHC6	1	0.00674926	0.008581	0.618636	0.4316
DHHC7	1	0.0056839	0.028178	0.040689	0.8401
DHHC8	1	0.01823652	0.006904	6.977569	0.0083
DHHC9	1	0.02149217	0.013848	2.408805	0.1207
DHHC10	1	0.00262576	0.010109	0.067464	0.7951
DQTR2	1	0.00833103	0.014189	0.344728	0.5571
DQTR3	1	0.01162711	0.01665	0.487681	0.4850
DQTR4	1	0.01963385	0.019908	0.972689	0.3240
HEADAGE	1	-0.0005671	0.000254	4.994645	0.0254
DPOL	1	-0.0082853	0.062768	0.017424	0.8950
DPOL_SB	1	-0.0121732	0.062669	0.037731	0.8460
TESTPOL	1	-0.0121732	0.062669	0.037731	0.8460

Table A-1 (continued)

OLS Model		for SHRTSPRT			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	1.42238	0.03387	6.155	0.0001
Error	1327	7.30151	0.00550		
C Total	1369	8.72389			
Root MSE	0.07418	R-square	0.1630		
Dep Mean	0.06279	Adj R-sq	0.1366		
C.V.	118.12945				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.475748	1.05282944	0.452	0.6514
SB	1	-0.025937	0.00718023	-3.612	0.0003
TREND	1	0.063530	0.04259902	1.491	0.1361
TRENDSQ	1	-0.001165	0.00157528	-0.740	0.4597
P_FOOD	1	-0.135830	0.29258368	-0.464	0.6425
P_ALCH	1	0.321887	0.34037317	0.946	0.3445
P_TOBCO	1	-0.266360	0.11620804	-2.292	0.0221
P_CLOTH	1	-0.028068	0.55322149	-0.051	0.9595
P_TSPRT	1	-0.182072	0.21443643	-0.849	0.3960
P_MISC	1	-0.457509	0.29432918	-1.554	0.1203
P_SVCS	1	-0.034047	0.22450065	-0.152	0.8795
P_FDOUT	1	-0.340016	0.42368875	-0.803	0.4224
P_HOUS	1	0.164971	0.16724461	0.986	0.3241
P_FUEL	1	0.025168	0.13546730	0.186	0.8526
P_DURBL	1	0.835459	0.45512274	1.836	0.0666
LRTOTEXP	1	0.041716	0.00515157	8.098	0.0001
DREG1	1	-0.001560	0.01004816	-0.155	0.8766
DREG2	1	0.000726	0.00853726	0.085	0.9322
DREG3	1	0.008939	0.01059088	0.844	0.3988
DREG4	1	0.002713	0.01237255	0.219	0.8264
DREG6	1	0.010145	0.00746222	1.360	0.1742
DREG7	1	0.027904	0.00978222	2.853	0.0044
DREG8	1	-0.002172	0.01057307	-0.205	0.8373
DREG9	1	0.012928	0.00851105	1.519	0.1290
DREG10	1	0.004475	0.00779581	0.574	0.5661
DREG11	1	0.003836	0.00835916	0.459	0.6464
DREG12	1	0.009911	0.01608590	0.616	0.5379
DHHC0	1	-0.006875	0.00924987	-0.743	0.4574
DHHC1	1	0.005737	0.01153362	0.497	0.6189
DHHC2	1	0.002283	0.00633441	0.360	0.7186
DHHC3	1	0.004648	0.00672235	0.691	0.4894
DHHC4	1	-0.018617	0.01297986	-1.434	0.1517
DHHC6	1	-0.016357	0.00929705	-1.759	0.0787
DHHC7	1	-0.006810	0.03102176	-0.220	0.8263
DHHC8	1	-0.017894	0.00750803	-2.383	0.0173
DHHC9	1	-0.007627	0.01551411	-0.492	0.6231
DHHC10	1	-0.009455	0.01080175	-0.875	0.3816
DQTR2	1	0.020442	0.01532941	1.333	0.1826
DQTR3	1	0.021895	0.01801659	1.215	0.2245
DQTR4	1	0.028547	0.02149565	1.328	0.1844
HEADAGE	1	-0.000046516	0.00027315	-0.170	0.8648
DPOL	1	-0.048162	0.06762910	-0.712	0.4765
DPOL_SB	1	-0.053319	0.06752664	-0.790	0.4299
TESTPOL	1	-0.053319	0.06752664	-0.790	0.4299

Table A-1 (continued)

Tobit Model for SHRTSPRT  
 Noncensored Values= 1241 Right Censored Values= 0  
 Left Censored Values= 129 Interval Censored Values= 0

Log Likelihood for NORMAL 1294.2578227

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.49426076	1.119785	0.194824	0.6589
SB	1	-0.0279016	0.007663	13.25914	0.0003
TREND	1	0.07575174	0.045392	2.785034	0.0951
TRENDSQ	1	-0.0012538	0.001677	0.559042	0.4546
P_FOOD	1	-0.118141	0.311955	0.143422	0.7049
P_ALCH	1	0.43382091	0.36324	1.426371	0.2324
P_TOBCO	1	-0.3193832	0.124185	6.614309	0.0101
P_CLOTH	1	0.12349942	0.591382	0.043611	0.8346
P_TSPRT	1	-0.2072699	0.228727	0.821177	0.3648
P_MISC	1	-0.5177787	0.314271	2.714435	0.0994
P_SVCS	1	0.03215527	0.240318	0.017903	0.8936
P_FDOUT	1	-0.5625748	0.455292	1.526791	0.2166
P_HOUS	1	0.16233959	0.178219	0.829741	0.3623
P_FUEL	1	0.01561362	0.144598	0.01166	0.9140
P_DURBL	1	0.85272699	0.484665	3.095543	0.0785
LRTOTEXP	1	0.04930361	0.005544	79.08833	0.0001
DREG1	1	-0.0003159	0.010731	0.000867	0.9765
DREG2	1	0.00448612	0.009121	0.241893	0.6228
DREG3	1	0.01054462	0.011312	0.868971	0.3512
DREG4	1	0.00086861	0.013278	0.00428	0.9478
DREG6	1	0.01011072	0.007966	1.611032	0.2043
DREG7	1	0.02981929	0.010419	8.191396	0.0042
DREG8	1	-0.0018637	0.011341	0.027003	0.8695
DREG9	1	0.01699203	0.009049	3.526013	0.0604
DREG10	1	0.00842408	0.008306	1.028735	0.3105
DREG11	1	0.0036532	0.008947	0.166714	0.6830
DREG12	1	0.00209215	0.017523	0.014255	0.9050
DHHC0	1	-0.0056316	0.00987	0.325577	0.5683
DHHC1	1	0.00803925	0.012373	0.422192	0.5158
DHHC2	1	0.00450488	0.006758	0.444338	0.5050
DHHC3	1	0.00598313	0.007146	0.700973	0.4025
DHHC4	1	-0.0190802	0.013987	1.860908	0.1725
DHHC6	1	-0.0171619	0.009976	2.959602	0.0854
DHHC7	1	0.00308972	0.032669	0.008945	0.9247
DHHC8	1	-0.0181317	0.008007	5.128092	0.0235
DHHC9	1	-0.0043527	0.016544	0.069223	0.7925
DHHC10	1	-0.0090463	0.011584	0.60988	0.4348
DQTR2	1	0.02678021	0.016444	2.6524	0.1034
DQTR3	1	0.02969788	0.019318	2.363376	0.1242
DQTR4	1	0.04085626	0.023076	3.134768	0.0766
HEADAGE	1	-0.0000368	0.000291	0.01604	0.8992
DPOL	1	-0.03793	0.072193	0.276042	0.5993
DPOL_SB	1	-0.0449077	0.07212	0.387726	0.5335
TESTPOL	1	-0.0449077	0.07212	0.387726	0.5335

Table A-1 (continued)

**Model 1 Results for Narrow Goods with 11 Good Budget**

OLS Model for SHRBOOKS					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	0.00151	0.00004	1.335	0.0761
Error	1327	0.03569	0.00003		
C Total	1369	0.03720			
Root MSE	0.00519	R-square	0.0405		
Dep Mean	0.00140	Adj R-sq	0.0102		
C.V.	370.83401				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.002380	0.07360520	-0.032	0.9742
SB	1	-0.000522	0.00050198	-1.040	0.2985
TREND	1	-0.000071576	0.00297817	-0.024	0.9808
TRENDSQ	1	0.000039787	0.00011013	0.361	0.7180
P_FOOD	1	0.003226	0.02045505	0.158	0.8747
P_ALCH	1	0.002533	0.02379610	0.106	0.9153
P_TOBCO	1	0.005306	0.00812431	0.653	0.5138
P_CLOTH	1	0.012149	0.03867671	0.314	0.7535
P_TSPRT	1	0.004344	0.01499164	0.290	0.7721
P_MISC	1	-0.028625	0.02057708	-1.391	0.1644
P_SVCS	1	-0.002933	0.01569525	-0.187	0.8518
P_FDOUT	1	0.008599	0.02962084	0.290	0.7716
P_HOUS	1	-0.001556	0.01169237	-0.133	0.8942
P_FUEL	1	-0.002986	0.00947076	-0.315	0.7526
P_DURBL	1	0.001232	0.03181845	0.039	0.9691
LRTOTEXP	1	0.000887	0.00036016	2.462	0.0139
DREG1	1	-0.000219	0.00070249	-0.311	0.7556
DREG2	1	0.000039855	0.00059686	0.067	0.9468
DREG3	1	-0.000079032	0.00074043	-0.107	0.9150
DREG4	1	-0.000882	0.00086499	-1.019	0.3082
DREG6	1	0.000792	0.00052170	1.519	0.1291
DREG7	1	0.000104	0.00068389	0.152	0.8791
DREG8	1	-0.000611	0.00073918	-0.827	0.4083
DREG9	1	0.000582	0.00059502	0.977	0.3286
DREG10	1	-0.000383	0.00054502	-0.702	0.4826
DREG11	1	-0.001013	0.00058440	-1.734	0.0832
DREG12	1	0.000405	0.00112459	0.360	0.7185
DHHC0	1	-0.000291	0.00064668	-0.449	0.6532
DHHC1	1	-0.000646	0.00080634	-0.802	0.4229
DHHC2	1	0.000514	0.00044285	1.161	0.2459
DHHC3	1	0.000796	0.00046997	1.693	0.0906
DHHC4	1	-0.000417	0.00090745	-0.460	0.6459
DHHC6	1	0.000142	0.00064997	0.218	0.8277
DHHC7	1	-0.001240	0.00216879	-0.572	0.5676
DHHC8	1	-0.000310	0.00052490	-0.592	0.5543
DHHC9	1	-0.001289	0.00108462	-1.188	0.2349
DHHC10	1	0.000137	0.00075517	0.182	0.8559
DQTR2	1	-0.000219	0.00107171	-0.204	0.8380
DQTR3	1	0.000033042	0.00125957	0.026	0.9791
DQTR4	1	0.001149	0.00150280	0.764	0.4448
HEADAGE	1	-0.000019328	0.00001910	-1.012	0.3117
DPOL	1	-0.000261	0.00472807	-0.055	0.9561
DPOL_SB	1	-0.000221	0.00472091	-0.047	0.9626
TESTPOL	1	-0.000221	0.00472091	-0.047	0.9626

Table A-1 (continued)

**Tobit Model** for SHRBOOKS  
 Noncensored Values= 270 Right Censored Values= 0  
 Left Censored Values=1100 Interval Censored Values= 0

Log Likelihood for NORMAL 397.29468066

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.0919353	0.2981	0.095113	0.7578
SB	1	-0.0033133	0.002142	2.392684	0.1219
TREND	1	0.00161058	0.011985	0.01806	0.8931
TRENDSQ	1	0.00025956	0.000438	0.351359	0.5533
P_FOOD	1	-0.0126416	0.080701	0.024538	0.8755
P_ALCH	1	-0.0214894	0.099335	0.0468	0.8287
P_TOBCO	1	0.00396906	0.033357	0.014158	0.9053
P_CLOTH	1	0.07312705	0.162981	0.201318	0.6537
P_TSPT	1	-0.0018263	0.062593	0.000851	0.9767
P_MISC	1	-0.1830732	0.085808	4.551907	0.0329
P_SVCS	1	-0.0219836	0.064725	0.11536	0.7341
P_FDOUT	1	-0.0036651	0.128842	0.000809	0.9773
P_HOUS	1	0.03151514	0.046722	0.454992	0.5000
P_FUEL	1	0.02301716	0.038603	0.355526	0.5510
P_DUREBL	1	0.13332286	0.130124	1.049766	0.3056
LRTOTEXP	1	0.00703648	0.001481	22.5624	0.0001
DREG1	1	-0.0024722	0.002985	0.685914	0.4076
DREG2	1	-0.0011533	0.002495	0.213653	0.6439
DREG3	1	0.0006378	0.00293	0.047387	0.8277
DREG4	1	-0.0025203	0.003509	0.515789	0.4726
DREG6	1	0.00261445	0.00201	1.691324	0.1934
DREG7	1	0.00172188	0.002681	0.412533	0.5207
DREG8	1	-0.003529	0.003259	1.17235	0.2789
DREG9	1	0.00256979	0.002318	1.229283	0.2675
DREG10	1	-0.0028442	0.002282	1.553035	0.2127
DREG11	1	-0.006648	0.002631	6.384669	0.0115
DREG12	1	0.00268305	0.00436	0.378768	0.5383
DHHC0	1	-0.0006918	0.002598	0.070902	0.7900
DHHC1	1	-0.0039876	0.003788	1.108143	0.2925
DHHC2	1	0.00147587	0.001769	0.696221	0.4041
DHHC3	1	0.00243059	0.001885	1.663015	0.1972
DHHC4	1	-0.0047179	0.00423	1.243838	0.2647
DHHC6	1	0.00066494	0.002669	0.062057	0.8033
DHHC7	1	-0.0609787	1.901552	0.001028	0.9744
DHHC8	1	-0.0030956	0.002238	1.913211	0.1666
DHHC9	1	-0.0078418	0.005235	2.243875	0.1341
DHHC10	1	0.00038157	0.003107	0.015083	0.9023
DQTR2	1	-0.0008961	0.004446	0.040617	0.8403
DQTR3	1	0.00051208	0.005322	0.009257	0.9234
DQTR4	1	0.00421742	0.006381	0.436848	0.5086
HEADAGE	1	-0.0001288	0.000079	2.642236	0.1041
DPOL	1	-0.0069133	0.019157	0.130226	0.7182
DPOL_SB	1	-0.0051813	0.019137	0.073306	0.7866
TESTPOL	1	-0.0051813	0.019137	0.073306	0.7866

Table A-1 (continued)

OLS Model for SHRCIGS					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	0.18450	0.00439	5.714	0.0001
Error	1327	1.02015	0.00077		
C Total	1369	1.20465			
Root MSE	0.02773	R-square	0.1532		
Dep Mean	0.02305	Adj R-sq	0.1264		
C.V.	120.29705				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.678772	0.39353512	1.725	0.0848
SB	1	0.002049	0.00268389	0.763	0.4454
TREND	1	0.044081	0.01592301	2.768	0.0057
TRENDSQ	1	-0.000973	0.00058882	-1.652	0.0988
P_FOOD	1	-0.283513	0.10936430	-2.592	0.0096
P_ALCH	1	-0.053711	0.12722744	-0.422	0.6730
P_TOBCO	1	-0.009062	0.04343718	-0.209	0.8348
P_CLOTH	1	-0.324182	0.20678761	-1.568	0.1172
P_TSPT	1	-0.080790	0.08015379	-1.008	0.3137
P_MISC	1	0.018621	0.11001675	0.169	0.8656
P_SVCS	1	-0.075442	0.08391567	-0.899	0.3688
P_FDOUT	1	0.125992	0.15836982	0.796	0.4264
P_HOUS	1	0.084213	0.06251404	1.347	0.1782
P_FUEL	1	-0.114878	0.05063607	-2.269	0.0234
P_DURBL	1	0.552889	0.17011947	3.250	0.0012
LRTOTEXP	1	-0.009200	0.00192560	-4.778	0.0001
DREG1	1	0.008537	0.00375588	2.273	0.0232
DREG2	1	0.007000	0.00319113	2.194	0.0284
DREG3	1	0.004680	0.00395874	1.182	0.2374
DREG4	1	0.003548	0.00462471	0.767	0.4431
DREG6	1	-0.000862	0.00278929	-0.309	0.7575
DREG7	1	0.002532	0.00365648	0.692	0.4888
DREG8	1	0.010481	0.00395209	2.652	0.0081
DREG9	1	0.002538	0.00318133	0.798	0.4251
DREG10	1	0.002935	0.00291398	1.007	0.3140
DREG11	1	0.011282	0.00312455	3.611	0.0003
DREG12	1	0.005373	0.00601272	0.894	0.3717
DHHC0	1	0.006491	0.00345749	1.877	0.0607
DHHC1	1	0.004843	0.00431113	1.123	0.2614
DHHC2	1	0.002720	0.00236773	1.149	0.2509
DHHC3	1	0.005113	0.00251273	2.035	0.0421
DHHC4	1	0.005241	0.00485172	1.080	0.2803
DHHC6	1	0.001707	0.00347513	0.491	0.6234
DHHC7	1	0.003049	0.01159556	0.263	0.7926
DHHC8	1	0.006136	0.00280641	2.186	0.0290
DHHC9	1	0.005705	0.00579899	0.984	0.3254
DHHC10	1	0.001261	0.00403756	0.312	0.7548
DQTR2	1	0.007661	0.00572995	1.337	0.1815
DQTR3	1	0.008631	0.00673439	1.282	0.2002
DQTR4	1	0.014905	0.00803482	1.855	0.0638
HEADAGE	1	-0.000240	0.00010210	-2.351	0.0189
DPOL	1	-0.071682	0.02527895	-2.836	0.0046
DPOL_SB	1	-0.069637	0.02524066	-2.759	0.0059
TESTPOL	1	-0.069637	0.02524066	-2.759	0.0059

Table A-1 (continued)

Tobit Model for SHRCIGS  
 Noncensored Values= 813 Right Censored Values= 0  
 Left Censored Values= 557 Interval Censored Values= 0

Log Likelihood for NORMAL 1021.8319496

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.61198409	0.622454	0.966641	0.3255
SB	1	0.006871	0.004238	2.62911	0.1049
TREND	1	0.05513697	0.025287	4.754302	0.0292
TRENDSQ	1	-0.0013589	0.000937	2.101594	0.1471
P_FOOD	1	-0.4567092	0.176346	6.707279	0.0096
P_ALCH	1	0.00579464	0.203136	0.000814	0.9772
P_TOBCO	1	0.01957381	0.069134	0.080162	0.7771
P_CLOTH	1	-0.2436145	0.326361	0.557198	0.4554
P_TSPRT	1	-0.0518111	0.129269	0.160641	0.6886
P_MISC	1	-0.0438444	0.175892	0.062135	0.8032
P_SVCS	1	-0.064738	0.132285	0.239496	0.6246
P_FDOUT	1	0.1297797	0.249463	0.270646	0.6029
P_HOUS	1	0.11467933	0.099579	1.326286	0.2495
P_FUEL	1	-0.1769468	0.08022	4.865395	0.0274
P_DURBL	1	0.61399321	0.271752	5.104837	0.0239
LRTOTEXP	1	-0.0101251	0.003105	10.63258	0.0011
DREG1	1	0.01646599	0.005865	7.881258	0.0050
DREG2	1	0.01236266	0.005037	6.023995	0.0141
DREG3	1	0.00807412	0.006311	1.636896	0.2008
DREG4	1	0.00289574	0.007521	0.148229	0.7002
DREG6	1	-0.0010073	0.004537	0.0493	0.8243
DREG7	1	0.0042579	0.005882	0.523961	0.4692
DREG8	1	0.01696849	0.006192	7.509105	0.0061
DREG9	1	0.0063634	0.005077	1.570796	0.2101
DREG10	1	0.00597907	0.004659	1.647084	0.1994
DREG11	1	0.01897365	0.004912	14.92091	0.0001
DREG12	1	0.00884121	0.009476	0.870482	0.3508
DHHC0	1	0.01137738	0.005415	4.414098	0.0356
DHHC1	1	0.00594491	0.006734	0.77941	0.3773
DHHC2	1	0.00340652	0.003813	0.798237	0.3716
DHHC3	1	0.00911464	0.004006	5.176859	0.0229
DHHC4	1	0.00641497	0.007639	0.705203	0.4010
DHHC6	1	0.00335399	0.005476	0.375195	0.5402
DHHC7	1	0.00539413	0.01802	0.089604	0.7647
DHHC8	1	0.01131755	0.00441	6.58604	0.0103
DHHC9	1	0.01176405	0.008877	1.756122	0.1851
DHHC10	1	0.00096609	0.006454	0.022408	0.8810
DQTR2	1	0.00991676	0.009034	1.204923	0.2723
DQTR3	1	0.00975866	0.010613	0.845474	0.3578
DQTR4	1	0.01902116	0.012693	2.24561	0.1340
HEADAGE	1	-0.0003691	0.000162	5.201246	0.0226
DPOL	1	-0.0885833	0.04021	4.853278	0.0276
DPOL_SB	1	-0.088311	0.040142	4.839733	0.0278
TESTPOL	1	-0.088311	0.040142	4.839733	0.0278

Table A-1 (continued)

OLS Model		for SHRCOSM			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	0.00439	0.00010	2.688	0.0001
Error	1327	0.05156	0.00004		
C Total	1369	0.05595			
Root MSE	0.00623	R-square	0.0784		
Dep Mean	0.00353	Adj R-sq	0.0492		
C.V.	176.56756				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.089799	0.08847575	1.015	0.3103
SB	1	-0.000159	0.00060340	-0.264	0.7919
TREND	1	0.003718	0.00357986	1.039	0.2992
TRENDSQ	1	0.000117	0.00013238	0.883	0.3774
P_FOOD	1	-0.047031	0.02458761	-1.913	0.0560
P_ALCH	1	-0.072284	0.02860366	-2.527	0.0116
P_TOBCO	1	-0.013262	0.00976568	-1.358	0.1747
P_CLOTH	1	-0.054556	0.04649061	-1.173	0.2408
P_TSPRT	1	-0.018538	0.01802042	-1.029	0.3038
P_MISC	1	0.003138	0.02473430	0.127	0.8991
P_SVCS	1	0.003555	0.01886617	0.210	0.8340
P_FDOUT	1	0.016433	0.03560518	0.462	0.6445
P_HOUS	1	0.025219	0.01405460	1.794	0.0730
P_FUEL	1	0.006900	0.01138415	0.606	0.5446
P_DURBL	1	0.131162	0.03824677	3.429	0.0006
LRTOTEXP	1	0.001118	0.00043292	2.583	0.0099
DREG1	1	-0.000732	0.00084441	-0.867	0.3863
DREG2	1	0.000092335	0.00071744	0.129	0.8976
DREG3	1	0.001252	0.00089002	1.407	0.1598
DREG4	1	0.001764	0.00103974	1.697	0.0900
DREG6	1	0.001111	0.00062710	1.771	0.0768
DREG7	1	0.000292	0.00082206	0.356	0.7221
DREG8	1	-0.000123	0.00088852	-0.138	0.8899
DREG9	1	0.000639	0.00071524	0.893	0.3718
DREG10	1	0.001283	0.00065513	1.958	0.0504
DREG11	1	-0.000039189	0.00070247	-0.056	0.9555
DREG12	1	-0.000530	0.00135180	-0.392	0.6949
DHHC0	1	-0.001213	0.00077732	-1.560	0.1189
DHHC1	1	0.002307	0.00096924	2.380	0.0174
DHHC2	1	0.000817	0.00053232	1.535	0.1250
DHHC3	1	0.001445	0.00056492	2.557	0.0107
DHHC4	1	-0.002064	0.00109078	-1.893	0.0586
DHHC6	1	0.000262	0.00078129	0.336	0.7372
DHHC7	1	-0.000888	0.00260695	-0.341	0.7334
DHHC8	1	0.000312	0.00063095	0.495	0.6208
DHHC9	1	-0.000468	0.00130375	-0.359	0.7195
DHHC10	1	-0.001385	0.00090774	-1.526	0.1273
DQTR2	1	0.000686	0.00128822	0.533	0.5942
DQTR3	1	0.001199	0.00151405	0.792	0.4287
DQTR4	1	0.001740	0.00180641	0.963	0.3357
HEADAGE	1	-0.000048038	0.00002295	-2.093	0.0366
DPOL	1	-0.012647	0.00568329	-2.225	0.0262
DPOL_SB	1	-0.012749	0.00567468	-2.247	0.0248
TESTPOL	1	-0.012749	0.00567468	-2.247	0.0248

Table A-1 (continued)

Tobit Model for SHRCOSM  
 Noncensored Values= 681 Right Censored Values= 0  
 Left Censored Values= 689 Interval Censored Values= 0

Log Likelihood for NORMAL 1735.9638157

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.16628813	0.162222	1.050756	0.3053
SB	1	0.00009082	0.001081	0.007063	0.9330
TREND	1	0.00874015	0.006458	1.831737	0.1759
TRENDSQ	1	0.00011839	0.000239	0.245898	0.6200
P_FOOD	1	-0.0922621	0.044364	4.32502	0.0376
P_ALCH	1	-0.1316086	0.052502	6.283702	0.0122
P_TOBCO	1	-0.0276417	0.017894	2.386373	0.1224
P_CLOTH	1	-0.0815125	0.084993	0.919775	0.3375
P_TSPRT	1	-0.0405517	0.032433	1.563353	0.2112
P_MISC	1	0.03002198	0.04544	0.436523	0.5088
P_SVCS	1	0.03731208	0.034174	1.192083	0.2749
P_FDOUT	1	-0.008467	0.065013	0.016961	0.8964
P_HOUS	1	0.04581801	0.025756	3.164478	0.0753
P_FUEL	1	0.01169944	0.020873	0.314163	0.5751
P_DURBL	1	0.22009498	0.068991	10.17748	0.0014
LRTOTEXP	1	0.00390894	0.000795	24.20091	0.0001
DREG1	1	-0.0015469	0.001599	0.935906	0.3333
DREG2	1	0.0003439	0.001333	0.066599	0.7964
DREG3	1	0.00357298	0.001585	5.083402	0.0242
DREG4	1	0.00422777	0.001842	5.269148	0.0217
DREG6	1	0.00274511	0.001131	5.892536	0.0152
DREG7	1	0.00138604	0.001492	0.863331	0.3528
DREG8	1	-0.0003533	0.001674	0.044535	0.8329
DREG9	1	0.00202607	0.001294	2.450587	0.1175
DREG10	1	0.0024861	0.001194	4.338107	0.0373
DREG11	1	0.00007022	0.001298	0.002927	0.9569
DREG12	1	-0.0013225	0.002617	0.255282	0.6134
DHHC0	1	-0.0025011	0.001443	3.005851	0.0830
DHHC1	1	0.00384869	0.001752	4.827034	0.0280
DHHC2	1	0.00167744	0.000967	3.006217	0.0829
DHHC3	1	0.00254864	0.001016	6.29429	0.0121
DHHC4	1	-0.0046829	0.002179	4.618736	0.0316
DHHC6	1	0.00062586	0.001429	0.191697	0.6615
DHHC7	1	-0.0027318	0.005281	0.26761	0.6049
DHHC8	1	0.00076205	0.001138	0.448644	0.5030
DHHC9	1	-0.0013183	0.002451	0.289363	0.5906
DHHC10	1	-0.0032371	0.001766	3.361674	0.0667
DQTR2	1	0.0022892	0.002322	0.971589	0.3243
DQTR3	1	0.00337514	0.002753	1.503059	0.2202
DQTR4	1	0.0035595	0.003294	1.167709	0.2799
HEADAGE	1	-0.0000663	0.000042	2.481328	0.1152
DPOL	1	-0.0220016	0.010352	4.516802	0.0336
DPOL_SB	1	-0.0223386	0.010352	4.656487	0.0309
TESTPOL	1	-0.0223386	0.010352	4.656487	0.0309

Table A-1 (continued)

OLS Model for SHRDOMSV					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	0.03795	0.00090	2.888	0.0001
Error	1327	0.41522	0.00031		
C Total	1369	0.45317			
Root MSE	0.01769	R-square	0.0837		
Dep Mean	0.00387	Adj R-sq	0.0548		
C.V.	456.92216				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.099391	0.25106814	0.396	0.6923
SB	1	-0.004035	0.00171227	-2.357	0.0186
TREND	1	0.002980	0.01015858	0.293	0.7693
TRENDSQ	1	0.000106	0.00037566	0.282	0.7780
P_FOOD	1	-0.010325	0.06977240	-0.148	0.8824
P_ALCH	1	-0.027481	0.08116876	-0.339	0.7350
P_TOBCO	1	-0.003373	0.02771212	-0.122	0.9032
P_CLOTH	1	-0.073094	0.13192668	-0.554	0.5796
P_TSPRT	1	-0.034840	0.05113664	-0.681	0.4958
P_MISC	1	-0.011656	0.07018865	-0.166	0.8681
P_SVCS	1	-0.045540	0.05353665	-0.851	0.3951
P_FDOUT	1	0.047718	0.10103702	0.472	0.6368
P_HOUS	1	0.028999	0.03988281	0.727	0.4673
P_FUEL	1	-0.003742	0.03230488	-0.116	0.9078
P_DURBL	1	0.115572	0.10853308	1.065	0.2871
LRTOTEXP	1	0.004435	0.00122849	3.610	0.0003
DREG1	1	0.001806	0.00239618	0.754	0.4512
DREG2	1	0.002723	0.00203588	1.337	0.1814
DREG3	1	0.001700	0.00252561	0.673	0.5010
DREG4	1	0.001784	0.00295048	0.605	0.5456
DREG6	1	0.001267	0.00177951	0.712	0.4766
DREG7	1	-0.000182	0.00233277	-0.078	0.9378
DREG8	1	0.005246	0.00252136	2.081	0.0377
DREG9	1	0.000638	0.00202963	0.315	0.7531
DREG10	1	0.004947	0.00185907	2.661	0.0079
DREG11	1	0.001963	0.00199341	0.985	0.3249
DREG12	1	0.000038514	0.00383600	0.010	0.9920
DHHC0	1	0.000518	0.00220582	0.235	0.8145
DHHC1	1	0.002930	0.00275042	1.065	0.2870
DHHC2	1	0.004924	0.00151057	3.259	0.0011
DHHC3	1	0.002937	0.00160308	1.832	0.0672
DHHC4	1	0.001639	0.00309531	0.530	0.5964
DHHC6	1	0.003582	0.00221707	1.616	0.1064
DHHC7	1	0.001179	0.00739776	0.159	0.8734
DHHC8	1	-0.000220	0.00179044	-0.123	0.9024
DHHC9	1	0.017748	0.00369965	4.797	0.0001
DHHC10	1	0.003552	0.00257589	1.379	0.1681
DQTR2	1	-0.003614	0.00365560	-0.989	0.3230
DQTR3	1	-0.001461	0.00429641	-0.340	0.7339
DQTR4	1	-0.001596	0.00512607	-0.311	0.7555
HEADAGE	1	-0.000270	0.00006514	-4.147	0.0001
DPOL	1	-0.015517	0.01612751	-0.962	0.3362
DPOL_SB	1	-0.016396	0.01610307	-1.018	0.3088
TESTPOL	1	-0.016396	0.01610307	-1.018	0.3088

Table A-1 (continued)

**Tobit Model** for SHRDOMSV  
 Noncensored Values= 182 Right Censored Values= 0  
 Left Censored Values=1188 Interval Censored Values= 0

Log Likelihood for NORMAL -13.84997668

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.0998923	1.460273	0.004679	0.9455
SB	1	-0.0348689	0.010625	10.77096	0.0010
TREND	1	0.01164868	0.059893	0.037826	0.8458
TRENDSQ	1	0.00149474	0.002206	0.459213	0.4980
P_FOOD	1	0.38293049	0.424538	0.813593	0.3671
P_ALCH	1	0.1570851	0.476343	0.10875	0.7416
P_TOBCO	1	0.12705978	0.171993	0.545748	0.4601
P_CLOTH	1	0.57959613	0.821773	0.497448	0.4806
P_TSPRT	1	-0.1364437	0.307325	0.197111	0.6571
P_MISC	1	-0.7547509	0.453058	2.775231	0.0957
P_SVCS	1	-0.3156179	0.314795	1.005237	0.3160
P_FDOUT	1	-0.2188997	0.654665	0.111803	0.7381
P_HOUS	1	-0.065584	0.243309	0.072657	0.7875
P_FUEL	1	0.11869598	0.201003	0.348712	0.5548
P_DURBL	1	0.15428263	0.644281	0.057343	0.8107
LRTOTEXP	1	0.02992262	0.007128	17.62477	0.0001
DREG1	1	0.024937	0.014485	2.963853	0.0851
DREG2	1	0.023661	0.012359	3.665376	0.0556
DREG3	1	0.01085353	0.015611	0.483363	0.4869
DREG4	1	0.02837794	0.016424	2.98556	0.0840
DREG6	1	0.02512357	0.0107	5.512853	0.0189
DREG7	1	0.0104834	0.014913	0.494173	0.4821
DREG8	1	0.01127735	0.016617	0.460573	0.4974
DREG9	1	0.01868354	0.012132	2.371574	0.1236
DREG10	1	0.03803455	0.010815	12.36861	0.0004
DREG11	1	0.01752579	0.011839	2.191263	0.1388
DREG12	1	-0.0031583	0.026668	0.014025	0.9057
DHHC0	1	0.01861235	0.013584	1.877267	0.1706
DHHC1	1	0.02505583	0.014979	2.798052	0.0944
DHHC2	1	0.03435926	0.009298	13.65431	0.0002
DHHC3	1	0.02193664	0.010079	4.737116	0.0295
DHHC4	1	0.04412917	0.01515	8.484054	0.0036
DHHC6	1	0.03195634	0.01185	7.27298	0.0070
DHHC7	1	0.02680255	0.040428	0.439519	0.5074
DHHC8	1	0.00631052	0.011648	0.293536	0.5880
DHHC9	1	0.05258316	0.018082	8.457089	0.0036
DHHC10	1	0.03210535	0.014286	5.050406	0.0246
DQTR2	1	-0.0175897	0.02133	0.680036	0.4096
DQTR3	1	0.00575905	0.025655	0.050393	0.8224
DQTR4	1	-0.0006607	0.03097	0.000455	0.9830
HEADAGE	1	-0.0030127	0.000467	41.63691	0.0001
DPOL	1	0.00572096	0.096744	0.003497	0.9528
DPOL_SB	1	0.00702211	0.096722	0.005271	0.9421
TESTPOL	1	0.00702211	0.096722	0.005271	0.9421

Table A-1 (continued)

OLS Model		for SHRHAIRD			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	0.00756	0.00018	2.495	0.0001
Error	1327	0.09568	0.00007		
C Total	1369	0.10324			
Root MSE	0.00849	R-square	0.0732		
Dep Mean	0.00303	Adj R-sq	0.0439		
C.V.	280.31575				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.079918	0.12052127	-0.663	0.5074
SB	1	-0.001641	0.00082195	-1.996	0.0461
TREND	1	-0.006078	0.00487647	-1.246	0.2128
TRENDSQ	1	0.000323	0.00018033	1.789	0.0739
P_FOOD	1	-0.090042	0.03349313	-2.688	0.0073
P_ALCH	1	-0.091491	0.03896377	-2.348	0.0190
P_TOBCO	1	-0.001306	0.01330276	-0.098	0.9218
P_CLOTH	1	-0.074880	0.06332930	-1.182	0.2373
P_TSPRT	1	0.031307	0.02454733	1.275	0.2024
P_MISC	1	0.024830	0.03369295	0.737	0.4613
P_SVCS	1	-0.022803	0.02569942	-0.887	0.3751
P_FDOUT	1	0.102078	0.04850121	2.105	0.0355
P_HOUS	1	0.047058	0.01914511	2.458	0.0141
P_FUEL	1	0.002087	0.01550744	0.135	0.8930
P_DURBL	1	0.094579	0.05209958	1.815	0.0697
LRTOTEXP	1	0.001238	0.00058972	2.100	0.0360
DREG1	1	-0.000395	0.00115025	-0.344	0.7312
DREG2	1	0.001021	0.00097729	1.044	0.2965
DREG3	1	0.001531	0.00121238	1.263	0.2067
DREG4	1	0.002910	0.00141633	2.055	0.0401
DREG6	1	-0.000712	0.00085423	-0.833	0.4048
DREG7	1	0.001611	0.00111981	1.438	0.1506
DREG8	1	-0.001889	0.00121034	-1.561	0.1188
DREG9	1	-0.000190	0.00097429	-0.195	0.8451
DREG10	1	-0.000438	0.00089241	-0.491	0.6237
DREG11	1	0.000320	0.00095690	0.334	0.7383
DREG12	1	0.001891	0.00184141	1.027	0.3047
DHHC0	1	0.000910	0.00105887	0.859	0.3903
DHHC1	1	0.000546	0.00132030	0.413	0.6795
DHHC2	1	-0.000056626	0.00072512	-0.078	0.9378
DHHC3	1	0.001268	0.00076953	1.647	0.0997
DHHC4	1	0.000122	0.00148585	0.082	0.9346
DHHC6	1	0.000586	0.00106427	0.550	0.5823
DHHC7	1	-0.001457	0.00355118	-0.410	0.6816
DHHC8	1	-0.000097604	0.00085947	-0.114	0.9096
DHHC9	1	-0.001295	0.00177596	-0.729	0.4660
DHHC10	1	0.000025741	0.00123652	0.021	0.9834
DQTR2	1	-0.004143	0.00175481	-2.361	0.0184
DQTR3	1	-0.005424	0.00206243	-2.630	0.0086
DQTR4	1	-0.007838	0.00246069	-3.185	0.0015
HEADAGE	1	-0.000005495	0.00003127	-0.176	0.8605
DPOL	1	-0.025482	0.00774175	-3.291	0.0010
DPOL_SB	1	-0.026100	0.00773002	-3.376	0.0008
TESTPOL	1	-0.026100	0.00773002	-3.376	0.0008

Table A-1 (continued)

Tobit Model for SHRHAIRD  
 Noncensored Values= 303 Right Censored Values= 0  
 Left Censored Values=1067 Interval Censored Values= 0

Log Likelihood for NORMAL 328.68585595

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.6744379	0.486068	1.92526	0.1653
SB	1	-0.0066306	0.003185	4.332862	0.0374
TREND	1	-0.0313478	0.018953	2.735556	0.0981
TRENDSQ	1	0.00120915	0.000709	2.911583	0.0879
P_FOOD	1	-0.2758087	0.131261	4.415163	0.0356
P_ALCH	1	-0.2031741	0.148007	1.88439	0.1698
P_TOBCO	1	-0.0654928	0.03351	1.506939	0.2196
P_CLOTH	1	-0.1841929	0.23914	0.593256	0.4412
P_TSPRT	1	0.05553286	0.095561	0.337705	0.5612
P_MISC	1	0.11914944	0.128852	0.855075	0.3551
P_SVCS	1	-0.0909702	0.098042	0.860941	0.3535
P_FDOUT	1	0.35513552	0.180195	3.884225	0.0487
P_HOUS	1	0.1965974	0.080476	5.967868	0.0146
P_FUEL	1	0.01833087	0.063009	0.084636	0.7711
P_DURBL	1	0.23398575	0.202856	1.330463	0.2487
LRTOTEXP	1	0.01073479	0.002299	21.79502	0.0001
DREG1	1	0.0039807	0.004617	0.743201	0.3886
DREG2	1	0.01062931	0.003877	7.515777	0.0061
DREG3	1	0.00768349	0.004663	2.715368	0.0994
DREG4	1	0.01278889	0.005164	6.13264	0.0133
DREG6	1	0.0021083	0.003433	0.377192	0.5391
DREG7	1	0.01079534	0.004232	6.507388	0.0107
DREG8	1	-0.0048102	0.005376	0.800584	0.3709
DREG9	1	0.00117365	0.004036	0.084567	0.7712
DREG10	1	0.00291244	0.003672	0.629167	0.4277
DREG11	1	0.00648054	0.003811	2.89143	0.0891
DREG12	1	0.01022975	0.006944	2.170075	0.1407
DHHC0	1	0.0024085	0.003956	0.370602	0.5427
DHHC1	1	-0.0061759	0.006716	0.845648	0.3578
DHHC2	1	-0.0015907	0.002855	0.310419	0.5774
DHHC3	1	0.00422718	0.002909	2.112003	0.1461
DHHC4	1	-0.0002564	0.006103	0.001764	0.9665
DHHC6	1	0.00235793	0.004143	0.323928	0.5693
DHHC7	1	-0.1131582	13.49817	0.00007	0.9933
DHHC8	1	0.00055709	0.003257	0.029261	0.8642
DHHC9	1	-0.0124705	0.00941	1.756188	0.1851
DHHC10	1	-0.0020945	0.005144	0.16576	0.6839
DQTR2	1	-0.0134598	0.006606	4.151272	0.0416
DQTR3	1	-0.0201769	0.007859	6.591269	0.0102
DQTR4	1	-0.030495	0.009463	10.38448	0.0013
HEADAGE	1	0.00002224	0.000121	0.033522	0.8547
DPOL	1	-0.1011247	0.031751	10.14402	0.0014
DPOL_SB	1	-0.1021133	0.031726	10.35944	0.0013
TESTPOL	1	-0.1021133	0.031726	10.35944	0.0013

Table A-1 (continued)

OLS Model for SHROTHB					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	0.0000546925	1.3022029E-6	1.100	0.3063
Error	1327	0.0015705346	1.1835227E-6		
C Total	1369	0.00163			
Root MSE	0.00109	R-square	0.0337		
Dep Mean	0.00012	Adj R-sq	0.0031		
C.V.	890.19676				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.018431	0.01544100	-1.194	0.2328
SB	1	0.000034498	0.00010531	0.328	0.7433
TREND	1	-0.000574	0.00062477	-0.920	0.3580
TRENDSQ	1	0.000032589	0.00002310	1.411	0.1586
P_FOOD	1	-0.000262	0.00429109	-0.061	0.9513
P_ALCH	1	-0.000152	0.00499198	-0.031	0.9757
P_TOBCO	1	-0.000495	0.00170433	-0.290	0.7717
P_CLOTH	1	0.005532	0.00811365	0.682	0.4954
P_TSPRT	1	-0.002380	0.00314497	-0.757	0.4493
P_MISC	1	0.002060	0.00431669	0.477	0.6333
P_SVCS	1	0.000422	0.00329257	0.128	0.8980
P_FDOUT	1	-0.003306	0.00621390	-0.532	0.5948
P_HOUS	1	0.002234	0.00245284	0.911	0.3625
P_FUEL	1	0.000460	0.00198679	0.231	0.8170
P_DURBL	1	0.000078700	0.00667492	0.012	0.9906
LRTOTEXP	1	0.000069370	0.00007555	0.918	0.3587
DREG1	1	-0.000012968	0.00014737	-0.088	0.9299
DREG2	1	0.000132	0.00012521	1.057	0.2905
DREG3	1	-0.000000111	0.00015533	-0.001	0.9994
DREG4	1	0.000375	0.00018146	2.067	0.0390
DREG6	1	0.000217	0.00010944	1.987	0.0471
DREG7	1	0.000090930	0.00014347	0.634	0.5263
DREG8	1	0.000436	0.00015507	2.812	0.0050
DREG9	1	0.000158	0.00012482	1.268	0.2049
DREG10	1	0.000047034	0.00011433	0.411	0.6809
DREG11	1	0.000000567	0.00012260	0.005	0.9963
DREG12	1	-0.000041210	0.00023592	-0.175	0.8614
DHHC0	1	0.000306	0.00013566	2.252	0.0245
DHHC1	1	0.000018560	0.00016915	0.110	0.9126
DHHC2	1	0.000029300	0.00009290	0.315	0.7525
DHHC3	1	0.000151	0.00009859	1.537	0.1246
DHHC4	1	0.000000668	0.00019037	0.004	0.9972
DHHC6	1	0.000089164	0.00013635	0.654	0.5133
DHHC7	1	-0.000020555	0.00045497	-0.045	0.9640
DHHC8	1	0.000055139	0.00011011	0.501	0.6166
DHHC9	1	0.000236	0.00022753	1.037	0.3000
DHHC10	1	-0.000020802	0.00015842	-0.131	0.8956
DQTR2	1	-0.000042569	0.00022482	-0.189	0.8499
DQTR3	1	-0.000239	0.00026423	-0.906	0.3652
DQTR4	1	-0.000195	0.00031526	-0.620	0.5355
HEADAGE	1	-8.560869E-8	0.00000401	-0.021	0.9830
DPOL	1	-0.000559	0.00099186	-0.563	0.5732
DPOL_SB	1	-0.000733	0.00099036	-0.740	0.4594
TESTPOL	1	-0.000733	0.00099036	-0.740	0.4594

Table A-1 (continued)

Tobit Model for SHROTHB  
 Noncensored Values= 31 Right Censored Values= 0  
 Left Censored Values=1339 Interval Censored Values= 0

Log Likelihood for NORMAL 16.706043795

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.6076737	0.67896	0.801038	0.3708
SB	1	-0.0030605	0.003672	0.694798	0.4045
TREND	1	-0.0148445	0.023892	0.38603	0.5344
TRENDSQ	1	0.00096709	0.000815	1.409104	0.2352
P_FOOD	1	-0.0404653	0.148607	0.074146	0.7854
P_ALCH	1	0.0309909	0.228549	0.018387	0.8921
P_TOBCO	1	-0.0424774	0.076454	0.308686	0.5785
P_CLOTH	1	0.19024864	0.36374	0.273566	0.6009
P_TSPRT	1	-0.1390367	0.132698	1.097814	0.2947
P_MISC	1	0.03642256	0.154388	0.055656	0.8135
P_SVCS	1	-0.0066634	0.170639	0.001511	0.9690
P_FDOUT	1	-0.1148122	0.272167	0.177953	0.6731
P_HOUS	1	0.08083196	0.10383	0.606068	0.4363
P_FUEL	1	0.05093748	0.071631	0.50568	0.4770
P_DURBL	1	0.08662792	0.278631	0.096663	0.7559
LRTOTEXP	1	0.00438672	0.002831	2.400223	0.1213
DREG1	1	-0.0703056	919.0685	5.852E-9	0.9999
DREG2	1	0.00432074	0.004539	0.906138	0.3411
DREG3	1	-0.0693794	986.3357	4.948E-9	0.9999
DREG4	1	0.00828145	0.005478	2.285663	0.1306
DREG6	1	0.00593065	0.003935	2.271282	0.1318
DREG7	1	0.00248256	0.005161	0.231373	0.6305
DREG8	1	0.00820232	0.004755	2.975337	0.0845
DREG9	1	0.00589183	0.004321	1.859313	0.1727
DREG10	1	-0.0012045	0.004757	0.064102	0.8001
DREG11	1	-0.0743737	698.9743	1.132E-8	0.9999
DREG12	1	-0.0725749	1632.375	1.977E-9	1.0000
DHHC0	1	0.00937027	0.004131	5.144615	0.0233
DHHC1	1	-0.0685501	1101.855	3.871E-9	1.0000
DHHC2	1	-0.0002872	0.004061	0.005001	0.9436
DHHC3	1	0.00568585	0.003516	2.614546	0.1059
DHHC4	1	-0.0712037	1289.107	3.051E-9	1.0000
DHHC6	1	0.00352937	0.004931	0.512319	0.4741
DHHC7	1	-0.0634643	3331.015	3.63E-10	1.0000
DHHC8	1	0.00525816	0.003774	1.941021	0.1636
DHHC9	1	0.00933222	0.006039	2.388095	0.1223
DHHC10	1	-0.0689305	1071.061	4.142E-9	0.9999
DQTR2	1	0.00399903	0.008744	0.209161	0.6474
DQTR3	1	-0.008213	0.010544	0.606712	0.4360
DQTR4	1	-0.0001775	0.012168	0.000213	0.9884
HEADAGE	1	-0.0001291	0.000158	0.665553	0.4146
DPOL	1	-0.0223867	0.041866	0.285924	0.5928
DPOL_SB	1	-0.0229901	0.042117	0.297964	0.5852
TESTPOL	1	-0.0229901	0.042117	0.297964	0.5852

Table A-1 (continued)

OLS Model		for SHRPETS			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	0.01158	0.00028	2.759	0.0001
Error	1327	0.13255	0.00010		
C Total	1369	0.14413			
Root MSE	0.00999	R-square	0.0803		
Dep Mean	0.00548	Adj R-sq	0.0512		
C.V.	182.33610				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.098739	0.14185498	-0.696	0.4865
SB	1	-0.001413	0.00096744	-1.460	0.1444
TREND	1	-0.002742	0.00573966	-0.478	0.6329
TRENDSQ	1	0.000212	0.00021225	0.999	0.3180
P_FOOD	1	-0.022944	0.03942182	-0.582	0.5607
P_ALCH	1	0.018296	0.04586083	0.399	0.6900
P_TOBCO	1	-0.002603	0.01565751	-0.166	0.8680
P_CLOTH	1	0.030933	0.07453935	0.415	0.6782
P_TSPRT	1	-0.004657	0.02889250	-0.161	0.8720
P_MISC	1	0.024637	0.03965700	0.621	0.5345
P_SVCS	1	-0.001334	0.03024852	-0.044	0.9648
P_FDOUT	1	0.003226	0.05708651	0.057	0.9549
P_HOUS	1	0.000064854	0.02253402	0.003	0.9977
P_FUEL	1	-0.014563	0.01825245	-0.798	0.4251
P_DURBL	1	-0.009145	0.06132183	-0.149	0.8815
LRTOTEXP	1	-0.002741	0.00069411	-3.950	0.0001
DREG1	1	-0.000809	0.00135386	-0.598	0.5501
DREG2	1	-0.001800	0.00115028	-1.565	0.1178
DREG3	1	-0.001332	0.00142698	-0.933	0.3509
DREG4	1	-0.000574	0.00166704	-0.344	0.7308
DREG6	1	0.001935	0.00100544	1.925	0.0545
DREG7	1	0.000496	0.00131803	0.376	0.7066
DREG8	1	-0.001581	0.00142458	-1.110	0.2673
DREG9	1	-0.000830	0.00114675	-0.724	0.4693
DREG10	1	-0.000138	0.00105038	-0.131	0.8955
DREG11	1	-0.002525	0.00112629	-2.242	0.0251
DREG12	1	-0.005468	0.00216736	-2.523	0.0118
DHHC0	1	0.000618	0.00124630	0.496	0.6198
DHHC1	1	-0.003660	0.00155400	-2.355	0.0186
DHHC2	1	-0.000616	0.00085348	-0.722	0.4703
DHHC3	1	0.000565	0.00090575	0.624	0.5329
DHHC4	1	-0.003748	0.00174887	-2.143	0.0323
DHHC6	1	-0.002411	0.00125266	-1.924	0.0545
DHHC7	1	-0.005412	0.00417978	-1.295	0.1956
DHHC8	1	0.000823	0.00101161	0.813	0.4161
DHHC9	1	-0.000527	0.00209032	-0.252	0.8011
DHHC10	1	-0.003239	0.00145539	-2.226	0.0262
DQTR2	1	0.001113	0.00206544	0.539	0.5900
DQTR3	1	-0.000247	0.00242750	-0.102	0.9188
DQTR4	1	-0.000000930	0.00289626	-0.000	0.9997
HEADAGE	1	0.000060957	0.00003680	1.656	0.0979
DPOL	1	-0.007729	0.00911214	-0.848	0.3965
DPOL_SB	1	-0.007230	0.00909833	-0.795	0.4270
TESTPOL	1	-0.007230	0.00909833	-0.795	0.4270

Table A-1 (continued)

Tobit Model for SHRPEFS  
 Noncensored Values= 644 Right Censored Values= 0  
 Left Censored Values= 726 Interval Censored Values= 0

Log Likelihood for NORMAL 1277.3174792

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.1851175	0.274012	0.456411	0.4993
SB	1	-0.002799	0.001898	2.175461	0.1402
TREND	1	-0.0047548	0.01107	0.184472	0.6676
TRENDSQ	1	0.00035533	0.000409	0.755589	0.3847
P_FOOD	1	-0.0126107	0.075848	0.027644	0.8679
P_ALCH	1	0.0442371	0.088529	0.249691	0.6173
P_TOBCO	1	-0.0059858	0.030238	0.039187	0.8431
P_CLOTH	1	0.09955933	0.14379	0.479409	0.4887
P_TSPRT	1	-0.0262623	0.056002	0.219919	0.6391
P_MISC	1	0.00272879	0.075866	0.001294	0.9713
P_SVCS	1	-0.0232923	0.058441	0.15885	0.6902
P_FDOUT	1	-0.0155124	0.110146	0.019834	0.8880
P_HOUS	1	0.00408982	0.043531	0.008827	0.9251
P_FUEL	1	0.00852081	0.03501	0.059235	0.8077
P_DURBL	1	-0.0363088	0.118156	0.09443	0.7586
LRTOTEXP	1	-0.0017582	0.001336	1.731995	0.1882
DREG1	1	0.00053363	0.00257	0.043124	0.8355
DREG2	1	-0.0026241	0.002251	1.358708	0.2438
DREG3	1	-0.0012337	0.002757	0.200279	0.6545
DREG4	1	0.00053363	0.003143	0.028824	0.8652
DREG6	1	0.0041506	0.001898	4.781328	0.0288
DREG7	1	0.002862	0.002468	1.344665	0.2462
DREG8	1	-0.0021732	0.002768	0.616168	0.4325
DREG9	1	-0.0001368	0.002201	0.003863	0.9504
DREG10	1	0.00007466	0.00203	0.001353	0.9707
DREG11	1	-0.0053731	0.002265	5.62643	0.0177
DREG12	1	-0.0121639	0.00468	6.755725	0.0093
DHHC0	1	0.00162373	0.002324	0.487969	0.4848
DHHC1	1	-0.0114204	0.003477	10.79138	0.0010
DHHC2	1	-0.0019935	0.001641	1.475841	0.2244
DHHC3	1	0.00007179	0.001696	0.001792	0.9662
DHHC4	1	-0.0090965	0.003678	6.118383	0.0134
DHHC6	1	-0.0052746	0.002503	4.439762	0.0351
DHHC7	1	-0.0144798	0.009984	2.103303	0.1470
DHHC8	1	0.00237867	0.00187	1.61732	0.2035
DHHC9	1	-0.0013954	0.004045	0.119006	0.7301
DHHC10	1	-0.0072628	0.002982	5.931234	0.0149
DQTR2	1	0.00175393	0.00398	0.194174	0.6595
DQTR3	1	-0.0002185	0.004683	0.002177	0.9628
DQTR4	1	0.00001002	0.005583	3.224E-6	0.9986
HEADAGE	1	0.00014942	0.000071	4.437912	0.0351
DPOL	1	-0.0056912	0.017561	0.105028	0.7459
DPOL_SB	1	-0.0039788	0.01753	0.051519	0.8204
TESTPOL	1	-0.0039788	0.01753	0.051519	0.8204

Table A-1 (continued)

OLS Model		for SHRPKTMO				
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F	
Model	42	0.00726	0.00017	3.862	0.0001	
Error	1327	0.05937	0.00004			
C Total	1369	0.06662				
Root MSE	0.00669	R-square	0.1089			
Dep Mean	0.00309	Adj R-sq	0.0807			
C.V.	216.30788					
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T	
INTERCEP	1	-0.001371	0.09493341	-0.014	0.9885	
SB	1	-0.000138	0.00064744	-0.213	0.8317	
TREND	1	-0.002543	0.00384114	-0.662	0.5080	
TRENDSQ	1	0.000215	0.00014204	1.515	0.1299	
P_FOOD	1	-0.032692	0.02638221	-1.239	0.2155	
P_ALCH	1	-0.054837	0.03069138	-1.787	0.0742	
P_TOBCO	1	0.001546	0.01047845	0.148	0.8827	
P_CLOTH	1	-0.036761	0.04988387	-0.737	0.4613	
P_TSPRT	1	0.021537	0.01933569	1.114	0.2655	
P_MISC	1	0.016743	0.02653960	0.631	0.5282	
P_SVCS	1	-0.008059	0.02024318	-0.398	0.6906	
P_FDOUT	1	0.023372	0.03820393	0.612	0.5408	
P_HOUS	1	0.024184	0.01508041	1.604	0.1090	
P_FUEL	1	-0.000897	0.01221506	-0.073	0.9414	
P_DURBL	1	0.047276	0.04103832	1.152	0.2495	
LRTOTEXP	1	-0.000925	0.00046452	-1.991	0.0467	
DREG1	1	0.000656	0.00090604	0.724	0.4692	
DREG2	1	-0.000235	0.00076980	-0.306	0.7598	
DREG3	1	0.001295	0.00095498	1.356	0.1752	
DREG4	1	0.000460	0.00111563	0.412	0.6802	
DREG6	1	-0.000841	0.00067287	-1.249	0.2118	
DREG7	1	-0.000164	0.00088206	-0.185	0.8530	
DREG8	1	0.001270	0.00095337	1.332	0.1832	
DREG9	1	-0.000963	0.00076744	-1.254	0.2099	
DREG10	1	0.000069301	0.00070295	0.099	0.9215	
DREG11	1	0.001337	0.00075374	1.773	0.0764	
DREG12	1	-0.001819	0.00145046	-1.254	0.2099	
DHHC0	1	0.000093926	0.00083406	0.113	0.9104	
DHHC1	1	-0.003551	0.00103998	-3.415	0.0007	
DHHC2	1	-0.002189	0.00057117	-3.832	0.0001	
DHHC3	1	-0.003167	0.00060615	-5.225	0.0001	
DHHC4	1	-0.003273	0.00117039	-2.796	0.0052	
DHHC6	1	-0.002126	0.00083831	-2.536	0.0113	
DHHC7	1	-0.003269	0.00279723	-1.169	0.2427	
DHHC8	1	0.001567	0.00067700	2.315	0.0207	
DHHC9	1	-0.002954	0.00139890	-2.111	0.0349	
DHHC10	1	-0.001683	0.00097399	-1.727	0.0843	
DQTR2	1	-0.001009	0.00138225	-0.730	0.4656	
DQTR3	1	-0.000576	0.00162455	-0.354	0.7231	
DQTR4	1	-0.002540	0.00193826	-1.310	0.1903	
HEADAGE	1	0.000084138	0.00002463	3.416	0.0007	
DPOL	1	-0.007505	0.00609810	-1.231	0.2186	
DPOL_SB	1	-0.009247	0.00608886	-1.519	0.1291	
TESTPOL	1	-0.009247	0.00608886	-1.519	0.1291	

Table A-1 (continued)

Tobit Model for SHRPKTMO  
 Noncensored Values= 459 Right Censored Values= 0  
 Left Censored Values= 911 Interval Censored Values= 0

Log Likelihood for NORMAL 896.25354661

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.1929285	0.24964	0.597262	0.4396
SB	1	-0.0012337	0.001679	0.539876	0.4625
TREND	1	-0.0077722	0.010014	0.602445	0.4376
TRENDSQ	1	0.00044216	0.000376	1.380023	0.2401
P_FOOD	1	-0.1449455	0.070297	4.251383	0.0392
P_ALCH	1	-0.0836956	0.079269	1.114802	0.2910
P_TOBCO	1	0.00388557	0.027529	0.019922	0.8878
P_CLOTH	1	-0.0710094	0.127652	0.309438	0.5780
P_TSPRT	1	0.04100915	0.051701	0.629173	0.4277
P_MISC	1	0.05752207	0.068705	0.700952	0.4025
P_SVCS	1	-0.0083188	0.052867	0.02476	0.8750
P_FDOUT	1	0.06183498	0.09718	0.404866	0.5246
P_HOUS	1	0.08724099	0.040889	4.552298	0.0329
P_FUEL	1	-0.0395496	0.032159	1.512415	0.2188
P_DURBL	1	0.13873701	0.108101	1.647119	0.1994
LRTOTEXP	1	-0.0004202	0.001223	0.118141	0.7311
DREG1	1	0.00288789	0.002355	1.50419	0.2200
DREG2	1	0.00020323	0.002063	0.009703	0.9215
DREG3	1	0.00260773	0.002464	1.1205	0.2898
DREG4	1	0.0023662	0.002836	0.695897	0.4042
DREG6	1	-0.0011881	0.001784	0.443344	0.5055
DREG7	1	-0.000301	0.002323	0.016788	0.8969
DREG8	1	0.00356238	0.002442	2.128009	0.1446
DREG9	1	-0.0015328	0.002081	0.542692	0.4613
DREG10	1	0.00054716	0.001865	0.086041	0.7693
DREG11	1	0.00296166	0.001978	2.241309	0.1344
DREG12	1	-0.0044491	0.003933	1.27974	0.2579
DHHC0	1	-0.0005525	0.002028	0.074229	0.7853
DHHC1	1	-0.0243577	0.005849	17.34142	0.0001
DHHC2	1	-0.0067304	0.001474	20.86024	0.0001
DHHC3	1	-0.0095046	0.001585	35.9729	0.0001
DHHC4	1	-0.0189882	0.005005	14.39161	0.0001
DHHC6	1	-0.0064301	0.002243	8.221003	0.0041
DHHC7	1	-0.0424905	0.079314	0.286999	0.5922
DHHC8	1	0.00199013	0.001589	1.567635	0.2106
DHHC9	1	-0.0198733	0.006638	8.963199	0.0028
DHHC10	1	-0.0038898	0.002481	2.459058	0.1168
DQTR2	1	-0.0034426	0.003532	0.949939	0.3297
DQTR3	1	-0.0056085	0.004165	1.812901	0.1782
DQTR4	1	-0.0088564	0.004985	3.15597	0.0756
HEADAGE	1	0.00023185	0.000064	12.9275	0.0003
DPOL	1	-0.0267825	0.01628	2.706349	0.0999
DPOL_SB	1	-0.0301991	0.016276	3.442712	0.0635
TESTPOL	1	-0.0301991	0.016276	3.442712	0.0635

Table A-1 (continued)

OLS Model		for SHRTOYS			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	0.02214	0.00053	3.300	0.0001
Error	1327	0.21200	0.00016		
C Total	1369	0.23415			
Root MSE	0.01264	R-square	0.0946		
Dep Mean	0.00317	Adj R-sq	0.0659		
C.V.	398.74279				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.036935	0.17940088	-0.206	0.8369
SB	1	-0.000500	0.00122350	-0.408	0.6830
TREND	1	-0.004395	0.00725882	-0.605	0.5450
TRENDSQ	1	0.000277	0.00026843	1.033	0.3017
P_FOOD	1	-0.009385	0.04985591	-0.188	0.8507
P_ALCH	1	-0.028804	0.05799918	-0.497	0.6195
P_TOBCO	1	0.000494	0.01980171	0.025	0.9801
P_CLOTH	1	-0.098031	0.09426828	-1.040	0.2986
P_TSPRT	1	0.007713	0.03653971	0.211	0.8329
P_MISC	1	-0.013244	0.05015334	-0.264	0.7918
P_SVCS	1	-0.094798	0.03825464	-2.478	0.0133
P_FDOUT	1	0.124452	0.07219606	1.724	0.0850
P_HOUS	1	0.032370	0.02849828	1.136	0.2562
P_FUEL	1	-0.012686	0.02308347	-0.550	0.5827
P_DURBL	1	0.105044	0.07755237	1.354	0.1758
LRTOTEXP	1	0.002055	0.00087782	2.341	0.0194
DREG1	1	-0.000236	0.00171219	-0.138	0.8903
DREG2	1	-0.000568	0.00145474	-0.391	0.6960
DREG3	1	0.000410	0.00180467	0.227	0.8204
DREG4	1	0.005118	0.00210827	2.427	0.0153
DREG6	1	-0.000745	0.00127155	-0.586	0.5578
DREG7	1	-0.000695	0.00166688	-0.417	0.6770
DREG8	1	0.002226	0.00180164	1.235	0.2169
DREG9	1	-0.000667	0.00145027	-0.460	0.6457
DREG10	1	-0.000458	0.00132840	-0.345	0.7305
DREG11	1	-0.001453	0.00142439	-1.020	0.3079
DREG12	1	0.001850	0.00274102	0.675	0.4998
DHHC0	1	-0.003463	0.00157617	-2.197	0.0282
DHHC1	1	-0.000106	0.00196531	-0.054	0.9568
DHHC2	1	0.000339	0.00107938	0.314	0.7538
DHHC3	1	-0.001384	0.00114548	-1.208	0.2273
DHHC4	1	-0.001352	0.00221175	-0.611	0.5411
DHHC6	1	0.001093	0.00158421	0.690	0.4903
DHHC7	1	0.000953	0.00528607	0.180	0.8570
DHHC8	1	-0.001948	0.00127936	-1.523	0.1280
DHHC9	1	-0.001055	0.00264359	-0.399	0.6898
DHHC10	1	-0.000747	0.00184060	-0.406	0.6850
DQTR2	1	-0.003867	0.00261211	-1.481	0.1390
DQTR3	1	-0.003935	0.00307001	-1.282	0.2001
DQTR4	1	0.001538	0.00366283	0.420	0.6745
HEADAGE	1	-0.000152	0.00004654	-3.276	0.0011
DPOL	1	-0.027479	0.01152392	-2.384	0.0172
DPOL_SB	1	-0.024807	0.01150646	-2.156	0.0313
TESTPOL	1	-0.024807	0.01150646	-2.156	0.0313

Table A-1 (continued)

**Tobit Model** for SHRTOYS  
 Noncensored Values= 311 Right Censored Values= 0  
 Left Censored Values=1059 Interval Censored Values= 0

Log Likelihood for NORMAL 288.23331879

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.1448837	0.603604	0.057615	0.8103
SB	1	-0.0025714	0.004118	0.389971	0.5323
TREND	1	0.01747594	0.024392	0.513328	0.4737
TRENDSQ	1	0.0002141	0.000866	0.061088	0.8048
P_FOOD	1	-0.2700421	0.161965	2.779835	0.0955
P_ALCH	1	-0.0201496	0.200849	0.010065	0.9201
P_TOBCO	1	-0.0643814	0.067806	0.901528	0.3424
P_CLOTH	1	-0.0184588	0.324975	0.003226	0.9547
P_TSPRT	1	-0.1251176	0.130494	0.91929	0.3377
P_MISC	1	-0.2266039	0.177741	1.62539	0.2023
P_SVCS	1	-0.0793539	0.130963	0.367148	0.5446
P_FDOUT	1	0.1247157	0.259541	0.230903	0.6309
P_HOUS	1	0.14474128	0.094122	2.364851	0.1241
P_FUEL	1	0.02564272	0.076444	0.112523	0.7373
P_DURBL	1	0.53916663	0.263236	4.195225	0.0405
LRTOTEXP	1	0.01428342	0.003063	21.74999	0.0001
DREG1	1	-0.002339	0.006091	0.147483	0.7010
DREG2	1	0.00073955	0.005098	0.021044	0.8847
DREG3	1	0.00396365	0.006227	0.405189	0.5244
DREG4	1	0.01317285	0.006785	3.769147	0.0522
DREG6	1	0.00142785	0.004315	0.109516	0.7407
DREG7	1	0.00130633	0.005714	0.052258	0.8192
DREG8	1	0.0077101	0.006043	1.627775	0.2020
DREG9	1	0.00430091	0.004858	0.783788	0.3760
DREG10	1	0.0019884	0.004542	0.191688	0.6615
DREG11	1	-0.0012167	0.004867	0.062492	0.8026
DREG12	1	0.01015554	0.009249	1.205752	0.2722
DHHC0	1	-0.0081687	0.005588	2.136731	0.1438
DHHC1	1	0.00400112	0.006437	0.386401	0.5342
DHHC2	1	0.00682684	0.003644	3.509264	0.0610
DHHC3	1	-0.005942	0.004167	2.033612	0.1539
DHHC4	1	0.00359064	0.007237	0.246169	0.6198
DHHC6	1	0.01233026	0.004976	6.140461	0.0132
DHHC7	1	0.0088448	0.016532	0.286225	0.5927
DHHC8	1	-0.004112	0.004526	0.825279	0.3636
DHHC9	1	0.00115243	0.008343	0.01908	0.8901
DHHC10	1	0.00377714	0.006124	0.380449	0.5374
DQTR2	1	-0.0021553	0.008928	0.058276	0.8092
DQTR3	1	-0.0026659	0.010796	0.060974	0.8050
DQTR4	1	0.02115744	0.013054	2.627045	0.1051
HEADAGE	1	-0.0006885	0.000169	16.6325	0.0001
DPOL	1	-0.0979917	0.038779	6.385391	0.0115
DPOL_SB	1	-0.0929213	0.038746	5.751504	0.0165
TESTPOL	1	-0.0929213	0.038746	5.751504	0.0165

Table A-1 (continued)

OLS Model for SHREDUC					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	42	0.08944	0.00213	2.941	0.0001
Error	1327	0.96097	0.00072		
C Total	1369	1.05041			
Root MSE	0.02691	R-square	0.0852		
Dep Mean	0.00525	Adj R-sq	0.0562		
C.V.	512.73271				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.397421	0.38194944	1.041	0.2983
SB	1	-0.004971	0.00260487	-1.908	0.0566
TREND	1	-0.008693	0.01545423	-0.562	0.5739
TRENDSQ	1	-0.000073024	0.00057149	-0.128	0.8983
P_FOOD	1	0.169633	0.10614461	1.598	0.1103
P_ALCH	1	-0.189214	0.12348186	-1.532	0.1257
P_TOBCO	1	0.065854	0.04215839	1.562	0.1185
P_CLOTH	1	-0.398218	0.20069978	-1.984	0.0474
P_TSPRT	1	-0.012671	0.07779406	-0.163	0.8706
P_MISC	1	0.221806	0.10677785	2.077	0.0380
P_SVCS	1	-0.181039	0.08144520	-2.223	0.0264
P_FDOUT	1	0.226941	0.15370741	1.476	0.1401
P_HOUS	1	-0.041582	0.06067363	-0.685	0.4933
P_FUEL	1	0.021861	0.04914534	0.445	0.6565
P_DURBL	1	0.040459	0.16511115	0.245	0.8065
LRTOTEXP	1	0.011835	0.00186891	6.333	0.0001
DREG1	1	-0.002847	0.00364531	-0.781	0.4349
DREG2	1	0.000864	0.00309718	0.279	0.7803
DREG3	1	-0.003210	0.00384220	-0.836	0.4036
DREG4	1	-0.001556	0.00448856	-0.347	0.7289
DREG6	1	0.006054	0.00270717	2.236	0.0255
DREG7	1	0.006080	0.00354883	1.713	0.0869
DREG8	1	0.000120	0.00383574	0.031	0.9751
DREG9	1	-0.002375	0.00308767	-0.769	0.4419
DREG10	1	-0.001272	0.00282819	-0.450	0.6531
DREG11	1	-0.000872	0.00303257	-0.287	0.7739
DREG12	1	-0.000682	0.00583570	-0.117	0.9070
DHHC0	1	-0.007166	0.00335570	-2.135	0.0329
DHHC1	1	-0.000255	0.00418421	-0.061	0.9514
DHHC2	1	-0.000616	0.00229802	-0.268	0.7888
DHHC3	1	0.001590	0.00243876	0.652	0.5146
DHHC4	1	-0.002035	0.00470888	-0.432	0.6657
DHHC6	1	0.000738	0.00337282	0.219	0.8269
DHHC7	1	-0.001582	0.01125419	-0.141	0.8882
DHHC8	1	-0.002274	0.00272379	-0.835	0.4039
DHHC9	1	-0.005014	0.00562827	-0.891	0.3732
DHHC10	1	-0.003419	0.00391870	-0.872	0.3831
DQTR2	1	-0.005879	0.00556126	-1.057	0.2906
DQTR3	1	-0.000934	0.00653613	-0.143	0.8864
DQTR4	1	-0.007211	0.00779827	-0.925	0.3553
HEADAGE	1	0.000024067	0.00009910	0.243	0.8081
DPOL	1	-0.003710	0.02453474	-0.151	0.8798
DPOL_SB	1	0.000940	0.02449757	0.038	0.9694
TESTPOL	1	0.000940	0.02449757	0.038	0.9694

**Table A-1 (continued)**

**Tobit Model** for SHREDUC  
 Noncensored Values= 281 Right Censored Values= 0  
 Left Censored Values=1089 Interval Censored Values= 0

Log Likelihood for NORMAL 84.119014892

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	4.65135025	1.700652	7.480437	0.0062
SB	1	-0.0356428	0.010035	12.61465	0.0004
TREND	1	0.02482182	0.058516	0.179935	0.6714
TRENDSQ	1	-0.0001386	0.002166	0.004093	0.9490
P_FOOD	1	1.36543542	0.404827	11.37634	0.0007
P_ALCH	1	-2.1614544	0.616754	12.28198	0.0005
P_TOBCO	1	0.37419406	0.175753	4.533048	0.0332
P_CLOTH	1	-3.282081	0.922323	12.66288	0.0004
P_TSPRT	1	-1.1362669	0.296178	14.71818	0.0001
P_MISC	1	2.08271943	0.4511	21.31652	0.0001
P_SVCS	1	-1.0393436	0.31073	11.18801	0.0008
P_FDOUT	1	1.06341515	0.589358	3.255725	0.0712
P_HOUS	1	-0.1239681	0.232174	0.285098	0.5934
P_FUEL	1	0.26706449	0.197234	1.833449	0.1757
P_DURBL	1	1.59246335	0.675234	5.561998	0.0184
LRTOTEXP	1	0.04482303	0.006543	46.9325	0.0001
DREG1	1	-0.0321478	0.01506	4.556818	0.0328
DREG2	1	-0.0067536	0.011676	0.334596	0.5630
DREG3	1	-0.010536	0.01412	0.556782	0.4556
DREG4	1	-0.0154626	0.018718	0.682386	0.4088
DREG6	1	0.02340208	0.008901	6.913075	0.0086
DREG7	1	0.02056764	0.011476	3.212166	0.0731
DREG8	1	-0.0060557	0.013873	0.190541	0.6625
DREG9	1	-0.0066013	0.010923	0.365215	0.5456
DREG10	1	-0.0044532	0.010214	0.190107	0.6628
DREG11	1	-0.0208819	0.011807	3.12807	0.0770
DREG12	1	-0.011124	0.022159	0.252006	0.6157
DHHC0	1	-0.0179096	0.012378	2.093355	0.1479
DHHC1	1	-0.0420198	0.023148	3.295134	0.0695
DHHC2	1	0.00168563	0.008206	0.042198	0.8372
DHHC3	1	0.00566819	0.008117	0.487641	0.4850
DHHC4	1	-0.0525475	0.025502	4.245712	0.0393
DHHC6	1	0.00017864	0.012143	0.000216	0.9883
DHHC7	1	-0.3837694	810.1015	2.244E-7	0.9996
DHHC8	1	0.00060714	0.009386	0.004184	0.9484
DHHC9	1	-0.0594691	0.031249	3.621752	0.0570
DHHC10	1	-0.0136084	0.015423	0.778505	0.3776
DQTR2	1	0.01385228	0.019672	0.495833	0.4813
DQTR3	1	0.05102267	0.024876	4.206977	0.0403
DQTR4	1	0.00459	0.027802	0.027258	0.8689
HEADAGE	1	-0.0000365	0.000353	0.010694	0.9176
DPOL	1	-0.008458	0.08745	0.009355	0.9229
DPOL_SB	1	0.01161874	0.087658	0.017568	0.8946
TESTPOL	1	0.01161874	0.087658	0.017568	0.8946

Table A-2: Model 2 Results for 11 Good Budget

**Model 2 Results for Broad Goods with 11 Good Budget**

OLS Model for SHRALCH					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	0.08032	0.00167	2.794	0.0001
Error	1321	0.79125	0.00060		
C Total	1369	0.87158			
Root MSE	0.02447	R-square	0.0922		
Dep Mean	0.01276	Adj R-sq	0.0592		
C.V.	191.73046				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.193872	0.34788976	-0.557	0.5774
SB	1	-0.005442	0.00239397	-2.273	0.0232
TREND	1	0.001372	0.01408904	0.097	0.9224
TRENDSQ	1	0.000378	0.00052026	0.727	0.4675
P_FOOD	1	-0.059490	0.09668233	-0.615	0.5385
P_ALCH	1	-0.014066	0.11264924	-0.125	0.9006
P_TOBCO	1	-0.012636	0.03839369	-0.329	0.7421
P_CLOTH	1	0.215781	0.18299786	1.179	0.2386
P_TSPT	1	0.092868	0.07101784	1.308	0.1912
P_MISC	1	0.010645	0.09760783	0.109	0.9132
P_SVCS	1	0.081855	0.07418360	1.103	0.2700
P_FDOUT	1	-0.239384	0.14007969	-1.709	0.0877
P_HOUS	1	0.042801	0.05528668	0.774	0.4390
P_FUEL	1	-0.043560	0.04479497	-0.972	0.3310
P_DURBL	1	-0.027863	0.15038730	-0.185	0.8530
LRTOTEXP	1	0.007919	0.00170030	4.658	0.0001
DREG1	1	-0.002928	0.00332093	-0.882	0.3781
DREG2	1	0.001992	0.00281951	0.706	0.4801
DREG3	1	-0.001521	0.00349990	-0.435	0.6640
DREG4	1	0.000699	0.00408862	0.171	0.8642
DREG6	1	-0.004200	0.00246510	-1.704	0.0887
DREG7	1	0.004402	0.00323208	1.362	0.1735
DREG8	1	0.006056	0.00350560	1.727	0.0843
DREG9	1	-0.004711	0.00281443	-1.674	0.0944
DREG10	1	-0.002332	0.00257343	-0.906	0.3649
DREG11	1	0.000588	0.00275897	0.213	0.8313
DREG12	1	0.003250	0.00532520	0.610	0.5417
DHHC0	1	-0.002223	0.00432274	-0.514	0.6072
DHHC1	1	0.001316	0.00443332	0.297	0.7666
DHHC2	1	0.001236	0.00294252	0.420	0.6744
DHHC3	1	0.009916	0.00325015	3.051	0.0023
DHHC4	1	-0.007452	0.00437792	-1.702	0.0890
DHHC6	1	0.000178	0.00313672	0.057	0.9548
DHHC7	1	-0.005914	0.01052499	-0.562	0.5743
DHHC8	1	-0.002138	0.00369242	-0.579	0.5626
DHHC9	1	-0.007958	0.00592335	-1.343	0.1794
DHHC10	1	-0.001418	0.00439443	-0.323	0.7470
DQTR2	1	0.003319	0.00507309	0.654	0.5131
DQTR3	1	0.007043	0.00596715	1.180	0.2381
DQTR4	1	0.007668	0.00711855	1.077	0.2816
HEADAGE	1	-0.000310	0.00009109	-3.402	0.0007
D1	1	0.001636	0.02245965	0.073	0.9420
D2	1	0.001498	0.02256105	0.066	0.9471
D3	1	0.000780	0.02247284	0.035	0.9723
D4	1	-0.004282	0.02382687	-0.180	0.8574
D1SB	1	0.002246	0.02247155	0.100	0.9204
D2SB	1	0.002076	0.02250760	0.092	0.9265
D3SB	1	0.003405	0.02253495	0.151	0.8799
D4SB	1	-0.003015	0.02282127	-0.132	0.8949
TEST1	1	0.002246	0.02247155	0.100	0.9204
TEST2	1	0.002076	0.02250760	0.092	0.9265
TEST3	1	0.003405	0.02253495	0.151	0.8799
TEST4	1	-0.003015	0.02282127	-0.132	0.8949

Table A-2 (continued)

Tobit Model for SHRALCH  
 Noncensored Values= 619 Right Censored Values= 0  
 Left Censored Values= 751 Interval Censored Values= 0

Log Likelihood for NORMAL 685.23483877

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.6225768	0.694109	0.804508	0.3697
SB	1	-0.0179589	0.004991	12.94707	0.0003
TREND	1	0.011877	0.028005	0.179858	0.6715
TRENDSQ	1	0.00125922	0.00103	1.493453	0.2217
P_FOOD	1	-0.0590917	0.190947	0.09577	0.7570
P_ALCH	1	0.0896875	0.231218	0.15046	0.6981
P_TOBCO	1	-0.0737592	0.077365	0.908962	0.3404
P_CLOTH	1	0.74979759	0.3782	3.930474	0.0474
P_TSPRT	1	0.05221388	0.143968	0.131534	0.7168
P_MISC	1	-0.2155512	0.198527	1.178862	0.2776
P_SVCS	1	0.17132792	0.148311	1.334469	0.2480
P_FDOUT	1	-0.8118047	0.296008	7.521351	0.0061
P_HOUS	1	0.08503055	0.109639	0.601475	0.4380
P_FUEL	1	0.01253195	0.089563	0.019579	0.8887
P_DURBL	1	0.13496453	0.298539	0.20438	0.6512
LRTOTEXP	1	0.02700759	0.003421	62.32122	0.0001
DREG1	1	0.00356701	0.006472	0.303724	0.5816
DREG2	1	0.00762814	0.005581	1.868185	0.1717
DREG3	1	0.00298954	0.006915	0.18688	0.6655
DREG4	1	0.00566348	0.007863	0.518813	0.4713
DREG6	1	-0.0043584	0.004883	0.796554	0.3721
DREG7	1	0.01175504	0.0063	3.481426	0.0621
DREG8	1	0.01423059	0.006843	4.32435	0.0376
DREG9	1	-0.0055012	0.005647	0.949029	0.3300
DREG10	1	-0.0005543	0.00513	0.011673	0.9140
DREG11	1	0.00352528	0.005418	0.423295	0.5153
DREG12	1	0.00885113	0.010431	0.720023	0.3961
DHHC0	1	-0.0029701	0.008995	0.109031	0.7412
DHHC1	1	0.00901148	0.008878	1.030288	0.3101
DHHC2	1	0.00741576	0.005951	1.552676	0.2127
DHHC3	1	0.02251074	0.00641	12.33343	0.0004
DHHC4	1	-0.0203382	0.009576	4.511309	0.0337
DHHC6	1	-0.0019722	0.006396	0.095072	0.7578
DHHC7	1	-0.0213022	0.027483	0.600782	0.4383
DHHC8	1	0.00012991	0.007477	0.000302	0.9861
DHHC9	1	-0.0253167	0.013417	3.560351	0.0592
DHHC10	1	-0.0056116	0.009341	0.36091	0.5480
DQTR2	1	0.01764603	0.0103	2.93528	0.0867
DQTR3	1	0.02889093	0.012163	5.641965	0.0175
DQTR4	1	0.032615	0.014687	4.931101	0.0264
HEADAGE	1	-0.0007108	0.000182	15.23028	0.0001
D1	1	0.02102031	0.0449	0.219173	0.6397
D2	1	0.02696955	0.045039	0.358572	0.5493
D3	1	0.01903096	0.04499	0.178936	0.6723
D4	1	0.01471397	0.047505	0.095937	0.7568
D1SB	1	0.03158061	0.045014	0.49221	0.4829
D2SB	1	0.0350831	0.045028	0.607066	0.4359
D3SB	1	0.03789441	0.045276	0.70051	0.4026
D4SB	1	0.02133849	0.045818	0.216898	0.6414
TEST1	1	0.03158061	0.045014	0.49221	0.4829
TEST2	1	0.0350831	0.045028	0.607066	0.4359
TEST3	1	0.03789441	0.045276	0.70051	0.4026
TEST4	1	0.02133849	0.045818	0.216898	0.6414

Table A-2 (continued)

OLS Model		for SHRCLOTH			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	1.92507	0.04011	6.676	0.0001
Error	1321	7.93619	0.00601		
C Total	1369	9.86126			
Root MSE	0.07751	R-square	0.1952		
Dep Mean	0.08309	Adj R-sq	0.1660		
C.V.	93.28574				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.842251	1.10176820	-0.764	0.4447
SB	1	0.005104	0.00758170	0.673	0.5010
TREND	1	-0.029690	0.04462004	-0.665	0.5059
TRENDSQ	1	0.001695	0.00164767	1.029	0.3038
P_FOOD	1	0.247292	0.30619330	0.808	0.4194
P_ALCH	1	0.295104	0.35676056	0.827	0.4083
P_TOBCO	1	0.156886	0.12159296	1.290	0.1972
P_CLOTH	1	0.849685	0.57955492	1.466	0.1429
P_TSPRT	1	-0.104770	0.22491376	-0.466	0.6414
P_MISC	1	-0.490695	0.30912437	-1.587	0.1127
P_SVCS	1	0.231823	0.23493975	0.987	0.3240
P_FDOUT	1	-0.369622	0.44363290	-0.833	0.4049
P_HOUS	1	-0.235745	0.17509313	-1.346	0.1784
P_FUEL	1	-0.030815	0.14186584	-0.217	0.8281
P_DURBL	1	-0.320943	0.47627717	-0.674	0.5005
LRTOTEXP	1	0.077442	0.00538487	14.381	0.0001
DREG1	1	0.027510	0.01051740	2.616	0.0090
DREG2	1	0.020618	0.00892939	2.309	0.0211
DREG3	1	0.019928	0.01108420	1.798	0.0724
DREG4	1	-0.003901	0.01294867	-0.301	0.7633
DREG6	1	-0.005873	0.00780698	-0.752	0.4520
DREG7	1	-0.001382	0.01023600	-0.135	0.8926
DREG8	1	0.009854	0.01110226	0.888	0.3750
DREG9	1	0.003510	0.00891332	0.394	0.6938
DREG10	1	0.010484	0.00815007	1.286	0.1985
DREG11	1	0.022021	0.00873768	2.520	0.0118
DREG12	1	0.013093	0.01686494	0.776	0.4377
DHHC0	1	0.002507	0.01369015	0.183	0.8548
DHHC1	1	0.054871	0.01404035	3.908	0.0001
DHHC2	1	0.023528	0.00931898	2.525	0.0117
DHHC3	1	0.014924	0.01029322	1.450	0.1473
DHHC4	1	0.008733	0.01386490	0.630	0.5289
DHHC6	1	0.006201	0.00993400	0.624	0.5326
DHHC7	1	0.007608	0.03333270	0.228	0.8195
DHHC8	1	-0.001413	0.01169389	-0.121	0.9038
DHHC9	1	-0.013302	0.01875926	-0.709	0.4784
DHHC10	1	-0.011650	0.01391718	-0.837	0.4027
DQTR2	1	0.021400	0.01606651	1.332	0.1831
DQTR3	1	0.018009	0.01889798	0.953	0.3408
DQTR4	1	0.024912	0.02254448	1.105	0.2693
HEADAGE	1	-0.000724	0.00028849	-2.508	0.0122
D1	1	0.127395	0.07112979	1.791	0.0735
D2	1	0.140125	0.07145092	1.961	0.0501
D3	1	0.133502	0.07117156	1.876	0.0609
D4	1	0.103898	0.07545978	1.377	0.1688
D1SB	1	0.111121	0.07116748	1.561	0.1187
D2SB	1	0.123285	0.07128164	1.730	0.0839
D3SB	1	0.130563	0.07136828	1.829	0.0676
D4SB	1	0.114140	0.07227504	1.579	0.1145
TEST1	1	0.111121	0.07116748	1.561	0.1187
TEST2	1	0.123285	0.07128164	1.730	0.0839
TEST3	1	0.130563	0.07136828	1.829	0.0676
TEST4	1	0.114140	0.07227504	1.579	0.1145

Table A-2 (continued)

Tobit Model for SHRCLOTH  
 Noncensored Values= 1178 Right Censored Values= 0  
 Left Censored Values= 192 Interval Censored Values= 0

Log Likelihood for NORMAL 1066.7486415

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-1.1557573	1.228321	0.885339	0.3467
SB	1	0.00675803	0.008488	0.633877	0.4259
TREND	1	-0.0363557	0.049774	0.533512	0.4651
TRENDSQ	1	0.00236528	0.001835	1.661154	0.1974
P_FOOD	1	0.1496887	0.340758	0.192968	0.6605
P_ALCH	1	0.23195766	0.399127	0.337749	0.5611
P_TOBCO	1	0.1738257	0.135722	1.640306	0.2003
P_CLOTH	1	1.00709251	0.647974	2.41559	0.1201
P_TSPRT	1	-0.1271697	0.251577	0.255519	0.6132
P_MISC	1	-0.6072889	0.344082	3.115065	0.0776
P_SVCS	1	0.24548371	0.263456	0.868217	0.3514
P_FDOUT	1	-0.4225174	0.49804	0.719716	0.3962
P_HOUS	1	-0.173478	0.195052	0.791023	0.3738
P_FUEL	1	0.00384381	0.157762	0.000594	0.9806
P_DURBL	1	-0.1785627	0.532121	0.112606	0.7372
LRTOTEXP	1	0.09438085	0.006162	234.6154	0.0001
DREG1	1	0.03412236	0.011689	8.521627	0.0035
DREG2	1	0.0274929	0.009968	7.607069	0.0058
DREG3	1	0.02480821	0.01238	4.015717	0.0451
DREG4	1	-0.0012201	0.014477	0.007103	0.9328
DREG6	1	-0.0040228	0.008722	0.212722	0.6446
DREG7	1	0.00340767	0.011415	0.089125	0.7653
DREG8	1	0.01251011	0.012473	1.005945	0.3159
DREG9	1	0.00739744	0.009953	0.552437	0.4573
DREG10	1	0.01652197	0.009085	3.307373	0.0690
DREG11	1	0.02610164	0.009747	7.171912	0.0074
DREG12	1	0.01510759	0.019026	0.630545	0.4272
DHHC0	1	-0.0021946	0.015354	0.020429	0.8863
DHHC1	1	0.05922695	0.015607	14.40178	0.0001
DHHC2	1	0.02627159	0.01039	6.393581	0.0115
DHHC3	1	0.01593383	0.011469	1.930005	0.1648
DHHC4	1	0.01200136	0.015435	0.604598	0.4368
DHHC6	1	0.01140748	0.011031	1.069507	0.3011
DHHC7	1	0.02053626	0.036547	0.31575	0.5742
DHHC8	1	-0.0013725	0.013013	0.011125	0.9160
DHHC9	1	-0.0228168	0.021419	1.134787	0.2868
DHHC10	1	-0.0150541	0.015666	0.92341	0.3366
DQTR2	1	0.02129235	0.017915	1.412506	0.2346
DQTR3	1	0.01535004	0.021075	0.530505	0.4664
DQTR4	1	0.02466764	0.025163	0.961038	0.3269
HEADAGE	1	-0.001037	0.000325	10.18786	0.0014
D1	1	0.12072127	0.079373	2.313273	0.1283
D2	1	0.1324698	0.079745	2.759505	0.0967
D3	1	0.12468996	0.079466	2.462053	0.1166
D4	1	0.10120891	0.084047	1.450099	0.2285
D1SB	1	0.10213846	0.079483	1.6513	0.1988
D2SB	1	0.11172337	0.079534	1.97327	0.1601
D3SB	1	0.12056849	0.079705	2.288218	0.1304
D4SB	1	0.11000686	0.08065	1.860527	0.1726
TEST1	1	0.10213846	0.079483	1.6513	0.1988
TEST2	1	0.11172337	0.079534	1.97327	0.1601
TEST3	1	0.12056849	0.079705	2.288218	0.1304
TEST4	1	0.11000686	0.08065	1.860527	0.1726

Table A-2 (continued)

OLS Model		for SHRDURBL			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	1.36926	0.02853	4.444	0.0001
Error	1321	8.47937	0.00642		
C Total	1369	9.84862			
Root MSE	0.08012	R-square	0.1390		
Dep Mean	0.05098	Adj R-sq	0.1077		
C.V.	157.14176				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	2.739515	1.13884840	2.406	0.0163
SB	1	0.003817	0.00783687	0.487	0.6263
TREND	1	0.002841	0.04612173	0.062	0.9509
TRENDSQ	1	-0.001021	0.00170312	-0.599	0.5491
P_FOOD	1	0.546906	0.31649829	1.728	0.0842
P_ALCH	1	-0.864197	0.36876740	-2.343	0.0193
P_TOBCO	1	0.280755	0.12568519	2.234	0.0257
P_CLOTH	1	-1.417076	0.59905994	-2.366	0.0181
P_TSPT	1	0.128713	0.23248327	0.554	0.5799
P_MISC	1	0.378503	0.31952801	1.185	0.2364
P_SVCS	1	-0.409669	0.24284669	-1.687	0.0918
P_FDOUT	1	0.999250	0.45856345	2.179	0.0295
P_HOUS	1	-0.188899	0.18098592	-1.044	0.2968
P_FUEL	1	-0.049175	0.14664036	-0.335	0.7374
P_DURBL	1	0.041781	0.49230636	0.085	0.9324
LRTOTEXP	1	0.060368	0.00556610	10.846	0.0001
DREG1	1	0.025951	0.01087137	2.387	0.0171
DREG2	1	0.004795	0.00922991	0.519	0.6035
DREG3	1	0.021172	0.01145724	1.848	0.0648
DREG4	1	0.011355	0.01338446	0.848	0.3964
DREG6	1	-0.001261	0.00806972	-0.156	0.8759
DREG7	1	0.008586	0.01058050	0.812	0.4172
DREG8	1	0.006717	0.01147591	0.585	0.5584
DREG9	1	0.028017	0.00921329	3.041	0.0024
DREG10	1	0.004608	0.00842436	0.547	0.5845
DREG11	1	0.003681	0.00903175	0.408	0.6837
DREG12	1	0.015211	0.01743253	0.873	0.3831
DHHC0	1	-0.020647	0.01415089	-1.459	0.1448
DHHC1	1	0.026807	0.01451288	1.847	0.0650
DHHC2	1	0.027304	0.00963261	2.835	0.0047
DHHC3	1	0.025138	0.01063964	2.363	0.0183
DHHC4	1	0.019168	0.01433153	1.337	0.1813
DHHC6	1	0.004635	0.01026833	0.451	0.6518
DHHC7	1	0.028953	0.03445451	0.840	0.4009
DHHC8	1	0.014232	0.01208745	1.177	0.2392
DHHC9	1	0.015631	0.01939061	0.806	0.4203
DHHC10	1	0.027016	0.01438557	1.878	0.0606
DQTR2	1	-0.009040	0.01660723	-0.544	0.5863
DQTR3	1	0.007875	0.01953400	0.403	0.6869
DQTR4	1	-0.004908	0.02330322	-0.211	0.8332
HEADAGE	1	-0.000822	0.00029820	-2.756	0.0059
D1	1	0.061748	0.07352368	0.840	0.4012
D2	1	0.075300	0.07385561	1.020	0.3081
D3	1	0.047560	0.07356685	0.646	0.5181
D4	1	0.064466	0.07799939	0.826	0.4087
D1SB	1	0.058500	0.07356263	0.795	0.4266
D2SB	1	0.061232	0.07368064	0.831	0.4061
D3SB	1	0.036978	0.07377020	0.501	0.6163
D4SB	1	0.091381	0.07470747	1.223	0.2215
TEST1	1	0.058500	0.07356263	0.795	0.4266
TEST2	1	0.061232	0.07368064	0.831	0.4061
TEST3	1	0.036978	0.07377020	0.501	0.6163
TEST4	1	0.091381	0.07470747	1.223	0.2215

Table A-2 (continued)

Tobit Model for SHRDURBL  
 Noncensored Values= 1152 Right Censored Values= 0  
 Left Censored Values= 218 Interval Censored Values= 0

Log Likelihood for NORMAL 997.77085243

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	2.87987266	1.282333	5.04365	0.0247
SB	1	0.00344494	0.008797	0.153344	0.6954
TREND	1	0.00129786	0.051753	0.000629	0.9800
TRENDSQ	1	-0.001001	0.001909	0.274824	0.6001
P_FOOD	1	0.68125938	0.354732	3.688286	0.0548
P_ALCH	1	-0.950185	0.415804	5.222038	0.0223
P_TOBCO	1	0.32141508	0.141741	5.142103	0.0234
P_CLOTH	1	-1.4756132	0.672928	4.808482	0.0283
P_TSPRT	1	0.09530849	0.261949	0.132382	0.7160
P_MISC	1	0.28837234	0.359508	0.643413	0.4225
P_SVCS	1	-0.4953816	0.272824	3.296957	0.0694
P_FDOUT	1	1.11107789	0.515194	4.651009	0.0310
P_HOUS	1	-0.18954	0.204043	0.862898	0.3529
P_FUEL	1	-0.0167637	0.165311	0.010283	0.9192
P_DURBL	1	0.05080606	0.554777	0.008387	0.9270
LRTOTEXP	1	0.07394367	0.006309	137.3544	0.0001
DREG1	1	0.03614961	0.012168	8.826118	0.0030
DREG2	1	0.00490188	0.010545	0.216101	0.6420
DREG3	1	0.02580194	0.012913	3.992741	0.0457
DREG4	1	0.01339718	0.015174	0.779535	0.3773
DREG6	1	0.00051251	0.009119	0.003159	0.9552
DREG7	1	0.01797356	0.011833	2.30699	0.1288
DREG8	1	0.01019996	0.012998	0.615779	0.4326
DREG9	1	0.03629547	0.010351	12.29582	0.0005
DREG10	1	0.00777983	0.009537	0.665454	0.4146
DREG11	1	0.00817183	0.010209	0.640771	0.4234
DREG12	1	0.01338159	0.019991	0.448081	0.5032
DHHC0	1	-0.0234539	0.015857	2.18777	0.1391
DHHC1	1	0.01805805	0.016702	1.169014	0.2796
DHHC2	1	0.02959119	0.013776	7.541026	0.0060
DHHC3	1	0.02637457	0.011924	4.892202	0.0270
DHHC4	1	0.01335984	0.016405	0.663219	0.4154
DHHC6	1	0.00515609	0.011569	0.198619	0.6558
DHHC7	1	0.02502264	0.040091	0.389555	0.5325
DHHC8	1	0.01581938	0.013496	1.37395	0.2411
DHHC9	1	0.01842886	0.021984	0.702744	0.4019
DHHC10	1	0.02793059	0.016252	2.953731	0.0857
DQTR2	1	-0.0123385	0.018706	0.435091	0.5095
DQTR3	1	0.00974753	0.022032	0.195732	0.6582
DQTR4	1	-0.0081516	0.026271	0.096281	0.7563
HEADAGE	1	-0.0008965	0.000337	7.095624	0.0077
D1	1	0.06821265	0.082796	0.678746	0.4100
D2	1	0.08120154	0.083187	0.952841	0.3290
D3	1	0.04981783	0.082859	0.361484	0.5477
D4	1	0.07589399	0.087713	0.748664	0.3869
D1SB	1	0.06129624	0.082792	0.548135	0.4591
D2SB	1	0.06525239	0.082891	0.619691	0.4312
D3SB	1	0.0280633	0.083137	0.113944	0.7357
D4SB	1	0.08692568	0.08439	1.060994	0.3030
TEST1	1	0.06129624	0.082792	0.548135	0.4591
TEST2	1	0.06525239	0.082891	0.619691	0.4312
TEST3	1	0.0280633	0.083137	0.113944	0.7357
TEST4	1	0.08692568	0.08439	1.060994	0.3030

Table A-2 (continued)

OLS Model		for SHRFDIN			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	5.93397	0.12362	19.000	0.0001
Error	1321	8.59505	0.00651		
C Total	1369	14.52902			
Root MSE	0.08066	R-square	0.4084		
Dep Mean	0.27739	Adj R-sq	0.3869		
C.V.	29.07906				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.458613	1.14659082	-0.400	0.6892
SB	1	-0.002862	0.00789015	-0.363	0.7169
TREND	1	-0.055541	0.04643529	-1.196	0.2319
TRENDSQ	1	0.000294	0.00171470	0.171	0.8640
P_FOOD	1	0.183612	0.31864999	0.576	0.5646
P_ALCH	1	-0.271650	0.37127445	-0.732	0.4645
P_TOBCO	1	0.032282	0.12653966	0.255	0.7987
P_CLOTH	1	-0.504551	0.60313263	-0.837	0.4030
P_TSPRT	1	0.016808	0.23406380	0.072	0.9428
P_MISC	1	0.559395	0.32170031	1.739	0.0823
P_SVCS	1	-0.053782	0.24449768	-0.220	0.8259
P_FDOUT	1	0.458204	0.46168098	0.992	0.3212
P_HOUS	1	-0.061618	0.18221634	-0.338	0.7353
P_FUEL	1	-0.023423	0.14763729	-0.159	0.8740
P_DURBL	1	-0.190723	0.49565329	-0.385	0.7005
LRTOTEXP	1	-0.117257	0.00560394	-20.924	0.0001
DREG1	1	0.003408	0.01094528	0.311	0.7555
DREG2	1	0.007410	0.00929266	0.797	0.4254
DREG3	1	-0.017334	0.01153514	-1.503	0.1332
DREG4	1	-0.011603	0.01347546	-0.861	0.3894
DREG6	1	-0.022947	0.00812458	-2.824	0.0048
DREG7	1	-0.018471	0.01065243	-1.734	0.0832
DREG8	1	0.008972	0.01155393	0.777	0.4376
DREG9	1	-0.003632	0.00927593	-0.392	0.6955
DREG10	1	0.000080951	0.00848164	0.010	0.9924
DREG11	1	0.010229	0.00909315	1.125	0.2608
DREG12	1	-0.000451	0.01755105	-0.026	0.9795
DHHC0	1	0.065131	0.01424710	4.572	0.0001
DHHC1	1	-0.107029	0.01461154	-7.325	0.0001
DHHC2	1	-0.062938	0.00969810	-6.490	0.0001
DHHC3	1	-0.065348	0.01071198	-6.100	0.0001
DHHC4	1	-0.031454	0.01442896	-2.180	0.0294
DHHC6	1	-0.025843	0.01033814	-2.500	0.0125
DHHC7	1	-0.050926	0.03468875	-1.468	0.1423
DHHC8	1	0.024430	0.01216963	2.007	0.0449
DHHC9	1	0.006159	0.01952243	0.315	0.7524
DHHC10	1	0.033053	0.01448337	2.282	0.0226
DQTR2	1	-0.014312	0.01672013	-0.856	0.3922
DQTR3	1	-0.022848	0.01966680	-1.162	0.2456
DQTR4	1	-0.045641	0.02346164	-1.945	0.0519
HEADAGE	1	0.001697	0.00030023	5.654	0.0001
D1	1	-0.017096	0.07402353	-0.231	0.8174
D2	1	-0.037386	0.07435771	-0.503	0.6152
D3	1	-0.025340	0.07406699	-0.342	0.7323
D4	1	-0.055278	0.07852966	-0.704	0.4816
D1SB	1	-0.029765	0.07406274	-0.402	0.6878
D2SB	1	-0.034274	0.07418155	-0.462	0.6441
D3SB	1	-0.047085	0.07427172	-0.634	0.5262
D4SB	1	-0.049030	0.07521536	-0.652	0.5146
TEST1	1	-0.029765	0.07406274	-0.402	0.6878
TEST2	1	-0.034274	0.07418155	-0.462	0.6441
TEST3	1	-0.047085	0.07427172	-0.634	0.5262
TEST4	1	-0.049030	0.07521536	-0.652	0.5146

Table A-2 (continued)

Tobit Model for SHRFDIN  
 Noncensored Values= 1369 Right Censored Values= 0  
 Left Censored Values= 1 Interval Censored Values= 0

Log Likelihood for NORMAL 1525.4337265

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.4538082	1.116977	0.165065	0.6845
SB	1	-0.0028829	0.007715	0.139621	0.7087
TREND	1	-0.0553772	0.045321	1.493005	0.2218
TRENDSQ	1	0.00028984	0.001678	0.029841	0.8629
P_FOOD	1	0.18420651	0.312016	0.348542	0.5549
P_ALCH	1	-0.2723238	0.363571	0.561039	0.4538
P_TOBCO	1	0.03263341	0.123715	0.069579	0.7920
P_CLOTH	1	-0.5057497	0.590477	0.733611	0.3917
P_TSPRT	1	0.01689142	0.22947	0.005419	0.9413
P_MISC	1	0.55878958	0.314997	3.146908	0.0761
P_SVCS	1	-0.0536083	0.239666	0.050032	0.8230
P_FDOUT	1	0.45802132	0.452615	1.024033	0.3116
P_HOUS	1	-0.0622708	0.177818	0.122636	0.7262
P_FUEL	1	-0.0237051	0.144555	0.026892	0.8697
P_DURBL	1	-0.1894474	0.484783	0.152715	0.6960
LRTOTEXP	1	-0.1173372	0.005066	536.3826	0.0001
DREG1	1	0.00339753	0.010727	0.100313	0.7515
DREG2	1	0.00738315	0.009083	0.660718	0.4163
DREG3	1	-0.0173553	0.011295	2.360926	0.1244
DREG4	1	-0.0116126	0.013209	0.772863	0.3793
DREG6	1	-0.0229597	0.007959	8.322261	0.0039
DREG7	1	-0.018484	0.010438	3.135654	0.0766
DREG8	1	0.00896039	0.011324	0.626153	0.4288
DREG9	1	-0.003645	0.009088	0.160879	0.6883
DREG10	1	0.00006071	0.008298	0.000054	0.9942
DREG11	1	0.01021278	0.008904	1.315463	0.2514
DREG12	1	-0.0001314	0.014996	0.000077	0.9930
DHHC0	1	0.06513546	0.013968	21.74636	0.0001
DHHC1	1	-0.1070489	0.014316	55.91529	0.0001
DHHC2	1	-0.0629621	0.009487	44.04841	0.0001
DHHC3	1	-0.0653577	0.010499	38.75098	0.0001
DHHC4	1	-0.0314622	0.014145	4.947412	0.0261
DHHC6	1	-0.0258436	0.010136	6.501271	0.0108
DHHC7	1	-0.0509551	0.034001	2.245946	0.1340
DHHC8	1	0.02445883	0.011908	4.218901	0.0400
DHHC9	1	0.00613497	0.01913	0.102851	0.7484
DHHC10	1	0.03302778	0.014184	5.421751	0.0199
DQTR2	1	-0.0142878	0.016381	0.760804	0.3831
DQTR3	1	-0.0227849	0.019211	1.406708	0.2356
DQTR4	1	-0.0455597	0.022903	3.95725	0.0467
HEADAGE	1	0.00169788	0.000294	33.32466	0.0001
D1	1	-0.0168466	0.072277	0.054328	0.8157
D2	1	-0.037139	0.072611	0.261614	0.6090
D3	1	-0.0249771	0.071983	0.120398	0.7286
D4	1	-0.0550482	0.076754	0.514379	0.4732
D1SB	1	-0.0295119	0.072305	0.166592	0.6832
D2SB	1	-0.0340245	0.07243	0.220669	0.6385
D3SB	1	-0.0468515	0.072557	0.416953	0.5185
D4SB	1	-0.048768	0.073418	0.441231	0.5065
TEST1	1	-0.0295119	0.072305	0.166592	0.6832
TEST2	1	-0.0340245	0.07243	0.220669	0.6385
TEST3	1	-0.0468515	0.072557	0.416953	0.5185
TEST4	1	-0.048768	0.073418	0.441231	0.5065

Table A-2 (continued)

OLS Model		for SHRFDOUT			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	0.11410	0.00238	9.742	0.0001
Error	1321	0.32234	0.00024		
C Total	1369	0.43644			
Root MSE	0.01562	R-square	0.2614		
Dep Mean	0.01084	Adj R-sq	0.2346		
C.V.	144.11828				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.107249	0.22204480	0.483	0.6292
SB	1	-0.006922	0.00152798	-4.530	0.0001
TREND	1	0.014002	0.00899250	1.557	0.1197
TRENDSQ	1	0.000335	0.00033206	1.009	0.3133
P_FOOD	1	-0.220510	0.06170865	-3.573	0.0004
P_ALCH	1	-0.027175	0.07189972	-0.378	0.7055
P_TOBCO	1	-0.063048	0.02450523	-2.573	0.0102
P_CLOTH	1	-0.008761	0.11680057	-0.075	0.9402
P_TSPT	1	0.081898	0.04532798	1.807	0.0710
P_MISC	1	-0.026546	0.06229937	-0.426	0.6701
P_SVCS	1	0.051558	0.04734857	1.089	0.2764
P_FDOUT	1	-0.087046	0.08940754	-0.974	0.3304
P_HOUS	1	0.091224	0.03528738	2.585	0.0098
P_FUEL	1	-0.041951	0.02859092	-1.467	0.1425
P_DURBL	1	0.225966	0.09598650	2.354	0.0187
LRTOTEXP	1	0.002452	0.00108524	2.259	0.0240
DREG1	1	-0.002462	0.00211962	-1.161	0.2457
DREG2	1	0.002619	0.00179958	1.455	0.1458
DREG3	1	0.001297	0.00223385	0.581	0.5616
DREG4	1	-0.003762	0.00260961	-1.442	0.1496
DREG6	1	-0.002441	0.00157338	-1.551	0.1211
DREG7	1	-0.000506	0.00206291	-0.245	0.8064
DREG8	1	-0.000943	0.00223749	-0.422	0.6734
DREG9	1	-0.003045	0.00179634	-1.695	0.0903
DREG10	1	-0.000988	0.00164252	-0.601	0.5477
DREG11	1	0.000880	0.00176095	0.500	0.6174
DREG12	1	0.003149	0.00339888	0.926	0.3544
DHHC0	1	-0.002101	0.00275904	-0.762	0.4465
DHHC1	1	-0.002237	0.00282962	-0.791	0.4294
DHHC2	1	-0.000496	0.00187810	-0.264	0.7917
DHHC3	1	0.001992	0.00207444	0.960	0.3371
DHHC4	1	-0.002760	0.00279426	-0.988	0.3235
DHHC6	1	-0.001261	0.00200205	-0.630	0.5288
DHHC7	1	-0.008100	0.00671770	-1.206	0.2281
DHHC8	1	0.000972	0.00235673	0.412	0.6802
DHHC9	1	0.002175	0.00378065	0.575	0.5651
DHHC10	1	-0.004134	0.00280480	-1.474	0.1407
DQTR2	1	0.002700	0.00323796	0.834	0.4045
DQTR3	1	0.000370	0.00380860	0.097	0.9226
DQTR4	1	0.002271	0.00454350	0.500	0.6172
HEADAGE	1	-0.000037330	0.00005814	-0.642	0.5209
D1	1	-0.056785	0.01433514	-3.961	0.0001
D2	1	-0.057443	0.01439986	-3.989	0.0001
D3	1	-0.057719	0.01434356	-4.024	0.0001
D4	1	-0.057825	0.01520778	-3.802	0.0001
D1SB	1	-0.058889	0.01434273	-4.106	0.0001
D2SB	1	-0.058580	0.01436574	-4.078	0.0001
D3SB	1	-0.056412	0.01438320	-3.922	0.0001
D4SB	1	-0.051281	0.01456595	-3.521	0.0004
TEST1	1	-0.058889	0.01434273	-4.106	0.0001
TEST2	1	-0.058580	0.01436574	-4.078	0.0001
TEST3	1	-0.056412	0.01438320	-3.922	0.0001
TEST4	1	-0.051281	0.01456595	-3.521	0.0004

Table A-2 (continued)

Tobit Model for SHRFDOUT  
 Noncensored Values= 850 Right Censored Values= 0  
 Left Censored Values= 520 Interval Censored Values= 0

Log Likelihood for NORMAL 1858.352238

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.7080763	0.348725	4.122824	0.0423
SB	1	-0.0121881	0.002192	30.92819	0.0001
TREND	1	-0.00783	0.014195	0.304269	0.5812
TRENDSQ	1	0.00158889	0.000502	10.03191	0.0015
P_FOOD	1	-0.2794262	0.095297	8.597646	0.0034
P_ALCH	1	0.30465466	0.106978	8.110049	0.0044
P_TOBCO	1	-0.0660134	0.041101	2.579701	0.1082
P_CLOTH	1	0.79538834	0.181636	19.17592	0.0001
P_TSFRPT	1	0.43856896	0.078017	31.60078	0.0001
P_MISC	1	-0.5490476	0.102757	28.54929	0.0001
P_SVCS	1	0.30637264	0.075771	16.34918	0.0001
P_FDOUT	1	-0.4703177	0.133536	12.40466	0.0004
P_HOUS	1	0.04508698	0.057366	0.617714	0.4319
P_FUEL	1	0.03258271	0.041628	0.61265	0.4338
P_DURBL	1	-0.4018288	0.157102	6.54214	0.0105
LRTOTEXP	1	0.0072339	0.001602	20.39029	0.0001
DREG1	1	-0.0005993	0.003069	0.038131	0.8452
DREG2	1	0.00411085	0.002639	2.425876	0.1193
DREG3	1	0.00208054	0.003241	0.411991	0.5210
DREG4	1	-0.0029178	0.00364	0.642492	0.4228
DREG6	1	-0.003507	0.002307	2.310524	0.1285
DREG7	1	-0.0022681	0.003095	0.536924	0.4637
DREG8	1	-0.0021627	0.00333	0.421769	0.5161
DREG9	1	-0.0035437	0.002654	1.782934	0.1818
DREG10	1	-0.0023008	0.002396	0.922392	0.3368
DREG11	1	0.00181039	0.002527	0.513287	0.4737
DREG12	1	0.00606136	0.005061	1.434366	0.2311
DHHC0	1	-0.0033146	0.003964	0.69921	0.4030
DHHC1	1	-0.003201	0.004157	0.59303	0.4412
DHHC2	1	0.00066586	0.002659	0.062706	0.8023
DHHC3	1	0.00211388	0.002925	0.522118	0.4699
DHHC4	1	-0.0090546	0.004667	3.764314	0.0524
DHHC6	1	-0.0001734	0.002928	0.00351	0.9528
DHHC7	1	-0.0225935	0.013029	3.007189	0.0829
DHHC8	1	0.00193115	0.003332	0.335846	0.5622
DHHC9	1	-0.002557	0.005921	0.186518	0.6658
DHHC10	1	-0.0069607	0.0042	2.747291	0.0974
DQTR2	1	-0.0003556	0.004709	0.005701	0.9398
DQTR3	1	-0.0067604	0.005679	1.41705	0.2339
DQTR4	1	0.00017998	0.006872	0.000686	0.9791
HEADAGE	1	-0.0001068	0.000086	1.534171	0.2155
D1	1	-0.0534816	0.023124	5.349063	0.0207
D2	1	-0.0534103	0.023151	5.322511	0.0211
D3	1	-0.0565697	0.023116	5.989031	0.0144
D4	1	-0.0580388	0.024423	5.647047	0.0175
D1SB	1	-0.055396	0.023168	5.717011	0.0168
D2SB	1	-0.0550563	0.023187	5.637987	0.0176
D3SB	1	-0.0506967	0.023183	4.781991	0.0288
D4SB	1	-0.0426854	0.023359	3.339197	0.0676
TEST1	1	-0.055396	0.023168	5.717011	0.0168
TEST2	1	-0.0550563	0.023187	5.637987	0.0176
TEST3	1	-0.0506967	0.023183	4.781991	0.0288
TEST4	1	-0.0426854	0.023359	3.339197	0.0676

Table A-2 (continued)

OLS Model for SHRFUEL					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	1.21010	0.02521	10.775	0.0001
Error	1321	3.09075	0.00234		
C Total	1369	4.30085			
Root MSE	0.04837	R-square	0.2814		
Dep Mean	0.09490	Adj R-sq	0.2552		
C.V.	50.96979				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-1.430156	0.68756921	-2.080	0.0377
SB	1	0.016625	0.00473144	3.514	0.0005
TREND	1	-0.071343	0.02784557	-2.562	0.0105
TRENDSQ	1	0.001763	0.00102824	1.714	0.0867
P_FOOD	1	0.023353	0.19108292	0.122	0.9027
P_ALCH	1	0.046752	0.22263992	0.210	0.8337
P_TOBCO	1	0.037732	0.07588127	0.497	0.6191
P_CLOTH	1	-0.125638	0.36167691	-0.347	0.7284
P_TSPRT	1	0.273080	0.14035963	1.946	0.0519
P_MISC	1	0.282670	0.19291209	1.465	0.1431
P_SVCS	1	-0.030736	0.14661645	-0.210	0.8340
P_FDOUT	1	0.216304	0.27685345	0.781	0.4348
P_HOUS	1	0.105263	0.10926858	0.963	0.3356
P_FUEL	1	-0.180876	0.08853276	-2.043	0.0412
P_DURBL	1	-0.316181	0.29722542	-1.064	0.2876
LRTOTEXP	1	-0.047137	0.00336048	-14.027	0.0001
DREG1	1	0.017187	0.00656349	2.619	0.0089
DREG2	1	0.002549	0.00557247	0.457	0.6474
DREG3	1	0.012219	0.00691721	1.766	0.0776
DREG4	1	0.010816	0.00808075	1.338	0.1810
DREG6	1	0.011905	0.00487202	2.444	0.0147
DREG7	1	0.003155	0.00638788	0.494	0.6214
DREG8	1	0.011270	0.00692848	1.627	0.1040
DREG9	1	0.001099	0.00556244	0.198	0.8434
DREG10	1	0.006513	0.00508613	1.281	0.2006
DREG11	1	0.014176	0.00545284	2.600	0.0094
DREG12	1	0.043948	0.01052473	4.176	0.0001
DHHC0	1	0.015512	0.00854347	1.816	0.0696
DHHC1	1	-0.004734	0.00876202	-0.540	0.5891
DHHC2	1	-0.001071	0.00581560	-0.184	0.8539
DHHC3	1	-0.003362	0.00642359	-0.523	0.6008
DHHC4	1	0.030557	0.00865253	3.532	0.0004
DHHC6	1	0.012452	0.00619941	2.009	0.0448
DHHC7	1	0.034526	0.02080160	1.660	0.0972
DHHC8	1	0.006127	0.00729769	0.840	0.4013
DHHC9	1	0.020788	0.01170690	1.776	0.0760
DHHC10	1	-0.010390	0.00868515	-1.196	0.2318
DQTR2	1	-0.027212	0.01002646	-2.714	0.0067
DQTR3	1	-0.048848	0.01179347	-4.142	0.0001
DQTR4	1	-0.045247	0.01406910	-3.216	0.0013
HEADAGE	1	0.000636	0.00018004	3.530	0.0004
D1	1	-0.067388	0.04438924	-1.518	0.1292
D2	1	-0.050374	0.04458964	-1.130	0.2588
D3	1	-0.063913	0.04441531	-1.439	0.1504
D4	1	-0.055853	0.04709141	-1.186	0.2358
D1SB	1	-0.069350	0.04441276	-1.561	0.1187
D2SB	1	-0.062726	0.04448401	-1.410	0.1587
D3SB	1	-0.061991	0.04453808	-1.392	0.1642
D4SB	1	-0.067818	0.04510394	-1.504	0.1329
TEST1	1	-0.069350	0.04441276	-1.561	0.1187
TEST2	1	-0.062726	0.04448401	-1.410	0.1587
TEST3	1	-0.061991	0.04453808	-1.392	0.1642
TEST4	1	-0.067818	0.04510394	-1.504	0.1329

Table A-2 (continued)

Tobit Model for SHRFUEL  
 Noncensored Values= 1344 Right Censored Values= 0  
 Left Censored Values= 26 Interval Censored Values= 0

Log Likelihood for NORMAL 2130.7228653

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-1.4648178	0.687581	4.538572	0.0331
SB	1	0.01664799	0.004725	12.41646	0.0004
TREND	1	-0.0712799	0.027822	6.563618	0.0104
TRENDSQ	1	0.00176332	0.001027	2.945621	0.0861
P_FOOD	1	0.01242191	0.190932	0.004233	0.9481
P_ALCH	1	0.05316319	0.222493	0.057094	0.8111
P_TOBCO	1	0.03253793	0.075905	0.183755	0.6682
P_CLOTH	1	-0.115082	0.36132	0.101445	0.7501
P_TSPRT	1	0.27286958	0.140222	3.786864	0.0517
P_MISC	1	0.282868	0.192755	2.153558	0.1422
P_SVCS	1	-0.0242259	0.14644	0.027368	0.8686
P_FDOUT	1	0.21201431	0.276515	0.587885	0.4432
P_HOUS	1	0.11278175	0.109291	1.064902	0.3021
P_FUEL	1	-0.185443	0.08846	4.394703	0.0361
P_DURBL	1	-0.3147868	0.297003	1.123343	0.2892
LRTOTEXP	1	-0.0472318	0.003363	197.2017	0.0001
DREG1	1	0.01743357	0.006554	7.076562	0.0078
DREG2	1	0.00232051	0.005569	0.173598	0.6769
DREG3	1	0.01247273	0.006907	3.26142	0.0709
DREG4	1	0.01074345	0.008077	1.769097	0.1835
DREG6	1	0.01140238	0.004873	5.475213	0.0193
DREG7	1	0.00286866	0.006387	0.201708	0.6533
DREG8	1	0.01126945	0.006921	2.651113	0.1035
DREG9	1	0.00102383	0.00556	0.033907	0.8539
DREG10	1	0.00641616	0.005082	1.593798	0.2068
DREG11	1	0.01445538	0.005445	7.046762	0.0079
DREG12	1	0.04441387	0.010507	17.86816	0.0001
DHHC0	1	0.01570321	0.008529	3.389784	0.0656
DHHC1	1	-0.005085	0.008755	0.33733	0.5614
DHHC2	1	-0.0009989	0.005809	0.029571	0.8635
DHHC3	1	-0.0029039	0.006415	0.204907	0.6508
DHHC4	1	0.0306723	0.008637	12.61119	0.0004
DHHC6	1	0.01239673	0.006191	4.009554	0.0452
DHHC7	1	0.0349142	0.020764	2.827247	0.0927
DHHC8	1	0.00653413	0.007288	0.803771	0.3700
DHHC9	1	0.02073657	0.011694	3.144527	0.0762
DHHC10	1	-0.0106702	0.00868	1.51116	0.2190
DQTR2	1	-0.0270278	0.010016	7.28183	0.0070
DQTR3	1	-0.0490256	0.011785	17.30694	0.0001
DQTR4	1	-0.045196	0.014058	10.33588	0.0013
HEADAGE	1	0.00063512	0.00018	12.46035	0.0004
D1	1	-0.0718487	0.044385	2.620421	0.1055
D2	1	-0.0539283	0.044582	1.463255	0.2264
D3	1	-0.0685977	0.044407	2.386203	0.1224
D4	1	-0.0591278	0.04707	1.577929	0.2091
D1SB	1	-0.072972	0.044403	2.700754	0.1003
D2SB	1	-0.0658733	0.044473	2.193992	0.1385
D3SB	1	-0.0654261	0.044524	2.159262	0.1417
D4SB	1	-0.0714661	0.045091	2.512018	0.1130
TEST1	1	-0.072972	0.044403	2.700754	0.1003
TEST2	1	-0.0658733	0.044473	2.193992	0.1385
TEST3	1	-0.0654261	0.044524	2.159262	0.1417
TEST4	1	-0.0714661	0.045091	2.512018	0.1130

Table A-2 (continued)

OLS Model for SHRHOUS					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	4.78093	0.09960	13.482	0.0001
Error	1321	9.75916	0.00739		
C Total	1369	14.54010			
Root MSE	0.08595	R-square	0.3288		
Dep Mean	0.19915	Adj R-sq	0.3044		
C.V.	43.15912				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.934839	1.22177312	0.765	0.4443
SB	1	0.032951	0.00840751	3.919	0.0001
TREND	1	0.113962	0.04948006	2.303	0.0214
TRENDSQ	1	-0.004058	0.00182714	-2.221	0.0265
P_FOOD	1	-0.367596	0.33954396	-1.083	0.2792
P_ALCH	1	0.578265	0.39561903	1.462	0.1441
P_TOBCO	1	-0.237547	0.13483690	-1.762	0.0783
P_CLOTH	1	0.424003	0.64268022	0.660	0.5095
P_TSPRT	1	-0.540063	0.24941143	-2.165	0.0305
P_MISC	1	-0.120330	0.34279429	-0.351	0.7256
P_SVCS	1	0.104223	0.26052946	0.400	0.6892
P_FDOUT	1	-0.488578	0.49195354	-0.993	0.3208
P_HOUS	1	0.153070	0.19416432	0.788	0.4306
P_FUEL	1	0.079914	0.15731791	0.508	0.6116
P_DURBL	1	0.204132	0.52815342	0.387	0.6992
LRTOTEXP	1	-0.044552	0.00597139	-7.461	0.0001
DREG1	1	-0.056762	0.01166296	-4.867	0.0001
DREG2	1	-0.058328	0.00990198	-5.891	0.0001
DREG3	1	-0.060539	0.01229150	-4.925	0.0001
DREG4	1	-0.041108	0.01435905	-2.863	0.0043
DREG6	1	-0.003497	0.00865732	-0.404	0.6863
DREG7	1	-0.036256	0.01135091	-3.194	0.0014
DREG8	1	-0.040708	0.01231152	-3.306	0.0010
DREG9	1	-0.019970	0.00988416	-2.020	0.0435
DREG10	1	-0.026913	0.00903778	-2.978	0.0030
DREG11	1	-0.075634	0.00968939	-7.806	0.0001
DREG12	1	-0.067715	0.01870188	-3.621	0.0003
DHHC0	1	-0.023890	0.01518128	-1.574	0.1158
DHHC1	1	0.022103	0.01556963	1.420	0.1559
DHHC2	1	-0.007846	0.01033400	-0.759	0.4479
DHHC3	1	-0.001212	0.01141436	-0.106	0.9155
DHHC4	1	0.030666	0.01537507	1.995	0.0463
DHHC6	1	0.007041	0.01101601	0.639	0.5228
DHHC7	1	0.025485	0.03696330	0.689	0.4906
DHHC8	1	-0.027927	0.01296760	-2.154	0.0315
DHHC9	1	-0.011671	0.02080253	-0.561	0.5749
DHHC10	1	-0.002883	0.01543305	-0.187	0.8518
DQTR2	1	0.019114	0.01781648	1.073	0.2835
DQTR3	1	0.021641	0.02095636	1.033	0.3019
DQTR4	1	0.038762	0.02500003	1.550	0.1213
HEADAGE	1	-0.000109	0.00031992	-0.339	0.7344
D1	1	-0.061626	0.07887727	-0.781	0.4348
D2	1	-0.068918	0.07923337	-0.870	0.3846
D3	1	-0.046367	0.07892359	-0.587	0.5570
D4	1	-0.068365	0.08367888	-0.817	0.4141
D1SB	1	0.012014	0.07891906	0.152	0.8790
D2SB	1	-0.026472	0.07904566	-0.335	0.7378
D3SB	1	-0.010007	0.07914174	-0.126	0.8994
D4SB	1	-0.041462	0.08014726	-0.517	0.6050
TEST1	1	0.012014	0.07891906	0.152	0.8790
TEST2	1	-0.026472	0.07904566	-0.335	0.7378
TEST3	1	-0.010007	0.07914174	-0.126	0.8994
TEST4	1	-0.041462	0.08014726	-0.517	0.6050

Table A-2 (continued)

Tobit Model for SHRHOUS  
 Noncensored Values= 1357 Right Censored Values= 0  
 Left Censored Values= 13 Interval Censored Values= 0

Log Likelihood for NORMAL 1398.2978827

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.89642517	1.210415	0.548479	0.4589
SB	1	0.0332875	0.008331	15.96624	0.0001
TREND	1	0.11440793	0.049015	5.448242	0.0196
TRENDSQ	1	-0.0040463	0.00181	4.997587	0.0254
P_FOOD	1	-0.3786476	0.336412	1.266855	0.2604
P_ALCH	1	0.58638376	0.391976	2.237926	0.1347
P_TOBCO	1	-0.2448392	0.13363	3.356999	0.0669
P_CLOTH	1	0.44273709	0.636736	0.483474	0.4869
P_TSPRT	1	-0.5564492	0.247197	5.067149	0.0244
P_MISC	1	-0.1206271	0.339617	0.126157	0.7225
P_SVCS	1	0.11819499	0.258167	0.209603	0.6471
P_FDOUT	1	-0.5092199	0.487563	1.090813	0.2963
P_HOUS	1	0.15954669	0.192444	0.687329	0.4071
P_FUEL	1	0.07965992	0.155925	0.261006	0.6094
P_DURBL	1	0.22097469	0.523338	0.178287	0.6728
LRTOTEXP	1	-0.0438635	0.005921	54.87445	0.0001
DREG1	1	-0.0569111	0.011557	24.24941	0.0001
DREG2	1	-0.0583755	0.009811	35.40391	0.0001
DREG3	1	-0.0612307	0.012188	25.23963	0.0001
DREG4	1	-0.0414916	0.014231	8.500848	0.0035
DREG6	1	-0.0033347	0.008574	0.151251	0.6973
DREG7	1	-0.0363743	0.011246	10.46226	0.0012
DREG8	1	-0.0405011	0.012193	11.03276	0.0009
DREG9	1	-0.0203838	0.009795	4.330811	0.0374
DREG10	1	-0.026706	0.008951	8.901174	0.0028
DREG11	1	-0.0758407	0.0096	62.41044	0.0001
DREG12	1	-0.0690715	0.018579	13.82198	0.0002
DHHC0	1	-0.0236164	0.015037	2.466763	0.1163
DHHC1	1	0.02224501	0.015429	2.078703	0.1494
DHHC2	1	-0.0075639	0.010241	0.545462	0.4602
DHHC3	1	-0.0007514	0.011309	0.004415	0.9470
DHHC4	1	0.03145133	0.01523	4.264337	0.0389
DHHC6	1	0.00777802	0.010913	0.507959	0.4760
DHHC7	1	0.02600871	0.036607	0.504777	0.4774
DHHC8	1	-0.0275738	0.012844	4.608537	0.0318
DHHC9	1	-0.0111758	0.020603	0.294222	0.5875
DHHC10	1	-0.0024339	0.015286	0.025352	0.8735
DQTR2	1	0.0196379	0.017657	1.236923	0.2661
DQTR3	1	0.02182929	0.020766	1.105017	0.2932
DQTR4	1	0.03902598	0.024777	2.480954	0.1152
HEADAGE	1	-0.0001071	0.000317	0.114239	0.7354
D1	1	-0.0618012	0.078178	0.624924	0.4292
D2	1	-0.0693152	0.078542	0.778852	0.3775
D3	1	-0.0464141	0.078223	0.35207	0.5529
D4	1	-0.0724544	0.083001	0.762014	0.3827
D1SB	1	0.0121021	0.078223	0.023936	0.8770
D2SB	1	-0.0270914	0.078346	0.119572	0.7295
D3SB	1	-0.0100568	0.078438	0.016439	0.8980
D4SB	1	-0.0416617	0.079436	0.275065	0.6000
TEST1	1	0.0121021	0.078223	0.023936	0.8770
TEST2	1	-0.0270914	0.078346	0.119572	0.7295
TEST3	1	-0.0100568	0.078438	0.016439	0.8980
TEST4	1	-0.0416617	0.079436	0.275065	0.6000

Table A-2 (continued)

OLS Model for SHRmisc					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	0.31205	0.00650	2.236	0.0001
Error	1321	3.84094	0.00291		
C Total	1369	4.15299			
Root MSE	0.05392	R-square	0.0751		
Dep Mean	0.08553	Adj R-sq	0.0415		
C.V.	63.04749				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INFERCEP	1	-0.732359	0.76648387	-0.955	0.3395
SB	1	-0.006081	0.00527448	-1.153	0.2492
TREND	1	-0.036644	0.03104150	-1.180	0.2380
TRENDSQ	1	0.001858	0.00114626	1.621	0.1052
P_FOOD	1	-0.140862	0.21301416	-0.661	0.5085
P_ALCH	1	-0.213770	0.24819305	-0.861	0.3892
P_TOBCO	1	-0.077568	0.08459042	-0.917	0.3593
P_CLOTH	1	0.129861	0.40318780	0.322	0.7474
P_TSPRT	1	-0.095875	0.15646918	-0.613	0.5402
P_MISC	1	0.163716	0.21505326	0.761	0.4466
P_SVCS	1	0.026759	0.16344412	0.164	0.8700
P_FDOUT	1	0.046014	0.30862886	0.149	0.8815
P_HOUS	1	0.153785	0.12180970	1.263	0.2070
P_FUEL	1	0.114408	0.09869397	1.159	0.2466
P_DURBL	1	0.084631	0.33133900	0.255	0.7984
LRTOTEXP	1	-0.000838	0.00374618	-0.224	0.8230
DREG1	1	-0.007437	0.00731680	-1.016	0.3096
DREG2	1	-0.000672	0.00621205	-0.108	0.9139
DREG3	1	0.008329	0.00771112	1.080	0.2803
DREG4	1	0.022027	0.00900820	2.445	0.0146
DREG6	1	0.001949	0.00543120	0.359	0.7197
DREG7	1	0.000624	0.00712104	0.088	0.9302
DREG8	1	-0.008110	0.00772368	-1.050	0.2939
DREG9	1	-0.002243	0.00620086	-0.362	0.7176
DREG10	1	-0.004630	0.00566988	-0.817	0.4143
DREG11	1	-0.006731	0.00607868	-1.107	0.2683
DREG12	1	-0.026076	0.01173269	-2.223	0.0264
DHHC0	1	0.005811	0.00952403	0.610	0.5419
DHHC1	1	0.008210	0.00976766	0.841	0.4007
DHHC2	1	0.008343	0.00648308	1.287	0.1983
DHHC3	1	0.001851	0.00716084	0.258	0.7961
DHHC4	1	-0.022632	0.00964561	-2.346	0.0191
DHHC6	1	-0.005629	0.00691094	-0.815	0.4155
DHHC7	1	-0.022446	0.02318907	-0.968	0.3332
DHHC8	1	0.017849	0.00813527	2.194	0.0284
DHHC9	1	0.001183	0.01305054	0.091	0.9278
DHHC10	1	-0.011007	0.00968198	-1.137	0.2558
DQTR2	1	-0.008435	0.01117723	-0.755	0.4506
DQTR3	1	-0.009716	0.01314705	-0.739	0.4600
DQTR4	1	-0.000016238	0.01568386	-0.001	0.9992
HEADAGE	1	-0.000020439	0.00020070	-0.102	0.9189
D1	1	-0.045710	0.04948395	-0.924	0.3558
D2	1	-0.040060	0.04970735	-0.806	0.4204
D3	1	-0.055592	0.04951300	-1.123	0.2617
D4	1	-0.046650	0.05249625	-0.889	0.3744
D1SB	1	-0.055937	0.04951016	-1.130	0.2588
D2SB	1	-0.044171	0.04958959	-0.891	0.3732
D3SB	1	-0.055460	0.04964986	-1.117	0.2642
D4SB	1	-0.063514	0.05028068	-1.263	0.2067
TEST1	1	-0.055937	0.04951016	-1.130	0.2588
TEST2	1	-0.044171	0.04958959	-0.891	0.3732
TEST3	1	-0.055460	0.04964986	-1.117	0.2642
TEST4	1	-0.063514	0.05028068	-1.263	0.2067

Table A-2 (continued)

Tobit Model for SHRmisc  
 Noncensored Values= 1368 Right Censored Values= 0  
 Left Censored Values= 2 Interval Censored Values= 0

Log Likelihood for NORMAL 2074.7843434

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.7407583	0.753651	0.96608	0.3257
SB	1	-0.0059884	0.005186	1.333563	0.2482
TREND	1	-0.0367833	0.030521	1.452424	0.2281
TRENDSQ	1	0.00185818	0.001127	2.718593	0.0992
P_FOOD	1	-0.1430397	0.209419	0.46653	0.4946
P_ALCH	1	-0.2107188	0.244005	0.745775	0.3878
P_TOBCO	1	-0.0786397	0.083166	0.894122	0.3444
P_CLOTH	1	0.13207544	0.396386	0.111021	0.7390
P_TSPRT	1	-0.09775	0.153831	0.403782	0.5251
P_MISC	1	0.16438713	0.211426	0.60453	0.4369
P_SVCS	1	0.02659015	0.160682	0.027385	0.8686
P_FDOUT	1	0.04597046	0.303413	0.022956	0.8796
P_HOUS	1	0.15559612	0.119763	1.687927	0.1939
P_FUEL	1	0.11531474	0.097028	1.412446	0.2347
P_DURBL	1	0.08326703	0.325762	0.065335	0.7983
LRTOTEXP	1	-0.0005391	0.003689	0.021354	0.8838
DREG1	1	-0.007378	0.007193	1.052044	0.3050
DREG2	1	-0.0005498	0.006108	0.008102	0.9283
DREG3	1	0.00841371	0.007581	1.231751	0.2671
DREG4	1	0.02205305	0.008856	6.201068	0.0128
DREG6	1	0.00199924	0.005339	0.140194	0.7081
DREG7	1	0.00067874	0.007001	0.0094	0.9228
DREG8	1	-0.0080497	0.007593	1.123857	0.2891
DREG9	1	-0.0021798	0.006096	0.127855	0.7207
DREG10	1	-0.0045386	0.005574	0.662903	0.4155
DREG11	1	-0.0068394	0.005978	1.309117	0.2526
DREG12	1	-0.0270277	0.011565	5.462052	0.0194
DHHC0	1	0.00573885	0.009363	0.375667	0.5399
DHHC1	1	0.0082544	0.009603	0.738899	0.3900
DHHC2	1	0.0084069	0.006374	1.739702	0.1872
DHHC3	1	0.00181072	0.00704	0.066152	0.7970
DHHC4	1	-0.0225303	0.009483	5.644943	0.0175
DHHC6	1	-0.0058832	0.006798	0.749037	0.3868
DHHC7	1	-0.0224273	0.022797	0.967806	0.3252
DHHC8	1	0.01771914	0.007998	4.907974	0.0267
DHHC9	1	0.001196	0.01283	0.008689	0.9257
DHHC10	1	-0.0109584	0.009519	1.325421	0.2496
DQTR2	1	-0.0085072	0.010988	0.599373	0.4388
DQTR3	1	-0.0098128	0.012926	0.576307	0.4478
DQTR4	1	-0.000139	0.015421	0.000081	0.9928
HEADAGE	1	-0.0000214	0.000197	0.011775	0.9136
D1	1	-0.0464726	0.048652	0.912423	0.3395
D2	1	-0.0408512	0.048871	0.698717	0.4032
D3	1	-0.0567056	0.048685	1.356617	0.2441
D4	1	-0.0473815	0.051612	0.842774	0.3586
D1SB	1	-0.0567444	0.048678	1.358892	0.2437
D2SB	1	-0.0451138	0.048756	0.856178	0.3548
D3SB	1	-0.0562059	0.048814	1.325772	0.2496
D4SB	1	-0.0643256	0.049435	1.693132	0.1932
TEST1	1	-0.0567444	0.048678	1.358892	0.2437
TEST2	1	-0.0451138	0.048756	0.856178	0.3548
TEST3	1	-0.0562059	0.048814	1.325772	0.2496
TEST4	1	-0.0643256	0.049435	1.693132	0.1932

Table A-2 (continued)

OLS Model		for SHRSVCS			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	1.21516	0.02532	4.904	0.0001
Error	1321	6.81956	0.00516		
C Total	1369	8.03472			
Root MSE	0.07185	R-square	0.1512		
Dep Mean	0.08334	Adj R-sq	0.1204		
C.V.	86.21807				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.024819	1.02132154	-0.024	0.9806
SB	1	-0.021277	0.00702812	-3.027	0.0025
TREND	1	-0.038198	0.04136206	-0.923	0.3559
TRENDSQ	1	0.001335	0.00152736	0.874	0.3824
P_FOOD	1	0.164863	0.28383630	0.581	0.5614
P_ALCH	1	0.100779	0.33071135	0.305	0.7606
P_TOBCO	1	0.066691	0.11271473	0.592	0.5542
P_CLOTH	1	0.461845	0.53723816	0.860	0.3901
P_TSPRT	1	0.370688	0.20849146	1.778	0.0756
P_MISC	1	-0.156384	0.28655336	-0.546	0.5853
P_SVCS	1	-0.034830	0.21778540	-0.160	0.8730
P_FDOUT	1	-0.204734	0.41124062	-0.498	0.6187
P_HOUS	1	-0.238612	0.16230853	-1.470	0.1418
P_FUEL	1	0.225829	0.13150737	1.717	0.0862
P_DURBL	1	-0.712395	0.44150134	-1.614	0.1069
LRTOTEXP	1	0.038043	0.00499169	7.621	0.0001
DREG1	1	-0.017253	0.00974947	-1.770	0.0770
DREG2	1	0.008865	0.00827740	1.071	0.2844
DREG3	1	0.002416	0.01027488	0.235	0.8142
DREG4	1	0.012521	0.01200321	1.043	0.2971
DREG6	1	0.015856	0.00723694	2.191	0.0286
DREG7	1	0.004316	0.00948861	0.455	0.6493
DREG8	1	-0.007362	0.01029162	-0.715	0.4746
DREG9	1	-0.015067	0.00826250	-1.824	0.0684
DREG10	1	0.004273	0.00755499	0.566	0.5718
DREG11	1	0.005863	0.00809969	0.724	0.4693
DREG12	1	-0.002641	0.01563353	-0.169	0.8659
DHHC0	1	-0.017240	0.01269055	-1.359	0.1745
DHHC1	1	-0.022258	0.01301518	-1.710	0.0875
DHHC2	1	-0.001794	0.00863854	-0.208	0.8356
DHHC3	1	-0.006652	0.00954165	-0.697	0.4858
DHHC4	1	-0.009279	0.01285254	-0.722	0.4704
DHHC6	1	0.017617	0.00920866	1.913	0.0560
DHHC7	1	0.008741	0.03089888	0.283	0.7773
DHHC8	1	-0.014737	0.01084005	-1.359	0.1742
DHHC9	1	0.000658	0.01738954	0.038	0.9698
DHHC10	1	-0.001251	0.01290101	-0.097	0.9228
DQTR2	1	-0.012754	0.01489340	-0.856	0.3920
DQTR3	1	-0.004955	0.01751813	-0.283	0.7773
DQTR4	1	-0.019700	0.02089837	-0.943	0.3460
HEADAGE	1	0.000218	0.00026743	0.813	0.4161
D1	1	0.122893	0.06593618	1.864	0.0626
D2	1	0.096913	0.06623386	1.463	0.1437
D3	1	0.115684	0.06597490	1.753	0.0798
D4	1	0.094781	0.06995001	1.355	0.1757
D1SB	1	0.117856	0.06597112	1.786	0.0743
D2SB	1	0.103117	0.06607694	1.561	0.1189
D3SB	1	0.105718	0.06615726	1.598	0.1103
D4SB	1	0.097807	0.06699781	1.460	0.1446
TEST1	1	0.117856	0.06597112	1.786	0.0743
TEST2	1	0.103117	0.06607694	1.561	0.1189
TEST3	1	0.105718	0.06615726	1.598	0.1103
TEST4	1	0.097807	0.06699781	1.460	0.1446

Table A-2 (continued)

Tobit Model for SHRSVCS  
 Noncensored Values= 1348 Right Censored Values= 0  
 Left Censored Values= 22 Interval Censored Values= 0

Log Likelihood for NORMAL 1625.2397832

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.14083178	1.016768	0.019185	0.8898
SB	1	-0.0215575	0.006995	9.497286	0.0021
TREND	1	-0.0349732	0.041161	0.721925	0.3955
TRENDSQ	1	0.0012693	0.00152	0.697038	0.4038
P_FOOD	1	0.15912055	0.282332	0.317638	0.5730
P_ALCH	1	0.05540893	0.328966	0.02837	0.8662
P_TOBCO	1	0.07045989	0.112055	0.395384	0.5295
P_CLOTH	1	0.41191247	0.534651	0.593567	0.4410
P_TSPRT	1	0.39424541	0.207467	3.611048	0.0574
P_MISC	1	-0.1609968	0.285021	0.319066	0.5722
P_SVCS	1	-0.033101	0.216695	0.023334	0.8786
P_FDOUT	1	-0.2000284	0.409067	0.239108	0.6249
P_HOUS	1	-0.2510016	0.161445	2.417163	0.1200
P_FUEL	1	0.24012445	0.130899	3.365109	0.0666
P_DUREBL	1	-0.6793955	0.43888	2.396367	0.1216
LRTOTEXP	1	0.03907206	0.004969	61.82312	0.0001
DREG1	1	-0.0170647	0.009715	3.085283	0.0790
DREG2	1	0.00972944	0.008241	1.393936	0.2377
DREG3	1	0.00366768	0.010214	0.128943	0.7195
DREG4	1	0.01348325	0.011929	1.277627	0.2583
DREG6	1	0.01671632	0.007201	5.388218	0.0203
DREG7	1	0.00544338	0.009434	0.332951	0.5639
DREG8	1	-0.0064134	0.010244	0.391938	0.5313
DREG9	1	-0.0149368	0.008238	3.287184	0.0698
DREG10	1	0.00480118	0.007523	0.407266	0.5234
DREG11	1	0.00681925	0.008066	0.714714	0.3979
DREG12	1	-0.0047834	0.015661	0.093295	0.7600
DHHC0	1	-0.0171358	0.012607	1.847392	0.1741
DHHC1	1	-0.0278231	0.013066	4.534372	0.0332
DHHC2	1	-0.002899	0.008595	0.113774	0.7359
DHHC3	1	-0.0076088	0.009495	0.642144	0.4229
DHHC4	1	-0.0088155	0.012767	0.476762	0.4899
DHHC6	1	0.01808894	0.009148	3.910027	0.0480
DHHC7	1	0.00321008	0.031287	0.010527	0.9183
DHHC8	1	-0.0156099	0.010774	2.099094	0.1474
DHHC9	1	-0.0000503	0.017357	8.385E-6	0.9977
DHHC10	1	-0.0010168	0.012821	0.00629	0.9368
DQTR2	1	-0.0118941	0.014817	0.64438	0.4221
DQTR3	1	-0.0038012	0.017435	0.047536	0.8274
DQTR4	1	-0.0188738	0.020793	0.823928	0.3640
HEADAGE	1	0.00024982	0.000266	0.880726	0.3480
D1	1	0.12858086	0.06556	3.846573	0.0498
D2	1	0.1019315	0.065857	2.39558	0.1217
D3	1	0.12147737	0.065595	3.429689	0.0640
D4	1	0.09947708	0.069539	2.04639	0.1526
D1SB	1	0.12387754	0.065602	3.565726	0.0590
D2SB	1	0.10877359	0.065698	2.741181	0.0978
D3SB	1	0.11124438	0.065766	2.861191	0.0907
D4SB	1	0.10128342	0.066615	2.311688	0.1284
TEST1	1	0.12387754	0.065602	3.565726	0.0590
TEST2	1	0.10877359	0.065698	2.741181	0.0978
TEST3	1	0.11124438	0.065766	2.861191	0.0907
TEST4	1	0.10128342	0.066615	2.311688	0.1284

Table A-2 (continued)

OLS Model		for SHRTOBCO			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	0.31497	0.00656	3.458	0.0001
Error	1321	2.50682	0.00190		
C Total	1369	2.82179			
Root MSE	0.04356	R-square	0.1116		
Dep Mean	0.03923	Adj R-sq	0.0793		
C.V.	111.05319				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.609066	0.61922117	0.984	0.3255
SB	1	0.007193	0.00426111	1.688	0.0916
TREND	1	0.041643	0.02507757	1.661	0.0970
TRENDSQ	1	-0.001605	0.00092603	-1.733	0.0834
P_FOOD	1	-0.242238	0.17208826	-1.408	0.1595
P_ALCH	1	0.017418	0.20050832	0.087	0.9308
P_TOBCO	1	0.081561	0.06833827	1.193	0.2329
P_CLOTH	1	-0.048686	0.32572430	-0.149	0.8812
P_TSPRT	1	-0.041331	0.12640713	-0.327	0.7437
P_MISC	1	-0.155126	0.17373560	-0.893	0.3721
P_SVCS	1	0.050702	0.13204199	0.384	0.7011
P_FDOUT	1	0.010188	0.24933274	0.041	0.9674
P_HOUS	1	0.009481	0.09840670	0.096	0.9233
P_FUEL	1	-0.052295	0.07973213	-0.656	0.5120
P_DURBL	1	0.226391	0.26767963	0.846	0.3978
LRTOTEXP	1	-0.017866	0.00302643	-5.903	0.0001
DREG1	1	0.015503	0.00591104	2.623	0.0088
DREG2	1	0.010591	0.00501854	2.110	0.0350
DREG3	1	0.006595	0.00622960	1.059	0.2899
DREG4	1	-0.000682	0.00727748	-0.094	0.9254
DREG6	1	0.000200	0.00438772	0.046	0.9636
DREG7	1	0.006507	0.00575289	1.131	0.2582
DREG8	1	0.016060	0.00623975	2.574	0.0102
DREG9	1	0.004334	0.00500951	0.865	0.3871
DREG10	1	0.004658	0.00458054	1.017	0.3094
DREG11	1	0.021211	0.00491079	4.319	0.0001
DREG12	1	0.010949	0.00947852	1.155	0.2482
DHHC0	1	0.004246	0.00769420	0.552	0.5812
DHHC1	1	0.010754	0.00789103	1.363	0.1732
DHHC2	1	0.007314	0.00523750	1.396	0.1628
DHHC3	1	0.012519	0.00578505	2.164	0.0306
DHHC4	1	0.005865	0.00779242	0.753	0.4518
DHHC6	1	0.002946	0.00558316	0.528	0.5979
DHHC7	1	-0.004890	0.01873381	-0.261	0.7941
DHHC8	1	0.003634	0.00657226	0.553	0.5805
DHHC9	1	0.002026	0.01054317	0.192	0.8476
DHHC10	1	-0.002840	0.00782180	-0.363	0.7166
DQTR2	1	0.005554	0.00902978	0.615	0.5386
DQTR3	1	0.010919	0.01062114	1.028	0.3041
DQTR4	1	0.014582	0.01267056	1.151	0.2500
HEADAGE	1	-0.000421	0.00016214	-2.599	0.0094
D1	1	-0.008439	0.03997672	-0.211	0.8328
D2	1	-0.005798	0.04015719	-0.144	0.8854
D3	1	0.004451	0.04000019	0.111	0.9114
D4	1	-0.013903	0.04241027	-0.328	0.7431
D1SB	1	-0.016925	0.03999790	-0.423	0.6723
D2SB	1	-0.006586	0.04006206	-0.164	0.8694
D3SB	1	0.002881	0.04011075	0.072	0.9428
D4SB	1	0.007861	0.04062037	0.194	0.8466
TEST1	1	-0.016925	0.03999790	-0.423	0.6723
TEST2	1	-0.006586	0.04006206	-0.164	0.8694
TEST3	1	0.002881	0.04011075	0.072	0.9428
TEST4	1	0.007861	0.04062037	0.194	0.8466

Table A-2 (continued)

**Tobit Model** for SHRTOBCO  
 Noncensored Values= 824 Right Censored Values= 0  
 Left Censored Values= 546 Interval Censored Values= 0

**Log Likelihood** for NORMAL 667.27540172

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.44815923	0.971555	0.212779	0.6446
SB	1	0.01427645	0.006653	4.604761	0.0319
TREND	1	0.05289758	0.039498	1.793552	0.1805
TRENDSQ	1	-0.0021454	0.001459	2.161424	0.1415
P_FOOD	1	-0.4415445	0.273797	2.600711	0.1068
P_ALCH	1	0.12519644	0.317707	0.155285	0.6935
P_TOBCO	1	0.13421481	0.107973	1.545147	0.2139
P_CLOTH	1	0.12472972	0.509626	0.059901	0.8067
P_TSPT	1	0.00406989	0.20165	0.000407	0.9839
P_MISC	1	-0.2836736	0.274145	1.070727	0.3008
P_SVCS	1	0.07778483	0.206718	0.14159	0.7067
P_FDOUT	1	0.00368687	0.389776	0.000089	0.9925
P_HOUS	1	0.03297685	0.15516	0.045171	0.8317
P_FUEL	1	-0.1213605	0.125006	0.942527	0.3316
P_DURBL	1	0.22420773	0.423765	0.27993	0.5967
LRTOTEXP	1	-0.0197584	0.004841	16.65652	0.0001
DREG1	1	0.02775051	0.00919	9.118653	0.0025
DREG2	1	0.01848847	0.007876	5.51066	0.0189
DREG3	1	0.01142482	0.009874	1.338712	0.2473
DREG4	1	-0.000389	0.011708	0.001104	0.9735
DREG6	1	0.00048107	0.007085	0.00461	0.9459
DREG7	1	0.00851644	0.00921	0.855015	0.3551
DREG8	1	0.02696638	0.009694	7.738644	0.0054
DREG9	1	0.01033525	0.007935	1.696666	0.1927
DREG10	1	0.00884941	0.007281	1.477116	0.2242
DREG11	1	0.03251826	0.007677	17.94201	0.0001
DREG12	1	0.01580292	0.014852	1.132091	0.2873
DHHC0	1	0.00864082	0.012007	0.51788	0.4717
DHHC1	1	0.01387457	0.012334	1.265431	0.2606
DHHC2	1	0.00973953	0.008292	1.379562	0.2402
DHHC3	1	0.02106799	0.009134	5.320406	0.0211
DHHC4	1	0.0067997	0.012204	0.310421	0.5774
DHHC6	1	0.00536814	0.008735	0.377663	0.5389
DHHC7	1	-0.0021092	0.028867	0.005338	0.9418
DHHC8	1	0.01097987	0.010289	1.13884	0.2859
DHHC9	1	0.01239255	0.016013	0.598904	0.4390
DHHC10	1	-0.0041527	0.012214	0.115594	0.7339
DQTR2	1	0.00854687	0.014191	0.362727	0.5470
DQTR3	1	0.01218756	0.016669	0.534555	0.4647
DQTR4	1	0.02052397	0.019926	1.060934	0.3030
HEADAGE	1	-0.0006574	0.000255	6.633728	0.0100
D1	1	-0.0192245	0.062995	0.093133	0.7602
D2	1	-0.0141252	0.063328	0.049751	0.8235
D3	1	-0.0022272	0.062955	0.001252	0.9718
D4	1	-0.0250534	0.066872	0.140359	0.7079
D1SB	1	-0.0322012	0.062995	0.261292	0.6092
D2SB	1	-0.017789	0.063177	0.079284	0.7783
D3SB	1	-0.0076433	0.063146	0.014651	0.9037
D4SB	1	0.00341832	0.063798	0.002871	0.9573
TEST1	1	-0.0322012	0.062995	0.261292	0.6092
TEST2	1	-0.017789	0.063177	0.079284	0.7783
TEST3	1	-0.0076433	0.063146	0.014651	0.9037
TEST4	1	0.00341832	0.063798	0.002871	0.9573

Table A-2 (continued)

OLS Model		for SHRTSPRT			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	1.50840	0.03143	5.753	0.0001
Error	1321	7.21548	0.00546		
C Total	1369	8.72389			
Root MSE	0.07391	R-square	0.1729		
Dep Mean	0.06279	Adj R-sq	0.1429		
C.V.	117.69787				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.291402	1.05055065	0.277	0.7815
SB	1	-0.023107	0.00722926	-3.196	0.0014
TREND	1	0.057596	0.04254580	1.354	0.1760
TRENDSQ	1	-0.000973	0.00157108	-0.620	0.5356
P_FOOD	1	-0.135330	0.29195939	-0.464	0.6431
P_ALCH	1	0.352540	0.34017594	1.036	0.3002
P_TOBCO	1	-0.265109	0.11594050	-2.287	0.0224
P_CLOTH	1	0.023537	0.55261334	0.043	0.9660
P_TSPRT	1	-0.182017	0.21445826	-0.849	0.3962
P_MISC	1	-0.445847	0.29475420	-1.513	0.1306
P_SVCS	1	-0.017903	0.22401818	-0.080	0.9363
P_FDOUT	1	-0.340596	0.42300988	-0.805	0.4209
P_HOUS	1	0.169249	0.16695363	1.014	0.3109
P_FUEL	1	0.001943	0.13527096	0.014	0.9885
P_DURBL	1	0.785204	0.45413662	1.729	0.0840
LRTOTEXP	1	0.041425	0.00513455	8.068	0.0001
DREG1	1	-0.002717	0.01002849	-0.271	0.7865
DREG2	1	-0.000439	0.00851429	-0.052	0.9588
DREG3	1	0.007437	0.01056894	0.704	0.4817
DREG4	1	0.003638	0.01234673	0.295	0.7683
DREG6	1	0.010308	0.00744406	1.385	0.1664
DREG7	1	0.029024	0.00976016	2.974	0.0030
DREG8	1	-0.001806	0.01058615	-0.171	0.8646
DREG9	1	0.011708	0.00849896	1.378	0.1686
DREG10	1	0.004246	0.00777120	0.546	0.5849
DREG11	1	0.003717	0.00833150	0.446	0.6556
DREG12	1	0.007283	0.01608095	0.453	0.6507
DHHC0	1	-0.027106	0.01305374	-2.076	0.0380
DHHC1	1	0.012197	0.01338766	0.911	0.3624
DHHC2	1	0.006419	0.00888577	0.722	0.4702
DHHC3	1	0.010235	0.00981473	1.043	0.2972
DHHC4	1	-0.021411	0.01322037	-1.620	0.1056
DHHC6	1	-0.018336	0.00947220	-1.936	0.0531
DHHC7	1	-0.013038	0.03178317	-0.410	0.6817
DHHC8	1	-0.021028	0.01115028	-1.886	0.0595
DHHC9	1	-0.015691	0.01788721	-0.877	0.3805
DHHC10	1	-0.014497	0.01327022	-1.092	0.2749
DQTR2	1	0.019666	0.01531963	1.284	0.1995
DQTR3	1	0.020510	0.01801948	1.138	0.2552
DQTR4	1	0.027317	0.02149646	1.271	0.2040
HEADAGE	1	-0.000107	0.00027508	-0.391	0.6962
D1	1	-0.056628	0.06782321	-0.835	0.4039
D2	1	-0.053867	0.06812940	-0.791	0.4293
D3	1	-0.053046	0.06786303	-0.782	0.4346
D4	1	0.039010	0.07195190	0.542	0.5878
D1SB	1	-0.070872	0.06785914	-1.044	0.2965
D2SB	1	-0.056902	0.06796799	-0.837	0.4026
D3SB	1	-0.048590	0.06805061	-0.714	0.4753
D4SB	1	-0.035069	0.06891521	-0.509	0.6109
TEST1	1	-0.070872	0.06785914	-1.044	0.2965
TEST2	1	-0.056902	0.06796799	-0.837	0.4026
TEST3	1	-0.048590	0.06805061	-0.714	0.4753
TEST4	1	-0.035069	0.06891521	-0.509	0.6109

Table A-2 (continued)

Tobit Model for SHRTSPRT  
 Noncensored Values= 1241 Right Censored Values= 0  
 Left Censored Values= 129 Interval Censored Values= 0

Log Likelihood for NORMAL 1302.3523464

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.30293558	1.114582	0.073871	0.7858
SB	1	-0.0247282	0.007696	10.32447	0.0013
TREND	1	0.06893663	0.045222	2.323802	0.1274
TRENDSQ	1	-0.0010549	0.001668	0.39971	0.5272
P_FOOD	1	-0.117592	0.310551	0.14338	0.7049
P_ALCH	1	0.46532795	0.362262	1.649961	0.1990
P_TOBCO	1	-0.3182524	0.123577	6.632376	0.0100
P_CLOTH	1	0.16985631	0.589252	0.083092	0.7731
P_TSERT	1	-0.1985776	0.22815	0.757568	0.3841
P_MISC	1	-0.501053	0.313966	2.546838	0.1105
P_SVCS	1	0.04976174	0.239192	0.043281	0.8352
P_FDOUT	1	-0.553801	0.453366	1.492137	0.2219
P_HOUS	1	0.16611455	0.177504	0.87579	0.3494
P_FUEL	1	-0.0129935	0.144046	0.008137	0.9281
P_DURBL	1	0.79039681	0.482488	2.683592	0.1014
LRTOTEXP	1	0.04902957	0.005514	79.057	0.0001
DREG1	1	-0.0016634	0.010688	0.024221	0.8763
DREG2	1	0.00335327	0.009076	0.136514	0.7118
DREG3	1	0.00890513	0.011262	0.625264	0.4291
DREG4	1	0.00180927	0.013219	0.018734	0.8911
DREG6	1	0.01020767	0.007928	1.657712	0.1979
DREG7	1	0.03079532	0.010373	8.814387	0.0030
DREG8	1	-0.0014635	0.011328	0.016689	0.8972
DREG9	1	0.01546084	0.009013	2.942825	0.0863
DREG10	1	0.00820924	0.008261	0.987588	0.3203
DREG11	1	0.00347938	0.008898	0.152907	0.6958
DREG12	1	-0.0010401	0.017499	0.003532	0.9526
DHHC0	1	-0.0285902	0.013941	4.205929	0.0403
DHHC1	1	0.01406885	0.014299	0.968128	0.3251
DHHC2	1	0.00794873	0.009444	0.708471	0.4000
DHHC3	1	0.01096847	0.010413	1.109524	0.2922
DHHC4	1	-0.0210894	0.014208	2.20328	0.1377
DHHC6	1	-0.0187059	0.010132	3.408312	0.0649
DHHC7	1	-0.0058761	0.033418	0.030918	0.8604
DHHC8	1	-0.0232645	0.011883	3.832941	0.0503
DHHC9	1	-0.0168037	0.01914	0.770753	0.3800
DHHC10	1	-0.0167685	0.014184	1.397545	0.2371
DQTR2	1	0.02582932	0.016392	2.482875	0.1151
DQTR3	1	0.02816618	0.019272	2.136012	0.1439
DQTR4	1	0.03916109	0.023018	2.894431	0.0889
HEADAGE	1	-0.0001084	0.000292	0.13748	0.7108
D1	1	-0.0469895	0.072237	0.423135	0.5154
D2	1	-0.0446325	0.072563	0.378332	0.5385
D3	1	-0.0449167	0.072273	0.386247	0.5343
D4	1	0.05033523	0.076475	0.433216	0.5104
D1SB	1	-0.0645062	0.072351	0.794892	0.3726
D2SB	1	-0.0523017	0.072403	0.521813	0.4701
D3SB	1	-0.0358279	0.072505	0.244178	0.6212
D4SB	1	-0.0240781	0.073455	0.107449	0.7431
TEST1	1	-0.0645062	0.072351	0.794892	0.3726
TEST2	1	-0.0523017	0.072403	0.521813	0.4701
TEST3	1	-0.0358279	0.072505	0.244178	0.6212
TEST4	1	-0.0240781	0.073455	0.107449	0.7431

Table A-2 (continued)

**Model 2 Results for Narrow Goods with 11 Good Budget**

OLS Model		for SHRBOOKS			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	0.00161	0.00003	1.242	0.1266
Error	1321	0.03559	0.00003		
C Total	1369	0.03720			
Root MSE	0.00519	R-square	0.0432		
Dep Mean	0.00140	Adj R-sq	0.0084		
C.V.	371.16156				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.002679	0.07378032	0.036	0.9710
SB	1	-0.000610	0.00050771	-1.202	0.2294
TREND	1	0.000231	0.00298800	0.077	0.9383
TRENDSQ	1	0.000032820	0.00011034	0.297	0.7662
P_FOOD	1	0.004618	0.02050435	0.225	0.8218
P_ALCH	1	0.004077	0.02389060	0.171	0.8645
P_TOBCO	1	0.005464	0.00814252	0.671	0.5023
P_CLOTH	1	0.013965	0.03881011	0.360	0.7190
P_TSPRT	1	0.003724	0.01506143	0.247	0.8047
P_MISC	1	-0.031727	0.02070063	-1.533	0.1256
P_SVCS	1	-0.003613	0.01573283	-0.230	0.8184
P_FDOUT	1	0.006747	0.02970804	0.227	0.8204
P_HOUS	1	-0.002798	0.01172518	-0.239	0.8114
P_FUEL	1	-0.002102	0.00950010	-0.221	0.8249
P_DURBL	1	0.001655	0.03189408	0.052	0.9586
LRTOTEXP	1	0.000885	0.00036060	2.455	0.0142
DREG1	1	-0.000206	0.00070430	-0.292	0.7703
DREG2	1	0.000073565	0.00059796	0.123	0.9021
DREG3	1	-0.000056661	0.00074226	-0.076	0.9392
DREG4	1	-0.000903	0.00086711	-1.042	0.2976
DREG6	1	0.000815	0.00052280	1.560	0.1191
DREG7	1	0.000066140	0.00068546	0.096	0.9231
DREG8	1	-0.000652	0.00074347	-0.877	0.3804
DREG9	1	0.000587	0.00059688	0.984	0.3253
DREG10	1	-0.000401	0.00054577	-0.734	0.4630
DREG11	1	-0.001025	0.00058512	-1.753	0.0799
DREG12	1	0.000409	0.00112937	0.362	0.7172
DHHC0	1	0.000711	0.00091677	0.776	0.4379
DHHC1	1	-0.000218	0.00094022	-0.232	0.8169
DHHC2	1	0.000866	0.00062405	1.388	0.1654
DHHC3	1	0.001144	0.00068929	1.659	0.0973
DHHC4	1	-0.000419	0.00092847	-0.451	0.6521
DHHC6	1	0.000197	0.00066523	0.297	0.7668
DHHC7	1	-0.000695	0.00223214	-0.311	0.7556
DHHC8	1	0.000333	0.00078309	0.425	0.6708
DHHC9	1	-0.000846	0.00125622	-0.674	0.5007
DHHC10	1	0.000663	0.00093197	0.711	0.4769
DQTR2	1	-0.000125	0.00107590	-0.116	0.9078
DQTR3	1	0.000208	0.00126551	0.164	0.8695
DQTR4	1	0.001330	0.00150970	0.881	0.3785
HEADAGE	1	-0.000019739	0.00001932	-1.022	0.3071
D1	1	0.000286	0.00476323	0.060	0.9522
D2	1	0.000748	0.00478474	0.156	0.8758
D3	1	-0.000599	0.00476603	-0.126	0.9000
D4	1	-0.001806	0.00505319	-0.357	0.7209
D1SB	1	0.000205	0.00476576	0.043	0.9657
D2SB	1	0.000799	0.00477340	0.167	0.8670
D3SB	1	0.000287	0.00477920	0.060	0.9521
D4SB	1	-0.000771	0.00483993	-0.159	0.8734
TEST1	1	0.000205	0.00476576	0.043	0.9657
TEST2	1	0.000799	0.00477340	0.167	0.8670
TEST3	1	0.000287	0.00477920	0.060	0.9521
TEST4	1	-0.000771	0.00483993	-0.159	0.8734

Table A-2 (continued)

Tobit Model for SHRBOOKS  
 Noncensored Values= 270 Right Censored Values= 0  
 Left Censored Values=1100 Interval Censored Values= 0

Log Likelihood for NORMAL 400.45933403

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.0767916	0.297727	0.066526	0.7965
SB	1	-0.0039543	0.002172	3.313745	0.0687
TREND	1	0.00255403	0.011964	0.045575	0.8309
TRENDSQ	1	0.00023659	0.000437	0.292958	0.5883
P_FOOD	1	-0.0090688	0.080673	0.012637	0.9105
P_ALCH	1	-0.0188004	0.099432	0.03575	0.8500
P_TOBCO	1	0.00686609	0.033327	0.042445	0.8368
P_CLOTH	1	0.0778259	0.162804	0.228518	0.6326
P_TSPRT	1	-0.0039425	0.06259	0.003968	0.9498
P_MISC	1	-0.1953202	0.085868	5.174067	0.0229
P_SVCS	1	-0.0299833	0.06463	0.215223	0.6427
P_FDOUT	1	-0.0032349	0.128429	0.000634	0.9799
P_HOUS	1	0.0280943	0.046726	0.361504	0.5477
P_FUEL	1	0.02641099	0.038565	0.469013	0.4934
P_DURBL	1	0.13738393	0.130101	1.115092	0.2910
LRTOTEXP	1	0.00707584	0.00148	22.85213	0.0001
DREG1	1	-0.0023568	0.00298	0.625634	0.4290
DREG2	1	-0.0009797	0.002493	0.154454	0.6943
DREG3	1	0.00087002	0.002921	0.088728	0.7658
DREG4	1	-0.0027017	0.003522	0.588562	0.4430
DREG6	1	0.00280649	0.002008	1.953629	0.1622
DREG7	1	0.00147808	0.002682	0.303723	0.5816
DREG8	1	-0.0037139	0.003277	1.284594	0.2570
DREG9	1	0.00258815	0.002319	1.245647	0.2644
DREG10	1	-0.0028267	0.002274	1.544522	0.2139
DREG11	1	-0.0067855	0.002635	6.633941	0.0100
DREG12	1	0.0024703	0.004381	0.31799	0.5728
DHHC0	1	0.00496895	0.003562	1.946436	0.1630
DHHC1	1	-0.0015367	0.00429	0.128335	0.7202
DHHC2	1	0.00354398	0.002574	1.895958	0.1685
DHHC3	1	0.00448089	0.002818	2.529149	0.1118
DHHC4	1	-0.0046758	0.004249	1.210859	0.2712
DHHC6	1	0.00075368	0.002752	0.074993	0.7842
DHHC7	1	-0.0569195	1.907649	0.00089	0.9762
DHHC8	1	0.00077578	0.003314	0.054802	0.8149
DHHC9	1	-0.0044252	0.00575	0.592344	0.4415
DHHC10	1	0.0039194	0.003954	0.98244	0.3216
DQTR2	1	-0.0006805	0.004438	0.023507	0.8781
DQTR3	1	0.00086459	0.00532	0.026411	0.8709
DQTR4	1	0.00463189	0.006374	0.528002	0.4674
HEADAGE	1	-0.000125	0.00008	2.449092	0.1176
D1	1	-0.0057887	0.019227	0.090645	0.7634
D2	1	-0.0032696	0.019289	0.028733	0.8654
D3	1	-0.0099171	0.019282	0.264519	0.6070
D4	1	-0.0142961	0.020518	0.485477	0.4860
D1SB	1	-0.0040589	0.019236	0.044524	0.8329
D2SB	1	-0.0003057	0.019238	0.000253	0.9873
D3SB	1	-0.0050735	0.019384	0.068506	0.7935
D4SB	1	-0.0117828	0.019737	0.356382	0.5505
TEST1	1	-0.0040589	0.019236	0.044524	0.8329
TEST2	1	-0.0003057	0.019238	0.000253	0.9873
TEST3	1	-0.0050735	0.019384	0.068506	0.7935
TEST4	1	-0.0117828	0.019737	0.356382	0.5505

Table A-2 (continued)

OLS Model		for SHRCIGS			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	0.19152	0.00399	5.202	0.0001
Error	1321	1.01313	0.00077		
C Total	1369	1.20465			
Root MSE	0.02769	R-square	0.1590		
Dep Mean	0.02305	Adj R-sq	0.1284		
C.V.	120.15451				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.671917	0.39365627	1.707	0.0881
SB	1	0.002753	0.00270891	1.016	0.3097
TREND	1	0.044369	0.01594252	2.783	0.0055
TRENDSQ	1	-0.000978	0.00058870	-1.661	0.0969
P_FOOD	1	-0.292935	0.10940133	-2.678	0.0075
P_ALCH	1	-0.054683	0.12746876	-0.429	0.6680
P_TOBCO	1	-0.010611	0.04344456	-0.244	0.8071
P_CLOTH	1	-0.329001	0.20707207	-1.589	0.1123
P_TSPRT	1	-0.085568	0.08036056	-1.065	0.2872
P_MISC	1	0.018437	0.11044859	0.167	0.8675
P_SVCS	1	-0.073433	0.08394280	-0.875	0.3818
P_FDOUT	1	0.134249	0.15850782	0.847	0.3972
P_HOUS	1	0.089222	0.06255990	1.426	0.1540
P_FUEL	1	-0.118035	0.05068795	-2.329	0.0200
P_DURBL	1	0.564347	0.17017145	3.316	0.0009
LRTOTEXP	1	-0.009282	0.00192399	-4.824	0.0001
DREG1	1	0.008996	0.00375782	2.394	0.0168
DREG2	1	0.007122	0.00319043	2.232	0.0258
DREG3	1	0.004568	0.00396033	1.153	0.2489
DREG4	1	0.003243	0.00462650	0.701	0.4835
DREG6	1	-0.001055	0.00278939	-0.378	0.7053
DREG7	1	0.002830	0.00365727	0.774	0.4392
DREG8	1	0.010554	0.00396678	2.661	0.0079
DREG9	1	0.002404	0.00318468	0.755	0.4504
DREG10	1	0.002996	0.00291198	1.029	0.3037
DREG11	1	0.011277	0.00312193	3.612	0.0003
DREG12	1	0.005337	0.00602576	0.886	0.3759
DHHC0	1	0.002037	0.00489142	0.416	0.6772
DHHC1	1	0.006437	0.00501655	1.283	0.1996
DHHC2	1	0.003340	0.00332962	1.003	0.3160
DHHC3	1	0.006165	0.00367772	1.676	0.0939
DHHC4	1	0.004222	0.00495386	0.852	0.3942
DHHC6	1	0.000837	0.00354937	0.236	0.8135
DHHC7	1	-0.001229	0.01190961	-0.103	0.9178
DHHC8	1	0.001879	0.00417817	0.450	0.6530
DHHC9	1	0.001089	0.00670259	0.162	0.8710
DHHC10	1	-0.002736	0.00497254	-0.550	0.5823
DQTR2	1	0.007454	0.00574048	1.299	0.1943
DQTR3	1	0.008516	0.00675215	1.261	0.2075
DQTR4	1	0.014891	0.00805503	1.849	0.0647
HEADAGE	1	-0.000277	0.00010308	-2.687	0.0073
D1	1	-0.075650	0.02541432	-2.977	0.0030
D2	1	-0.076422	0.02552905	-2.994	0.0028
D3	1	-0.068543	0.02542924	-2.695	0.0071
D4	1	-0.081058	0.02696140	-3.006	0.0027
D1SB	1	-0.077730	0.02542778	-3.057	0.0023
D2SB	1	-0.073429	0.02546857	-2.883	0.0040
D3SB	1	-0.068698	0.02549953	-2.694	0.0071
D4SB	1	-0.062031	0.02582351	-2.402	0.0164
TEST1	1	-0.077730	0.02542778	-3.057	0.0023
TEST2	1	-0.073429	0.02546857	-2.883	0.0040
TEST3	1	-0.068698	0.02549953	-2.694	0.0071
TEST4	1	-0.062031	0.02582351	-2.402	0.0164

Table A-2 (continued)

Tobit Model for SHRCIGS  
 Noncensored Values= 813 Right Censored Values= 0  
 Left Censored Values= 557 Interval Censored Values= 0

Log Likelihood for NORMAL 1025.1055629

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.59425066	0.621168	0.915211	0.3387
SB	1	0.00778553	0.004264	3.334576	0.0678
TREND	1	0.05582173	0.025262	4.882995	0.0271
TRENDSQ	1	-0.0013726	0.000935	2.155116	0.1421
P_FOOD	1	-0.4674011	0.176143	7.041254	0.0080
P_ALCH	1	0.01173253	0.203208	0.003334	0.9540
P_TOBCO	1	0.01653646	0.06907	0.05732	0.8108
P_CLOTH	1	-0.2420906	0.326218	0.55073	0.4580
P_TSPRT	1	-0.057589	0.129256	0.198506	0.6559
P_MISC	1	-0.0484906	0.176299	0.075651	0.7833
P_SVCS	1	-0.0624959	0.13201	0.224126	0.6359
P_FDOUT	1	0.13397577	0.249271	0.288875	0.5909
P_HOUS	1	0.12132306	0.099545	1.485419	0.2229
P_FUEL	1	-0.1827003	0.080164	5.194255	0.0227
P_DURBL	1	0.62736626	0.271227	5.350289	0.0207
LRTOTEXP	1	-0.0102313	0.003094	10.93794	0.0009
DREG1	1	0.01708257	0.005853	8.517596	0.0035
DREG2	1	0.01248772	0.005022	6.18373	0.0129
DREG3	1	0.00776512	0.0063	1.519097	0.2178
DREG4	1	0.00234282	0.007509	0.097337	0.7550
DREG6	1	-0.0012785	0.004528	0.079724	0.7777
DREG7	1	0.00447786	0.00587	0.581978	0.4455
DREG8	1	0.01670459	0.0062	7.258188	0.0071
DREG9	1	0.00613896	0.005069	1.466842	0.2258
DREG10	1	0.00591809	0.004646	1.622335	0.2028
DREG11	1	0.01886387	0.004896	14.84797	0.0001
DREG12	1	0.00901239	0.009472	0.905401	0.3413
DHHC0	1	0.00577002	0.007684	0.563814	0.4527
DHHC1	1	0.00945339	0.00786	1.446536	0.2291
DHHC2	1	0.00552594	0.005321	1.078549	0.2990
DHHC3	1	0.01203626	0.005858	4.221829	0.0399
DHHC4	1	0.00511961	0.007788	0.432153	0.5109
DHHC6	1	0.00238537	0.005579	0.182825	0.6690
DHHC7	1	0.00139972	0.01846	0.005749	0.9396
DHHC8	1	0.00756936	0.006586	1.320874	0.2504
DHHC9	1	0.00749316	0.010252	0.534236	0.4648
DHHC10	1	-0.0024042	0.007812	0.094699	0.7583
DQTR2	1	0.00980193	0.00904	1.175755	0.2782
DQTR3	1	0.00985459	0.01063	0.859351	0.3539
DQTR4	1	0.01932356	0.01271	2.311319	0.1284
HEADAGE	1	-0.0004204	0.000163	6.662626	0.0098
D1	1	-0.0945105	0.040381	5.477751	0.0193
D2	1	-0.0932519	0.040606	5.273938	0.0216
D3	1	-0.0861404	0.040344	4.558846	0.0327
D4	1	-0.1005783	0.042842	5.51143	0.0189
D1SB	1	-0.0995963	0.040378	6.084241	0.0136
D2SB	1	-0.0922071	0.040499	5.183796	0.0228
D3SB	1	-0.088267	0.040472	4.756494	0.0292
D4SB	1	-0.0771559	0.040873	3.563325	0.0591
TEST1	1	-0.0995963	0.040378	6.084241	0.0136
TEST2	1	-0.0922071	0.040499	5.183796	0.0228
TEST3	1	-0.088267	0.040472	4.756494	0.0292
TEST4	1	-0.0771559	0.040873	3.563325	0.0591

Table A-2 (continued)

OLS Model for SHRCOSM					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	0.00453	0.00009	2.426	0.0001
Error	1321	0.05142	0.00004		
C Total	1369	0.05595			
Root MSE	0.00624	R-square	0.0810		
Dep Mean	0.00353	Adj R-sq	0.0476		
C.V.	176.71723				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.090340	0.08868309	1.019	0.3085
SB	1	-0.000176	0.00061026	-0.288	0.7736
TREND	1	0.004099	0.00359154	1.141	0.2540
TRENDSQ	1	0.000110	0.00013262	0.827	0.4084
P_FOOD	1	-0.047074	0.02464599	-1.910	0.0563
P_ALCH	1	-0.069186	0.02871623	-2.409	0.0161
P_TOBCO	1	-0.013727	0.00978721	-1.403	0.1610
P_CLOTH	1	-0.049532	0.04664930	-1.062	0.2885
P_TSPRT	1	-0.020037	0.01810367	-1.107	0.2686
P_MISC	1	-0.000771	0.02488192	-0.031	0.9753
P_SVCS	1	0.004237	0.01891068	0.224	0.8228
P_FDOUT	1	0.012989	0.03570872	0.364	0.7161
P_HOUS	1	0.024235	0.01409353	1.720	0.0857
P_FUEL	1	0.007835	0.01141901	0.686	0.4927
P_DURBL	1	0.131771	0.03833631	3.437	0.0006
LRTOTEXP	1	0.001121	0.00043344	2.586	0.0098
DREG1	1	-0.000735	0.00084656	-0.868	0.3856
DREG2	1	0.000120	0.00071874	0.166	0.8678
DREG3	1	0.001219	0.00089219	1.366	0.1722
DREG4	1	0.001708	0.00104226	1.639	0.1015
DREG6	1	0.001102	0.00062840	1.754	0.0796
DREG7	1	0.000247	0.00082391	0.299	0.7648
DREG8	1	-0.000204	0.00089364	-0.228	0.8197
DREG9	1	0.000675	0.00071745	0.941	0.3471
DREG10	1	0.001256	0.00065601	1.914	0.0558
DREG11	1	-0.000068957	0.00070331	-0.098	0.9219
DREG12	1	-0.000574	0.00135749	-0.423	0.6725
DHHC0	1	-0.000124	0.00110194	-0.112	0.9107
DHHC1	1	0.003073	0.00113013	2.719	0.0066
DHHC2	1	0.001625	0.00075010	2.166	0.0305
DHHC3	1	0.002361	0.00082852	2.850	0.0044
DHHC4	1	-0.001905	0.00111601	-1.707	0.0880
DHHC6	1	0.000459	0.00079960	0.574	0.5661
DHHC7	1	-0.000310	0.00268300	-0.115	0.9081
DHHC8	1	0.000894	0.00094126	0.949	0.3426
DHHC9	1	0.000024401	0.00150996	0.016	0.9871
DHHC10	1	-0.000840	0.00112022	-0.750	0.4535
DQTR2	1	0.000877	0.00129322	0.678	0.4979
DQTR3	1	0.001419	0.00152113	0.933	0.3512
DQTR4	1	0.002000	0.00181464	1.102	0.2707
HEADAGE	1	-0.000048577	0.00002322	-2.092	0.0366
D1	1	-0.012920	0.00572535	-2.257	0.0242
D2	1	-0.011251	0.00575120	-1.956	0.0506
D3	1	-0.012464	0.00572871	-2.176	0.0298
D4	1	-0.013541	0.00607388	-2.229	0.0260
D1SB	1	-0.012616	0.00572838	-2.202	0.0278
D2SB	1	-0.011932	0.00573757	-2.080	0.0378
D3SB	1	-0.012257	0.00574455	-2.134	0.0331
D4SB	1	-0.013397	0.00581753	-2.303	0.0214
TEST1	1	-0.012616	0.00572838	-2.202	0.0278
TEST2	1	-0.011932	0.00573757	-2.080	0.0378
TEST3	1	-0.012257	0.00574455	-2.134	0.0331
TEST4	1	-0.013397	0.00581753	-2.303	0.0214

Table A-2 (continued)

Tobit Model for SHRCOSM  
 Noncensored Values= 681 Right Censored Values= 0  
 Left Censored Values= 689 Interval Censored Values= 0

Log Likelihood for NORMAL 1737.6098539

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.16363768	0.162216	1.0176	0.3131
SB	1	0.00007589	0.00109	0.004849	0.9445
TREND	1	0.00908533	0.006462	1.976762	0.1597
TRENDSQ	1	0.00011275	0.000239	0.223178	0.6366
P_FOOD	1	-0.0920633	0.044378	4.303567	0.0380
P_ALCH	1	-0.1274995	0.052554	5.885778	0.0153
P_TOBCO	1	-0.0279601	0.017884	2.444385	0.1179
P_CLOTH	1	-0.0739551	0.085055	0.756019	0.3846
P_TSPRT	1	-0.0426706	0.032466	1.727389	0.1887
P_MISC	1	0.02510104	0.045564	0.303493	0.5817
P_SVCS	1	0.03713186	0.03418	1.180191	0.2773
P_FDOUT	1	-0.012175	0.06501	0.035074	0.8514
P_HOUS	1	0.04432774	0.02576	2.961202	0.0853
P_FUEL	1	0.01325271	0.020873	0.403125	0.5255
P_DURBL	1	0.21962999	0.068985	10.13604	0.0015
LRTOTEXP	1	0.0039116	0.000793	24.30283	0.0001
DREG1	1	-0.0015559	0.001599	0.947036	0.3305
DREG2	1	0.00037257	0.001333	0.07809	0.7799
DREG3	1	0.00349462	0.001586	4.852032	0.0276
DREG4	1	0.00419412	0.001841	5.187554	0.0227
DREG6	1	0.00272812	0.00113	5.827306	0.0158
DREG7	1	0.00131742	0.001492	0.779321	0.3773
DREG8	1	-0.0004848	0.001681	0.083188	0.7730
DREG9	1	0.00210649	0.001296	2.643408	0.1040
DREG10	1	0.00245315	0.001192	4.232288	0.0397
DREG11	1	0.00002995	0.001297	0.000534	0.9816
DREG12	1	-0.001418	0.002622	0.29239	0.5887
DHHC0	1	-0.0007448	0.001991	0.139896	0.7084
DHHC1	1	0.00503357	0.00202	6.211058	0.0127
DHHC2	1	0.00297626	0.001335	4.968541	0.0258
DHHC3	1	0.00404007	0.001469	7.558608	0.0060
DHHC4	1	-0.0044697	0.002219	4.057797	0.0440
DHHC6	1	0.00089889	0.001464	0.377001	0.5392
DHHC7	1	-0.0017827	0.005382	0.109729	0.7405
DHHC8	1	0.00161707	0.001689	0.916344	0.3384
DHHC9	1	-0.000397	0.002812	0.019932	0.8877
DHHC10	1	-0.0023494	0.00209	1.263623	0.2610
DQTR2	1	0.00251178	0.002324	1.167743	0.2799
DQTR3	1	0.00358614	0.002757	1.691589	0.1934
DQTR4	1	0.0038052	0.003298	1.331438	0.2485
HEADAGE	1	-0.0000661	0.000043	2.412444	0.1204
D1	1	-0.0226699	0.010402	4.750057	0.0293
D2	1	-0.0199034	0.01045	3.62796	0.0568
D3	1	-0.0213749	0.010411	4.214945	0.0401
D4	1	-0.0223277	0.011064	4.072629	0.0436
D1SB	1	-0.0221117	0.010425	4.498432	0.0339
D2SB	1	-0.0209921	0.010438	4.044461	0.0443
D3SB	1	-0.0218907	0.010463	4.377641	0.0364
D4SB	1	-0.0240347	0.010611	5.130904	0.0235
TEST1	1	-0.0221117	0.010425	4.498432	0.0339
TEST2	1	-0.0209921	0.010438	4.044461	0.0443
TEST3	1	-0.0218907	0.010463	4.377641	0.0364
TEST4	1	-0.0240347	0.010611	5.130904	0.0235

Table A-2 (continued)

OLS Model		for SHRDOMSV			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	0.04055	0.00084	2.705	0.0001
Error	1321	0.41262	0.00031		
C Total	1369	0.45317			
Root MSE	0.01767	R-square	0.0895		
Dep Mean	0.00387	Adj R-sq	0.0564		
C.V.	456.52222				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.106705	0.25122328	0.425	0.6711
SB	1	-0.003860	0.00172877	-2.233	0.0257
TREND	1	0.003175	0.01017418	0.312	0.7550
TRENDSQ	1	0.000096199	0.00037570	0.256	0.7980
P_FOOD	1	-0.016469	0.06981767	-0.236	0.8136
P_ALCH	1	-0.036067	0.08134793	-0.443	0.6576
P_TOBCO	1	-0.003121	0.02772542	-0.113	0.9104
P_CLOTH	1	-0.086803	0.13214911	-0.657	0.5114
P_TSPT	1	-0.040280	0.05128445	-0.785	0.4324
P_MISC	1	-0.006740	0.07048600	-0.096	0.9238
P_SVCS	1	-0.047870	0.05357056	-0.894	0.3717
P_FDOUT	1	0.058446	0.10115641	0.578	0.5635
P_HOUS	1	0.033937	0.03992443	0.850	0.3955
P_FUEL	1	-0.003551	0.03234800	-0.110	0.9126
P_DURBL	1	0.129398	0.10859990	1.192	0.2337
LRTOTEXP	1	0.004431	0.00122785	3.609	0.0003
DREG1	1	0.002137	0.00239816	0.891	0.3729
DREG2	1	0.002792	0.00203606	1.371	0.1705
DREG3	1	0.001800	0.00252740	0.712	0.4765
DREG4	1	0.001708	0.00295253	0.578	0.5630
DREG6	1	0.001192	0.00178013	0.670	0.5031
DREG7	1	0.000015944	0.00233400	0.007	0.9946
DREG8	1	0.005377	0.00253152	2.124	0.0339
DREG9	1	0.000815	0.00203240	0.401	0.6884
DREG10	1	0.004994	0.00185837	2.687	0.0073
DREG11	1	0.002024	0.00199235	1.016	0.3099
DREG12	1	0.000268	0.00384551	0.070	0.9445
DHHC0	1	-0.000793	0.00312160	-0.254	0.7996
DHHC1	1	0.003077	0.00320146	0.961	0.3367
DHHC2	1	0.004861	0.00212490	2.288	0.0223
DHHC3	1	0.002956	0.00234704	1.260	0.2081
DHHC4	1	0.000603	0.00316145	0.191	0.8488
DHHC6	1	0.002755	0.00226513	1.216	0.2240
DHHC7	1	-0.000015165	0.00760046	-0.002	0.9984
DHHC8	1	-0.002035	0.00266642	-0.763	0.4455
DHHC9	1	0.017474	0.00427745	4.085	0.0001
DHHC10	1	0.002538	0.00317337	0.800	0.4240
DQTR2	1	-0.003913	0.00366346	-1.068	0.2857
DQTR3	1	-0.001844	0.00430909	-0.428	0.6688
DQTR4	1	-0.001902	0.00514055	-0.370	0.7115
HEADAGE	1	-0.000281	0.00006578	-4.275	0.0001
D1	1	-0.018007	0.01621889	-1.110	0.2671
D2	1	-0.019353	0.01629211	-1.188	0.2351
D3	1	-0.012747	0.01622842	-0.785	0.4323
D4	1	-0.022804	0.01720621	-1.325	0.1853
D1SB	1	-0.019901	0.01622748	-1.226	0.2203
D2SB	1	-0.017736	0.01625352	-1.091	0.2754
D3SB	1	-0.019937	0.01627327	-1.225	0.2208
D4SB	1	-0.015080	0.01648003	-0.915	0.3603
TEST1	1	-0.019901	0.01622748	-1.226	0.2203
TEST2	1	-0.017736	0.01625352	-1.091	0.2754
TEST3	1	-0.019937	0.01627327	-1.225	0.2208
TEST4	1	-0.015080	0.01648003	-0.915	0.3603

Table A-2 (continued)

Tobit Model for SHRDOMSV  
 Noncensored Values= 182 Right Censored Values= 0  
 Left Censored Values=1188 Interval Censored Values= 0

Log Likelihood for NORMAL -11.99540617

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.1225944	1.462422	0.007027	0.9332
SB	1	-0.0331915	0.010756	9.522149	0.0020
TREND	1	0.0093565	0.060217	0.024143	0.8765
TRENDSQ	1	0.00161508	0.002214	0.531973	0.4658
P_FOOD	1	0.38959133	0.425977	0.83646	0.3604
P_ALCH	1	0.14982052	0.479076	0.097799	0.7545
P_TOBCO	1	0.12121518	0.172657	0.492888	0.4826
P_CLOTH	1	0.57930364	0.827616	0.489953	0.4839
P_TSPRT	1	-0.1347682	0.307742	0.191779	0.6614
P_MISC	1	-0.727414	0.458001	2.522498	0.1122
P_SVCS	1	-0.294783	0.315945	0.870525	0.3508
P_FDOUT	1	-0.2423011	0.661553	0.134147	0.7142
P_HOUS	1	-0.0670618	0.243936	0.075579	0.7834
P_FUEL	1	0.11457223	0.202148	0.321234	0.5709
P_DURBL	1	0.14750893	0.646269	0.052097	0.8195
LRTOTEXP	1	0.02982843	0.007138	17.46343	0.0001
DREG1	1	0.02568511	0.014495	3.139909	0.0764
DREG2	1	0.02352847	0.012383	3.61021	0.0574
DREG3	1	0.01128976	0.015639	0.521118	0.4704
DREG4	1	0.02869578	0.016448	3.043625	0.0811
DREG6	1	0.0246597	0.010722	5.289546	0.0215
DREG7	1	0.01083852	0.014949	0.525689	0.4684
DREG8	1	0.01110924	0.016777	0.438462	0.5079
DREG9	1	0.0173868	0.01216	2.04444	0.1528
DREG10	1	0.03821278	0.010843	12.41912	0.0004
DREG11	1	0.01783521	0.011843	2.267908	0.1321
DREG12	1	-0.0021622	0.026856	0.006482	0.9358
DHHC0	1	0.00022002	0.02076	0.000112	0.9915
DHHC1	1	0.01924445	0.017454	1.215708	0.2702
DHHC2	1	0.02724541	0.012453	4.787077	0.0287
DHHC3	1	0.01427122	0.014335	0.991179	0.3195
DHHC4	1	0.04416738	0.016028	7.593497	0.0059
DHHC6	1	0.03161227	0.012372	6.529159	0.0106
DHHC7	1	0.01152939	0.04312	0.071492	0.7892
DHHC8	1	-0.0048826	0.016803	0.084433	0.7714
DHHC9	1	0.03849774	0.021993	3.064072	0.0800
DHHC10	1	0.02065156	0.017707	1.360186	0.2435
DQTR2	1	-0.0177238	0.021435	0.683698	0.4083
DQTR3	1	0.00619058	0.025832	0.05743	0.8106
DQTR4	1	-0.000528	0.031213	0.000286	0.9865
HEADAGE	1	-0.0030808	0.000474	42.31694	0.0001
D1	1	0.01192942	0.098097	0.014789	0.9032
D2	1	-0.0017099	0.097365	0.000308	0.9860
D3	1	0.01288122	0.097691	0.017386	0.8951
D4	1	0.00528636	0.101777	0.002698	0.9586
D1SB	1	0.00428064	0.098142	0.001902	0.9652
D2SB	1	-0.0028361	0.097721	0.000842	0.9768
D3SB	1	0.01861816	0.098078	0.036036	0.8494
D4SB	1	0.03821921	0.099536	0.147435	0.7010
TEST1	1	0.00428064	0.098142	0.001902	0.9652
TEST2	1	-0.0028361	0.097721	0.000842	0.9768
TEST3	1	0.01861816	0.098078	0.036036	0.8494
TEST4	1	0.03821921	0.099536	0.147435	0.7010

Table A-2 (continued)

OLS Model		for SHRHAIRD			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	0.00767	0.00016	2.208	0.0001
Error	1321	0.09557	0.00007		
C Total	1369	0.10324			
Root MSE	0.00851	R-square	0.0743		
Dep Mean	0.00303	Adj R-sq	0.0406		
C.V.	280.78764				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.078728	0.12090458	-0.651	0.5151
SB	1	-0.001678	0.00083199	-2.017	0.0439
TREND	1	-0.006170	0.00489646	-1.260	0.2079
TRENDSQ	1	0.000324	0.00018081	1.791	0.0735
P_FOOD	1	-0.088856	0.03360069	-2.644	0.0083
P_ALCH	1	-0.091077	0.03914978	-2.326	0.0201
P_TOBCO	1	-0.001240	0.01334323	-0.093	0.9260
P_CLOTH	1	-0.075236	0.06359854	-1.183	0.2370
P_TSPRT	1	0.033499	0.02468133	1.357	0.1749
P_MISC	1	0.024855	0.03392234	0.733	0.4639
P_SVCS	1	-0.022398	0.02578155	-0.869	0.3851
P_FDOUT	1	0.101335	0.04868288	2.082	0.0376
P_HOUS	1	0.046507	0.01921417	2.420	0.0156
P_FUEL	1	0.001533	0.01556791	0.098	0.9216
P_DURBL	1	0.092298	0.05226516	1.766	0.0776
LRTOTEXP	1	0.001230	0.00059092	2.082	0.0375
DREG1	1	-0.000409	0.00115415	-0.354	0.7232
DREG2	1	0.001020	0.00097988	1.041	0.2982
DREG3	1	0.001539	0.00121635	1.265	0.2061
DREG4	1	0.002899	0.00142095	2.040	0.0415
DREG6	1	-0.000696	0.00085671	-0.812	0.4168
DREG7	1	0.001580	0.00112327	1.407	0.1597
DREG8	1	-0.001930	0.00121833	-1.584	0.1135
DREG9	1	-0.000247	0.00097812	-0.253	0.8005
DREG10	1	-0.000432	0.00089436	-0.483	0.6294
DREG11	1	0.000321	0.00095885	0.335	0.7378
DREG12	1	0.001967	0.00185071	1.063	0.2879
DHHC0	1	0.000460	0.00150231	0.306	0.7596
DHHC1	1	0.000169	0.00154074	0.110	0.9127
DHHC2	1	-0.000463	0.00102264	-0.452	0.6510
DHHC3	1	0.000778	0.00112955	0.689	0.4910
DHHC4	1	0.000249	0.00152149	0.164	0.8698
DHHC6	1	0.000649	0.00109013	0.595	0.5517
DHHC7	1	-0.001416	0.00365783	-0.387	0.6987
DHHC8	1	0.000131	0.00128325	0.102	0.9188
DHHC9	1	-0.001354	0.00205858	-0.658	0.5108
DHHC10	1	0.000085795	0.00152723	0.056	0.9552
DQTR2	1	-0.004179	0.00176309	-2.370	0.0179
DQTR3	1	-0.005410	0.00207381	-2.609	0.0092
DQTR4	1	-0.007846	0.00247396	-3.171	0.0016
HEADAGE	1	-0.00004855	0.00003166	-0.153	0.8781
D1	1	-0.024683	0.00780556	-3.162	0.0016
D2	1	-0.025371	0.00784080	-3.236	0.0012
D3	1	-0.026370	0.00781014	-3.376	0.0008
D4	1	-0.025390	0.00828072	-3.066	0.0022
D1SB	1	-0.025554	0.00780970	-3.272	0.0011
D2SB	1	-0.026239	0.00782222	-3.354	0.0008
D3SB	1	-0.025827	0.00783173	-3.298	0.0010
D4SB	1	-0.024988	0.00793124	-3.151	0.0017
TEST1	1	-0.025554	0.00780970	-3.272	0.0011
TEST2	1	-0.026239	0.00782222	-3.354	0.0008
TEST3	1	-0.025827	0.00783173	-3.298	0.0010
TEST4	1	-0.024988	0.00793124	-3.151	0.0017

Table A-2 (continued)

Tobit Model for SHRHAIRD  
 Noncensored Values= 303 Right Censored Values= 0  
 Left Censored Values=1067 Interval Censored Values= 0

Log Likelihood for NORMAL 328.9908564

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.6800412	0.486944	1.950353	0.1625
SB	1	-0.0068071	0.003227	4.448672	0.0349
TREND	1	-0.0312384	0.019011	2.700036	0.1003
TRENDSQ	1	0.00120996	0.000709	2.909236	0.0881
P_FOOD	1	-0.2757323	0.131387	4.404232	0.0358
P_ALCH	1	-0.199127	0.148419	1.800036	0.1797
P_TOBCO	1	-0.0660185	0.053421	1.527256	0.2165
P_CLOTH	1	-0.1775031	0.240035	0.546845	0.4596
P_TSPT	1	0.05728588	0.096005	0.356046	0.5507
P_MISC	1	0.11354211	0.129512	0.768585	0.3807
P_SVCS	1	-0.0904054	0.09829	0.846001	0.3577
P_FDOUT	1	0.35047351	0.180902	3.75339	0.0527
P_HOUS	1	0.19620112	0.080645	5.918931	0.0150
P_FUEL	1	0.01892605	0.063202	0.089673	0.7646
P_DURBL	1	0.23246712	0.203301	1.307512	0.2528
LRTOTEXP	1	0.01073359	0.0023	21.77997	0.0001
DREG1	1	0.00402618	0.004623	0.758524	0.3838
DREG2	1	0.01066236	0.003883	7.538208	0.0060
DREG3	1	0.00768783	0.004679	2.699732	0.1004
DREG4	1	0.01276899	0.005165	6.112935	0.0134
DREG6	1	0.00217144	0.003436	0.399452	0.5274
DREG7	1	0.01079742	0.004238	6.49027	0.0108
DREG8	1	-0.0050859	0.005408	0.884419	0.3470
DREG9	1	0.0012729	0.004045	0.099022	0.7530
DREG10	1	0.00291698	0.003674	0.63049	0.4272
DREG11	1	0.00650544	0.003813	2.910722	0.0880
DREG12	1	0.01061082	0.006984	2.308541	0.1287
DHHC0	1	0.00246766	0.005495	0.201632	0.6534
DHHC1	1	-0.0058437	0.007291	0.642463	0.4228
DHHC2	1	-0.0012074	0.003899	0.095889	0.7568
DHHC3	1	0.00458156	0.004192	1.194532	0.2744
DHHC4	1	-0.0002593	0.006212	0.001742	0.9667
DHHC6	1	0.00244113	0.004228	0.333385	0.5637
DHHC7	1	-0.1122259	13.50822	0.000069	0.9934
DHHC8	1	0.00299243	0.004779	0.392159	0.5312
DHHC9	1	-0.0101907	0.010058	1.026656	0.3109
DHHC10	1	0.00020466	0.006115	0.00112	0.9733
DQTR2	1	-0.0134127	0.006646	4.073178	0.0436
DQTR3	1	-0.0201397	0.007908	6.485625	0.0109
DQTR4	1	-0.0303413	0.009514	10.17042	0.0014
HEADAGE	1	0.00002321	0.000123	0.035831	0.8499
D1	1	-0.1005961	0.031945	9.916709	0.0016
D2	1	-0.0999797	0.032061	9.724723	0.0018
D3	1	-0.1036996	0.032013	10.49317	0.0012
D4	1	-0.1006349	0.033303	9.131062	0.0025
D1SB	1	-0.1012382	0.03207	9.965255	0.0016
D2SB	1	-0.1008352	0.031972	9.946947	0.0016
D3SB	1	-0.1052307	0.032294	10.61805	0.0011
D4SB	1	-0.100067	0.032305	9.594817	0.0020
TEST1	1	-0.1012382	0.03207	9.965255	0.0016
TEST2	1	-0.1008352	0.031972	9.946947	0.0016
TEST3	1	-0.1052307	0.032294	10.61805	0.0011
TEST4	1	-0.100067	0.032305	9.594817	0.0020

Table A-2 (continued)

OLS Model for SHROTHTB					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	0.000070904	1.4771673E-6	1.255	0.1156
Error	1321	0.0015543231	1.1766261E-6		
C Total	1369	0.00163			
Root MSE	0.00108	R-square	0.0436		
Dep Mean	0.00012	Adj R-sq	0.0089		
C.V.	887.59931				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.020361	0.01541895	-1.321	0.1869
SB	1	0.000069020	0.00010610	0.650	0.5155
TREND	1	-0.000711	0.00062445	-1.138	0.2553
TRENDSQ	1	0.000035996	0.00002306	1.561	0.1187
P_FOOD	1	-0.000419	0.00428509	-0.098	0.9221
P_ALCH	1	-0.000637	0.00499277	-0.128	0.8985
P_TOBCO	1	-0.000422	0.00170166	-0.248	0.8040
P_CLOTH	1	0.004903	0.00811072	0.604	0.5456
P_TSPRT	1	-0.002151	0.00314761	-0.683	0.4945
P_MISC	1	0.003115	0.00432611	0.720	0.4717
P_SVCS	1	0.000531	0.00328792	0.161	0.8717
P_FDOUT	1	-0.002462	0.00620852	-0.397	0.6917
P_HOUS	1	0.002544	0.00245038	1.038	0.2994
P_FUEL	1	0.000075699	0.00198537	0.038	0.9696
P_DURBL	1	-0.000381	0.00666537	-0.057	0.9544
LRTOTEXP	1	0.000067425	0.00007536	0.895	0.3711
DREG1	1	-0.000022560	0.00014719	-0.153	0.8782
DREG2	1	0.000117	0.00012496	0.940	0.3476
DREG3	1	-0.000006869	0.00015512	-0.044	0.9647
DREG4	1	0.000396	0.00018121	2.185	0.0291
DREG6	1	0.000216	0.00010926	1.976	0.0483
DREG7	1	0.000113	0.00014325	0.787	0.4314
DREG8	1	0.000466	0.00015537	3.002	0.0027
DREG9	1	0.000140	0.00012474	1.124	0.2613
DREG10	1	0.000052664	0.00011406	0.462	0.6444
DREG11	1	0.000005605	0.00012228	0.046	0.9634
DREG12	1	-0.000069359	0.00023602	-0.294	0.7689
DHHC0	1	-0.000082377	0.00019159	-0.430	0.6673
DHHC1	1	-0.000097336	0.00019649	-0.495	0.6204
DHHC2	1	-0.000111	0.00013042	-0.854	0.3930
DHHC3	1	0.000006746	0.00014405	0.047	0.9627
DHHC4	1	-0.000048395	0.00019404	-0.249	0.8031
DHHC6	1	0.000033820	0.00013902	0.243	0.8078
DHHC7	1	-0.000291	0.00046648	-0.623	0.5331
DHHC8	1	-0.000209	0.00016365	-1.280	0.2008
DHHC9	1	-0.000055780	0.00026253	-0.212	0.8318
DHHC10	1	-0.000284	0.00019477	-1.456	0.1456
DQTR2	1	-0.000086894	0.00022485	-0.386	0.6992
DQTR3	1	-0.000301	0.00026447	-1.140	0.2546
DQTR4	1	-0.000267	0.00031550	-0.846	0.3978
HEADAGE	1	-0.000000543	0.00000404	-0.134	0.8930
D1	1	-0.000647	0.00099544	-0.650	0.5158
D2	1	-0.000960	0.00099994	-0.960	0.3372
D3	1	-0.000519	0.00099603	-0.521	0.6022
D4	1	0.000285	0.00105604	0.270	0.7872
D1SB	1	-0.000967	0.00099597	-0.971	0.3318
D2SB	1	-0.001024	0.00099757	-1.027	0.3046
D3SB	1	-0.000699	0.00099878	-0.700	0.4839
D4SB	1	-0.000567	0.00101147	-0.561	0.5750
TEST1	1	-0.000967	0.00099597	-0.971	0.3318
TEST2	1	-0.001024	0.00099757	-1.027	0.3046
TEST3	1	-0.000699	0.00099878	-0.700	0.4839
TEST4	1	-0.000567	0.00101147	-0.561	0.5750

Table A-2 (continued)

Tobit Model for SHROTHB  
 Noncensored Values= 31 Right Censored Values= 0  
 Left Censored Values=1339 Interval Censored Values= 0

Log Likelihood for NORMAL 27.830503069

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.9219398	0.70767	1.697241	0.1926
SB	1	-0.0015538	0.00366	0.180255	0.6712
TREND	1	-0.0240762	0.024648	0.954132	0.3287
TRENDSQ	1	0.00139834	0.000842	2.756356	0.0969
P_FOOD	1	-0.0287771	0.14843	0.037588	0.8463
P_ALCH	1	0.08264169	0.239045	0.11952	0.7296
P_TOBCO	1	-0.0569348	0.079766	0.509472	0.4754
P_CLOTH	1	0.36003161	0.389705	0.853513	0.3556
P_TSPRT	1	-0.1463237	0.139732	1.096567	0.2950
P_MISC	1	0.07903278	0.159801	0.244599	0.6209
P_SVCS	1	0.05971894	0.188066	0.100834	0.7508
P_FDOUT	1	-0.2294087	0.29884	0.589308	0.4427
P_HOUS	1	0.0834778	0.105479	0.626342	0.4287
P_FUEL	1	0.04064928	0.073488	0.305963	0.5802
P_DURBL	1	-0.0398942	0.285403	0.019539	0.8888
LRTOTEXPT	1	0.00426043	0.002858	2.221882	0.1361
DREG1	1	-0.0738489	903.1001	6.687E-9	0.9999
DREG2	1	0.00298563	0.004562	0.428371	0.5128
DREG3	1	-0.0654404	946.7851	4.777E-9	0.9999
DREG4	1	0.00916431	0.005455	2.822779	0.0929
DREG6	1	0.00490689	0.00394	1.551339	0.2129
DREG7	1	0.00261195	0.005197	0.252547	0.6153
DREG8	1	0.00864843	0.004803	3.242581	0.0717
DREG9	1	0.00416706	0.004268	0.953156	0.3289
DREG10	1	-0.003057	0.004873	0.393617	0.5304
DREG11	1	-0.0737726	671.1745	1.208E-8	0.9999
DREG12	1	-0.0737358	1607.047	2.105E-9	1.0000
DHHC1	1	0.00181272	0.005148	0.123969	0.7248
DHHC1	1	-0.0687218	1035.142	4.407E-9	0.9999
DHHC2	1	-0.0015847	0.004537	0.121996	0.7269
DHHC3	1	0.00642062	0.004712	1.856909	0.1730
DHHC4	1	-0.0698397	1222.579	3.263E-9	1.0000
DHHC6	1	0.00386691	0.005156	0.562478	0.4533
DHHC7	1	-0.1429838	3280.077	1.9E-9	1.0000
DHHC8	1	-0.0720077	837.1022	7.399E-9	0.9999
DHHC9	1	-0.0693555	837.1022	6.864E-9	0.9999
DHHC10	1	-0.1453384	1321.845	1.209E-8	0.9999
DQTR2	1	0.00596929	0.009462	0.39799	0.5281
DQTR3	1	-0.0085515	0.010844	0.621824	0.4304
DQTR4	1	-0.000097	0.012819	0.000057	0.9940
HEADAGE	1	-0.0002046	0.000168	1.478687	0.2240
D1	1	-0.0222595	0.043806	0.258206	0.6114
D2	1	-0.0231004	0.043606	0.280644	0.5963
D3	1	0.05776942	837.1022	4.763E-9	0.9999
D4	1	-0.0045592	0.044302	0.010591	0.9180
D1SB	1	-0.0886332	585.2924	2.293E-8	0.9999
D2SB	1	-0.088648	651.5553	1.851E-8	0.9999
D3SB	1	0.06013917	837.1022	5.161E-9	0.9999
D4SB	1	-0.0140097	0.044115	0.100853	0.7508
TEST1	1	-0.0886332	585.3273	2.293E-8	0.9999
TEST2	1	-0.088648	651.5343	1.851E-8	0.9999
TEST3	1	0.06013925	837.0201	5.162E-9	0.9999
TEST4	1	-0.0140097	0.044115	0.100853	0.7508

Table A-2 (continued)

OLS Model		for SHRPETS			
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	0.01210	0.00025	2.522	0.0001
Error	1321	0.13203	0.00010		
C Total	1369	0.14413			
Root MSE	0.01000	R-square	0.0840		
Dep Mean	0.00548	Adj R-sq	0.0507		
C.V.	182.38771				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.103573	0.14210719	-0.729	0.4662
SB	1	-0.001298	0.00097790	-1.328	0.1845
TREND	1	-0.003384	0.00575514	-0.588	0.5567
TRENDSQ	1	0.000227	0.00021252	1.069	0.2853
P_FOOD	1	-0.022344	0.03949313	-0.566	0.5716
P_ALCH	1	0.015143	0.04601534	0.329	0.7421
P_TOBCO	1	-0.001678	0.01568318	-0.107	0.9148
P_CLOTH	1	0.025718	0.07475159	0.344	0.7309
P_TSPRT	1	-0.003337	0.02900961	-0.115	0.9084
P_MISC	1	0.029481	0.03987118	0.739	0.4598
P_SVCS	1	-0.001810	0.03030277	-0.060	0.9524
P_FDOUT	1	0.008503	0.05722023	0.149	0.8819
P_HOUS	1	0.001144	0.02258369	0.051	0.9596
P_FUEL	1	-0.016347	0.01829800	-0.893	0.3718
P_DURBL	1	-0.011063	0.06143072	-0.180	0.8571
LRTOTEXP	1	-0.002758	0.00069455	-3.972	0.0001
DREG1	1	-0.000826	0.00135655	-0.609	0.5425
DREG2	1	-0.001858	0.00115172	-1.613	0.1070
DREG3	1	-0.001318	0.00142965	-0.922	0.3566
DREG4	1	-0.000452	0.00167013	-0.270	0.7869
DREG6	1	0.001957	0.00100695	1.943	0.0522
DREG7	1	0.000616	0.00132025	0.466	0.6409
DREG8	1	-0.001401	0.00143198	-0.979	0.3280
DREG9	1	-0.000950	0.00114965	-0.826	0.4089
DREG10	1	-0.000108	0.00105120	-0.103	0.9182
DREG11	1	-0.002490	0.00112700	-2.209	0.0273
DREG12	1	-0.005585	0.00217526	-2.568	0.0104
DHHC0	1	-0.001212	0.00176577	-0.686	0.4928
DHHC1	1	-0.004256	0.00181094	-2.350	0.0189
DHHC2	1	-0.001513	0.00120197	-1.258	0.2085
DHHC3	1	-0.000425	0.00132763	-0.320	0.7491
DHHC4	1	-0.004197	0.00178831	-2.347	0.0191
DHHC6	1	-0.002836	0.00128130	-2.214	0.0270
DHHC7	1	-0.006760	0.00429929	-1.572	0.1161
DHHC8	1	-0.000376	0.00150829	-0.250	0.8030
DHHC9	1	-0.002045	0.00241959	-0.845	0.3982
DHHC10	1	-0.004531	0.00179505	-2.524	0.0117
DQTR2	1	0.000835	0.00207227	0.403	0.6870
DQTR3	1	-0.000542	0.00243748	-0.223	0.8239
DQTR4	1	-0.000364	0.00290781	-0.125	0.9005
HEADAGE	1	0.000057036	0.00003721	1.533	0.1256
D1	1	-0.007477	0.00917439	-0.815	0.4152
D2	1	-0.009889	0.00921581	-1.073	0.2834
D3	1	-0.007958	0.00917978	-0.867	0.3861
D4	1	-0.004624	0.00973288	-0.475	0.6348
D1SB	1	-0.008379	0.00917925	-0.913	0.3615
D2SB	1	-0.008243	0.00919398	-0.897	0.3701
D3SB	1	-0.006826	0.00920515	-0.742	0.4585
D4SB	1	-0.006291	0.00932211	-0.675	0.4999
TEST1	1	-0.008379	0.00917925	-0.913	0.3615
TEST2	1	-0.008243	0.00919398	-0.897	0.3701
TEST3	1	-0.006826	0.00920515	-0.742	0.4585
TEST4	1	-0.006291	0.00932211	-0.675	0.4999

Table A-2 (continued)

Tobit Model for SHRPETS  
 Noncensored Values= 644 Right Censored Values= 0  
 Left Censored Values= 726 Interval Censored Values= 0

Log Likelihood for NORMAL 1278.4561133

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.195587	0.274112	0.509123	0.4755
SB	1	-0.0026379	0.001916	1.894708	0.1687
TREND	1	-0.0058057	0.011083	0.274431	0.6004
TRENDSQ	1	0.00038046	0.000408	0.867563	0.3516
P_FOOD	1	-0.012751	0.075866	0.028249	0.8665
P_ALCH	1	0.03862773	0.088639	0.189909	0.6630
P_TOBCO	1	-0.0045708	0.03023	0.022861	0.8798
P_CLOTH	1	0.09208415	0.143869	0.409672	0.5221
P_TSPRT	1	-0.0253265	0.056062	0.204085	0.6514
P_MISC	1	0.01148113	0.07615	0.022732	0.8802
P_SVCS	1	-0.0242969	0.058407	0.173049	0.6774
P_FDOUT	1	-0.0071132	0.110114	0.004173	0.9485
P_HOUS	1	0.00641047	0.043563	0.021654	0.8830
P_FUEL	1	0.00628003	0.035044	0.032114	0.8578
P_DURBL	1	-0.0387332	0.118139	0.107493	0.7430
LRTOTEXP	1	-0.0017872	0.001334	1.794061	0.1804
DREG1	1	0.00054895	0.002569	0.045668	0.8308
DREG2	1	-0.0026781	0.00225	1.417258	0.2339
DREG3	1	-0.0011978	0.002755	0.189059	0.6637
DREG4	1	0.00071453	0.003142	0.051732	0.8201
DREG6	1	0.00417768	0.001897	4.85081	0.0276
DREG7	1	0.00302181	0.002467	1.500156	0.2206
DREG8	1	-0.0019023	0.002777	0.469218	0.4933
DREG9	1	-0.0002546	0.002203	0.013354	0.9080
DREG10	1	0.00010431	0.002027	0.002648	0.9590
DREG11	1	-0.0053432	0.002263	5.574299	0.0182
DREG12	1	-0.0124585	0.004705	7.01235	0.0081
DHHC0	1	-0.0002891	0.003359	0.007411	0.9314
DHHC1	1	-0.0120111	0.003922	9.381096	0.0022
DHHC2	1	-0.0029367	0.002324	1.596231	0.2064
DHHC3	1	-0.0009484	0.002548	0.138508	0.7098
DHHC4	1	-0.0097673	0.003722	6.886078	0.0087
DHHC6	1	-0.0059429	0.002558	5.397457	0.0202
DHHC7	1	-0.0161774	0.010095	2.568233	0.1090
DHHC8	1	0.00062454	0.00286	0.047677	0.8272
DHHC9	1	-0.0033507	0.004716	0.504766	0.4774
DHHC10	1	-0.0090726	0.003691	6.042831	0.0140
DQTR2	1	0.00134783	0.003985	0.114375	0.7352
DQTR3	1	-0.0007283	0.004692	0.024092	0.8767
DQTR4	1	-0.0006124	0.005593	0.011986	0.9128
HEADAGE	1	0.00014331	0.000072	3.999401	0.0455
D1	1	-0.0059593	0.017685	0.113548	0.7361
D2	1	-0.0087631	0.017717	0.244641	0.6209
D3	1	-0.0054199	0.017642	0.09438	0.7587
D4	1	-0.0025195	0.018547	0.018453	0.8919
D1SB	1	-0.0059372	0.017708	0.112409	0.7374
D2SB	1	-0.0052354	0.017693	0.087561	0.7673
D3SB	1	-0.0038259	0.017693	0.04676	0.8288
D4SB	1	-0.0040158	0.017845	0.050641	0.8220
TEST1	1	-0.0059372	0.017708	0.112409	0.7374
TEST2	1	-0.0052354	0.017693	0.087561	0.7673
TEST3	1	-0.0038259	0.017693	0.04676	0.8288
TEST4	1	-0.0040158	0.017845	0.050641	0.8220

Table A-2 (continued)

OLS Model for SHRPKTMO					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	0.00737	0.00015	3.422	0.0001
Error	1321	0.05925	0.00004		
C Total	1369	0.06662			
Root MSE	0.00670	R-square	0.1106		
Dep Mean	0.00309	Adj R-sq	0.0783		
C.V.	216.59277				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.002863	0.09520051	-0.030	0.9760
SB	1	-0.000121	0.00065511	-0.185	0.8536
TREND	1	-0.002714	0.00385548	-0.704	0.4816
TRENDSQ	1	0.000218	0.00014237	1.532	0.1257
P_FOOD	1	-0.033812	0.02645725	-1.278	0.2015
P_ALCH	1	-0.057036	0.03082662	-1.850	0.0645
P_TOBCO	1	0.001575	0.01050649	0.150	0.8809
P_CLOTH	1	-0.039510	0.05007761	-0.789	0.4303
P_TSPRT	1	0.021447	0.01943413	1.104	0.2700
P_MISC	1	0.019460	0.02671052	0.729	0.4664
P_SVCS	1	-0.008125	0.02030044	-0.400	0.6890
P_FDOUT	1	0.025307	0.03833300	0.660	0.5092
P_HOUS	1	0.025343	0.01512928	1.675	0.0942
P_FUEL	1	-0.001088	0.01225820	-0.089	0.9293
P_DURBL	1	0.048277	0.04115369	1.173	0.2410
LRTOTEXP	1	-0.000916	0.00046529	-1.968	0.0493
DREG1	1	0.000658	0.00090878	0.724	0.4689
DREG2	1	-0.000257	0.00077156	-0.333	0.7389
DREG3	1	0.001305	0.00095775	1.362	0.1733
DREG4	1	0.000484	0.00111886	0.433	0.6652
DREG6	1	-0.000851	0.00067458	-1.261	0.2075
DREG7	1	-0.000140	0.00088446	-0.158	0.8743
DREG8	1	0.001298	0.00095931	1.353	0.1764
DREG9	1	-0.000915	0.00077017	-1.188	0.2349
DREG10	1	0.000081121	0.00070422	0.115	0.9083
DREG11	1	0.001354	0.00075500	1.793	0.0732
DREG12	1	-0.001768	0.00145725	-1.213	0.2254
DHHC0	1	-0.000308	0.00118292	-0.261	0.7945
DHHC1	1	-0.003938	0.00121318	-3.246	0.0012
DHHC2	1	-0.002440	0.00080523	-3.030	0.0025
DHHC3	1	-0.003437	0.00088941	-3.865	0.0001
DHHC4	1	-0.003323	0.00119802	-2.773	0.0056
DHHC6	1	-0.002195	0.00085837	-2.557	0.0107
DHHC7	1	-0.003316	0.00288018	-1.151	0.2499
DHHC8	1	0.001340	0.00101043	1.326	0.1850
DHHC9	1	-0.002712	0.00162093	-1.673	0.0945
DHHC10	1	-0.001711	0.00120254	-1.423	0.1551
DQTR2	1	-0.001089	0.00138826	-0.785	0.4328
DQTR3	1	-0.000735	0.00163292	-0.450	0.6525
DQTR4	1	-0.002694	0.00194800	-1.383	0.1669
HEADAGE	1	0.000086417	0.00002493	3.467	0.0005
D1	1	-0.007942	0.00614611	-1.292	0.1965
D2	1	-0.008252	0.00617386	-1.337	0.1816
D3	1	-0.007124	0.00614972	-1.158	0.2469
D4	1	-0.006809	0.00652025	-1.044	0.2965
D1SB	1	-0.009274	0.00614937	-1.508	0.1318
D2SB	1	-0.009736	0.00615923	-1.581	0.1142
D3SB	1	-0.010386	0.00616672	-1.684	0.0924
D4SB	1	-0.009378	0.00624507	-1.502	0.1334
TEST1	1	-0.009274	0.00614937	-1.508	0.1318
TEST2	1	-0.009736	0.00615923	-1.581	0.1142
TEST3	1	-0.010386	0.00616672	-1.684	0.0924
TEST4	1	-0.009378	0.00624507	-1.502	0.1334

Table A-2 (continued)

Tobit Model for SHRPKTMO  
 Noncensored Values= 459 Right Censored Values= 0  
 Left Censored Values= 911 Interval Censored Values= 0

Log Likelihood for NORMAL 896.65184424

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.188372	0.250227	0.566714	0.4516
SB	1	-0.0013868	0.001707	0.659797	0.4166
TREND	1	-0.0080018	0.010043	0.634868	0.4256
TRENDSQ	1	0.00044034	0.000377	1.363595	0.2429
P_FOOD	1	-0.1431758	0.070406	4.13542	0.0420
P_ALCH	1	-0.0850354	0.07955	1.142666	0.2851
P_TOBCO	1	0.00465287	0.027574	0.028474	0.8660
P_CLOTH	1	-0.0749157	0.128294	0.340983	0.5593
P_TSPRT	1	0.04414428	0.051956	0.721902	0.3955
P_MISC	1	0.05933416	0.069041	0.738577	0.3901
P_SVCS	1	-0.0090798	0.052986	0.029364	0.8639
P_FDOUT	1	0.06411503	0.097606	0.431485	0.5113
P_HOUS	1	0.08663016	0.040996	4.465347	0.0346
P_FUEL	1	-0.040021	0.032243	1.540676	0.2145
P_DURBL	1	0.13518067	0.108437	1.554074	0.2125
LRTOTEXF	1	-0.0004167	0.001224	0.115946	0.7335
DREG1	1	0.00280513	0.002362	1.410862	0.2349
DREG2	1	0.00018012	0.002067	0.007592	0.9306
DREG3	1	0.0026545	0.00247	1.154703	0.2826
DREG4	1	0.00240689	0.002843	0.716988	0.3971
DREG6	1	-0.0011541	0.001787	0.41715	0.5184
DREG7	1	-0.000305	0.002325	0.0172	0.8957
DREG8	1	0.00360198	0.002461	2.14193	0.1433
DREG9	1	-0.0015433	0.002085	0.548124	0.4591
DREG10	1	0.00056938	0.001868	0.09293	0.7605
DREG11	1	0.00300978	0.00198	2.309942	0.1285
DREG12	1	-0.0043985	0.003947	1.242124	0.2651
DHHC0	1	-0.0006785	0.002876	0.055666	0.8135
DHHC1	1	-0.0255769	0.006129	17.41295	0.0001
DHHC2	1	-0.0076435	0.002095	13.31758	0.0003
DHHC3	1	-0.0106174	0.002353	20.36887	0.0001
DHHC4	1	-0.0187454	0.005034	13.8671	0.0002
DHHC6	1	-0.0062756	0.00228	7.575208	0.0059
DHHC7	1	-0.0423293	0.079493	0.283549	0.5944
DHHC8	1	0.00217636	0.002436	0.798331	0.3716
DHHC9	1	-0.0196665	0.006958	7.989104	0.0047
DHHC10	1	-0.0037513	0.00306	1.50335	0.2202
DQTR2	1	-0.0035474	0.003548	0.999525	0.3174
DQTR3	1	-0.005726	0.004187	1.870015	0.1715
DQTR4	1	-0.0090311	0.005006	3.255189	0.0712
HEADAGE	1	0.00024051	0.000065	13.50854	0.0002
D1	1	-0.0256017	0.016383	2.441949	0.1181
D2	1	-0.0267782	0.016471	2.643146	0.1040
D3	1	-0.0275289	0.016373	2.826926	0.0927
D4	1	-0.0256151	0.017196	2.218933	0.1363
D1SB	1	-0.0283482	0.016444	2.972076	0.0847
D2SB	1	-0.0304558	0.016451	3.427484	0.0641
D3SB	1	-0.0301852	0.016483	3.353455	0.0671
D4SB	1	-0.0304333	0.016593	3.363937	0.0666
TEST1	1	-0.0283482	0.016444	2.972076	0.0847
TEST2	1	-0.0304558	0.016451	3.427484	0.0641
TEST3	1	-0.0301852	0.016483	3.353455	0.0671
TEST4	1	-0.0304333	0.016593	3.363937	0.0666

Table A-2 (continued)

OLS Model for SHRTOYS					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	0.02382	0.00050	3.117	0.0001
Error	1321	0.21032	0.00016		
C Total	1369	0.23415			
Root MSE	0.01262	R-square	0.1017		
Dep Mean	0.00317	Adj R-sq	0.0691		
C.V.	398.05788				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.028508	0.17936038	-0.159	0.8737
SB	1	-0.000626	0.00123425	-0.507	0.6120
TREND	1	-0.004023	0.00726384	-0.554	0.5798
TRENDSQ	1	0.000267	0.00026823	0.994	0.3205
P_FOOD	1	-0.006185	0.04984619	-0.124	0.9013
P_ALCH	1	-0.028989	0.05807820	-0.499	0.6178
P_TOBCO	1	0.002398	0.01979451	0.121	0.9036
P_CLOTH	1	-0.100525	0.09434760	-1.065	0.2869
P_TSPRT	1	0.003405	0.03661443	0.093	0.9259
P_MISC	1	-0.016844	0.05032335	-0.335	0.7379
P_SVCS	1	-0.098589	0.03824660	-2.578	0.0101
P_FDOUT	1	0.125944	0.07222042	1.744	0.0814
P_HOUS	1	0.031935	0.02850397	1.120	0.2628
P_FUEL	1	-0.011480	0.02309479	-0.497	0.6192
P_DURBL	1	0.109968	0.07753469	1.418	0.1563
LRTOTEXP	1	0.002034	0.00087662	2.320	0.0205
DREG1	1	-0.000137	0.00171216	-0.080	0.9362
DREG2	1	-0.000580	0.00145364	-0.399	0.6898
DREG3	1	0.000478	0.00180443	0.265	0.7913
DREG4	1	0.005172	0.00210796	2.454	0.0143
DREG6	1	-0.000606	0.00127092	-0.477	0.6333
DREG7	1	-0.000622	0.00166635	-0.373	0.7090
DREG8	1	0.002115	0.00180737	1.170	0.2420
DREG9	1	-0.000533	0.00145103	-0.367	0.7134
DREG10	1	-0.000528	0.00132678	-0.398	0.6906
DREG11	1	-0.001428	0.00142244	-1.004	0.3156
DREG12	1	0.002068	0.00274550	0.753	0.4514
DHHC0	1	-0.002790	0.00222866	-1.252	0.2109
DHHC1	1	0.001364	0.00228567	0.597	0.5506
DHHC2	1	0.001470	0.00151707	0.969	0.3326
DHHC3	1	-0.000286	0.00167567	-0.171	0.8644
DHHC4	1	-0.002464	0.00225711	-1.092	0.2751
DHHC6	1	0.000455	0.00161719	0.282	0.7783
DHHC7	1	0.003494	0.00542634	0.644	0.5197
DHHC8	1	0.000788	0.00190369	0.414	0.6791
DHHC9	1	0.002486	0.00305388	0.814	0.4158
DHHC10	1	0.002090	0.00226562	0.922	0.3566
DQTR2	1	-0.003969	0.00261552	-1.517	0.1294
DQTR3	1	-0.003922	0.00307646	-1.275	0.2026
DQTR4	1	0.001664	0.00367009	0.453	0.6504
HEADAGE	1	-0.000157	0.00004696	-3.337	0.0009
D1	1	-0.026986	0.01157945	-2.331	0.0199
D2	1	-0.026824	0.01163172	-2.306	0.0213
D3	1	-0.028849	0.01158625	-2.490	0.0129
D4	1	-0.025609	0.01228434	-2.085	0.0373
D1SB	1	-0.025294	0.01158558	-2.183	0.0292
D2SB	1	-0.021199	0.01160417	-1.827	0.0679
D3SB	1	-0.028518	0.01161827	-2.455	0.0142
D4SB	1	-0.024043	0.01176589	-2.043	0.0412
TEST1	1	-0.025294	0.01158558	-2.183	0.0292
TEST2	1	-0.021199	0.01160417	-1.827	0.0679
TEST3	1	-0.028518	0.01161827	-2.455	0.0142
TEST4	1	-0.024043	0.01176589	-2.043	0.0412

Table A-2 (continued)

Tobit Model for SHRTOYS  
 Noncensored Values= 311 Right Censored Values= 0  
 Left Censored Values=1059 Interval Censored Values= 0

Log Likelihood for NORMAL 293.283334

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.0872078	0.601571	0.021015	0.8847
SB	1	-0.0029102	0.004131	0.496232	0.4812
TREND	1	0.02163385	0.024319	0.791345	0.3737
TRENDSQ	1	0.00007266	0.000864	0.007081	0.9329
P_FOOD	1	-0.2712238	0.161134	2.833221	0.0923
P_ALCH	1	-0.0055869	0.200543	0.000776	0.9778
P_TOBCO	1	-0.0597365	0.067401	0.78551	0.3755
P_CLOTH	1	-0.0205137	0.323507	0.004021	0.9494
P_TSPRT	1	-0.1337247	0.129907	1.059643	0.3033
P_MISC	1	-0.2567043	0.177549	2.090396	0.1482
P_SVCS	1	-0.0897848	0.130204	0.475509	0.4905
P_FDOUT	1	0.12494973	0.258156	0.234263	0.6284
P_HOUS	1	0.1430487	0.093462	2.342592	0.1259
P_FUEL	1	0.0230514	0.076062	0.091846	0.7618
P_DURBL	1	0.56190425	0.262342	4.587643	0.0322
LRTOTEXP	1	0.01420227	0.003042	21.80119	0.0001
DREG1	1	-0.0025528	0.006056	0.177674	0.6734
DREG2	1	0.00065794	0.005057	0.01693	0.8965
DREG3	1	0.00381622	0.006173	0.382137	0.5365
DREG4	1	0.01310717	0.006716	3.808956	0.0510
DREG6	1	0.00142755	0.004284	0.111052	0.7389
DREG7	1	0.00110943	0.005679	0.038159	0.8451
DREG8	1	0.00640695	0.006039	1.125653	0.2887
DREG9	1	0.00384629	0.00484	0.631442	0.4268
DREG10	1	0.00143573	0.004507	0.101495	0.7500
DREG11	1	-0.0016713	0.004841	0.119201	0.7299
DREG12	1	0.01109278	0.009176	1.461451	0.2267
DHHC0	1	-0.0086419	0.007975	1.17421	0.2785
DHHC1	1	0.01094118	0.007496	2.130504	0.1444
DHHC2	1	0.01229316	0.00511	5.78674	0.0161
DHHC3	1	-0.0001193	0.005838	0.000418	0.9837
DHHC4	1	0.0012183	0.007317	0.027721	0.8678
DHHC6	1	0.01117184	0.005057	4.879904	0.0272
DHHC7	1	0.0180969	0.016922	1.14369	0.2849
DHHC8	1	0.00617436	0.00629	0.963433	0.3263
DHHC9	1	0.01256284	0.00967	1.68771	0.1939
DHHC10	1	0.01359369	0.007412	3.363586	0.0667
DQTR2	1	-0.0018708	0.008873	0.044453	0.8330
DQTR3	1	-0.0016918	0.010743	0.024801	0.8749
DQTR4	1	0.02302396	0.013006	3.134029	0.0767
HEADAGE	1	-0.0007124	0.00017	17.53524	0.0001
D1	1	-0.0982822	0.038823	6.408738	0.0114
D2	1	-0.093637	0.038768	5.833799	0.0157
D3	1	-0.1070162	0.038906	7.566095	0.0059
D4	1	-0.0868689	0.041035	4.481448	0.0343
D1SB	1	-0.0971549	0.038885	6.242515	0.0125
D2SB	1	-0.082495	0.038685	4.547427	0.0330
D3SB	1	-0.1044653	0.038919	7.204678	0.0073
D4SB	1	-0.0828969	0.039688	4.362631	0.0367
TEST1	1	-0.0971549	0.038885	6.242515	0.0125
TEST2	1	-0.082495	0.038685	4.547427	0.0330
TEST3	1	-0.1044653	0.038919	7.204678	0.0073
TEST4	1	-0.0828969	0.039688	4.362631	0.0367

Table A-2 (continued)

OLS Model for SHREDUC					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	48	0.09403	0.00196	2.706	0.0001
Error	1321	0.95638	0.00072		
C Total	1369	1.05041			
Root MSE	0.02691	R-square	0.0895		
Dep Mean	0.00525	Adj R-sq	0.0564		
C.V.	512.66885				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.409166	0.38247262	1.070	0.2849
SB	1	-0.005365	0.00263195	-2.038	0.0417
TREND	1	-0.010148	0.01548959	-0.655	0.5125
TRENDSQ	1	-0.000049261	0.00057198	-0.086	0.9314
P_FOOD	1	0.177566	0.10629328	1.671	0.0951
P_ALCH	1	-0.197930	0.12384742	-1.598	0.1102
P_TOBCO	1	0.068050	0.04221031	1.612	0.1072
P_CLOTH	1	-0.415499	0.20118923	-2.065	0.0391
P_TSPRT	1	0.002234	0.07807754	0.029	0.9772
P_MISC	1	0.233611	0.10731078	2.177	0.0297
P_SVCS	1	-0.181553	0.08155801	-2.226	0.0262
P_FDOUT	1	0.232653	0.15400466	1.511	0.1311
P_HOUS	1	-0.042653	0.06078259	-0.702	0.4830
P_FUEL	1	0.018446	0.04924793	0.375	0.7081
P_DURBL	1	0.027336	0.16533694	0.165	0.8687
LRTOTEXP	1	0.011829	0.00186933	6.328	0.0001
DREG1	1	-0.002994	0.00365106	-0.820	0.4124
DREG2	1	0.000789	0.00309979	0.254	0.7992
DREG3	1	-0.002988	0.00384782	-0.776	0.4376
DREG4	1	-0.001353	0.00449506	-0.301	0.7635
DREG6	1	0.006191	0.00271015	2.285	0.0225
DREG7	1	0.005985	0.00355337	1.684	0.0923
DREG8	1	0.000235	0.00385409	0.061	0.9515
DREG9	1	-0.002677	0.00309421	-0.865	0.3872
DREG10	1	-0.001165	0.00282925	-0.412	0.6806
DREG11	1	-0.000770	0.00303324	-0.254	0.7996
DREG12	1	-0.000234	0.00585457	-0.040	0.9681
DHHC0	1	-0.010240	0.00475246	-2.155	0.0314
DHHC1	1	-0.004844	0.00487403	-0.994	0.3205
DHHC2	1	-0.005187	0.00323503	-1.603	0.1091
DHHC3	1	-0.003832	0.00357323	-1.072	0.2838
DHHC4	1	-0.001628	0.00481312	-0.338	0.7352
DHHC6	1	0.000688	0.00344853	0.199	0.8420
DHHC7	1	-0.002264	0.01157126	-0.196	0.8449
DHHC8	1	-0.002289	0.00405947	-0.564	0.5729
DHHC9	1	-0.005947	0.00651217	-0.913	0.3613
DHHC10	1	-0.004094	0.00483127	-0.847	0.3969
DQTR2	1	-0.006525	0.00557740	-1.170	0.2422
DQTR3	1	-0.001455	0.00656033	-0.222	0.8245
DQTR4	1	-0.008010	0.00782619	-1.023	0.3063
HEADAGE	1	0.000039871	0.00010015	0.398	0.6906
D1	1	0.001949	0.02469231	0.079	0.9371
D2	1	-0.006164	0.02480378	-0.249	0.8038
D3	1	-0.008419	0.02470681	-0.341	0.7333
D4	1	-0.001321	0.02619544	-0.050	0.9598
D1SB	1	0.005496	0.02470539	0.222	0.8240
D2SB	1	-0.001099	0.02474502	-0.044	0.9646
D3SB	1	0.001148	0.02477510	0.046	0.9630
D4SB	1	0.004073	0.02508987	0.162	0.8711
TEST1	1	0.005496	0.02470539	0.222	0.8240
TEST2	1	-0.001099	0.02474502	-0.044	0.9646
TEST3	1	0.001148	0.02477510	0.046	0.9630
TEST4	1	0.004073	0.02508987	0.162	0.8711

Table A-2 (continued)

Tobit Model for SHREDUC  
 Noncensored Values= 281 Right Censored Values= 0  
 Left Censored Values=1089 Interval Censored Values= 0

Log Likelihood for NORMAL 86.174116779

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	4.64313943	1.695164	7.502398	0.0062
SB	1	-0.0368689	0.01011	13.29865	0.0003
TREND	1	0.02042373	0.058525	0.121782	0.7271
TRENDSQ	1	-0.0000402	0.002163	0.000345	0.9852
P_FOOD	1	1.38762523	0.405069	11.73511	0.0006
P_ALCH	1	-2.1487259	0.61493	12.20988	0.0005
P_TOBCO	1	0.37788337	0.175155	4.654477	0.0310
P_CLOTH	1	-3.2854211	0.919199	12.77506	0.0004
P_TSPRT	1	-1.0997677	0.295907	13.81309	0.0002
P_MISC	1	2.11771214	0.453641	21.79264	0.0001
P_SVCS	1	-1.0158173	0.310379	10.71143	0.0011
P_FDOUT	1	1.04051017	0.5877	3.134594	0.0766
P_HOUS	1	-0.1457583	0.233033	0.39123	0.5317
P_FUEL	1	0.25277388	0.1978	1.633092	0.2013
P_DURBL	1	1.52442206	0.673903	5.116999	0.0237
LRTOTEXP	1	0.04447274	0.006524	46.47473	0.0001
DREG1	1	-0.0322014	0.015009	4.60314	0.0319
DREG2	1	-0.0067622	0.011722	0.332796	0.5640
DREG3	1	-0.0085205	0.014074	0.366495	0.5449
DREG4	1	-0.0141936	0.018687	0.576884	0.4475
DREG6	1	0.02390113	0.008901	7.210192	0.0072
DREG7	1	0.02025107	0.011479	3.112332	0.0777
DREG8	1	-0.0053971	0.013907	0.150604	0.6980
DREG9	1	-0.0066738	0.010958	0.3709	0.5425
DREG10	1	-0.0041318	0.010214	0.163644	0.6858
DREG11	1	-0.0192537	0.011766	2.677955	0.1017
DREG12	1	-0.0097801	0.022106	0.195731	0.6582
DHHC0	1	-0.0221996	0.017504	1.608483	0.2047
DHHC1	1	-0.0551022	0.02434	5.124945	0.0236
DHHC2	1	-0.0104925	0.011094	0.894487	0.3443
DHHC3	1	-0.0099995	0.012266	0.664595	0.4149
DHHC4	1	-0.0508398	0.025959	3.835655	0.0502
DHHC6	1	0.00229287	0.012547	0.033397	0.8550
DHHC7	1	-0.3833075	807.299	2.254E-7	0.9996
DHHC8	1	0.0005645	0.013608	0.001721	0.9669
DHHC9	1	-0.0591939	0.033427	3.135833	0.0766
DHHC10	1	-0.0137324	0.018158	0.571948	0.4495
DQTR2	1	0.01355408	0.01973	0.471963	0.4921
DQTR3	1	0.05055117	0.024878	4.129007	0.0422
DQTR4	1	0.00369719	0.027815	0.017668	0.8943
HEADAGE	1	0.00006512	0.000356	0.033409	0.8550
D1	1	0.01299493	0.088008	0.021802	0.8826
D2	1	-0.0061853	0.088482	0.004887	0.9443
D3	1	-0.0127154	0.087741	0.021002	0.8848
D4	1	0.00619999	0.092783	0.004465	0.9467
D1SB	1	0.03592793	0.088857	0.163485	0.6860
D2SB	1	0.00957508	0.088306	0.011757	0.9137
D3SB	1	0.01905968	0.088899	0.045966	0.8302
D4SB	1	0.01745958	0.089833	0.037775	0.8459
TEST1	1	0.03592793	0.088857	0.163485	0.6860
TEST2	1	0.00957508	0.088306	0.011757	0.9137
TEST3	1	0.01905968	0.088899	0.045966	0.8302
TEST4	1	0.01745958	0.089833	0.037775	0.8459

**Table A-3: Model 3 Results for 8 Good Budget**

OLS Model for SHRALCH

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	0.18238	0.00415	3.688	0.0001
Error	1458	1.63863	0.00112		
C Total	1502	1.82101			

Root MSE	0.03352	R-square	0.1002
Dep Mean	0.01834	Adj R-sq	0.0730
C.V.	182.77858		

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.138596	0.32955923	-0.421	0.6741
SB	1	0.000626	0.00780922	0.080	0.9361
TREND	1	-0.006250	0.01263604	-0.495	0.6210
TRENDSQ	1	0.000502	0.00052986	0.947	0.3436
P_FOOD	1	0.048422	0.05357071	0.904	0.3662
P_ALCH	1	-0.038766	0.12195839	-0.318	0.7506
P_TOBCO	1	0.016802	0.04663844	0.360	0.7187
P_CLOTH	1	0.074095	0.17710418	0.418	0.6757
P_TSPRT	1	0.087343	0.08188249	1.067	0.2863
P_MISC	1	-0.072676	0.10667355	-0.681	0.4958
P_SVCS	1	-0.060990	0.07586670	-0.804	0.4216
P_FDOUT	1	-0.017310	0.14064955	-0.123	0.9021
DREG1	1	-0.005178	0.00436509	-1.186	0.2358
DREG2	1	0.000587	0.00366349	0.160	0.8728
DREG3	1	-0.006059	0.00463456	-1.307	0.1913
DREG4	1	0.004373	0.00527663	0.829	0.4073
DREG6	1	-0.004432	0.00321182	-1.380	0.1679
DREG7	1	0.003696	0.00425722	0.868	0.3854
DREG8	1	0.004643	0.00451016	1.030	0.3034
DREG9	1	-0.005816	0.00361174	-1.610	0.1076
DREG10	1	-0.004585	0.00333428	-1.375	0.1693
DREG11	1	-0.001684	0.00359828	-0.468	0.6399
DREG12	1	0.001775	0.00696139	0.255	0.7988
DHHC0	1	-0.004342	0.00436305	-0.995	0.3198
DHHC1	1	0.001470	0.00509154	0.289	0.7728
DHHC2	1	0.000898	0.00282529	0.318	0.7506
DHHC3	1	0.012065	0.00313093	3.853	0.0001
DHHC4	1	-0.006285	0.00566758	-1.109	0.2676
DHHC6	1	0.000264	0.00397772	0.066	0.9470
DHHC7	1	-0.007778	0.01296591	-0.600	0.5487
DHHC8	1	-0.000174	0.00338018	-0.051	0.9589
DHHC9	1	-0.007732	0.00688895	-1.122	0.2619
DHHC10	1	-0.000275	0.00461847	-0.060	0.9525
DQTR2	1	-0.001488	0.00531648	-0.280	0.7795
DQTR3	1	0.005157	0.00521577	0.989	0.3229
DQTR4	1	0.005306	0.00705349	0.752	0.4520
HEADAGE	1	-0.000450	0.00011997	-3.752	0.0002
REALSB	1	-0.034233	0.09558248	-0.358	0.7203
REALSBSQ	1	0.126674	0.28006592	0.452	0.6511
SB2NX	1	-0.008470	0.07743304	-0.109	0.9129
RNETEXP	1	0.077722	0.02396585	3.243	0.0012
NETEXPSQ	1	-0.070141	0.02150644	-3.261	0.0011
RFAMALL	1	-0.334543	0.23741857	-1.409	0.1590
RFAMALSQ	1	0.944026	3.29848932	0.286	0.7748
CB2NX	1	0.167949	0.23916021	0.702	0.4826

Table A-3 (continued)

Tobit Model for SHRALCH  
 Noncensored Values= 671 Right Censored Values= 0  
 Left Censored Values= 832 Interval Censored Values= 0

Log Likelihood for NORMAL 506.49667889

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-1.0189783	0.68431	2.217301	0.1365
SB	1	-0.002422	0.015855	0.023337	0.8786
TREND	1	-0.0255557	0.026132	0.956347	0.3281
TRENDSQ	1	0.0019271	0.001079	3.192439	0.0740
P_FOOD	1	0.09988712	0.105199	0.901565	0.3424
P_ALCH	1	0.07294333	0.253063	0.083084	0.7732
P_TOBCO	1	0.02956699	0.094464	0.097968	0.7543
P_CLOTH	1	0.48226568	0.369953	1.699335	0.1924
P_TSPRT	1	0.14578158	0.166388	0.767648	0.3809
P_MISC	1	-0.3087981	0.217942	2.007548	0.1565
P_SVCS	1	-0.1136907	0.153652	0.547488	0.4593
P_FDOUT	1	-0.1840866	0.29173	0.398182	0.5280
DREG1	1	0.00197671	0.008671	0.051967	0.8197
DREG2	1	0.00570429	0.007374	0.598392	0.4392
DREG3	1	-0.0054173	0.009351	0.335612	0.5624
DREG4	1	0.01081876	0.010239	1.116528	0.2907
DREG6	1	-0.0035281	0.006451	0.299109	0.5844
DREG7	1	0.01074369	0.008436	1.621913	0.2028
DREG8	1	0.00933068	0.00904	1.06532	0.3020
DREG9	1	-0.0049968	0.007358	0.461141	0.4971
DREG10	1	-0.004762	0.006785	0.492643	0.4828
DREG11	1	0.00022397	0.007188	0.000971	0.9751
DREG12	1	0.00395949	0.014045	0.079471	0.7780
DHHC0	1	-0.0081873	0.009082	0.812773	0.3673
DHHC1	1	0.00383741	0.010263	0.139798	0.7085
DHHC2	1	0.00017438	0.005651	0.000952	0.9754
DHHC3	1	0.02009382	0.006139	10.71249	0.0011
DHHC4	1	-0.0157042	0.01213	1.676201	0.1954
DHHC6	1	-0.0036192	0.008241	0.192874	0.6605
DHHC7	1	-0.0392986	0.035474	1.227231	0.2679
DHHC8	1	0.00228047	0.006745	0.114293	0.7353
DHHC9	1	-0.0243856	0.015493	2.477525	0.1155
DHHC10	1	-0.0065589	0.009871	0.441512	0.5064
DQTR2	1	0.00001156	0.010843	1.136E-6	0.9991
DQTR3	1	0.0143214	0.010683	1.797178	0.1801
DQTR4	1	0.01619906	0.01458	1.234488	0.2665
HEADAGE	1	-0.0010256	0.000244	17.60278	0.0001
REALSB	1	0.00436217	0.196865	0.000491	0.9823
REALSBSQ	1	0.21242886	0.58232	0.133077	0.7153
SB2NX	1	0.01434203	0.151981	0.008905	0.9248
RNETEXP	1	0.23995767	0.046211	26.96401	0.0001
NETEXPSQ	1	-0.1873524	0.040037	21.89771	0.0001
RFAMALL	1	-0.5121852	0.468634	1.194499	0.2744
RFAMALSQ	1	0.14018794	6.610411	0.00045	0.9831
CB2NX	1	0.01819656	0.454716	0.001601	0.9681
SCALE	1	0.05792222	0.00173		Normal scale parameter

Table A-3 (continued)

OLS Model for SHRCLOTH

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	5.00423	0.11373	10.721	0.0001
Error	1458	15.46720	0.01061		
C Total	1502	20.47143			
Root MSE	0.10300	R-square	0.2444		
Dep Mean	0.12187	Adj R-sq	0.2216		
C.V.	84.51364				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-1.269064	1.01250909	-1.253	0.2103
SB	1	-0.001063	0.02399236	-0.044	0.9647
TREND	1	-0.017043	0.03882185	-0.439	0.6607
TRENDSQ	1	0.001232	0.00162791	0.757	0.4491
P_FOOD	1	-0.005190	0.16458600	-0.032	0.9748
P_ALCH	1	0.111958	0.37469432	0.299	0.7651
P_TOBCO	1	0.129251	0.14328787	0.902	0.3672
P_CLOTH	1	0.771628	0.54411945	1.418	0.1564
P_TSPRT	1	-0.357560	0.25156863	-1.421	0.1554
P_MISC	1	-0.396115	0.32773453	-1.209	0.2270
P_SVCS	1	0.061662	0.23308623	0.265	0.7914
P_FDOUT	1	-0.043386	0.43211942	-0.100	0.9200
DREG1	1	0.034998	0.01341091	2.610	0.0092
DREG2	1	0.022048	0.01125540	1.959	0.0503
DREG3	1	0.028750	0.01423883	2.019	0.0437
DREG4	1	0.000799	0.01621146	0.049	0.9607
DREG6	1	0.001432	0.00986770	0.145	0.8847
DREG7	1	0.006096	0.01307953	0.466	0.6412
DREG8	1	0.002160	0.01385664	0.156	0.8761
DREG9	1	0.012854	0.01109639	1.158	0.2469
DREG10	1	0.015793	0.01024394	1.542	0.1234
DREG11	1	0.020591	0.01105506	1.863	0.0627
DREG12	1	0.016717	0.02138757	0.782	0.4346
DHHC0	1	-0.051975	0.01340466	-3.877	0.0001
DHHC1	1	0.093946	0.01564280	6.006	0.0001
DHHC2	1	0.040043	0.00868017	4.613	0.0001
DHHC3	1	0.035488	0.00961920	3.689	0.0002
DHHC4	1	0.043908	0.01741258	2.522	0.0118
DHHC6	1	0.016899	0.01222079	1.383	0.1669
DHHC7	1	0.029248	0.03983533	0.734	0.4629
DHHC8	1	-0.027707	0.01038498	-2.668	0.0077
DHHC9	1	-0.015769	0.02116501	-0.745	0.4564
DHHC10	1	-0.025548	0.01418939	-1.801	0.0720
DQTR2	1	0.021283	0.01633389	1.303	0.1928
DQTR3	1	0.006827	0.01602449	0.426	0.6701
DQTR4	1	0.018180	0.02167053	0.839	0.4016
HEADAGE	1	-0.001188	0.00036858	-3.223	0.0013
REALSB	1	1.214798	0.29365930	4.137	0.0001
REALSBSQ	1	-0.389458	0.86045013	-0.453	0.6509
SB2NX	1	-0.366521	0.23789853	-1.541	0.1236
RNETEXP	1	0.934069	0.07363060	12.686	0.0001
NETEXPSQ	1	-0.706166	0.06607452	-10.687	0.0001
RFAMALL	1	2.024933	0.72942415	2.776	0.0056
RFAMALSQ	1	8.231916	10.13399133	0.812	0.4167
CB2NX	1	-1.594911	0.73477501	-2.171	0.0301

Table A-3 (continued)

Tobit Model for SHRCLOTH  
 Noncensored Values= 1289 Right Censored Values= 0  
 Left Censored Values= 214 Interval Censored Values= 0

Log Likelihood for NORMAL 793.05813147

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-1.7160344	1.140374	2.264423	0.1324
SB	1	-0.0041701	0.027162	0.023571	0.8780
TREND	1	-0.0280119	0.043746	0.410032	0.5220
TRENDSQ	1	0.00187032	0.001829	1.045135	0.3066
P_FOOD	1	0.00630666	0.184316	0.001171	0.9727
P_ALCH	1	0.14109025	0.421907	0.111831	0.7381
P_TOBCO	1	0.17935008	0.160811	1.243856	0.2647
P_CLOTH	1	0.97896058	0.610883	2.568112	0.1090
P_TSPRT	1	-0.3916387	0.282369	1.923694	0.1654
P_MISC	1	-0.5394471	0.36682	2.162677	0.1414
P_SVCS	1	0.03456318	0.262239	0.017371	0.8951
P_FDOUT	1	-0.0455238	0.485766	0.008783	0.9253
DREG1	1	0.04368371	0.015002	8.479482	0.0036
DREG2	1	0.03157121	0.012651	6.227358	0.0126
DREG3	1	0.03748641	0.015985	5.499388	0.0190
DREG4	1	0.00546119	0.018274	0.089315	0.7650
DREG6	1	0.00616854	0.011102	0.308741	0.5785
DREG7	1	0.01354665	0.01469	0.850417	0.3564
DREG8	1	0.00448779	0.015686	0.081857	0.7748
DREG9	1	0.02119775	0.012472	2.888528	0.0892
DREG10	1	0.02388182	0.01152	4.297653	0.0382
DREG11	1	0.02669181	0.01241	4.626234	0.0315
DREG12	1	0.01945542	0.024187	0.647026	0.4212
DHHC0	1	-0.059276	0.015085	15.44135	0.0001
DHHC1	1	0.1058787	0.017466	36.74679	0.0001
DHHC2	1	0.04744213	0.009734	23.75249	0.0001
DHHC3	1	0.04173384	0.010811	14.90123	0.0001
DHHC4	1	0.05203521	0.019454	7.15463	0.0075
DHHC6	1	0.02548787	0.013606	3.509139	0.0610
DHHC7	1	0.04769691	0.043836	1.183901	0.2766
DHHC8	1	-0.031591	0.011664	7.335219	0.0068
DHHC9	1	-0.0264103	0.024195	1.191499	0.2750
DHHC10	1	-0.0320432	0.016144	3.93967	0.0472
DQTR2	1	0.02173011	0.018338	1.404164	0.2360
DQTR3	1	0.00533674	0.018011	0.087794	0.7670
DQTR4	1	0.02073719	0.02435	0.725298	0.3944
HEADAGE	1	-0.0015393	0.000417	13.61754	0.0002
REALSB	1	1.49888149	0.331282	20.47095	0.0001
REALSBSQ	1	-0.6531792	0.965875	0.457322	0.4989
SB2NX	1	-0.4525966	0.267283	2.867353	0.0904
RNETEXP	1	1.11941952	0.08304	181.722	0.0001
NETEXPSQ	1	-0.8388432	0.073831	129.0886	0.0001
RFAMALL	1	2.58740816	0.819135	9.977443	0.0016
RFAMALSQ	1	8.7491056	11.28103	0.601492	0.4380
CB2NX	1	-2.2243711	0.818106	7.392574	0.0065
SCALE	1	0.11319776	0.002278		Normal scale parameter

Table A-3 (continued)

OLS Model for SHRPDIN

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	17.58384	0.39963	30.096	0.0001
Error	1458	19.36006	0.01328		
C Total	1502	36.94390			

Root MSE	0.11523	R-square	0.4760
Dep Mean	0.43644	Adj R-sq	0.4601
C.V.	26.40252		

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	1.811913	1.13278204	1.600	0.1099
SB	1	0.030824	0.02684234	1.148	0.2510
TREND	1	-0.015134	0.04343339	-0.348	0.7276
TRENDSQ	1	-0.002009	0.00182128	-1.103	0.2701
P_FOOD	1	0.088536	0.18413668	0.481	0.6307
P_ALCH	1	-0.802710	0.41920315	-1.915	0.0557
P_TOBCO	1	0.073579	0.16030861	0.459	0.6463
P_CLOTH	1	-1.279364	0.60875379	-2.102	0.0358
P_TSPRT	1	0.079232	0.28145172	0.282	0.7784
P_MISC	1	0.913830	0.36666515	2.492	0.0128
P_SVCS	1	0.052790	0.26077385	0.202	0.8396
P_FDOUT	1	0.624541	0.48344961	1.292	0.1966
DREG1	1	0.003411	0.01500395	0.227	0.8202
DREG2	1	-0.010361	0.01259240	-0.823	0.4108
DREG3	1	-0.034173	0.01593022	-2.145	0.0321
DREG4	1	-0.008462	0.01813717	-0.467	0.6409
DREG6	1	-0.027965	0.01103986	-2.533	0.0114
DREG7	1	-0.037546	0.01463321	-2.566	0.0104
DREG8	1	0.023097	0.01550263	1.490	0.1365
DREG9	1	-0.000358	0.01241450	-0.029	0.9770
DREG10	1	0.001463	0.01146079	0.128	0.8984
DREG11	1	-0.006730	0.01236825	-0.544	0.5864
DREG12	1	-0.018026	0.02392814	-0.753	0.4514
DHHC0	1	0.071035	0.01499696	4.737	0.0001
DHHC1	1	-0.110705	0.01750096	-6.326	0.0001
DHHC2	1	-0.059056	0.00971126	-6.081	0.0001
DHHC3	1	-0.065210	0.01076184	-6.059	0.0001
DHHC4	1	-0.024065	0.01948097	-1.235	0.2169
DHHC6	1	-0.032027	0.01367246	-2.342	0.0193
DHHC7	1	-0.003988	0.04456725	-0.089	0.9287
DHHC8	1	0.035466	0.01161858	3.053	0.0023
DHHC9	1	0.011472	0.02367914	0.484	0.6281
DHHC10	1	0.046699	0.01587491	2.942	0.0033
DQTR2	1	-0.018947	0.01827414	-1.037	0.3000
DQTR3	1	-0.025034	0.01792799	-1.396	0.1628
DQTR4	1	-0.057303	0.02424471	-2.364	0.0182
HEADAGE	1	0.002310	0.00041236	5.601	0.0001
REALSB	1	-1.303895	0.32854221	-3.969	0.0001
REALSBSQ	1	0.841065	0.96266045	0.874	0.3824
SB2NX	1	0.543521	0.26615779	2.042	0.0413
RNETEXP	1	-1.312338	0.08237696	-15.931	0.0001
NETEXPSQ	1	0.739815	0.07392331	10.008	0.0001
RFAMALL	1	-1.657352	0.81607028	-2.031	0.0424
RFAMALSQ	1	-4.850222	11.33777812	-0.428	0.6689
CB2NX	1	2.697180	0.82205675	3.281	0.0011

Table A-3 (continued)

Tobit Model for SHRFDIN  
 Noncensored Values= 1502 Right Censored Values= 0  
 Left Censored Values= 1 Interval Censored Values= 0

Log Likelihood for NORMAL 1133.9183981

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	1.81256837	1.116419	2.635935	0.1045
SB	1	0.03079204	0.026455	1.354797	0.2444
TREND	1	-0.0150717	0.042806	0.123969	0.7248
TRENDSQ	1	-0.0020138	0.001795	1.258616	0.2619
P_FOOD	1	0.08811011	0.181477	0.235726	0.6273
P_ALCH	1	-0.8016247	0.413149	3.764688	0.0523
P_TOBCO	1	0.07347002	0.157993	0.216245	0.6419
P_CLOTH	1	-1.2797136	0.59996	4.54968	0.0329
P_TSPRT	1	0.07845214	0.277387	0.07999	0.7773
P_MISC	1	0.91428445	0.361369	6.401202	0.0114
P_SVCS	1	0.05281282	0.257007	0.042227	0.8372
P_FDOUT	1	0.62446431	0.476466	1.717717	0.1900
DREG1	1	0.00341669	0.014787	0.053387	0.8173
DREG2	1	-0.010351	0.01241	0.695649	0.4042
DREG3	1	-0.0341542	0.0157	4.732404	0.0296
DREG4	1	-0.008451	0.017875	0.223518	0.6364
DREG6	1	-0.0279608	0.01088	6.604059	0.0102
DREG7	1	-0.0375413	0.014422	6.77606	0.0092
DREG8	1	0.02311605	0.015279	2.289049	0.1303
DREG9	1	-0.0003369	0.012235	0.000758	0.9780
DREG10	1	0.00147667	0.011295	0.017091	0.8960
DREG11	1	-0.0067158	0.01219	0.303544	0.5817
DREG12	1	-0.0186925	0.023591	0.627808	0.4282
DHHC0	1	0.07102702	0.01478	23.09296	0.0001
DHHC1	1	-0.1107159	0.017248	41.20356	0.0001
DHHC2	1	-0.0590454	0.009571	38.05908	0.0001
DHHC3	1	-0.0652168	0.010606	37.80803	0.0001
DHHC4	1	-0.0240706	0.0192	1.571777	0.2099
DHHC6	1	-0.0320402	0.013475	5.653722	0.0174
DHHC7	1	-0.0039704	0.043923	0.008171	0.9280
DHHC8	1	0.03534634	0.011451	9.527427	0.0020
DHHC9	1	0.01149132	0.023337	0.242463	0.6224
DHHC10	1	0.04669138	0.015646	8.906143	0.0028
DQTR2	1	-0.0188841	0.01801	1.099392	0.2944
DQTR3	1	-0.0249851	0.017669	1.999568	0.1573
DQTR4	1	-0.0572474	0.023895	5.74003	0.0166
HEADAGE	1	0.00230925	0.000406	32.28665	0.0001
REALSB	1	-1.3029598	0.323798	16.19254	0.0001
REALSBSQ	1	0.83920964	0.948756	0.782405	0.3764
SB2NX	1	0.54266113	0.262314	4.2797	0.0386
RNETEXP	1	-1.311777	0.081189	261.0522	0.0001
NETEXPSQ	1	0.73899266	0.07286	102.8735	0.0001
RFAMALL	1	-1.6622152	0.804296	4.271132	0.0388
RFAMALSQ	1	-4.8504164	11.174	0.188426	0.6642
CB2NX	1	2.70692897	0.810238	11.16166	0.0008
SCALE	1	0.1135678	0.002073	Normal scale parameter	

Table A-3 (continued)

OLS Model for SHRFDOUT

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	0.24279	0.00552	10.544	0.0001
Error	1458	0.76303	0.00052		
C Total	1502	1.00582			

Root MSE	0.02288	R-square	0.2414
Dep Mean	0.01587	Adj R-sq	0.2185
C.V.	144.14612		

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.085692	0.22488698	0.381	0.7032
SB	1	-0.003286	0.00532891	-0.617	0.5375
TREND	1	0.012979	0.00862267	1.505	0.1325
TRENDSQ	1	0.000906	0.00036157	2.505	0.0124
P_FOOD	1	0.067288	0.03655597	1.841	0.0659
P_ALCH	1	0.184300	0.08322283	2.215	0.0269
P_TOBCO	1	-0.112179	0.03182547	-3.525	0.0004
P_CLOTH	1	0.275222	0.12085361	2.277	0.0229
P_TSPRT	1	0.085376	0.05587556	1.528	0.1267
P_MISC	1	-0.129136	0.07279266	-1.774	0.0763
P_SVCS	1	0.095003	0.05177046	1.835	0.0667
P_FDOUT	1	-0.487853	0.09597744	-5.083	0.0001
DREG1	1	-0.003933	0.00297868	-1.320	0.1869
DREG2	1	0.003393	0.00249992	1.357	0.1749
DREG3	1	-0.000086845	0.00316257	-0.027	0.9781
DREG4	1	-0.006659	0.00360070	-1.849	0.0646
DREG6	1	-0.003711	0.00219170	-1.693	0.0906
DREG7	1	-0.002254	0.00290508	-0.776	0.4380
DREG8	1	-0.002201	0.00307768	-0.715	0.4746
DREG9	1	-0.005093	0.00246460	-2.067	0.0389
DREG10	1	-0.003073	0.00227527	-1.351	0.1770
DREG11	1	-0.000566	0.00245542	-0.231	0.8177
DREG12	1	0.001710	0.00475036	0.360	0.7190
DHHC0	1	0.002235	0.00297729	0.751	0.4530
DHHC1	1	-0.002733	0.00347440	-0.787	0.4316
DHHC2	1	0.000225	0.00192794	0.117	0.9072
DHHC3	1	0.001411	0.00213651	0.661	0.5089
DHHC4	1	-0.002931	0.00386748	-0.758	0.4487
DHHC6	1	-0.000989	0.00271434	-0.364	0.7156
DHHC7	1	-0.008028	0.00884777	-0.907	0.3644
DHHC8	1	0.002607	0.00230659	1.130	0.2587
DHHC9	1	0.008583	0.00470093	1.826	0.0681
DHHC10	1	-0.001339	0.00315159	-0.425	0.6710
DQTR2	1	0.011995	0.00362790	3.306	0.0010
DQTR3	1	0.014290	0.00355918	4.015	0.0001
DQTR4	1	0.017458	0.00481321	3.627	0.0003
HEADAGE	1	0.000000763	0.000008186	0.009	0.9926
REALSB	1	-0.056831	0.06522426	-0.871	0.3837
REALSBSQ	1	0.128980	0.19111338	0.675	0.4999
SB2NX	1	0.072845	0.05283931	1.379	0.1682
RNETEXP	1	0.013845	0.01635399	0.847	0.3974
NETEXPSQ	1	-0.011297	0.01467572	-0.770	0.4416
RFAMALL	1	-0.024001	0.16201138	-0.148	0.8823
RFAMALSQ	1	-0.368637	2.25084669	-0.164	0.8699
CB2NX	1	-0.110123	0.16319985	-0.675	0.4999

Table A-3 (continued)

Tobit Model for SHRFDOUT  
 Noncensored Values= 936 Right Censored Values= 0  
 Left Censored Values= 567 Interval Censored Values= 0

Log Likelihood for NORMAL 1650.3651711

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.27229249	0.318868	0.729205	0.3931
SB	1	-0.0066086	0.007799	0.717973	0.3968
TREND	1	0.03424487	0.012607	7.378691	0.0066
TRENDSQ	1	0.00085807	0.000515	2.77224	0.0959
P_FOOD	1	0.10325866	0.052883	3.812544	0.0509
P_ALCH	1	0.42537763	0.119733	12.62183	0.0004
P_TOBCO	1	-0.0910165	0.046691	3.799995	0.0513
P_CLOTH	1	0.53048699	0.1753	9.157632	0.0025
P_TSPRT	1	0.32179335	0.084154	14.62199	0.0001
P_MISC	1	-0.7100758	0.114538	38.43336	0.0001
P_SVCS	1	0.19070872	0.078284	5.934604	0.0148
P_FDOUT	1	-0.8444798	0.142932	34.90743	0.0001
DREG1	1	-0.0013482	0.00433	0.096929	0.7555
DREG2	1	0.0052701	0.003659	2.07444	0.1498
DREG3	1	-0.0005244	0.00458	0.01311	0.9088
DREG4	1	-0.0057966	0.005071	1.306489	0.2530
DREG6	1	-0.0043475	0.003215	1.828026	0.1764
DREG7	1	-0.0054279	0.004366	1.545579	0.2138
DREG8	1	-0.0032183	0.004568	0.496484	0.4810
DREG9	1	-0.0060823	0.003669	2.747692	0.0974
DREG10	1	-0.0046082	0.00332	1.927089	0.1651
DREG11	1	0.00032804	0.003539	0.008591	0.9262
DREG12	1	0.00354728	0.006987	0.257765	0.6117
DHHC0	1	0.00158814	0.004445	0.127658	0.7209
DHHC1	1	-0.0048132	0.005229	0.847392	0.3573
DHHC2	1	0.00091169	0.00289	0.099509	0.7524
DHHC3	1	0.0001217	0.003019	0.001625	0.9678
DHHC4	1	-0.008061	0.006356	1.608262	0.2047
DHHC6	1	0.00114962	0.003942	0.085063	0.7706
DHHC7	1	-0.0337589	0.019057	3.138061	0.0765
DHHC8	1	0.00495374	0.003337	2.203383	0.1377
DHHC9	1	0.00526415	0.007481	0.495184	0.4816
DHHC10	1	-0.0006903	0.004786	0.020807	0.8853
DQTR2	1	0.01195567	0.005325	5.040274	0.0248
DQTR3	1	0.01935974	0.005158	14.08763	0.0002
DQTR4	1	0.03090341	0.007204	18.40081	0.0001
HEADAGE	1	-0.0000333	0.000121	0.076552	0.7820
REALSB	1	-0.0832828	0.095554	0.759657	0.3834
REALSBSQ	1	0.30354417	0.278037	1.191899	0.2749
SB2NX	1	0.14670412	0.075132	3.812704	0.0509
RNETEXP	1	0.05143085	0.023074	4.968344	0.0258
NETEXP SQ	1	-0.0354528	0.020439	3.00861	0.0828
RFAMALL	1	-0.0437087	0.232564	0.035323	0.8509
RFAMALSQ	1	-0.6748119	3.309107	0.041586	0.8384
CB2NX	1	-0.2642956	0.225343	1.375601	0.2409
SCALE	1	0.0301592	0.000724		Normal scale parameter

Table A-3 (continued)

OLS Model for SHRMISC

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	0.63002	0.01432	2.494	0.0001
Error	1458	8.36930	0.00574		
C Total	1502	8.99932			
Root MSE	0.07576	R-square	0.0700		
Dep Mean	0.12932	Adj R-sq	0.0419		
C.V.	58.58496				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.198648	0.74479635	0.267	0.7897
SB	1	0.002670	0.01764865	0.151	0.8798
TREND	1	-0.009375	0.02855715	-0.328	0.7427
TRENDSQ	1	0.000703	0.00119748	0.587	0.5574
P_FOOD	1	-0.093955	0.12106859	-0.776	0.4378
P_ALCH	1	-0.202259	0.27562317	-0.734	0.4632
P_TOBCO	1	-0.019918	0.10540180	-0.189	0.8501
P_CLOTH	1	-0.067756	0.40025140	-0.169	0.8656
P_TSPT	1	-0.132916	0.18505256	-0.718	0.4727
P_MISC	1	0.304761	0.24107980	1.264	0.2064
P_SVCS	1	0.185301	0.17145700	1.081	0.2800
P_FDOUT	1	0.013018	0.31786477	0.041	0.9673
DREG1	1	-0.016159	0.00986499	-1.638	0.1016
DREG2	1	-0.013001	0.00827941	-1.570	0.1166
DREG3	1	0.005665	0.01047401	0.541	0.5887
DREG4	1	0.017472	0.01192506	1.465	0.1431
DREG6	1	0.000969	0.00725863	0.133	0.8939
DREG7	1	-0.004858	0.00962123	-0.505	0.6137
DREG8	1	-0.013441	0.01019287	-1.319	0.1875
DREG9	1	-0.002550	0.00816245	-0.312	0.7548
DREG10	1	-0.011077	0.00753539	-1.470	0.1418
DREG11	1	-0.021676	0.00813204	-2.666	0.0078
DREG12	1	-0.047596	0.01573259	-3.025	0.0025
DHHC0	1	-0.013432	0.00986039	-1.362	0.1733
DHHC1	1	0.014240	0.01150676	1.238	0.2161
DHHC2	1	0.005587	0.00638509	0.875	0.3817
DHHC3	1	-0.001473	0.00707584	-0.208	0.8351
DHHC4	1	-0.017333	0.01280860	-1.353	0.1762
DHHC6	1	-0.004814	0.00898955	-0.535	0.5924
DHHC7	1	-0.045754	0.02930266	-1.561	0.1186
DHHC8	1	0.004735	0.00763914	0.620	0.5355
DHHC9	1	-0.012564	0.01556887	-0.807	0.4198
DHHC10	1	-0.032453	0.01043764	-3.109	0.0019
DQTR2	1	-0.003479	0.01201512	-0.290	0.7722
DQTR3	1	0.001457	0.01178753	0.124	0.9017
DQTR4	1	0.020521	0.01594073	1.287	0.1981
HEADAGE	1	0.000070631	0.00027113	0.261	0.7941
REALSB	1	0.212486	0.21601423	0.984	0.3254
REALSBSQ	1	-0.585560	0.63294258	-0.925	0.3550
SB2NX	1	-0.029880	0.17499691	-0.171	0.8644
RNETEXP	1	0.072411	0.05416228	1.337	0.1815
NETEXPSQ	1	-0.103133	0.04860407	-2.122	0.0340
RFAMALL	1	0.963508	0.53656056	1.796	0.0727
RFAMALSQ	1	-7.375919	7.45451062	-0.989	0.3226
CB2NX	1	-0.910598	0.54049662	-1.685	0.0923

Table A-3 (continued)

Tobit Model for SHRMISC  
 Noncensored Values= 1501 Right Censored Values= 0  
 Left Censored Values= 2 Interval Censored Values= 0

Log Likelihood for NORMAL 1761.7371984

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.20146582	0.73436	0.075264	0.7838
SB	1	0.00260415	0.017401	0.022396	0.8810
TREND	1	-0.0090056	0.028158	0.102287	0.7491
TRENDSQ	1	0.00068623	0.001181	0.337779	0.5611
P_FOOD	1	-0.0947178	0.119374	0.629572	0.4275
P_ALCH	1	-0.1977695	0.271775	0.529542	0.4668
P_TOBCO	1	-0.0203116	0.103925	0.038199	0.8450
P_CLOTH	1	-0.0668441	0.394645	0.028689	0.8655
P_TSPRT	1	-0.1359371	0.182469	0.555009	0.4563
P_MISC	1	0.3044494	0.237704	1.640425	0.2003
P_SVCS	1	0.18629446	0.169056	1.214335	0.2705
P_FDOUT	1	0.01030918	0.313418	0.001082	0.9738
DREG1	1	-0.0161236	0.009727	2.747816	0.0974
DREG2	1	-0.0129303	0.008164	2.508794	0.1132
DREG3	1	0.00572317	0.010327	0.307115	0.5795
DREG4	1	0.0174884	0.011758	2.212267	0.1369
DREG6	1	0.00099617	0.007157	0.019374	0.8893
DREG7	1	-0.0048234	0.009486	0.25853	0.6111
DREG8	1	-0.0133755	0.01005	1.771238	0.1832
DREG9	1	-0.0024817	0.008048	0.095081	0.7578
DREG10	1	-0.0110207	0.00743	2.200159	0.1380
DREG11	1	-0.0218644	0.00802	7.431814	0.0064
DREG12	1	-0.0488102	0.015549	9.853917	0.0017
DHHC0	1	-0.0134852	0.009722	1.923887	0.1654
DHHC1	1	0.01430377	0.011346	1.589407	0.2074
DHHC2	1	0.00568053	0.006296	0.814054	0.3669
DHHC3	1	-0.0014806	0.006977	0.045039	0.8319
DHHC4	1	-0.0172718	0.012629	1.870343	0.1714
DHHC6	1	-0.0051698	0.008868	0.33983	0.5599
DHHC7	1	-0.045737	0.028892	2.505999	0.1134
DHHC8	1	0.00450444	0.007535	0.357408	0.5499
DHHC9	1	-0.0125205	0.015351	0.665252	0.4147
DHHC10	1	-0.0324496	0.010291	9.941955	0.0016
DQTR2	1	-0.003393	0.011847	0.082023	0.7746
DQTR3	1	0.00162714	0.011623	0.019599	0.8887
DQTR4	1	0.02075284	0.015718	1.743258	0.1867
HEADAGE	1	0.00007047	0.000267	0.069491	0.7921
REALSB	1	0.21471765	0.212993	1.016264	0.3134
REALSBSQ	1	-0.5872852	0.624081	0.885558	0.3467
SB2NX	1	-0.0312325	0.17255	0.032763	0.8564
RNETEXP	1	0.07393204	0.053413	1.915925	0.1663
NETEXPSQ	1	-0.1049383	0.047942	4.791138	0.0286
RFAMALL	1	0.96082565	0.529126	3.297391	0.0694
RFAMALSQ	1	-7.4165745	7.350118	1.018165	0.3130
CB2NX	1	-0.8972358	0.533167	2.831958	0.0924
SCALE	1	0.07470264	0.001364	Normal	scale parameter

Table A-3 (continued)

OLS Model for SHRSVCS

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	2.66961	0.06067	6.217	0.0001
Error	1458	14.22915	0.00976		
C Total	1502	16.89876			

Root MSE	0.09879	R-square	0.1580
Dep Mean	0.12559	Adj R-sq	0.1326
C.V.	78.66111		

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.168049	0.97114135	0.173	0.8626
SB	1	-0.007882	0.02301211	-0.343	0.7320
TREND	1	-0.001244	0.03723572	-0.033	0.9734
TRENDSQ	1	-0.000086346	0.00156140	-0.055	0.9559
P_FOOD	1	-0.022064	0.15786156	-0.140	0.8889
P_ALCH	1	0.147777	0.35938556	0.411	0.6810
P_TOBCO	1	-0.000843	0.13743360	-0.006	0.9951
P_CLOTH	1	-0.124310	0.52188854	-0.238	0.8118
P_TSPRT	1	0.146987	0.24129037	0.609	0.5425
P_MISC	1	0.191470	0.31434439	0.609	0.5425
P_SVCS	1	-0.292356	0.22356310	-1.308	0.1912
P_FDOUT	1	-0.058161	0.41446446	-0.140	0.8884
DREG1	1	-0.031640	0.01286298	-2.460	0.0140
DREG2	1	-0.006432	0.01079554	-0.596	0.5514
DREG3	1	-0.006292	0.01365708	-0.461	0.6451
DREG4	1	-0.006358	0.01554911	-0.409	0.6827
DREG6	1	0.018723	0.00946454	1.978	0.0481
DREG7	1	-0.004934	0.01254514	-0.393	0.6942
DREG8	1	-0.031150	0.01329050	-2.344	0.0192
DREG9	1	-0.024719	0.01064303	-2.323	0.0203
DREG10	1	-0.005292	0.00982541	-0.539	0.5902
DREG11	1	-0.017128	0.01060338	-1.615	0.1065
DREG12	1	0.002896	0.02051375	0.141	0.8878
DHHC0	1	-0.017357	0.01285699	-1.350	0.1772
DHHC1	1	-0.013173	0.01500369	-0.878	0.3801
DHHC2	1	0.010248	0.00832553	1.231	0.2186
DHHC3	1	0.008230	0.00922620	0.892	0.3725
DHHC4	1	0.008375	0.01670116	0.501	0.6161
DHHC6	1	0.033981	0.01172149	2.899	0.0038
DHHC7	1	0.024756	0.03820779	0.648	0.5171
DHHC8	1	-0.007625	0.00996069	-0.766	0.4441
DHHC9	1	0.012518	0.02030028	0.617	0.5376
DHHC10	1	0.017647	0.01360966	1.297	0.1949
DQTR2	1	-0.018922	0.01566654	-1.208	0.2273
DQTR3	1	-0.012340	0.01536978	-0.803	0.4222
DQTR4	1	-0.023247	0.02078515	-1.118	0.2636
HEADAGE	1	0.000090387	0.00035352	0.256	0.7982
REALSB	1	-0.179465	0.28166136	-0.637	0.5241
REALSBSQ	1	0.552406	0.82529501	0.669	0.5034
SB2NX	1	0.237589	0.22817879	1.041	0.2979
RNETEXP	1	-0.017762	0.07062230	-0.252	0.8015
NETEXP SQ	1	0.335795	0.06337493	5.299	0.0001
RFAMALL	1	1.063651	0.69962231	1.520	0.1286
RFAMALSQ	1	-9.821539	9.71995024	-1.010	0.3124
CB2NX	1	-1.346643	0.70475455	-1.911	0.0562

Table A-3 (continued)

Tobit Model for SHRSVCS  
 Noncensored Values= 1479 Right Censored Values= 0  
 Left Censored Values= 24 Interval Censored Values= 0

Log Likelihood for NORMAL 1303.2030851

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.21796458	0.96962	0.050532	0.8221
SB	1	-0.0093611	0.022986	0.16585	0.6838
TREND	1	-0.0022112	0.037193	0.003535	0.9526
TRENDSQ	1	-0.0000671	0.001559	0.001851	0.9657
P_FOOD	1	-0.0209765	0.157618	0.017712	0.8941
P_ALCH	1	0.11987221	0.358739	0.111656	0.7383
P_TOBCO	1	-0.000306	0.137179	4.974E-6	0.9982
P_CLOTH	1	-0.1654883	0.521157	0.100832	0.7508
P_TSPRT	1	0.17967704	0.240972	0.555971	0.4559
P_MISC	1	0.21013324	0.313937	0.448026	0.5033
P_SVCS	1	-0.3019492	0.223171	1.830596	0.1761
P_FDOUT	1	-0.0433504	0.413937	0.010968	0.9166
DREG1	1	-0.0321273	0.012869	6.232083	0.0125
DREG2	1	-0.0060354	0.01079	0.312885	0.5759
DREG3	1	-0.0052671	0.013626	0.149417	0.6991
DREG4	1	-0.0054582	0.015513	0.123805	0.7249
DREG6	1	0.01955892	0.009452	4.282238	0.0385
DREG7	1	-0.0039345	0.012518	0.098786	0.7533
DREG8	1	-0.0305344	0.013278	5.287899	0.0215
DREG9	1	-0.0244665	0.010642	5.285913	0.0215
DREG10	1	-0.0048017	0.009816	0.239311	0.6247
DREG11	1	-0.0163874	0.010594	2.392539	0.1219
DREG12	1	0.00034047	0.020581	0.000274	0.9868
DHHC0	1	-0.0177388	0.01283	1.911506	0.1668
DHHC1	1	-0.0189971	0.015111	1.580565	0.2087
DHHC2	1	0.00897913	0.008312	1.166959	0.2800
DHHC3	1	0.00751501	0.00921	0.665755	0.4145
DHHC4	1	0.00917906	0.016657	0.303665	0.5816
DHHC6	1	0.0345796	0.011691	8.748361	0.0031
DHHC7	1	0.01928201	0.038587	0.249703	0.6173
DHHC8	1	-0.0082579	0.009943	0.689735	0.4063
DHHC9	1	0.01166953	0.020313	0.33003	0.5656
DHHC10	1	0.01828262	0.013575	1.813959	0.1780
DQTR2	1	-0.0193327	0.015641	1.527832	0.2164
DQTR3	1	-0.0129362	0.015351	0.710107	0.3994
DQTR4	1	-0.0242914	0.020765	1.368496	0.2421
HEADAGE	1	0.00012257	0.000353	0.120492	0.7285
REALSB	1	-0.1585194	0.281294	0.317572	0.5731
REALSBSQ	1	0.49944883	0.824151	0.367256	0.5445
SB2NX	1	0.25430931	0.228088	1.243136	0.2649
RNETEXP	1	-0.0122721	0.070521	0.030283	0.8618
NETEXPSQ	1	0.33138766	0.063256	27.44524	0.0001
RFAMALL	1	1.05804463	0.698434	2.294864	0.1298
RFAMALSQ	1	-9.6567746	9.698529	0.991408	0.3194
CB2NX	1	-1.3629146	0.703217	3.756285	0.0526
SCALE	1	0.09851775	0.001817	Normal scale parameter	

Table A-3 (continued)

OLS Model for SHRTOBCO

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	1.01393	0.02304	5.045	0.0001
Error	1458	6.65964	0.00457		
C Total	1502	7.67357			

Root MSE	0.06758	R-square	0.1321
Dep Mean	0.06041	Adj R-sq	0.1059
C.V.	111.87704		

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.283685	0.66438290	0.427	0.6694
SB	1	0.014592	0.01574318	0.927	0.3541
TREND	1	0.021682	0.02547392	0.851	0.3948
TRENDSQ	1	-0.001174	0.00106819	-1.099	0.2721
P_FOOD	1	-0.259625	0.10799718	-2.404	0.0163
P_ALCH	1	0.069753	0.24586496	0.284	0.7767
P_TOBCO	1	0.138067	0.09402188	1.468	0.1422
P_CLOTH	1	0.123600	0.35703745	0.346	0.7293
P_TSPRT	1	0.018166	0.16507298	0.110	0.9124
P_MISC	1	-0.282252	0.21505113	-1.312	0.1896
P_SVCS	1	0.012858	0.15294530	0.084	0.9330
P_FDOUT	1	0.128744	0.28354586	0.454	0.6499
DREG1	1	0.026489	0.00879990	3.010	0.0027
DREG2	1	0.009555	0.00738551	1.294	0.1960
DREG3	1	0.006454	0.00934316	0.691	0.4898
DREG4	1	0.005510	0.01063755	0.518	0.6045
DREG6	1	0.000787	0.00647494	0.122	0.9033
DREG7	1	0.004375	0.00858246	0.510	0.6103
DREG8	1	0.025348	0.00909238	2.788	0.0054
DREG9	1	0.006736	0.00728117	0.925	0.3550
DREG10	1	0.006492	0.00672182	0.966	0.3343
DREG11	1	0.029797	0.00725405	4.108	0.0001
DREG12	1	0.015393	0.01403399	1.097	0.2729
DHHC0	1	0.021656	0.00879580	2.462	0.0139
DHHC1	1	0.013654	0.01026441	1.330	0.1836
DHHC2	1	0.001001	0.00569571	0.176	0.8605
DHHC3	1	0.005813	0.00631188	0.921	0.3572
DHHC4	1	0.013888	0.01142569	1.216	0.2244
DHHC6	1	0.009395	0.00801897	1.172	0.2415
DHHC7	1	0.018021	0.02613894	0.689	0.4907
DHHC8	1	0.019387	0.00681436	2.845	0.0045
DHHC9	1	0.021753	0.01388795	1.566	0.1175
DHHC10	1	0.007733	0.00931072	0.831	0.4064
DQTR2	1	-0.003049	0.01071788	-0.285	0.7761
DQTR3	1	0.001524	0.01051486	0.145	0.8847
DQTR4	1	0.004179	0.01421966	0.294	0.7689
HEADAGE	1	-0.000617	0.00024185	-2.551	0.0108
REALSB	1	-0.135066	0.19269182	-0.701	0.4835
REALSBSQ	1	-0.439267	0.56460566	-0.778	0.4367
SB2NX	1	-0.050262	0.15610301	-0.322	0.7475
RNETEXP	1	-0.159264	0.04831454	-3.296	0.0010
NETEXPSQ	1	0.075223	0.04335643	1.735	0.0830
RFAMALL	1	-0.606881	0.47862971	-1.268	0.2050
RFAMALSQ	1	-4.620073	6.64966927	-0.695	0.4873
CB2NX	1	0.648550	0.48214081	1.345	0.1788

Table A-3 (continued)

Tobit Model for SHRTOBCO  
 Noncensored Values= 904 Right Censored Values= 0  
 Left Censored Values= 599 Interval Censored Values= 0

Log Likelihood for NORMAL 336.81585464

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.0520171	1.051014	0.002449	0.9605
SB	1	0.01557331	0.024661	0.398779	0.5277
TREND	1	0.02363183	0.040135	0.34669	0.5560
TRENDSQ	1	-0.0014185	0.001682	0.71135	0.3990
P_FOOD	1	-0.3805181	0.170111	5.00364	0.0253
P_ALCH	1	0.23146858	0.389027	0.354018	0.5518
P_TOBCO	1	0.22329117	0.148476	2.261683	0.1326
P_CLOTH	1	0.36826028	0.558842	0.434241	0.5099
P_TSPRT	1	0.03482827	0.261985	0.017673	0.8942
P_MISC	1	-0.5987492	0.338783	3.123537	0.0772
P_SVCS	1	-0.072369	0.241203	0.09002	0.7642
P_FDOUT	1	0.20870137	0.443568	0.221375	0.6380
DREG1	1	0.04623026	0.013643	11.48219	0.0007
DREG2	1	0.01947807	0.011618	2.810996	0.0936
DREG3	1	0.01271046	0.014858	0.731788	0.3923
DREG4	1	0.0110307	0.016973	0.422364	0.5158
DREG6	1	0.00191021	0.010423	0.033589	0.8546
DREG7	1	0.00354729	0.013843	0.065666	0.7978
DREG8	1	0.040845	0.014162	8.318419	0.0039
DREG9	1	0.01495997	0.011555	1.676049	0.1955
DREG10	1	0.01219494	0.010685	1.302671	0.2537
DREG11	1	0.04735284	0.011344	17.42496	0.0001
DREG12	1	0.0195435	0.022322	0.766562	0.3813
DHHC0	1	0.03336686	0.01374	5.897494	0.0152
DHHC1	1	0.01387141	0.015949	0.75645	0.3844
DHHC2	1	0.00023591	0.009077	0.000675	0.9793
DHHC3	1	0.01385975	0.009977	1.929618	0.1648
DHHC4	1	0.01368523	0.017889	0.585253	0.4443
DHHC6	1	0.01406939	0.012514	1.263959	0.2609
DHHC7	1	0.02796786	0.040033	0.488072	0.4848
DHHC8	1	0.03298785	0.010687	9.527762	0.0020
DHHC9	1	0.03870118	0.020987	3.40039	0.0652
DHHC10	1	0.01052049	0.01463	0.517087	0.4721
DQTR2	1	-0.002096	0.01689	0.0154	0.9012
DQTR3	1	0.00164336	0.016555	0.009853	0.9209
DQTR4	1	0.00895424	0.022345	0.16058	0.6886
HEADAGE	1	-0.001046	0.000381	7.537108	0.0060
REALSB	1	-0.0747375	0.302443	0.061065	0.8048
REALSBSQ	1	-0.6564297	0.884631	0.550621	0.4581
SB2NX	1	-0.0434377	0.247618	0.030773	0.8607
RNETEXP	1	-0.1555942	0.079523	3.828284	0.0504
NETEXPSQ	1	0.02498228	0.077505	0.103896	0.7472
RFAMALL	1	-0.8927734	0.771829	1.337951	0.2474
RFAMALSQ	1	-7.8469201	10.87998	0.520166	0.4708
CB2NX	1	1.24339066	0.788863	2.484344	0.1150
SCALE	1	0.09925293	0.002555	Normal scale parameter	

Table A-3 (continued)

OLS Model for SHRTSPRT

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	2.86333	0.06508	6.218	0.0001
Error	1458	15.25953	0.01047		
C Total	1502	18.12286			
Root MSE	0.10230	R-square	0.1580		
Dep Mean	0.09215	Adj R-sq	0.1326		
C.V.	111.01898				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.140327	1.00568871	-0.140	0.8890
SB	1	-0.036481	0.02383074	-1.531	0.1260
TREND	1	0.014384	0.03856035	0.373	0.7092
TRENDSQ	1	-0.000073794	0.00161694	-0.046	0.9636
P_FOOD	1	0.176587	0.16347733	1.080	0.2802
P_ALCH	1	0.529948	0.37217034	1.424	0.1547
P_TOBCO	1	-0.224760	0.14232266	-1.579	0.1145
P_CLOTH	1	0.226884	0.54045420	0.420	0.6747
P_TSPRT	1	0.073372	0.24987403	0.294	0.7691
P_MISC	1	-0.529882	0.32552688	-1.628	0.1038
P_SVCS	1	-0.054269	0.23151613	-0.234	0.8147
P_FDOUT	1	-0.159592	0.42920862	-0.372	0.7101
DREG1	1	-0.007986	0.01332057	-0.600	0.5489
DREG2	1	-0.005789	0.01117958	-0.518	0.6047
DREG3	1	0.005742	0.01414291	0.406	0.6848
DREG4	1	-0.006675	0.01610225	-0.415	0.6785
DREG6	1	0.014198	0.00980123	1.449	0.1477
DREG7	1	0.035425	0.01299142	2.727	0.0065
DREG8	1	-0.008457	0.01376330	-0.614	0.5390
DREG9	1	0.018947	0.01102165	1.719	0.0858
DREG10	1	0.000279	0.01017494	0.027	0.9781
DREG11	1	-0.002605	0.01098059	-0.237	0.8125
DREG12	1	0.027133	0.02124350	1.277	0.2017
DHHC0	1	-0.007820	0.01331436	-0.587	0.5571
DHHC1	1	0.003300	0.01553743	0.212	0.8318
DHHC2	1	0.001054	0.00862170	0.122	0.9028
DHHC3	1	0.003676	0.00955441	0.385	0.7005
DHHC4	1	-0.015558	0.01729529	-0.900	0.3685
DHHC6	1	-0.022710	0.01213847	-1.871	0.0616
DHHC7	1	-0.006478	0.03956699	-0.164	0.8700
DHHC8	1	-0.026689	0.01031503	-2.587	0.0098
DHHC9	1	-0.018261	0.02102244	-0.869	0.3852
DHHC10	1	-0.012464	0.01409381	-0.884	0.3767
DQTR2	1	0.012608	0.01622386	0.777	0.4372
DQTR3	1	0.008118	0.01591655	0.510	0.6101
DQTR4	1	0.014906	0.02152456	0.693	0.4887
HEADAGE	1	-0.000216	0.00036610	-0.591	0.5546
REALSB	1	0.282205	0.29168117	0.968	0.3334
REALSBSQ	1	-0.234840	0.85465404	-0.275	0.7835
SB2NX	1	-0.398822	0.23629602	-1.688	0.0917
RNETEXP	1	0.391319	0.07313462	5.351	0.0001
NETEXPSQ	1	-0.260096	0.06562943	-3.963	0.0001
RFAMALL	1	-1.429315	0.72451066	-1.973	0.0487
RFAMALSQ	1	17.860448	10.06572759	1.774	0.0762
CB2NX	1	0.448596	0.72982548	0.615	0.5389

Table A-3 (continued)

Tobit Model for SHRTSPRT  
 Noncensored Values= 1365 Right Censored Values= 0  
 Left Censored Values= 138 Interval Censored Values= 0

Log Likelihood for NORMAL 982.6259006

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.2632025	1.069978	0.06051	0.8057
SB	1	-0.0399989	0.025451	2.46985	0.1160
TREND	1	0.0208374	0.041195	0.255852	0.6130
TRENDSQ	1	0.0000598	0.001723	0.001205	0.9723
P_FOOD	1	0.22032335	0.17358	1.611093	0.2043
P_ALCH	1	0.66861028	0.396997	2.836432	0.0921
P_TOBCO	1	-0.2929118	0.151987	3.714158	0.0540
P_CLOTH	1	0.38955973	0.577125	0.455626	0.4997
P_TSPRT	1	0.04760249	0.266859	0.03182	0.8584
P_MISC	1	-0.6125315	0.347348	3.109759	0.0778
P_SVCS	1	-0.0321125	0.246874	0.01692	0.8965
P_FDOUT	1	-0.3303631	0.458721	0.518663	0.4714
DREG1	1	-0.0077065	0.014241	0.292849	0.5884
DREG2	1	-0.0023493	0.011948	0.038664	0.8441
DREG3	1	0.00706524	0.015103	0.218846	0.6399
DREG4	1	-0.0088095	0.017269	0.260229	0.6100
DREG6	1	0.01456233	0.010459	1.938563	0.1638
DREG7	1	0.03787034	0.013843	7.484019	0.0062
DREG8	1	-0.0083711	0.014739	0.32256	0.5701
DREG9	1	0.02366641	0.011733	4.06855	0.0437
DREG10	1	0.00455333	0.010848	0.176179	0.6747
DREG11	1	-0.003209	0.011753	0.074548	0.7848
DREG12	1	0.01865044	0.023022	0.656271	0.4179
DHHC0	1	-0.0098213	0.014258	0.474491	0.4909
DHHC1	1	0.00602244	0.016691	0.130193	0.7182
DHHC2	1	0.00414394	0.009196	0.203043	0.6523
DHHC3	1	0.00660037	0.010167	0.421457	0.5162
DHHC4	1	-0.0142253	0.018585	0.585888	0.4440
DHHC6	1	-0.0223564	0.012999	2.957734	0.0855
DHHC7	1	0.00704274	0.041706	0.028516	0.8659
DHHC8	1	-0.0275873	0.011008	6.280305	0.0122
DHHC9	1	-0.0148188	0.022448	0.435793	0.5092
DHHC10	1	-0.0129111	0.015119	0.729211	0.3931
DQTR2	1	0.01717844	0.017373	0.977729	0.3228
DQTR3	1	0.01367553	0.017032	0.644668	0.4220
DQTR4	1	0.02595443	0.023065	1.266234	0.2605
HEADAGE	1	-0.000227	0.00039	0.339086	0.5604
REALSB	1	0.30775244	0.311292	0.977386	0.3228
REALSBSQ	1	-0.0322821	0.910007	0.001258	0.9717
SB2NX	1	-0.3916001	0.250546	2.442931	0.1181
RNETEXP	1	0.45622871	0.077574	34.58852	0.0001
NETEXPSQ	1	-0.3099375	0.069539	19.8654	0.0001
RFAMALL	1	-1.29682	0.768969	2.84408	0.0917
RFAMALSQ	1	17.2762717	10.66487	2.624153	0.1052
CB2NX	1	0.34296204	0.772112	0.197302	0.6569
SCALE	1	0.10774953	0.002087	Normal scale parameter	

Table A-3 (continued)

OLS Model for SHRBOOKS

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	0.00403	0.00009	1.497	0.0199
Error	1458	0.08927	0.00006		
C Total	1502	0.09330			
Root MSE	0.00782	R-square	0.0432		
Dep Mean	0.00205	Adj R-sq	0.0144		
C.V.	381.63042				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.005663	0.07691938	0.074	0.9413
SB	1	0.001007	0.00182268	0.553	0.5806
TREND	1	0.001337	0.00294926	0.453	0.6504
TRENDSQ	1	0.000033806	0.00012367	0.273	0.7846
P_FOOD	1	0.005293	0.01250345	0.423	0.6721
P_ALCH	1	0.008820	0.02846518	0.310	0.7567
P_TOBCO	1	0.000570	0.01088545	0.052	0.9582
P_CLOTH	1	0.030588	0.04133625	0.740	0.4594
P_TSPT	1	0.001524	0.01911144	0.080	0.9364
P_MISC	1	-0.045362	0.02489769	-1.822	0.0687
P_SVCS	1	0.003345	0.01770734	0.189	0.8502
P_FDOUT	1	-0.006182	0.03282771	-0.188	0.8507
DREG1	1	-0.000664	0.00101881	-0.652	0.5147
DREG2	1	-0.000594	0.00085506	-0.694	0.4875
DREG3	1	-0.000725	0.00108171	-0.671	0.5026
DREG4	1	-0.001948	0.00123157	-1.582	0.1139
DREG6	1	0.000687	0.00074964	0.916	0.3599
DREG7	1	-0.000480	0.00099364	-0.483	0.6289
DREG8	1	-0.001467	0.00105268	-1.393	0.1637
DREG9	1	0.000410	0.00084298	0.486	0.6270
DREG10	1	-0.001130	0.00077822	-1.452	0.1467
DREG11	1	-0.002087	0.00083984	-2.484	0.0131
DREG12	1	-0.000419	0.00162479	-0.258	0.7964
DHHC0	1	0.000001005	0.00101834	0.001	0.9992
DHHC1	1	-0.001093	0.00118837	-0.920	0.3578
DHHC2	1	0.000643	0.00065942	0.976	0.3294
DHHC3	1	0.001064	0.00073076	1.455	0.1458
DHHC4	1	-0.000471	0.00132282	-0.356	0.7221
DHHC6	1	0.000672	0.00092840	0.724	0.4691
DHHC7	1	-0.001627	0.00302625	-0.538	0.5909
DHHC8	1	-0.000160	0.00078894	-0.203	0.8395
DHHC9	1	-0.001474	0.00160789	-0.917	0.3595
DHHC10	1	0.000492	0.00107796	0.456	0.6481
DQTR2	1	0.000306	0.00124087	0.247	0.8051
DQTR3	1	0.000741	0.00121737	0.609	0.5429
DQTR4	1	0.002468	0.00164629	1.499	0.1341
HEADAGE	1	-0.000029668	0.00002800	-1.060	0.2895
REALSB	1	0.003558	0.02230902	0.160	0.8733
REALSBSQ	1	-0.009693	0.06536760	-0.148	0.8821
SB2NX	1	-0.015393	0.01807293	-0.852	0.3945
RNETEXP	1	0.013614	0.00559365	2.434	0.0151
NETEXPSQ	1	-0.009027	0.00501962	-1.798	0.0723
RFAMALL	1	0.073143	0.05541368	1.320	0.1871
RFAMALSQ	1	-1.038809	0.76986993	-1.349	0.1774
CB2NX	1	-0.070131	0.05582018	-1.256	0.2092

Table A-3 (continued)

Tobit Model for SHRBOOKS  
 Noncensored Values= 298 Right Censored Values= 0  
 Left Censored Values=1205 Interval Censored Values= 0

Log Likelihood for NORMAL 327.43108557

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.15254	0.312096	0.238887	0.6250
SB	1	-0.0008307	0.00768	0.011699	0.9139
TREND	1	0.00040205	0.011867	0.001148	0.9730
TRENDSQ	1	0.0002165	0.000488	0.197116	0.6571
P_FOOD	1	0.01644221	0.049527	0.110213	0.7399
P_ALCH	1	0.02936508	0.118958	0.060936	0.8050
P_TOBCO	1	0.01021111	0.044195	0.053382	0.8173
P_CLOTH	1	0.14588509	0.173111	0.710183	0.3994
P_TSPRT	1	0.02804972	0.077662	0.13045	0.7180
P_MISC	1	-0.2205079	0.101707	4.700539	0.0302
P_SVCS	1	0.0182872	0.071886	0.064715	0.7992
P_FDOUT	1	0.00022524	0.137029	2.702E-6	0.9987
DREG1	1	-0.0051701	0.004255	1.476411	0.2243
DREG2	1	-0.0040782	0.003534	1.331657	0.2485
DREG3	1	-0.0005182	0.004169	0.015452	0.9011
DREG4	1	-0.0076582	0.005054	2.296072	0.1297
DREG6	1	0.00211676	0.00283	0.559432	0.4545
DREG7	1	-0.0002119	0.003832	0.003057	0.9559
DREG8	1	-0.0073481	0.00453	2.630826	0.1048
DREG9	1	0.00157168	0.003245	0.234542	0.6282
DREG10	1	-0.0050097	0.003169	2.499626	0.1139
DREG11	1	-0.0128881	0.003767	11.70273	0.0006
DREG12	1	-0.0020854	0.006364	0.107384	0.7431
DHHC0	1	-0.0003777	0.004059	0.008658	0.9259
DHHC1	1	-0.0042065	0.005392	0.60856	0.4353
DHHC2	1	0.002288	0.002634	0.754708	0.3850
DHHC3	1	0.00366147	0.00293	1.56172	0.2114
DHHC4	1	-0.0051418	0.006168	0.695018	0.4045
DHHC6	1	0.00426622	0.003689	1.337412	0.2475
DHHC7	1	-0.1002618	7.058182	0.000202	0.9887
DHHC8	1	-0.0033706	0.003289	1.050122	0.3055
DHHC9	1	-0.0057687	0.007241	0.634712	0.4256
DHHC10	1	0.00266033	0.004386	0.367941	0.5441
DQTR2	1	-0.000095	0.005103	0.000347	0.9851
DQTR3	1	0.00100737	0.00515	0.038255	0.8449
DQTR4	1	0.00670896	0.006879	0.9511	0.3294
HEADAGE	1	-0.0001921	0.000116	2.749661	0.0973
REALSB	1	0.06060997	0.094974	0.407271	0.5234
REALSBSQ	1	-0.0599699	0.279072	0.046178	0.8299
SB2NX	1	0.04987236	0.068951	0.523165	0.4695
RNETEXP	1	0.07085643	0.020667	11.75454	0.0006
NETEXPSQ	1	-0.0391493	0.017093	5.245524	0.0220
RFAMALL	1	0.38742791	0.221403	3.062072	0.0801
RFAMALSQ	1	-4.1771656	2.987036	1.955611	0.1620
CB2NX	1	-0.3841464	0.218352	3.095129	0.0785
SCALE	1	0.02215526	0.001026	Normal scale parameter	

Table A-3 (continued)

OLS Model for SHRCIGS

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	0.62088	0.01411	7.474	0.0001
Error	1458	2.75287	0.00189		
C Total	1502	3.37375			

Root MSE	0.04345	R-square	0.1840
Dep Mean	0.03540	Adj R-sq	0.1594
C.V.	122.76303		

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.058449	0.42715499	0.137	0.8912
SB	1	0.007085	0.01012184	0.700	0.4840
TREND	1	0.018772	0.01637807	1.146	0.2519
TRENDSQ	1	0.000539	0.00068678	0.784	0.4330
P_FOOD	1	-0.049665	0.06943516	-0.715	0.4746
P_ALCH	1	0.196899	0.15807517	1.246	0.2131
P_TOBCO	1	-0.053558	0.06044995	-0.886	0.3758
P_CLOTH	1	0.362201	0.22955185	1.578	0.1148
P_TSPRT	1	-0.039685	0.10613119	-0.374	0.7085
P_MISC	1	-0.134151	0.13826389	-0.970	0.3321
P_SVCS	1	0.048140	0.09833388	0.490	0.6245
P_FDOUT	1	-0.341606	0.18230154	-1.874	0.0612
DREG1	1	0.013875	0.00565776	2.452	0.0143
DREG2	1	0.005001	0.00474840	1.053	0.2924
DREG3	1	0.003425	0.00600704	0.570	0.5687
DREG4	1	0.005991	0.00683925	0.876	0.3812
DREG6	1	-0.002700	0.00416296	-0.649	0.5167
DREG7	1	-0.000209	0.00551796	-0.038	0.9699
DREG8	1	0.015030	0.00584581	2.571	0.0102
DREG9	1	0.001786	0.00468132	0.382	0.7028
DREG10	1	0.002648	0.00432169	0.613	0.5401
DREG11	1	0.013592	0.00466388	2.914	0.0036
DREG12	1	0.004714	0.00902294	0.522	0.6014
DHHC0	1	0.020186	0.00565513	3.569	0.0004
DHHC1	1	0.008163	0.00659935	1.237	0.2163
DHHC2	1	0.000249	0.00366197	0.068	0.9457
DHHC3	1	0.00008039	0.00405813	0.002	0.9984
DHHC4	1	0.009963	0.00734598	1.356	0.1752
DHHC6	1	0.004556	0.00515568	0.884	0.3770
DHHC7	1	0.012699	0.01680564	0.756	0.4500
DHHC8	1	0.014739	0.00438119	3.364	0.0008
DHHC9	1	0.014133	0.00892905	1.583	0.1137
DHHC10	1	0.005350	0.00598619	0.894	0.3717
DQTR2	1	0.014564	0.00689090	2.114	0.0347
DQTR3	1	0.015843	0.00676037	2.343	0.0192
DQTR4	1	0.023441	0.00914231	2.564	0.0104
HEADAGE	1	-0.000360	0.00015550	-2.313	0.0209
REALSB	1	-0.052683	0.12388830	-0.425	0.6707
REALSBSQ	1	-0.529552	0.36300471	-1.459	0.1448
SB2NX	1	-0.001780	0.10036408	-0.018	0.9858
RNETEXP	1	-0.095877	0.03106311	-3.087	0.0021
NETEXPSQ	1	0.047206	0.02787536	1.693	0.0906
RFAMALL	1	-0.551105	0.30772777	-1.791	0.0735
RFAMALSQ	1	-3.350930	4.27530480	-0.784	0.4333
CB2NX	1	0.421355	0.30998518	1.359	0.1743

Table A-3 (continued)

Tobit Model for SHRCIGS  
 Noncensored Values= 892 Right Censored Values= 0  
 Left Censored Values= 611 Interval Censored Values= 0

Log Likelihood for NORMAL 729.60874153

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.2043255	0.677315	0.091005	0.7629
SB	1	0.0084435	0.015879	0.28274	0.5949
TREND	1	0.02149363	0.025916	0.687817	0.4069
TRENDSQ	1	0.00056047	0.001085	0.266791	0.6055
P_FOOD	1	-0.1216522	0.109787	1.227826	0.2678
P_ALCH	1	0.33855788	0.250495	1.826695	0.1765
P_TOBCO	1	-0.0179453	0.095826	0.03507	0.8514
P_CLOTH	1	0.58892544	0.360466	2.669267	0.1023
P_TSPRT	1	-0.0291059	0.16888	0.029704	0.8632
P_MISC	1	-0.3476221	0.218864	2.5227	0.1122
P_SVCS	1	-0.0000511	0.156064	1.071E-7	0.9997
P_FDOUT	1	-0.3717653	0.286349	1.685571	0.1942
DREG1	1	0.02684868	0.008761	9.391095	0.0022
DREG2	1	0.01112207	0.007474	2.214715	0.1367
DREG3	1	0.00717449	0.009562	0.562989	0.4531
DREG4	1	0.00760398	0.010971	0.48037	0.4883
DREG6	1	-0.0030988	0.006722	0.212538	0.6448
DREG7	1	-0.000584	0.008899	0.004307	0.9477
DREG8	1	0.02369521	0.009133	6.730945	0.0095
DREG9	1	0.00655807	0.007449	0.775201	0.3786
DREG10	1	0.00623946	0.006876	0.823399	0.3642
DREG11	1	0.02500879	0.007295	11.75236	0.0006
DREG12	1	0.00726941	0.014396	0.254976	0.6136
DHHC0	1	0.02983385	0.008837	11.39622	0.0007
DHHC1	1	0.00888437	0.01023	0.754155	0.3852
DHHC2	1	0.00010052	0.005857	0.000295	0.9863
DHHC3	1	0.00475844	0.006412	0.55075	0.4580
DHHC4	1	0.0104197	0.011508	0.81984	0.3652
DHHC6	1	0.00766345	0.008066	0.902687	0.3421
DHHC7	1	0.01982073	0.025863	0.58735	0.4434
DHHC8	1	0.0240679	0.00689	12.20074	0.0005
DHHC9	1	0.02414702	0.013565	3.16881	0.0751
DHHC10	1	0.00833994	0.009421	0.783692	0.3760
DQTR2	1	0.01748244	0.010877	2.583494	0.1080
DQTR3	1	0.01867384	0.010656	3.07103	0.0797
DQTR4	1	0.02917322	0.014404	4.102048	0.0428
HEADAGE	1	-0.0006113	0.000245	6.218777	0.0126
REALSB	1	-0.0160755	0.194965	0.006799	0.9343
REALSBSQ	1	-0.6993616	0.570861	1.50087	0.2205
SB2NX	1	0.01348875	0.159573	0.007145	0.9326
RNETEXP	1	-0.0964676	0.051331	3.531876	0.0602
NETEXPSQ	1	0.01713755	0.049947	0.117729	0.7315
RFAMALL	1	-0.7365638	0.497822	2.189133	0.1390
RFAMALSQ	1	-6.5875823	7.073339	0.867367	0.3517
CB2NX	1	0.85552547	0.508915	2.826027	0.0927
SCALE	1	0.06360309	0.001639	Normal	scale parameter

Table A-3 (continued)

OLS Model for SHRCOSM

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	0.01042	0.00024	2.726	0.0001
Error	1458	0.12667	0.00009		
C Total	1502	0.13709			
Root MSE	0.00932	R-square	0.0760		
Dep Mean	0.00520	Adj R-sq	0.0481		
C.V.	179.09690				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.046781	0.09162675	-0.511	0.6097
SB	1	0.000264	0.00217118	0.122	0.9031
TREND	1	-0.002151	0.00351317	-0.612	0.5404
TRENDSQ	1	0.000365	0.00014732	2.481	0.0132
P_FOOD	1	-0.001498	0.01489417	-0.101	0.9199
P_ALCH	1	-0.024671	0.03390786	-0.728	0.4670
P_TOBCO	1	-0.015859	0.01296680	-1.223	0.2215
P_CLOTH	1	0.056564	0.04923995	1.149	0.2509
P_TSPRT	1	-0.005470	0.02276564	-0.240	0.8102
P_MISC	1	0.019383	0.02965825	0.654	0.5135
P_SVCS	1	0.045136	0.02109308	2.140	0.0325
P_FDOUT	1	-0.061893	0.03910453	-1.583	0.1137
DREG1	1	-0.001089	0.00121362	-0.897	0.3699
DREG2	1	-0.000245	0.00101855	-0.241	0.8098
DREG3	1	0.002052	0.00128854	1.592	0.1115
DREG4	1	0.002178	0.00146705	1.484	0.1380
DREG6	1	0.001905	0.00089298	2.133	0.0331
DREG7	1	0.000243	0.00118363	0.205	0.8374
DREG8	1	-0.000153	0.00125395	-0.122	0.9031
DREG9	1	0.001177	0.00100417	1.172	0.2412
DREG10	1	0.001952	0.00092702	2.106	0.0354
DREG11	1	-0.000447	0.00100042	-0.447	0.6549
DREG12	1	-0.001782	0.00193546	-0.921	0.3573
DHHC0	1	-0.000794	0.00121305	-0.654	0.5129
DHHC1	1	0.003515	0.00141559	2.483	0.0131
DHHC2	1	0.000978	0.00078551	1.245	0.2133
DHHC3	1	0.001529	0.00087049	1.756	0.0792
DHHC4	1	-0.002547	0.00157575	-1.616	0.1062
DHHC6	1	0.000557	0.00110592	0.504	0.6145
DHHC7	1	-0.001565	0.00360489	-0.434	0.6643
DHHC8	1	0.000055517	0.00093979	0.059	0.9529
DHHC9	1	-0.000583	0.00191532	-0.305	0.7607
DHHC10	1	-0.001487	0.00128407	-1.158	0.2471
DQTR2	1	0.001665	0.00147813	1.126	0.2602
DQTR3	1	0.002160	0.00145013	1.489	0.1366
DQTR4	1	0.003020	0.00196107	1.540	0.1238
HEADAGE	1	-0.000069539	0.00003335	-2.085	0.0373
REALSB	1	0.019322	0.02657462	0.727	0.4673
REALSBSQ	1	-0.076407	0.07786621	-0.981	0.3266
SB2NX	1	0.011388	0.02152857	0.529	0.5969
RNETEXP	1	0.011042	0.00666318	1.657	0.0977
NETEXPSQ	1	-0.008271	0.00597940	-1.383	0.1668
RFAMALL	1	0.010319	0.06600905	0.156	0.8758
RFAMALSQ	1	-0.149428	0.91707289	-0.163	0.8706
CB2NX	1	-0.060896	0.06649327	-0.916	0.3599

Table A-3 (continued)

Tobit Model for SHRCOSM  
 Noncensored Values= 747 Right Censored Values= 0  
 Left Censored Values= 756 Interval Censored Values= 0

Log Likelihood for NORMAL 1601.5457357

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.0539889	0.165565	0.106333	0.7444
SB	1	0.00112139	0.003932	0.081332	0.7755
TREND	1	-0.0004677	0.006381	0.005373	0.9416
TRENDSQ	1	0.00051131	0.000266	3.690293	0.0547
P_FOOD	1	-0.0068256	0.027433	0.061907	0.8035
P_ALCH	1	-0.0552196	0.062074	0.791347	0.3737
P_TOBCO	1	-0.0329311	0.023784	1.917076	0.1662
P_CLOTH	1	0.10090231	0.090404	1.245737	0.2644
P_TSPRT	1	-0.0238361	0.041052	0.337135	0.5615
P_MISC	1	0.06392613	0.054595	1.371042	0.2416
P_SVCS	1	0.1132234	0.038534	8.633551	0.0033
P_FDOUT	1	-0.1490653	0.071805	4.309704	0.0379
DREG1	1	-0.0026042	0.002298	1.283827	0.2572
DREG2	1	-0.0002927	0.001889	0.024018	0.8768
DREG3	1	0.00507581	0.002289	4.915653	0.0266
DREG4	1	0.00517837	0.002602	3.959716	0.0466
DREG6	1	0.00425166	0.001609	6.97916	0.0082
DREG7	1	0.00083134	0.002165	0.147406	0.7010
DREG8	1	-0.0011307	0.002368	0.228099	0.6329
DREG9	1	0.00309357	0.00182	2.888587	0.0892
DREG10	1	0.00322907	0.001688	3.65958	0.0557
DREG11	1	-0.0010171	0.001852	0.301687	0.5828
DREG12	1	-0.0051105	0.003835	1.775914	0.1827
DHHC0	1	-0.0024779	0.002258	1.204057	0.2725
DHHC1	1	0.00576756	0.002545	5.135802	0.0234
DHHC2	1	0.00169409	0.001428	1.406971	0.2356
DHHC3	1	0.00281677	0.001563	3.248346	0.0715
DHHC4	1	-0.0052438	0.003071	2.916226	0.0877
DHHC6	1	0.00091676	0.002027	0.204533	0.6511
DHHC7	1	-0.0050031	0.007477	0.447722	0.5034
DHHC8	1	0.00009703	0.001705	0.003238	0.9546
DHHC9	1	-0.0020445	0.003643	0.314884	0.5747
DHHC10	1	-0.0038583	0.002459	2.461386	0.1167
DQTR2	1	0.0043079	0.002699	2.546727	0.1105
DQTR3	1	0.00594961	0.00265	5.040407	0.0248
DQTR4	1	0.00620684	0.003606	2.96329	0.0852
HEADAGE	1	-0.0001029	0.000061	2.798988	0.0943
REALSB	1	0.04073151	0.048566	0.703392	0.4016
REALSBSQ	1	-0.0898995	0.143666	0.391567	0.5315
SB2NX	1	0.03861108	0.038645	0.998262	0.3177
RNETEXP	1	0.03493685	0.01184	8.707472	0.0032
NETEXPSQ	1	-0.0228221	0.010296	4.913636	0.0266
RFAMALL	1	0.05407099	0.119749	0.203886	0.6516
RFAMALSQ	1	-0.0167802	1.639002	0.000105	0.9918
CB2NX	1	-0.125603	0.120337	1.089441	0.2966
SCALE	1	0.01514127	0.000427	Normal scale parameter	

Table A-3 (continued)

OLS Model for SHRDOMSV

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	0.08174	0.00186	3.317	0.0001
Error	1458	0.81649	0.00056		
C Total	1502	0.89823			

Root MSE	0.02366	R-square	0.0910
Dep Mean	0.00547	Adj R-sq	0.0636
C.V.	432.90452		

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.006323	0.23263191	-0.027	0.9783
SB	1	-0.000101	0.00551243	-0.018	0.9855
TREND	1	-0.001547	0.00891963	-0.173	0.8623
TRENDSQ	1	0.000393	0.00037402	1.050	0.2938
P_FOOD	1	0.035402	0.03781492	0.936	0.3493
P_ALCH	1	0.020203	0.08608896	0.235	0.8145
P_TOBCO	1	-0.002510	0.03292151	-0.076	0.9392
P_CLOTH	1	0.055710	0.12501571	0.446	0.6559
P_TSPT	1	-0.029530	0.05779987	-0.511	0.6095
P_MISC	1	-0.025798	0.07529958	-0.343	0.7319
P_SVCS	1	0.000284	0.05355339	0.005	0.9958
P_FDOUT	1	-0.048098	0.09928283	-0.484	0.6281
DREG1	1	0.000950	0.00308126	0.308	0.7579
DREG2	1	0.001691	0.00258602	0.654	0.5132
DREG3	1	0.000840	0.00327148	0.257	0.7974
DREG4	1	0.002170	0.00372471	0.582	0.5603
DREG6	1	0.000888	0.00226718	0.392	0.6954
DREG7	1	-0.001714	0.00300512	-0.570	0.5685
DREG8	1	0.003834	0.00318367	1.204	0.2287
DREG9	1	0.000303	0.00254948	0.119	0.9054
DREG10	1	0.005890	0.00235363	2.503	0.0124
DREG11	1	0.000985	0.00253999	0.388	0.6983
DREG12	1	-0.001570	0.00491396	-0.319	0.7494
DHHC0	1	0.001890	0.00307982	0.614	0.5395
DHHC1	1	0.003267	0.00359406	0.909	0.3635
DHHC2	1	0.005984	0.00199434	3.000	0.0027
DHHC3	1	0.003725	0.00221009	1.686	0.0921
DHHC4	1	0.003838	0.00400068	0.959	0.3375
DHHC6	1	0.005085	0.00280782	1.811	0.0703
DHHC7	1	0.001430	0.00915248	0.156	0.8759
DHHC8	1	0.000115	0.00238603	0.048	0.9617
DHHC9	1	0.022464	0.00486283	4.620	0.0001
DHHC10	1	0.005950	0.00326012	1.825	0.0682
DQTR2	1	-0.003281	0.00375284	-0.874	0.3822
DQTR3	1	-0.000302	0.00368175	-0.082	0.9346
DQTR4	1	-0.001012	0.00497898	-0.203	0.8389
HEADAGE	1	-0.000394	0.00008468	-4.654	0.0001
REALSB	1	-0.065048	0.06747053	-0.964	0.3352
REALSBSQ	1	0.203034	0.19769517	1.027	0.3046
SB2NX	1	0.023462	0.05465905	0.429	0.6678
RNETEXP	1	0.013196	0.01691721	0.780	0.4355
NETEXPSQ	1	-0.019906	0.01518114	-1.311	0.1900
RFAMALL	1	-0.024006	0.16759092	-0.143	0.8861
RFAMALSQ	1	-3.595352	2.32836401	-1.544	0.1228
CB2NX	1	0.484831	0.16882032	2.872	0.0041

Table A-3 (continued)

Tobit Model for SHRDOMSV  
 Noncensored Values= 192 Right Censored Values= 0  
 Left Censored Values=1311 Interval Censored Values= 0

Log Likelihood for NORMAL -84.79710088

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.5694674	1.430626	0.158448	0.6906
SB	1	0.00213185	0.040127	0.002822	0.9576
TREND	1	0.00468313	0.055336	0.007162	0.9326
TRENDSQ	1	0.00251952	0.002359	1.140889	0.2855
P_FOOD	1	0.18443069	0.241045	0.585422	0.4442
P_ALCH	1	0.1223449	0.520871	0.055171	0.8143
P_TOBCO	1	0.19516131	0.205801	0.899277	0.3430
P_CLOTH	1	0.97488187	0.804452	1.468602	0.2256
P_TSPRT	1	0.07113343	0.351036	0.041062	0.8394
P_MISC	1	-0.8405345	0.483704	3.019611	0.0823
P_SVCS	1	-0.1387759	0.349698	0.157486	0.6915
P_FDOUT	1	-0.4501958	0.656834	0.469777	0.4931
DREG1	1	0.02534427	0.019478	1.693123	0.1932
DREG2	1	0.02151759	0.016252	1.752965	0.1855
DREG3	1	0.00192745	0.021338	0.00816	0.9280
DREG4	1	0.02790662	0.021962	1.614645	0.2038
DREG6	1	0.02453193	0.014153	3.004304	0.0830
DREG7	1	0.01062142	0.019176	0.306786	0.5797
DREG8	1	-0.0066018	0.023143	0.081374	0.7754
DREG9	1	0.02055724	0.015945	1.662093	0.1973
DREG10	1	0.04223965	0.014165	8.892084	0.0029
DREG11	1	0.01244486	0.015785	0.621549	0.4305
DREG12	1	-0.0174326	0.037098	0.220809	0.6384
DHHC0	1	0.04043121	0.019436	4.327403	0.0375
DHHC1	1	0.0278099	0.020611	1.820597	0.1772
DHHC2	1	0.04035509	0.013104	9.483934	0.0021
DHHC3	1	0.02486067	0.014523	2.930507	0.0869
DHHC4	1	0.06426443	0.020377	9.946096	0.0016
DHHC6	1	0.04546179	0.015816	8.262535	0.0040
DHHC7	1	0.02943739	0.0553	0.283364	0.5945
DHHC8	1	0.01339516	0.016242	0.680157	0.4095
DHHC9	1	0.07054834	0.025257	7.802302	0.0052
DHHC10	1	0.04822303	0.019154	6.338618	0.0118
DQTR2	1	-0.0286856	0.022908	1.567995	0.2105
DQTR3	1	-0.0037374	0.022369	0.027917	0.8673
DQTR4	1	-0.0120369	0.03063	0.154435	0.6943
HEADAGE	1	-0.0042479	0.00064	44.03606	0.0001
REALSB	1	-0.3839275	0.47687	0.648185	0.4208
REALSBSQ	1	1.18192618	1.354373	0.76156	0.3828
SB2NX	1	-0.1999908	0.347593	0.331039	0.5650
RNETEXP	1	0.17962915	0.098359	3.33525	0.0678
NETEXPSQ	1	-0.1058728	0.078672	1.811037	0.1784
RFAMALL	1	0.6754306	0.991135	0.464404	0.4956
RFAMALSQ	1	-24.984154	14.35764	3.028052	0.0818
CB2NX	1	1.06267367	0.924128	1.322317	0.2502
SCALE	1	0.08497089	0.004983	Normal scale parameter	

Table A-3 (continued)

OLS Model for SHRHAIRD

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	0.01305	0.00030	1.845	0.0007
Error	1458	0.23452	0.00016		
C Total	1502	0.24757			
Root MSE	0.01268	R-square	0.0527		
Dep Mean	0.00442	Adj R-sq	0.0241		
C.V.	287.14202				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.060941	0.12467537	-0.489	0.6251
SB	1	-0.000670	0.00295430	-0.227	0.8207
TREND	1	-0.007223	0.00478033	-1.511	0.1310
TRENDSQ	1	0.000434	0.00020045	2.165	0.0305
P_FOOD	1	0.028414	0.02026631	1.402	0.1611
P_ALCH	1	-0.025732	0.04613801	-0.558	0.5771
P_TOBCO	1	-0.003395	0.01764376	-0.192	0.8475
P_CLOTH	1	-0.004950	0.06700018	-0.074	0.9411
P_TSPTH	1	0.028136	0.03097692	0.908	0.3639
P_MISC	1	0.011231	0.04035561	0.278	0.7808
P_SVCS	1	-0.005182	0.02870109	-0.181	0.8567
P_FDOUT	1	-0.012248	0.05320905	-0.230	0.8180
DREG1	1	-0.000640	0.00165135	-0.388	0.6982
DREG2	1	0.001194	0.00138593	0.862	0.3889
DREG3	1	0.003105	0.00175330	1.771	0.0768
DREG4	1	0.003809	0.00199620	1.908	0.0566
DREG6	1	-0.000714	0.00121506	-0.588	0.5569
DREG7	1	0.002241	0.00161055	1.392	0.1642
DREG8	1	-0.002478	0.00170624	-1.452	0.1466
DREG9	1	-0.000272	0.00136636	-0.199	0.8424
DREG10	1	-0.000593	0.00126139	-0.470	0.6384
DREG11	1	0.000234	0.00136127	0.172	0.8637
DREG12	1	0.002362	0.00263356	0.897	0.3700
DHHC0	1	-0.000655	0.00165058	-0.397	0.6917
DHHC1	1	0.002252	0.00192618	1.169	0.2425
DHHC2	1	0.000906	0.00106883	0.848	0.3968
DHHC3	1	0.002594	0.00118446	2.190	0.0287
DHHC4	1	0.002784	0.00214410	1.298	0.1944
DHHC6	1	0.000963	0.00150481	0.640	0.5224
DHHC7	1	-0.001026	0.00490513	-0.209	0.8344
DHHC8	1	-0.000720	0.00127876	-0.563	0.5735
DHHC9	1	-0.001789	0.00260616	-0.687	0.4924
DHHC10	1	0.001072	0.00174721	0.614	0.5396
DQTR2	1	-0.000969	0.00201127	-0.482	0.6300
DQTR3	1	-0.000235	0.00197318	-0.119	0.9050
DQTR4	1	-0.002776	0.00266840	-1.040	0.2984
HEADAGE	1	0.000017833	0.00004539	0.393	0.6944
REALSB	1	-0.026269	0.03615976	-0.726	0.4677
REALSBSQ	1	0.162024	0.10595158	1.529	0.1264
SB2NX	1	0.026657	0.02929365	0.910	0.3630
RNETEXP	1	0.006120	0.00906651	0.675	0.4998
NETEXPSQ	1	-0.011253	0.00813609	-1.383	0.1669
RFAMALL	1	0.055313	0.08981769	0.616	0.5381
RFAMALSQ	1	-0.810338	1.24784969	-0.649	0.5162
CB2NX	1	0.098415	0.09047657	1.088	0.2769

Table A-3 (continued)

Tobit Model for SHRHAIRD  
 Noncensored Values= 332 Right Censored Values= 0  
 Left Censored Values=1171 Interval Censored Values= 0

Log Likelihood for NORMAL 217.08757326

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.1795493	0.487752	0.135509	0.7128
SB	1	-0.0078636	0.011536	0.464678	0.4954
TREND	1	-0.0248743	0.018764	1.757269	0.1850
TRENDSQ	1	0.001079	0.000794	1.84703	0.1741
P_FOOD	1	0.10097212	0.079821	1.600163	0.2059
P_ALCH	1	-0.0827535	0.180053	0.211237	0.6458
P_TOBCO	1	-0.028901	0.069052	0.175175	0.6756
P_CLOTH	1	-0.1335778	0.259232	0.265516	0.6064
P_TSPRT	1	0.07633356	0.120544	0.400996	0.5266
P_MISC	1	0.07077374	0.156719	0.20394	0.6516
P_SVCS	1	-0.0364805	0.111194	0.107637	0.7429
P_FDOUT	1	0.07080196	0.205551	0.118646	0.7305
DREG1	1	0.00438937	0.006747	0.423191	0.5153
DREG2	1	0.01505621	0.005563	7.324855	0.0068
DREG3	1	0.01430745	0.006745	4.498862	0.0339
DREG4	1	0.01703599	0.007454	5.222791	0.0223
DREG6	1	0.00483434	0.004933	0.960542	0.3271
DREG7	1	0.01570997	0.006206	6.408645	0.0114
DREG8	1	-0.0046754	0.007556	0.382848	0.5361
DREG9	1	0.00247105	0.005732	0.185849	0.6664
DREG10	1	0.00495044	0.005208	0.903616	0.3418
DREG11	1	0.00990831	0.005438	3.320475	0.0684
DREG12	1	0.01223535	0.009983	1.502141	0.2203
DHHC0	1	-0.0062774	0.006484	0.937311	0.3330
DHHC1	1	-0.0005034	0.009152	0.003025	0.9561
DHHC2	1	0.00151268	0.004264	0.125841	0.7228
DHHC3	1	0.00891005	0.004589	3.770471	0.0522
DHHC4	1	0.00815567	0.008549	0.910074	0.3401
DHHC6	1	0.00312581	0.005997	0.271674	0.6022
DHHC7	1	-0.2008077	358.9017	3.13E-7	0.9996
DHHC8	1	-0.0025594	0.004954	0.266946	0.6054
DHHC9	1	-0.0194227	0.014162	1.880832	0.1702
DHHC10	1	-0.0008499	0.007071	0.014445	0.9043
DQTR2	1	-0.0033347	0.007956	0.175683	0.6751
DQTR3	1	-0.0010807	0.007689	0.019754	0.8882
DQTR4	1	-0.0114382	0.010473	1.192864	0.2748
HEADAGE	1	0.00015489	0.000178	0.757063	0.3842
REALSB	1	0.02310977	0.138102	0.028002	0.8671
REALSBSQ	1	0.48174533	0.398501	1.461422	0.2267
SB2NX	1	0.02969308	0.106192	0.078186	0.7798
RNETEXP	1	0.09790302	0.033271	8.658679	0.0033
NETEXPSQ	1	-0.0844158	0.030103	7.863582	0.0050
RFAMALL	1	0.25043136	0.334435	0.560731	0.4540
RFAMALSQ	1	-0.3976241	4.492475	0.007834	0.9295
CB2NX	1	0.05882973	0.322332	0.033311	0.8552
SCALE	1	0.03614389	0.001632	Normal scale parameter	

Table A-3 (continued)

OLS Model for SHROTHB

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	0.0001542028	3.5046096E-6	1.602	0.0079
Error	1458	0.0031888393	2.187133E-6		
C Total	1502	0.00334			
Root MSE	0.00148	R-square	0.0461		
Dep Mean	0.00017	Adj R-sq	0.0173		
C.V.	879.51813				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.012975	0.01453816	-0.893	0.3723
SB	1	0.000446	0.00034450	1.295	0.1957
TREND	1	-0.000381	0.00055743	-0.683	0.4944
TRENDSQ	1	0.000032010	0.00002337	1.369	0.1711
P_FOOD	1	0.002328	0.00236322	0.985	0.3247
P_ALCH	1	0.001687	0.00538007	0.314	0.7539
P_TOBCO	1	-0.000395	0.00205741	-0.192	0.8478
P_CLOTH	1	0.006262	0.00781276	0.801	0.4230
P_TSPRT	1	-0.003781	0.00361216	-1.047	0.2954
P_MISC	1	0.002354	0.00470579	0.500	0.6169
P_SVCS	1	0.000714	0.00334678	0.213	0.8311
P_FDOUT	1	-0.006293	0.00620461	-1.014	0.3107
DREG1	1	-0.000031284	0.00019256	-0.162	0.8710
DREG2	1	0.000243	0.00016161	1.503	0.1331
DREG3	1	0.000031786	0.00020445	0.155	0.8765
DREG4	1	0.000581	0.00023277	2.495	0.0127
DREG6	1	0.000338	0.00014169	2.387	0.0171
DREG7	1	0.000146	0.00018780	0.777	0.4370
DREG8	1	0.000486	0.00019896	2.445	0.0146
DREG9	1	0.000196	0.00015933	1.232	0.2182
DREG10	1	0.000071835	0.00014709	0.488	0.6254
DREG11	1	-0.000003922	0.00015873	-0.025	0.9803
DREG12	1	-0.000046752	0.00030709	-0.152	0.8790
DHHC0	1	-0.000100	0.00019247	-0.520	0.6032
DHHC1	1	0.000106	0.00022461	0.473	0.6361
DHHC2	1	0.000122	0.00012463	0.983	0.3259
DHHC3	1	0.000338	0.00013812	2.450	0.0144
DHHC4	1	-0.000011064	0.00025002	-0.044	0.9647
DHHC6	1	0.000136	0.00017547	0.776	0.4378
DHHC7	1	-0.000094582	0.00057198	-0.165	0.8687
DHHC8	1	-0.000102	0.00014911	-0.682	0.4951
DHHC9	1	0.000275	0.00030390	0.905	0.3657
DHHC10	1	-0.000185	0.00020374	-0.907	0.3646
DQTR2	1	0.000138	0.00023453	0.590	0.5553
DQTR3	1	-0.000050463	0.00023009	-0.219	0.8264
DQTR4	1	0.000101	0.00031116	0.323	0.7467
HEADAGE	1	-0.000001703	0.00000529	-0.322	0.7476
REALSB	1	-0.007981	0.00421652	-1.893	0.0586
REALSBSQ	1	0.039727	0.01235481	3.216	0.0013
SB2NX	1	0.005536	0.00341588	1.621	0.1053
RNETEXP	1	0.000131	0.00105723	0.124	0.9014
NETEXPSQ	1	-0.000093242	0.00094873	-0.098	0.9217
RFAMALL	1	0.018716	0.01047347	1.787	0.0741
RFAMALSQ	1	-0.113387	0.14550937	-0.779	0.4360
CB2NX	1	-0.003248	0.01055030	-0.308	0.7582

Table A-3 (continued)

Tobit Model for SHROTHTB  
 Noncensored Values= 33 Right Censored Values= 0  
 Left Censored Values=1470 Interval Censored Values= 0

Log Likelihood for NORMAL 12.35447766

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.6548416	0.650666	1.012875	0.3142
SB	1	-0.0012575	0.01399	0.00808	0.9284
TREND	1	-0.0179855	0.023335	0.594054	0.4409
TRENDSQ	1	0.00116658	0.0009	1.681146	0.1948
P_FOOD	1	0.04316752	0.085931	0.252358	0.6154
P_ALCH	1	0.11371884	0.239331	0.225769	0.6347
P_TOBCO	1	-0.0119634	0.087688	0.018614	0.8915
P_CLOTH	1	0.26042674	0.295669	0.775819	0.3784
P_TSPRT	1	-0.1113388	0.169738	0.430262	0.5119
P_MISC	1	0.0243864	0.187996	0.016827	0.8968
P_SVCS	1	-0.0122551	0.12386	0.00979	0.9212
P_FDOUT	1	-0.171466	0.232362	0.544534	0.4606
DREG1	1	-0.095014	1205.209	6.215E-9	0.9999
DREG2	1	0.01082436	0.006196	3.051787	0.0806
DREG3	1	-0.0880036	1292.787	4.634E-9	0.9999
DREG4	1	0.01333191	0.00763	3.052759	0.0806
DREG6	1	0.0103232	0.005458	3.577461	0.0586
DREG7	1	0.00566392	0.007259	0.60887	0.4352
DREG8	1	0.0118972	0.006525	3.324535	0.0683
DREG9	1	0.00957328	0.005935	2.601414	0.1068
DREG10	1	-0.0002967	0.006566	0.002042	0.9640
DREG11	1	-0.0918631	900.926	1.04E-8	0.9999
DREG12	1	-0.092321	2136.971	1.866E-9	1.0000
DHHC0	1	0.00098666	0.005998	0.027061	0.8693
DHHC1	1	-0.0902725	1430.87	3.98E-9	0.9999
DHHC2	1	0.00165802	0.005617	0.087129	0.7679
DHHC3	1	0.01248893	0.005292	5.568915	0.0183
DHHC4	1	-0.0969231	1680.39	3.327E-9	1.0000
DHHC6	1	0.0057371	0.00632	0.823932	0.3640
DHHC7	1	-0.088141	4176.331	4.45E-10	1.0000
DHHC8	1	0.00052654	0.005146	0.010469	0.9185
DHHC9	1	0.01056379	0.008131	1.688017	0.1939
DHHC10	1	-0.0993526	1342.332	5.478E-9	0.9999
DQTR2	1	0.0075417	0.008999	0.702359	0.4020
DQTR3	1	-0.0092661	0.009675	0.917327	0.3382
DQTR4	1	0.00700905	0.011883	0.347916	0.5553
HEADAGE	1	-0.0002173	0.000227	0.916588	0.3384
REALSB	1	0.09984587	0.155884	0.410257	0.5218
REALSBSQ	1	0.21384547	0.371075	0.332105	0.5644
SB2NX	1	-0.1318755	0.139495	0.89374	0.3445
RNETEXP	1	0.10838021	0.059784	3.286435	0.0699
NETEXPSQ	1	-0.0951623	0.075907	1.571683	0.2100
RFAMALL	1	0.6876802	0.417004	2.719517	0.0991
RFAMALSQ	1	-1.7520434	4.598275	0.145178	0.7032
CB2NX	1	-0.5934028	0.416757	2.027375	0.1545
SCALE	1	0.01619438	0.002479	Normal	scale parameter

Table A-3 (continued)

OLS Model for SHRPETS

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	0.03525	0.00080	3.233	0.0001
Error	1458	0.36127	0.00025		
C Total	1502	0.39651			
Root MSE	0.01574	R-square	0.0889		
Dep Mean	0.00839	Adj R-sq	0.0614		
C.V.	187.68448				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.149327	0.15474141	-0.965	0.3347
SB	1	0.000079258	0.00366674	0.022	0.9828
TREND	1	-0.003174	0.00593313	-0.535	0.5927
TRENDSQ	1	0.000419	0.00024879	1.686	0.0921
P_FOOD	1	0.017302	0.02515362	0.688	0.4917
P_ALCH	1	0.051141	0.05726440	0.893	0.3720
P_TOBCO	1	-0.016466	0.02189863	-0.752	0.4522
P_CLOTH	1	0.093532	0.08315759	1.125	0.2609
P_TSPT	1	-0.041967	0.03844715	-1.092	0.2752
P_MISC	1	0.008900	0.05008755	0.178	0.8590
P_SVCS	1	-0.001103	0.03562249	-0.031	0.9753
P_FDOUT	1	-0.076355	0.06604066	-1.156	0.2478
DREG1	1	-0.001550	0.00204958	-0.756	0.4497
DREG2	1	-0.003721	0.00172016	-2.163	0.0307
DREG3	1	-0.002735	0.00217612	-1.257	0.2090
DREG4	1	-0.002166	0.00247759	-0.874	0.3821
DREG6	1	0.002896	0.00150808	1.920	0.0550
DREG7	1	-0.000232	0.00199894	-0.116	0.9077
DREG8	1	-0.002948	0.00211770	-1.392	0.1641
DREG9	1	-0.000693	0.00169586	-0.408	0.6830
DREG10	1	-0.001222	0.00156558	-0.781	0.4351
DREG11	1	-0.004632	0.00168954	-2.742	0.0062
DREG12	1	-0.007470	0.00326866	-2.285	0.0224
DHHC0	1	0.001138	0.00204863	0.555	0.5787
DHHC1	1	-0.007186	0.00239068	-3.006	0.0027
DHHC2	1	-0.001816	0.00132659	-1.369	0.1713
DHHC3	1	-0.000240	0.00147010	-0.163	0.8702
DHHC4	1	-0.006998	0.00266116	-2.630	0.0086
DHHC6	1	-0.004003	0.00186770	-2.143	0.0322
DHHC7	1	-0.008958	0.00608802	-1.471	0.1414
DHHC8	1	0.001136	0.00158713	0.716	0.4744
DHHC9	1	-0.001799	0.00323464	-0.556	0.5781
DHHC10	1	-0.005083	0.00216856	-2.344	0.0192
DQTR2	1	0.003431	0.00249630	1.375	0.1695
DQTR3	1	0.002369	0.00244902	0.967	0.3336
DQTR4	1	0.003512	0.00331190	1.060	0.2892
HEADAGE	1	0.000102	0.00005633	1.807	0.0709
REALSB	1	-0.029049	0.04487985	-0.647	0.5176
REALSBSQ	1	-0.049539	0.13150229	-0.377	0.7064
SB2NX	1	0.020472	0.03635795	0.563	0.5735
RNETEXP	1	-0.030679	0.01125294	-2.726	0.0065
NETEXPSQ	1	0.020143	0.01009815	1.995	0.0463
RFAMALL	1	-0.101922	0.11147764	-0.914	0.3607
RFAMALSQ	1	0.654773	1.54877436	0.423	0.6725
CB2NX	1	-0.018397	0.11229541	-0.164	0.8699

Table A-3 (continued)

Tobit Model for SHRPETS  
 Noncensored Values= 703 Right Censored Values= 0  
 Left Censored Values= 800 Interval Censored Values= 0

Log Likelihood for NORMAL 1073.4616948

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.1755023	0.298808	0.344971	0.5570
SB	1	0.00222587	0.006907	0.103852	0.7473
TREND	1	0.00056061	0.011519	0.002368	0.9612
TRENDSQ	1	0.00034491	0.000481	0.513161	0.4738
P_FOOD	1	0.00835976	0.049082	0.029009	0.8648
P_ALCH	1	0.10435501	0.110558	0.890941	0.3452
P_TOBCO	1	-0.0173196	0.042225	0.168245	0.6817
P_CLOTH	1	0.14285325	0.160401	0.793173	0.3731
P_TSPRT	1	-0.0867601	0.07415	1.369045	0.2420
P_MISC	1	-0.0046657	0.096187	0.002353	0.9613
P_SVCS	1	-0.0253616	0.069695	0.132419	0.7159
P_FDOUT	1	-0.0864626	0.127655	0.458757	0.4982
DREG1	1	0.00079962	0.003891	0.042226	0.8372
DREG2	1	-0.0051218	0.003373	2.306287	0.1289
DREG3	1	-0.0025233	0.004202	0.360579	0.5482
DREG4	1	-0.0006807	0.004684	0.021116	0.8845
DREG6	1	0.00659083	0.002855	5.32977	0.0210
DREG7	1	0.00317749	0.003757	0.715215	0.3977
DREG8	1	-0.0038525	0.00412	0.874168	0.3498
DREG9	1	0.00114077	0.003249	0.123301	0.7255
DREG10	1	-0.0013564	0.00303	0.200392	0.6544
DREG11	1	-0.0098355	0.003424	8.252489	0.0041
DREG12	1	-0.0169041	0.006917	5.972902	0.0145
DHHC0	1	0.00159309	0.003876	0.168895	0.6811
DHHC1	1	-0.0192634	0.005286	13.27962	0.0003
DHHC2	1	-0.0045885	0.002558	3.218058	0.0728
DHHC3	1	-0.001141	0.002765	0.170261	0.6799
DHHC4	1	-0.0163382	0.005659	8.336033	0.0039
DHHC6	1	-0.0084167	0.003729	5.093379	0.0240
DHHC7	1	-0.0261206	0.015127	2.981785	0.0842
DHHC8	1	0.00344325	0.002928	1.382661	0.2396
DHHC9	1	-0.0039822	0.006304	0.398996	0.5276
DHHC10	1	-0.0116647	0.00443	6.933185	0.0085
DQTR2	1	0.00542295	0.004804	1.274193	0.2590
DQTR3	1	0.00375101	0.004707	0.635118	0.4255
DQTR4	1	0.00552418	0.006371	0.751741	0.3859
HEADAGE	1	0.00024355	0.000109	5.018654	0.0251
REALSB	1	-0.0379564	0.084952	0.199627	0.6550
REALSBSQ	1	-0.0250045	0.248533	0.010122	0.9199
SB2NX	1	0.02982312	0.069783	0.182646	0.6691
RNETEXP	1	-0.0214091	0.021378	1.002922	0.3166
NETEXPSQ	1	0.01657945	0.019011	0.76052	0.3832
RFAMALL	1	-0.085301	0.21152	0.162631	0.6867
RFAMALSQ	1	1.17386602	2.898511	0.164016	0.6855
CB2NX	1	-0.0952212	0.206905	0.211799	0.6454
SCALE	1	0.02662014	0.000778	Normal scale parameter	

Table A-3 (continued)

OLS Model for SHRPKTMO

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	0.01713	0.00039	4.047	0.0001
Error	1458	0.14026	0.00010		
C Total	1502	0.15739			
Root MSE	0.00981	R-square	0.1088		
Dep Mean	0.00465	Adj R-sq	0.0820		
C.V.	211.11576				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.024340	0.09641821	0.252	0.8007
SB	1	0.004856	0.00228472	2.125	0.0337
TREND	1	-0.002638	0.00369689	-0.714	0.4756
TRENDSQ	1	0.000222	0.00015502	1.435	0.1516
P_FOOD	1	0.021588	0.01567303	1.377	0.1686
P_ALCH	1	-0.017346	0.03568102	-0.486	0.6269
P_TOBCO	1	-0.000630	0.01364487	-0.046	0.9632
P_CLOTH	1	-0.014133	0.05181487	-0.273	0.7851
P_TSPRT	1	0.017356	0.02395613	0.724	0.4689
P_MISC	1	0.008788	0.03120918	0.282	0.7783
P_SVCS	1	-0.011078	0.02219610	-0.499	0.6178
P_FDOUT	1	-0.008912	0.04114944	-0.217	0.8286
DREG1	1	0.000953	0.00127708	0.747	0.4554
DREG2	1	-0.000198	0.00107182	-0.185	0.8533
DREG3	1	0.001971	0.00135592	1.453	0.1463
DREG4	1	0.000711	0.00154377	0.460	0.6453
DREG6	1	-0.001096	0.00093967	-1.166	0.2437
DREG7	1	-0.000709	0.00124552	-0.569	0.5692
DREG8	1	0.001966	0.00131953	1.490	0.1366
DREG9	1	-0.000831	0.00105668	-0.786	0.4320
DREG10	1	-0.000515	0.00097550	-0.528	0.5979
DREG11	1	0.002079	0.00105274	1.975	0.0485
DREG12	1	-0.001685	0.00203667	-0.827	0.4081
DHHC0	1	-0.001769	0.00127649	-1.386	0.1660
DHHC1	1	-0.004699	0.00148962	-3.155	0.0016
DHHC2	1	-0.002310	0.00082659	-2.795	0.0053
DHHC3	1	-0.003348	0.00091601	-3.655	0.0003
DHHC4	1	-0.004894	0.00165815	-2.951	0.0032
DHHC6	1	-0.003131	0.00116375	-2.691	0.0072
DHHC7	1	-0.005555	0.00379340	-1.464	0.1433
DHHC8	1	0.001012	0.00098893	1.023	0.3063
DHHC9	1	-0.004896	0.00201548	-2.429	0.0152
DHHC10	1	-0.003988	0.00135121	-2.951	0.0032
DQTR2	1	0.001090	0.00155543	0.701	0.4834
DQTR3	1	0.002097	0.00152596	1.374	0.1697
DQTR4	1	-0.000051856	0.00206362	-0.025	0.9800
HEADAGE	1	0.000136	0.00003510	3.868	0.0001
REALSB	1	-0.046731	0.02796430	-1.671	0.0949
REALSBSQ	1	0.157676	0.08193809	1.924	0.0545
SB2NX	1	-0.005568	0.02265437	-0.246	0.8059
RNETEXP	1	-0.002773	0.00701162	-0.395	0.6926
NETEXPSQ	1	-0.002852	0.00629208	-0.453	0.6505
RFAMALL	1	0.172770	0.06946088	2.487	0.0130
RFAMALSQ	1	-0.550840	0.96502966	-0.571	0.5682
CB2NX	1	-0.058987	0.06997042	-0.843	0.3994

**Table A-3 (continued)**

**Tobit Model for**                    **SHRPKTMO**  
 Noncensored Values= 509    Right Censored Values= 0  
 Left Censored Values= 994    Interval Censored Values= 0

**Log Likelihood for NORMAL 809.72033311**

<b>Variable</b>	<b>DF</b>	<b>Estimate</b>	<b>Std Err</b>	<b>ChiSquare</b>	<b>Pr&gt;Chi</b>
INTERCPT	1	-0.1789788	0.253856	0.497082	0.4808
SB	1	0.00829782	0.005764	2.072159	0.1500
TREND	1	-0.0112052	0.003687	1.337888	0.2474
TRENDSQ	1	0.00057173	0.00041	1.946515	0.1630
P_FOOD	1	0.03002538	0.040844	0.540395	0.4623
P_ALCH	1	0.04145234	0.092089	0.202619	0.6526
P_TOBCO	1	-0.0039436	0.035244	0.01252	0.9109
P_CLOTH	1	0.0176304	0.132363	0.017742	0.8940
P_TSPRT	1	0.01106574	0.063176	0.03068	0.8610
P_MISC	1	-0.0174088	0.079767	0.047631	0.8272
P_SVCS	1	-0.0333531	0.057993	0.33077	0.5652
P_FDOUT	1	-0.0082884	0.105464	0.006176	0.9374
DREG1	1	0.00399663	0.003293	1.472796	0.2249
DREG2	1	0.00067144	0.002862	0.055037	0.8145
DREG3	1	0.00387309	0.003499	1.225298	0.2683
DREG4	1	0.00316327	0.003931	0.64755	0.4210
DREG6	1	-0.0015323	0.002482	0.380992	0.5371
DREG7	1	-0.0014603	0.00329	0.197015	0.6571
DREG8	1	0.00514213	0.003361	2.341139	0.1260
DREG9	1	-0.0019893	0.002857	0.484652	0.4863
DREG10	1	-0.0005025	0.002579	0.037967	0.8455
DREG11	1	0.00479653	0.002738	3.068895	0.0798
DREG12	1	-0.0033928	0.005287	0.411866	0.5210
DHHC0	1	-0.005682	0.003152	3.249005	0.0715
DHHC1	1	-0.0325346	0.008307	15.33911	0.0001
DHHC2	1	-0.0060367	0.002121	8.099645	0.0044
DHHC3	1	-0.0109174	0.002409	20.53532	0.0001
DHHC4	1	-0.0276146	0.007288	14.35699	0.0002
DHHC6	1	-0.0090426	0.003122	8.389142	0.0038
DHHC7	1	-0.1224425	100.8872	1.473E-6	0.9990
DHHC8	1	0.00069755	0.00233	0.089606	0.7647
DHHC9	1	-0.0297649	0.009689	9.43641	0.0021
DHHC10	1	-0.009634	0.003516	7.507683	0.0061
DQTR2	1	0.00139562	0.004028	0.120023	0.7290
DQTR3	1	0.00031756	0.003949	0.006466	0.9359
DQTR4	1	-0.0034064	0.005325	0.409179	0.5224
HEADAGE	1	0.00038471	0.000092	17.67736	0.0001
REALSB	1	-0.0546318	0.070446	0.601419	0.4380
REALSBSQ	1	0.31212286	0.201448	2.400624	0.1213
SB2NX	1	-0.0226597	0.060652	0.13958	0.7087
RNETEXP	1	0.02361199	0.020381	1.342233	0.2466
NETEXPSQ	1	-0.0428212	0.023185	3.411028	0.0648
RFAMALL	1	0.55740162	0.180363	9.550863	0.0020
RFAMALSQ	1	-3.8186063	2.370689	2.594541	0.1072
CB2NX	1	-0.1116118	0.184433	0.366219	0.5451
SCALE	1	0.02047839	0.00072	Normal scale parameter	

Table A-3 (continued)

OLS Model for SHRTOYS

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	0.05170	0.00118	3.621	0.0001
Error	1458	0.47318	0.00032		
C Total	1502	0.52488			

Root MSE	0.01802	R-square	0.0985
Dep Mean	0.00477	Adj R-sq	0.0713
C.V.	377.48225		

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.012526	0.17709498	-0.071	0.9436
SB	1	-0.004524	0.00419643	-1.078	0.2812
TREND	1	-0.004344	0.00679022	-0.640	0.5224
TRENDSQ	1	0.000452	0.00028473	1.587	0.1127
P_FOOD	1	0.053916	0.02878725	1.873	0.0613
P_ALCH	1	0.011961	0.06553668	0.183	0.8552
P_TOBCO	1	-0.003372	0.02506206	-0.135	0.8930
P_CLOTH	1	0.024758	0.09517033	0.260	0.7948
P_TSPRT	1	0.028093	0.04400113	0.638	0.5233
P_MISC	1	-0.044357	0.05732308	-0.774	0.4392
P_SVCS	1	-0.045633	0.04076842	-1.119	0.2632
P_FDOUT	1	-0.019309	0.07558073	-0.255	0.7984
DREG1	1	-0.001973	0.00234566	-0.841	0.4003
DREG2	1	-0.002078	0.00196865	-1.055	0.2914
DREG3	1	-0.000020412	0.00249047	-0.008	0.9935
DREG4	1	0.002974	0.00283550	1.049	0.2944
DREG6	1	-0.002034	0.00172593	-1.179	0.2388
DREG7	1	-0.001845	0.00228770	-0.807	0.4201
DREG8	1	0.002857	0.00242362	1.179	0.2387
DREG9	1	-0.002393	0.00194084	-1.233	0.2177
DREG10	1	-0.001803	0.00179174	-1.007	0.3143
DREG11	1	-0.003926	0.00193361	-2.030	0.0425
DREG12	1	-0.000344	0.00374084	-0.092	0.9267
DHHC0	1	-0.003300	0.00234457	-1.407	0.1595
DHHC1	1	-0.000158	0.00273604	-0.058	0.9538
DHHC2	1	0.000629	0.00151822	0.414	0.6788
DHHC3	1	-0.002732	0.00168247	-1.624	0.1046
DHHC4	1	-0.000403	0.00304558	-0.132	0.8947
DHHC6	1	0.002499	0.00213750	1.169	0.2426
DHHC7	1	0.000391	0.00695748	0.056	0.9553
DHHC8	1	-0.001950	0.00181641	-1.074	0.2832
DHHC9	1	-0.000155	0.00370191	-0.042	0.9666
DHHC10	1	0.000088658	0.00248182	0.036	0.9715
DQTR2	1	-0.001173	0.00285691	-0.411	0.6813
DQTR3	1	0.000103	0.00280280	0.037	0.9707
DQTR4	1	0.008344	0.00379033	2.201	0.0279
HEADAGE	1	-0.000209	0.00006447	-3.245	0.0012
REALSB	1	0.111367	0.05136308	2.168	0.0303
REALSBSQ	1	-0.276995	0.15049879	-1.841	0.0659
SB2NX	1	0.017924	0.04161013	0.431	0.6667
RNETEXP	1	0.031284	0.01287851	2.429	0.0153
NETEXPSQ	1	-0.026009	0.01155690	-2.251	0.0246
RFAMALL	1	0.079137	0.12758142	0.620	0.5352
RFAMALSQ	1	-1.375569	1.77250651	-0.776	0.4378
CB2NX	1	-0.157911	0.12851733	-1.229	0.2194

Table A-3 (continued)

Tobit Model for SHRTOYS  
 Noncensored Values= 343 Right Censored Values= 0  
 Left Censored Values=1160 Interval Censored Values= 0

Log Likelihood for NORMAL 190.70993598

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.387348	0.615689	0.395804	0.5293
SB	1	-0.0179334	0.015568	1.327009	0.2493
TREND	1	0.00761716	0.02294	0.110257	0.7399
TRENDSQ	1	0.0008175	0.000933	0.768168	0.3808
P_FOOD	1	-0.0015599	0.094652	0.000272	0.9869
P_ALCH	1	0.22123371	0.239043	0.856548	0.3547
P_TOBCO	1	-0.0572253	0.086715	0.435499	0.5093
P_CLOTH	1	0.46988216	0.342275	1.884636	0.1698
P_TSPRT	1	-0.0526046	0.157399	0.111697	0.7382
P_MISC	1	-0.2511428	0.199354	1.587056	0.2077
P_SVCS	1	0.12020334	0.1374	0.765348	0.3817
P_FDOUT	1	-0.3763347	0.268995	1.957309	0.1618
DREG1	1	-0.0062642	0.008376	0.55927	0.4546
DREG2	1	-0.0001715	0.0068	0.000636	0.9799
DREG3	1	0.00476926	0.008547	0.311364	0.5768
DREG4	1	0.00910561	0.009513	0.91625	0.3385
DREG6	1	0.00015866	0.005892	0.000725	0.9785
DREG7	1	0.00062956	0.007778	0.006551	0.9355
DREG8	1	0.01197768	0.007972	2.257185	0.1330
DREG9	1	0.0031192	0.006554	0.226478	0.6341
DREG10	1	-0.000377	0.006199	0.003699	0.9515
DREG11	1	-0.0074956	0.006709	1.248378	0.2639
DREG12	1	0.00292514	0.012955	0.050982	0.8214
DHHC0	1	-0.0048177	0.008117	0.352292	0.5528
DHHC1	1	0.0073962	0.008808	0.705072	0.4011
DHHC2	1	0.00761344	0.005172	2.166529	0.1410
DHHC3	1	-0.0120203	0.006147	3.823944	0.0505
DHHC4	1	0.00679826	0.010035	0.458916	0.4981
DHHC6	1	0.02015356	0.006689	9.07781	0.0026
DHHC7	1	0.01403885	0.021048	0.444888	0.5048
DHHC8	1	-0.002934	0.0064	0.210193	0.6466
DHHC9	1	0.00713098	0.011686	0.372359	0.5417
DHHC10	1	0.01167337	0.008139	2.057036	0.1515
DQTR2	1	0.00632668	0.009953	0.404054	0.5250
DQTR3	1	0.0083095	0.010022	0.687498	0.4070
DQTR4	1	0.04348465	0.01344	10.46759	0.0012
HEADAGE	1	-0.0009366	0.000234	16.01745	0.0001
REALSB	1	0.37857174	0.189332	3.998065	0.0456
REALSBSQ	1	-0.9265021	0.552095	2.816206	0.0933
SB2NX	1	0.08681577	0.139617	0.386651	0.5341
RNETEXP	1	0.13473103	0.042754	9.930689	0.0016
NETEXPSQ	1	-0.0932139	0.035465	6.908158	0.0086
RFAMALL	1	0.22552485	0.435969	0.267595	0.6049
RFAMALSQ	1	-3.1335675	6.102275	0.263691	0.6076
CB2NX	1	-0.4664209	0.420553	1.230027	0.2674
SCALE	1	0.0444605	0.001874		Normal scale parameter

Table A-3 (continued)

OLS Model for SHREDUC

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	44	0.25308	0.00575	3.819	0.0001
Error	1458	2.19581	0.00151		
C Total	1502	2.44889			
Root MSE	0.03881	R-square	0.1033		
Dep Mean	0.00807	Adj R-sq	0.0763		
C.V.	480.81357				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.073608	0.38149661	0.193	0.8470
SB	1	-0.000726	0.00903992	-0.080	0.9360
TREND	1	-0.008537	0.01462743	-0.584	0.5596
TRENDSQ	1	0.000370	0.00061337	0.603	0.5465
P_FOOD	1	0.131635	0.06201327	2.123	0.0339
P_ALCH	1	-0.169826	0.14117860	-1.203	0.2292
P_TOBCO	1	0.021382	0.05398849	0.396	0.6921
P_CLOTH	1	-0.174388	0.20501517	-0.851	0.3951
P_TSPRT	1	-0.046431	0.09478688	-0.490	0.6243
P_MISC	1	0.358112	0.12348493	2.900	0.0038
P_SVCS	1	-0.053443	0.08782302	-0.609	0.5429
P_FDOUT	1	-0.084514	0.16281542	-0.519	0.6038
DREG1	1	-0.003247	0.00505301	-0.643	0.5206
DREG2	1	0.000853	0.00424085	0.201	0.8407
DREG3	1	0.003333	0.00536495	0.621	0.5345
DREG4	1	-0.003937	0.00610821	-0.644	0.5194
DREG6	1	0.009405	0.00371799	2.530	0.0115
DREG7	1	0.009052	0.00492815	1.837	0.0665
DREG8	1	-0.001329	0.00522095	-0.255	0.7991
DREG9	1	-0.002098	0.00418094	-0.502	0.6159
DREG10	1	-0.001118	0.00385975	-0.290	0.7722
DREG11	1	-0.002366	0.00416536	-0.568	0.5701
DREG12	1	0.000134	0.00805848	0.017	0.9867
DHHC0	1	-0.005704	0.00505065	-1.129	0.2589
DHHC1	1	-0.000788	0.00589395	-0.134	0.8936
DHHC2	1	-0.000537	0.00327054	-0.164	0.8697
DHHC3	1	0.000071830	0.00362436	0.020	0.9842
DHHC4	1	-0.003127	0.00656077	-0.477	0.6337
DHHC6	1	0.002912	0.00460459	0.632	0.5273
DHHC7	1	-0.003905	0.01500929	-0.260	0.7948
DHHC8	1	-0.002651	0.00391289	-0.678	0.4982
DHHC9	1	-0.006919	0.00797463	-0.868	0.3857
DHHC10	1	-0.004195	0.00534633	-0.785	0.4328
DQTR2	1	-0.001470	0.00615434	-0.239	0.8112
DQTR3	1	0.004512	0.00603776	0.747	0.4550
DQTR4	1	-0.002861	0.00816510	-0.350	0.7261
HEADAGE	1	0.000078986	0.00013887	0.569	0.5696
REALSB	1	0.218928	0.11064595	1.979	0.0480
REALSBSQ	1	-0.510310	0.32420332	-1.574	0.1157
SB2NX	1	-0.326781	0.08963622	-3.646	0.0003
RNETEXP	1	0.142396	0.02774279	5.133	0.0001
NETEXPSQ	1	-0.033225	0.02489578	-1.335	0.1822
RFAMALL	1	0.692472	0.27483491	2.520	0.0119
RFAMALSQ	1	-6.722042	3.81831966	-1.760	0.0785
CB2NX	1	-0.849098	0.27685102	-3.067	0.0022

Table A-3 (continued)

Tobit Model for SHREDUC  
 Noncensored Values= 306 Right Censored Values= 0  
 Left Censored Values=1197 Interval Censored Values= 0

Log Likelihood for NORMAL -43.17317032

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.80782418	1.460968	0.30574	0.5803
SB	1	-0.0651867	0.039242	2.759382	0.0967
TREND	1	-0.0554975	0.054417	1.040108	0.3078
TRENDSQ	1	0.00411121	0.002327	3.122352	0.0772
P_FOOD	1	1.00919844	0.238848	17.85291	0.0001
P_ALCH	1	-1.5800239	0.57628	7.517261	0.0061
P_TOBCO	1	0.1259373	0.218471	0.332292	0.5643
P_CLOTH	1	-1.0999905	0.799062	1.895033	0.1686
P_TSPRT	1	-1.0730967	0.352566	9.263962	0.0023
P_MISC	1	2.99477887	0.525288	32.50381	0.0001
P_SVCS	1	-0.0615293	0.318273	0.037373	0.8467
P_FDOUT	1	-0.504421	0.623749	0.653982	0.4187
DREG1	1	-0.0531762	0.022001	5.841971	0.0156
DREG2	1	-0.0105442	0.016201	0.423566	0.5152
DREG3	1	0.00453515	0.019278	0.055345	0.8140
DREG4	1	-0.031279	0.025628	1.489671	0.2223
DREG6	1	0.03072499	0.012427	6.113129	0.0134
DREG7	1	0.02769871	0.016287	2.892206	0.0890
DREG8	1	-0.0167169	0.019514	0.733868	0.3916
DREG9	1	-0.0102354	0.015105	0.459143	0.4980
DREG10	1	-0.0090322	0.014116	0.409421	0.5223
DREG11	1	-0.0372579	0.016518	5.087516	0.0241
DREG12	1	-0.0250653	0.030992	0.654093	0.4187
DHHC0	1	-0.0137561	0.018601	0.546933	0.4596
DHHC1	1	-0.0646199	0.033485	3.724282	0.0536
DHHC2	1	-0.0001337	0.011933	0.000125	0.9911
DHHC3	1	0.00144562	0.012435	0.013516	0.9074
DHHC4	1	-0.0678282	0.034663	3.828965	0.0504
DHHC6	1	0.0064072	0.016825	0.145013	0.7033
DHHC7	1	-0.5601029	1788.183	9.811E-8	0.9998
DHHC8	1	-0.0011672	0.013887	0.007065	0.9330
DHHC9	1	-0.0820646	0.045507	3.252078	0.0713
DHHC10	1	-0.0106845	0.020676	0.267032	0.6053
DQTR2	1	0.02462399	0.022188	1.231609	0.2671
DQTR3	1	0.04869178	0.022155	4.83038	0.0280
DQTR4	1	0.00067054	0.029912	0.000503	0.9821
HEADAGE	1	0.00005896	0.000507	0.013511	0.9075
REALSB	1	0.90850985	0.463401	3.843665	0.0499
REALSBSQ	1	-1.844779	1.318314	1.958172	0.1617
SB2NX	1	-0.8065053	0.338062	5.691424	0.0170
RNETEXP	1	0.46159606	0.089467	26.61938	0.0001
NETEXPSQ	1	-0.2151094	0.074375	8.364924	0.0038
RFAMALL	1	1.37071727	0.951186	2.076657	0.1496
RFAMALSQ	1	-15.121206	13.54981	1.245392	0.2644
CB2NX	1	-1.7536284	0.892876	3.857386	0.0495
SCALE	1	0.09540392	0.004139	Normal scale parameter	

**Table A-4: Model 3 Results for 11 good budget**

OLS Model for SHRALCH

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	0.09019	0.00192	3.334	0.0001
Error	1455	0.83740	0.00058		
C Total	1502	0.92759			
Root MSE	0.02399	R-square	0.0972		
Dep Mean	0.01259	Adj R-sq	0.0681		
C.V.	190.49063				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.459166	0.29088889	-1.578	0.1147
SB	1	-0.002505	0.00577095	-0.434	0.6643
TREND	1	-0.012314	0.01182979	-1.041	0.2981
TRENDSQ	1	0.000732	0.00046861	1.563	0.1183
P_FOOD	1	0.028459	0.04140640	0.687	0.4920
P_ALCH	1	0.027039	0.08958170	0.302	0.7628
P_TOBCO	1	-0.011534	0.03666333	-0.315	0.7531
P_CLOTH	1	0.213356	0.14659440	1.455	0.1458
P_TSPRT	1	0.084523	0.06893741	1.226	0.2204
P_MISC	1	0.014906	0.08532879	0.175	0.8614
P_SVCS	1	0.021643	0.05799797	0.373	0.7091
P_FDOUT	1	-0.181654	0.11665723	-1.557	0.1197
P_HOUS	1	0.043322	0.02273447	1.906	0.0569
P_FUEL	1	-0.042980	0.03609972	-1.191	0.2340
P_DURBL	1	-0.090709	0.08133664	-1.115	0.2649
DREG1	1	-0.003521	0.00312513	-1.127	0.2600
DREG2	1	0.001214	0.00264195	0.459	0.6460
DREG3	1	-0.003744	0.00332488	-1.126	0.2604
DREG4	1	0.002649	0.00377732	0.701	0.4833
DREG6	1	-0.003981	0.00230178	-1.729	0.0839
DREG7	1	0.002920	0.00304773	0.958	0.3381
DREG8	1	0.003293	0.00323301	1.018	0.3086
DREG9	1	-0.004466	0.00258851	-1.725	0.0847
DREG10	1	-0.002964	0.00239827	-1.236	0.2167
DREG11	1	-0.000195	0.00259088	-0.075	0.9399
DREG12	1	0.001505	0.00499456	0.301	0.7632
DHHC0	1	-0.001555	0.00316322	-0.492	0.6231
DHHC1	1	0.000282	0.00364082	0.078	0.9382
DHHC2	1	-0.000430	0.00201704	-0.213	0.8313
DHHC3	1	0.008382	0.00223821	3.745	0.0002
DHHC4	1	-0.006147	0.00405609	-1.516	0.1298
DHHC6	1	-0.000263	0.00284926	-0.092	0.9264
DHHC7	1	-0.006027	0.00928104	-0.649	0.5162
DHHC8	1	0.000083352	0.00242101	0.034	0.9725
DHHC9	1	-0.005271	0.00493397	-1.068	0.2856
DHHC10	1	0.000720	0.00331567	0.217	0.8281
DQTR2	1	-0.000276	0.00426649	-0.065	0.9484
DQTR3	1	0.003528	0.00473610	0.745	0.4564
DQTR4	1	0.003198	0.00600421	0.533	0.5944
HEADAGE	1	-0.000279	0.00008587	-3.252	0.0012
REALSB	1	-0.050355	0.07228628	-0.697	0.4862
REALSBSQ	1	0.101158	0.22204939	0.456	0.6488
SB2NX	1	0.052999	0.04361799	1.215	0.2245
RNETEXP	1	0.027208	0.01236077	2.201	0.0279
NETEXPSQ	1	-0.019230	0.00756568	-2.542	0.0111
RFAMALL	1	-0.246350	0.17989984	-1.369	0.1711
RFAMALSQ	1	-0.212415	2.51161940	-0.085	0.9326
CB2NX	1	0.192052	0.13936207	1.378	0.1684

Table A-4 (continued)

Tobit Model for SHRALCH  
 Noncensored Values= 671 Right Censored Values= 0  
 Left Censored Values= 832 Interval Censored Values= 0

Log Likelihood for NORMAL 737.25360575

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-1.2712511	0.594	4.580264	0.0323
SB	1	-0.005832	0.011592	0.253098	0.6149
TREND	1	-0.0219724	0.024149	0.827878	0.3629
TRENDSQ	1	0.00195374	0.000945	4.276143	0.0387
P_FOOD	1	0.10289714	0.081456	1.595731	0.2065
P_ALCH	1	0.14982116	0.184108	0.662215	0.4158
P_TOBCO	1	-0.0683842	0.074324	0.846545	0.3575
P_CLOTH	1	0.63519315	0.303173	4.389665	0.0362
P_TSPRT	1	0.04811197	0.14022	0.11773	0.7315
P_MISC	1	-0.1563365	0.174612	0.801632	0.3706
P_SVCS	1	-0.002738	0.116058	0.000557	0.9812
P_FDOUT	1	-0.5495915	0.243238	5.10527	0.0239
P_HOUS	1	0.11892189	0.046254	6.610309	0.0101
P_FUEL	1	-0.0088904	0.07274	0.014938	0.9027
P_DURBL	1	0.00931312	0.162804	0.003272	0.9544
DREG1	1	0.00199092	0.006178	0.103864	0.7472
DREG2	1	0.00574508	0.005288	1.180413	0.2773
DREG3	1	-0.0028528	0.006652	0.183934	0.6680
DREG4	1	0.00720193	0.00728	0.978791	0.3225
DREG6	1	-0.0037264	0.004592	0.658464	0.4171
DREG7	1	0.00842586	0.005992	1.977572	0.1596
DREG8	1	0.00701375	0.00644	1.186048	0.2761
DREG9	1	-0.0040553	0.005238	0.599479	0.4388
DREG10	1	-0.002713	0.004847	0.313247	0.5757
DREG11	1	0.00224402	0.005144	0.190329	0.6626
DREG12	1	0.00381818	0.010011	0.145458	0.7029
DHHC0	1	-0.0024454	0.006534	0.140066	0.7082
DHHC1	1	0.00142743	0.007287	0.038371	0.8447
DHHC2	1	-0.0017101	0.004018	0.181142	0.6704
DHHC3	1	0.01407063	0.004361	10.40917	0.0013
DHHC4	1	-0.0153143	0.008722	3.082821	0.0791
DHHC6	1	-0.0033401	0.005863	0.324553	0.5689
DHHC7	1	-0.0288711	0.025257	1.306671	0.2530
DHHC8	1	0.00301885	0.004786	0.397797	0.5282
DHHC9	1	-0.016324	0.011051	2.181972	0.1396
DHHC10	1	-0.0024466	0.007001	0.122117	0.7268
DQTR2	1	0.00539367	0.008622	0.391329	0.5316
DQTR3	1	0.01573855	0.009623	2.674642	0.1020
DQTR4	1	0.01644661	0.012314	1.783757	0.1817
HEADAGE	1	-0.0006671	0.000174	14.71945	0.0001
REALSB	1	-0.0899656	0.147244	0.373319	0.5412
REALSBSQ	1	0.1961237	0.454398	0.186289	0.6660
SB2NX	1	0.13677265	0.08486	2.597749	0.1070
RNETEXP	1	0.09582408	0.023292	16.92518	0.0001
NETEXPSQ	1	-0.0527551	0.01379	14.63628	0.0001
RFAMALL	1	-0.3871323	0.352006	1.209532	0.2714
RFAMALSQ	1	-1.5165526	5.018805	0.091309	0.7625
CB2NX	1	0.18609411	0.261749	0.505471	0.4771
SCALE	1	0.04114817	0.001225		Normal scale parameter

Table A-4 (continued)

OLS Model for SHRCLOTH

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	2.01491	0.04287	7.215	0.0001
Error	1455	8.64574	0.00594		
C Total	1502	10.66065			
Root MSE	0.07708	R-square	0.1890		
Dep Mean	0.08304	Adj R-sq	0.1628		
C.V.	92.82816				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-1.881798	0.93467577	-2.013	0.0443
SB	1	-0.007695	0.01854304	-0.415	0.6782
TREND	1	-0.043112	0.03801114	-1.134	0.2569
TRENDSQ	1	0.001922	0.00150572	1.276	0.2020
P_FOOD	1	-0.046163	0.13304583	-0.347	0.7287
P_ALCH	1	0.315450	0.28784134	1.096	0.2733
P_TOBCO	1	0.076476	0.11780555	0.649	0.5163
P_CLOTH	1	0.826412	0.47103289	1.754	0.0796
P_TSPRT	1	-0.150589	0.22150769	-0.680	0.4967
P_MISC	1	-0.300302	0.27417598	-1.095	0.2736
P_SVCS	1	0.177032	0.18635740	0.950	0.3423
P_FDOUT	1	-0.115605	0.37483964	-0.308	0.7578
P_HOUS	1	-0.024516	0.07304973	-0.336	0.7372
P_FUEL	1	-0.133917	0.11599459	-1.155	0.2485
P_DURBL	1	-0.206637	0.26134854	-0.791	0.4293
DREG1	1	0.024529	0.01004157	2.443	0.0147
DREG2	1	0.022228	0.00848903	2.618	0.0089
DREG3	1	0.021026	0.01068340	1.968	0.0492
DREG4	1	0.001659	0.01213717	0.137	0.8913
DREG6	1	-0.003777	0.00739602	-0.511	0.6097
DREG7	1	0.001584	0.00979289	0.162	0.8716
DREG8	1	0.007291	0.01038822	0.702	0.4829
DREG9	1	0.004637	0.00831731	0.557	0.5773
DREG10	1	0.012878	0.00770604	1.671	0.0949
DREG11	1	0.024005	0.00832495	2.884	0.0040
DREG12	1	0.016379	0.01604836	1.021	0.3076
DHHC0	1	-0.019026	0.01016398	-1.872	0.0614
DHHC1	1	0.045347	0.01169859	3.876	0.0001
DHHC2	1	0.019163	0.00648110	2.957	0.0032
DHHC3	1	0.017267	0.00719175	2.401	0.0165
DHHC4	1	0.011172	0.01303292	0.857	0.3915
DHHC6	1	0.007395	0.00915516	0.808	0.4194
DHHC7	1	-0.001301	0.02982157	-0.044	0.9652
DHHC8	1	-0.011893	0.00777913	-1.529	0.1265
DHHC9	1	-0.008494	0.01585368	-0.536	0.5922
DHHC10	1	-0.011817	0.01065380	-1.109	0.2676
DQTR2	1	0.012841	0.01370895	0.937	0.3491
DQTR3	1	0.000733	0.01521790	0.048	0.9616
DQTR4	1	0.009099	0.01929255	0.472	0.6373
HEADAGE	1	-0.000576	0.00027591	-2.086	0.0371
REALSB	1	0.373749	0.23226818	1.609	0.1078
REALSBSQ	1	0.151106	0.71348266	0.212	0.8323
SB2NX	1	0.249371	0.14015206	1.779	0.0754
RNETEXP	1	0.356428	0.03971728	8.974	0.0001
NETEXPSQ	1	-0.188270	0.02430983	-7.745	0.0001
RFAMALL	1	0.894210	0.57804895	1.547	0.1221
RFAMALSQ	1	3.866813	8.07026275	0.479	0.6319
CB2NX	1	-0.150189	0.44779417	-0.335	0.7374

Table A-4 (continued)

Tobit Model for SHRCLOTH

Noncensored Values= 1289 Right Censored Values= 0  
 Left Censored Values= 214 Interval Censored Values= 0

Log Likelihood for NORMAL 1160.173827

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-2.4186206	1.050416	5.301672	0.0213
SB	1	-0.0110067	0.02097	0.275491	0.5997
TREND	1	-0.058024	0.042744	1.842781	0.1746
TRENDSQ	1	0.0027887	0.00169	2.723075	0.0989
P_FOOD	1	-0.0490512	0.149128	0.108188	0.7422
P_ALCH	1	0.34203055	0.323984	1.114508	0.2911
P_TOBCO	1	0.09040277	0.132101	0.46833	0.4938
P_CLOTH	1	1.09196173	0.528368	4.271126	0.0388
P_TSPRT	1	-0.1808909	0.249082	0.527409	0.4677
P_MISC	1	-0.4605751	0.307763	2.239588	0.1345
P_SVCS	1	0.1673159	0.209374	0.638601	0.4242
P_FDOUT	1	-0.1680662	0.421234	0.159189	0.6899
P_HOUS	1	-0.0067618	0.08219	0.006768	0.9344
P_FUEL	1	-0.0778905	0.129837	0.359893	0.5486
P_DURBL	1	-0.2153337	0.292872	0.540592	0.4622
DREG1	1	0.03061613	0.011237	7.423764	0.0064
DREG2	1	0.0295096	0.009536	9.577129	0.0020
DREG3	1	0.02709407	0.011987	5.108526	0.0238
DREG4	1	0.00493849	0.013656	0.130776	0.7176
DREG6	1	-0.0008447	0.008317	0.010315	0.9191
DREG7	1	0.00677062	0.010993	0.379326	0.5380
DREG8	1	0.00916966	0.011745	0.609571	0.4349
DREG9	1	0.00957399	0.009348	1.048932	0.3058
DREG10	1	0.01911604	0.008657	4.875818	0.0272
DREG11	1	0.02911521	0.009341	9.714598	0.0018
DREG12	1	0.02020724	0.01808	1.249152	0.2637
DHHC0	1	-0.0220228	0.011429	3.713242	0.0540
DHHC1	1	0.05221943	0.013082	15.93347	0.0001
DHHC2	1	0.02367044	0.007271	10.59684	0.0011
DHHC3	1	0.02107073	0.008083	6.795768	0.0091
DHHC4	1	0.01554696	0.01459	1.135549	0.2866
DHHC6	1	0.01371962	0.010197	1.810248	0.1785
DHHC7	1	0.01165799	0.032847	0.125967	0.7227
DHHC8	1	-0.013247	0.008731	2.30209	0.1292
DHHC9	1	-0.0161294	0.018145	0.790148	0.3741
DHHC10	1	-0.0150508	0.012095	1.548381	0.2134
DQTR2	1	0.01272579	0.015362	0.686255	0.4074
DQTR3	1	-0.0016197	0.017071	0.009002	0.9244
DQTR4	1	0.00918959	0.02165	0.180173	0.6712
HEADAGE	1	-0.0008188	0.000312	6.883632	0.0087
REALSB	1	0.49503549	0.26185	3.574106	0.0587
REALSBSQ	1	0.0437272	0.801151	0.002979	0.9565
SB2NX	1	0.27237384	0.157087	3.006412	0.0829
RNETEXP	1	0.43157139	0.044601	93.62851	0.0001
NETEXPSQ	1	-0.2241628	0.027068	68.58306	0.0001
RFAMALL	1	1.2451096	0.648029	3.691696	0.0547
RFAMALSQ	1	4.06167436	8.984246	0.204384	0.6512
CB2NX	1	-0.4212149	0.498587	0.713715	0.3982
SCALE	1	0.0848009	0.001709		Normal scale parameter

Table A-4 (continued)

## OLS Model for SHRDURBL

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	1.66745	0.03548	5.521	0.0001
Error	1455	9.34918	0.00643		
C Total	1502	11.01663			
Root MSE	0.08016	R-square	0.1514		
Dep Mean	0.05115	Adj R-sq	0.1239		
C.V.	156.72927				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	2.598744	0.97195601	2.674	0.0076
SB	1	-0.012030	0.01928264	-0.624	0.5328
TREND	1	0.022556	0.03952725	0.571	0.5683
TRENDSQ	1	-0.002044	0.00156578	-1.305	0.1920
P_FOOD	1	0.172780	0.13835247	1.249	0.2119
P_ALCH	1	-0.868362	0.29932210	-2.901	0.0038
P_TOBCO	1	0.246084	0.12250431	2.009	0.0447
P_CLOTH	1	-1.436555	0.48982038	-2.933	0.0034
P_TSPRT	1	0.072751	0.23034269	0.316	0.7522
P_MISC	1	0.543507	0.28511170	1.906	0.0568
P_SVCS	1	-0.308374	0.19379040	-1.591	0.1118
P_FDOUT	1	1.112125	0.38979040	2.853	0.0044
P_HOUS	1	-0.115784	0.07596337	-1.524	0.1277
P_FUEL	1	-0.096151	0.12062112	-0.797	0.4255
P_DURBL	1	0.115617	0.27177262	0.425	0.6706
DREG1	1	0.031589	0.01044208	3.025	0.0025
DREG2	1	0.008302	0.00882762	0.940	0.3472
DREG3	1	0.020011	0.01110952	1.801	0.0719
DREG4	1	0.006018	0.01262127	0.477	0.6336
DREG6	1	-0.000142	0.00769102	-0.019	0.9852
DREG7	1	0.009074	0.01018349	0.891	0.3731
DREG8	1	0.005705	0.01080256	0.528	0.5975
DREG9	1	0.021465	0.00864905	2.482	0.0132
DREG10	1	0.006889	0.00801340	0.860	0.3901
DREG11	1	0.001129	0.00865700	0.130	0.8962
DREG12	1	0.005837	0.01668846	0.350	0.7266
DHHC0	1	-0.016288	0.01056938	-1.541	0.1235
DHHC1	1	0.025431	0.01216520	2.090	0.0368
DHHC2	1	0.022249	0.00673960	3.301	0.0010
DHHC3	1	0.020756	0.00747860	2.775	0.0056
DHHC4	1	0.016002	0.01355275	1.181	0.2379
DHHC6	1	0.001406	0.00952032	0.148	0.8826
DHHC7	1	-0.000817	0.03101103	-0.026	0.9790
DHHC8	1	-0.005119	0.00808941	-0.633	0.5269
DHHC9	1	-0.003898	0.01648601	-0.236	0.8131
DHHC10	1	0.007341	0.01107874	0.663	0.5077
DQTR2	1	-0.006504	0.01425574	-0.456	0.6483
DQTR3	1	0.000937	0.01582488	0.059	0.9528
DQTR4	1	-0.010107	0.02006205	-0.504	0.6145
HEADAGE	1	-0.000855	0.00028691	-2.981	0.0029
REALSB	1	0.556605	0.24153237	2.304	0.0213
REALSBSQ	1	-0.894413	0.74194045	-1.206	0.2282
SB2NX	1	-0.015600	0.14574213	-0.107	0.9148
RNETEXP	1	0.273748	0.04130143	6.628	0.0001
NETEXPSQ	1	-0.031445	0.02527944	-1.244	0.2137
RFAMALL	1	1.338965	0.60110487	2.228	0.0261
RFAMALSQ	1	6.046989	8.39215121	0.721	0.4713
CB2NX	1	-2.009486	0.46565477	-4.315	0.0001

Table A-4 (continued)

Tobit Model for SHRDURBL

Noncensored Values= 1265 Right Censored Values= 0  
 Left Censored Values= 238 Interval Censored Values= 0

Log Likelihood for NORMAL 1089.7195112

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	2.70764304	1.096461	6.098127	0.0135
SB	1	-0.0226047	0.022105	1.045774	0.3065
TREND	1	0.02627921	0.044538	0.348151	0.5552
TRENDSQ	1	-0.0021128	0.001765	1.43355	0.2312
P_FOOD	1	0.24250928	0.156475	2.401976	0.1212
P_ALCH	1	-0.9553498	0.339063	7.938946	0.0048
P_TOBCO	1	0.27395476	0.1383	3.923854	0.0476
P_CLOTH	1	-1.4449645	0.552115	6.849444	0.0089
P_TSPRT	1	0.01901744	0.260056	0.005348	0.9417
P_MISC	1	0.44190201	0.321867	1.884941	0.1698
P_SVCS	1	-0.3387891	0.218832	2.396836	0.1216
P_FDOUT	1	1.17514261	0.440249	7.124989	0.0076
P_HOUS	1	-0.105174	0.086066	1.493317	0.2217
P_FUEL	1	-0.0627625	0.136295	0.212052	0.6452
P_DURBL	1	0.16301761	0.306331	0.283196	0.5946
DREG1	1	0.04080563	0.011695	12.17324	0.0005
DREG2	1	0.00825161	0.010076	0.67065	0.4128
DREG3	1	0.02393949	0.012538	3.645576	0.0562
DREG4	1	0.0060889	0.014323	0.180734	0.6707
DREG6	1	0.00138972	0.008701	0.025513	0.8731
DREG7	1	0.01796712	0.011401	2.483574	0.1150
DREG8	1	0.00609532	0.012311	0.24512	0.6205
DREG9	1	0.02745483	0.00975	7.928544	0.0049
DREG10	1	0.01009797	0.009076	1.23782	0.2659
DREG11	1	0.00467753	0.009792	0.228195	0.6329
DREG12	1	-0.0039141	0.019401	0.040704	0.8401
DHHC0	1	-0.0194167	0.01194	2.644529	0.1039
DHHC1	1	0.0205389	0.014068	2.131636	0.1443
DHHC2	1	0.02623526	0.007588	11.95419	0.0005
DHHC3	1	0.02473446	0.008446	8.577282	0.0034
DHHC4	1	0.01379998	0.015498	0.792832	0.3732
DHHC6	1	0.00257668	0.010767	0.057275	0.8109
DHHC7	1	-0.0168993	0.037041	0.208152	0.6482
DHHC8	1	-0.0080562	0.009138	0.777243	0.3780
DHHC9	1	-0.0074243	0.018982	0.152975	0.6957
DHHC10	1	0.00406994	0.012619	0.104029	0.7470
DQTR2	1	-0.0078182	0.016159	0.234091	0.6285
DQTR3	1	0.00424308	0.017945	0.055909	0.8131
DQTR4	1	-0.0109115	0.022737	0.230312	0.6313
HEADAGE	1	-0.0008835	0.000325	7.399792	0.0065
REALSB	1	0.7845849	0.27948	7.88095	0.0050
REALSBSQ	1	-1.4863986	0.866969	2.939431	0.0864
SB2NX	1	0.01975049	0.164573	0.014403	0.9045
RNETEXP	1	0.33512196	0.046164	52.69859	0.0001
NETEXP SQ	1	-0.0601113	0.028096	4.577334	0.0324
RFAMALL	1	1.73954317	0.673545	6.670183	0.0098
RFAMALSQ	1	5.57171542	9.346128	0.355397	0.5511
CB2NX	1	-2.2051742	0.517303	18.17171	0.0001
SCALE	1	0.08828764	0.001784		Normal scale parameter

Table A-4 (continued)

OLS Model for SHRFDIN					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	6.58104	0.14002	21.002	0.0001
Error	1455	9.70069	0.00667		
C Total	1502	16.28174			
Root MSE	0.08165	R-square	0.4042		
Dep Mean	0.28039	Adj R-sq	0.3850		
C.V.	29.12113				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.968994	0.99005951	0.979	0.3279
SB	1	0.014907	0.01964180	0.759	0.4480
TREND	1	-0.023929	0.04026347	-0.594	0.5524
TRENDSQ	1	-0.000879	0.00159495	-0.551	0.5816
P_FOOD	1	0.071643	0.14092940	0.508	0.6113
P_ALCH	1	-0.535732	0.30489723	-1.757	0.0791
P_TOBCO	1	0.077177	0.12478606	0.618	0.5364
P_CLOTH	1	-0.914524	0.49894370	-1.833	0.0670
P_TSPRT	1	0.049870	0.23463301	0.213	0.8317
P_MISC	1	0.583651	0.29042214	2.010	0.0447
P_SVCS	1	0.009765	0.19739991	0.049	0.9606
P_FDOUT	1	0.528611	0.39705057	1.331	0.1833
P_HOUS	1	-0.078930	0.07737826	-1.020	0.3079
P_FUEL	1	-0.018375	0.12286779	-0.150	0.8811
P_DURBL	1	0.118971	0.27683462	0.430	0.6674
DREG1	1	0.001718	0.01063657	0.162	0.8717
DREG2	1	0.004226	0.00899205	0.470	0.6385
DREG3	1	-0.017985	0.01131644	-1.589	0.1122
DREG4	1	-0.007169	0.01285635	-0.558	0.5772
DREG6	1	-0.020551	0.00783427	-2.623	0.0088
DREG7	1	-0.020784	0.01037316	-2.004	0.0453
DREG8	1	0.016695	0.01100377	1.517	0.1294
DREG9	1	-0.004360	0.00881015	-0.495	0.6208
DREG10	1	0.001671	0.00816266	0.205	0.8378
DREG11	1	0.007725	0.00881824	0.876	0.3812
DREG12	1	-0.002460	0.01699930	-0.145	0.8849
DHHC0	1	0.055136	0.01076624	5.121	0.0001
DHHC1	1	-0.091777	0.01239178	-7.406	0.0001
DHHC2	1	-0.049089	0.00686513	-7.150	0.0001
DHHC3	1	-0.053083	0.00761790	-6.968	0.0001
DHHC4	1	-0.033440	0.01380518	-2.422	0.0155
DHHC6	1	-0.023271	0.00969764	-2.400	0.0165
DHHC7	1	-0.016851	0.03158863	-0.533	0.5938
DHHC8	1	0.028253	0.00824008	3.429	0.0006
DHHC9	1	0.013840	0.01679308	0.824	0.4100
DHHC10	1	0.035858	0.01128509	3.177	0.0015
DQTR2	1	-0.011298	0.01452127	-0.778	0.4367
DQTR3	1	-0.014278	0.01611963	-0.886	0.3759
DQTR4	1	-0.038290	0.02043572	-1.874	0.0612
HEADAGE	1	0.001630	0.00029226	5.577	0.0001
REALSB	1	-0.970071	0.24603111	-3.943	0.0001
REALSBSQ	1	1.211981	0.75575972	1.604	0.1090
SB2NX	1	0.645156	0.14845670	4.346	0.0001
RNETEXP	1	-0.606277	0.04207070	-14.411	0.0001
NETEXPSQ	1	0.225444	0.02575029	8.755	0.0001
RFAMALL	1	-0.636927	0.61230095	-1.040	0.2984
RFAMALSQ	1	-5.759569	8.54846209	-0.674	0.5006
CB2NX	1	0.933562	0.47432798	1.968	0.0492

Table A-4 (continued)

Tobit Model for SHRFDIN  
 Noncensored Values= 1502 Right Censored Values= 0  
 Left Censored Values= 1 Interval Censored Values= 0

Log Likelihood for NORMAL 1652.8776216

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.96573385	0.974758	0.98157	0.3218
SB	1	0.0148673	0.019338	0.591062	0.4420
TREND	1	-0.0240476	0.039641	0.368004	0.5441
TRENDSQ	1	-0.0008741	0.00157	0.309886	0.5778
P_FOOD	1	0.07119771	0.138751	0.263305	0.6079
P_ALCH	1	-0.535452	0.300184	3.18176	0.0745
P_TOBCO	1	0.07679732	0.122857	0.390742	0.5319
P_CLOTH	1	-0.9126867	0.491233	3.45198	0.0632
P_TSPRT	1	0.04956649	0.231006	0.04604	0.8301
P_MISC	1	0.58356708	0.285932	4.165391	0.0413
P_SVCS	1	0.01008073	0.194348	0.00269	0.9586
P_FDOUT	1	0.52766853	0.390913	1.822057	0.1771
P_HOUS	1	-0.0784584	0.076183	1.060617	0.3031
P_FUEL	1	-0.0174213	0.120972	0.020739	0.8855
P_DURBL	1	0.11800811	0.272556	0.187461	0.6650
DREG1	1	0.00172553	0.010472	0.02715	0.8691
DREG2	1	0.004233	0.008853	0.228619	0.6325
DREG3	1	-0.0179731	0.011141	2.602321	0.1067
DREG4	1	-0.007168	0.012658	0.320695	0.5712
DREG6	1	-0.0205512	0.007713	7.099197	0.0077
DREG7	1	-0.0207738	0.010213	4.137561	0.0419
DREG8	1	0.01670778	0.010834	2.378416	0.1230
DREG9	1	-0.0043474	0.008674	0.251206	0.6162
DREG10	1	0.00168134	0.008036	0.043771	0.8343
DREG11	1	0.00773753	0.008682	0.79428	0.3728
DREG12	1	-0.0029366	0.016743	0.030762	0.8608
DHHC0	1	0.05513989	0.0106	27.06057	0.0001
DHHC1	1	-0.0917907	0.0122	56.60611	0.0001
DHHC2	1	-0.049082	0.006759	52.73278	0.0001
DHHC3	1	-0.0530885	0.0075	50.10304	0.0001
DHHC4	1	-0.0334538	0.013592	6.058153	0.0138
DHHC6	1	-0.0232821	0.009548	5.946287	0.0147
DHHC7	1	-0.0168393	0.0311	0.29317	0.5882
DHHC8	1	0.02817374	0.008113	12.05925	0.0005
DHHC9	1	0.01385941	0.016533	0.702687	0.4019
DHHC10	1	0.0358559	0.011111	10.41466	0.0013
DQTR2	1	-0.0112766	0.014297	0.622132	0.4303
DQTR3	1	-0.0142885	0.01587	0.810587	0.3679
DQTR4	1	-0.0383129	0.02012	3.626118	0.0569
HEADAGE	1	0.00162942	0.000288	32.06765	0.0001
REALSB	1	-0.9695595	0.242228	16.02141	0.0001
REALSBSQ	1	1.21068005	0.744076	2.647425	0.1037
SB2NX	1	0.64509189	0.146162	19.47947	0.0001
RNETEXP	1	-0.6061163	0.041421	214.1311	0.0001
NETEXPSQ	1	0.22522104	0.025353	78.91419	0.0001
RFAMALL	1	-0.6414664	0.602851	1.132213	0.2873
RFAMALSQ	1	-5.7659312	8.416301	0.46935	0.4933
CB2NX	1	0.94034353	0.467042	4.053796	0.0441
SCALE	1	0.0803902	0.001467	Normal	scale parameter

Table A-4 (continued)

## OLS Model for SHRFDOUT

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	0.11342	0.00241	10.194	0.0001
Error	1455	0.34447	0.00024		
C Total	1502	0.45789			
Root MSE	0.01539	R-square	0.2477		
Dep Mean	0.01061	Adj R-sq	0.2234		
C.V.	145.01288				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.035695	0.18656647	0.191	0.8483
SB	1	-0.003520	0.00370129	-0.951	0.3418
TREND	1	0.003561	0.00758724	0.469	0.6389
TRENDSQ	1	0.000713	0.00030055	2.373	0.0178
P_FOOD	1	0.014274	0.02655669	0.537	0.5910
P_ALCH	1	0.105100	0.05745473	1.829	0.0676
P_TOBCO	1	-0.054307	0.02351464	-2.309	0.0211
P_CLOTH	1	0.194858	0.09402078	2.073	0.0384
P_TSPRT	1	0.083010	0.04421416	1.877	0.0607
P_MISC	1	-0.133527	0.05472705	-2.440	0.0148
P_SVCS	1	0.065363	0.03719797	1.757	0.0791
P_FDOUT	1	-0.225384	0.07482007	-3.012	0.0026
P_HOUS	1	-0.037385	0.01458113	-2.564	0.0104
P_FUEL	1	0.025020	0.02315316	1.081	0.2800
P_DURBL	1	-0.045665	0.05216662	-0.875	0.3815
DREG1	1	-0.002604	0.00200435	-1.299	0.1940
DREG2	1	0.003332	0.00169446	1.967	0.0494
DREG3	1	0.001428	0.00213247	0.670	0.5031
DREG4	1	-0.003551	0.00242265	-1.466	0.1429
DREG6	1	-0.002124	0.00147629	-1.439	0.1504
DREG7	1	-0.000594	0.00195472	-0.304	0.7611
DREG8	1	0.000013308	0.00207355	0.006	0.9949
DREG9	1	-0.003204	0.00166018	-1.930	0.0538
DREG10	1	-0.001334	0.00153817	-0.867	0.3860
DREG11	1	0.001262	0.00166171	0.760	0.4475
DREG12	1	0.002109	0.00320334	0.658	0.5105
DHHC0	1	0.000707	0.00202879	0.348	0.7276
DHHC1	1	-0.002001	0.00233510	-0.857	0.3916
DHHC2	1	-0.000357	0.00129366	-0.276	0.7828
DHHC3	1	0.001281	0.00143551	0.892	0.3723
DHHC4	1	-0.002468	0.00260144	-0.949	0.3430
DHHC6	1	-0.000675	0.00182742	-0.369	0.7120
DHHC7	1	-0.004825	0.00595255	-0.811	0.4177
DHHC8	1	0.001753	0.00155276	1.129	0.2592
DHHC9	1	0.004312	0.00316448	1.363	0.1732
DHHC10	1	-0.001711	0.00212656	-0.805	0.4212
DQTR2	1	0.006138	0.00273638	2.243	0.0250
DQTR3	1	0.006668	0.00303758	2.195	0.0283
DQTR4	1	0.007905	0.00385090	2.053	0.0403
HEADAGE	1	0.000003162	0.00005507	0.057	0.9542
REALSB	1	-0.035756	0.04636202	-0.771	0.4407
REALSBSQ	1	0.079504	0.14241510	0.558	0.5768
SB2NX	1	0.044791	0.02797513	1.601	0.1096
RNETEXP	1	0.011654	0.00792779	1.470	0.1418
NETEXPSQ	1	-0.007398	0.00485238	-1.525	0.1276
RFAMALL	1	0.073934	0.11538178	0.641	0.5218
RFAMALSQ	1	-0.921431	1.61086925	-0.572	0.5674
CB2NX	1	-0.070128	0.08938220	-0.785	0.4328

Table A-4 (continued)

Tobit Model for SHRFDOUT  
 Noncensored Values= 936 Right Censored Values= 0  
 Left Censored Values= 567 Interval Censored Values= 0

Log Likelihood for NORMAL 2046.6221494

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.3452935	0.266362	1.680474	0.1949
SB	1	-0.0065484	0.005377	1.48334	0.2233
TREND	1	-0.0100382	0.01106	0.823729	0.3641
TRENDSQ	1	0.00168466	0.000435	15.02891	0.0001
P_FOOD	1	-0.0299445	0.038139	0.616455	0.4324
P_ALCH	1	0.25286272	0.080669	9.825591	0.0017
P_TOBCO	1	-0.0130299	0.037086	0.12344	0.7253
P_CLOTH	1	0.62096597	0.138996	19.9587	0.0001
P_TSPRT	1	0.40203682	0.07287	30.43896	0.0001
P_MISC	1	-0.6043634	0.084758	50.84347	0.0001
P_SVCS	1	0.19030159	0.056213	11.46077	0.0007
P_FDOUT	1	-0.4350105	0.110701	15.4418	0.0001
P_HOUS	1	-0.0486157	0.021378	5.171446	0.0230
P_FUEL	1	0.07322576	0.036194	4.093092	0.0431
P_DURBL	1	-0.3337626	0.079071	17.81717	0.0001
DREG1	1	-0.0010196	0.0029	0.123648	0.7251
DREG2	1	0.00498695	0.002471	4.073102	0.0436
DREG3	1	0.001589	0.003073	0.267443	0.6051
DREG4	1	-0.00295	0.003384	0.759772	0.3834
DREG6	1	-0.0023185	0.002156	1.156917	0.2821
DREG7	1	-0.0021335	0.002921	0.533625	0.4651
DREG8	1	-0.0000355	0.003056	0.000135	0.9907
DREG9	1	-0.0041368	0.00246	2.828175	0.0926
DREG10	1	-0.0021873	0.002233	0.95927	0.3274
DREG11	1	0.00257249	0.002379	1.169212	0.2796
DREG12	1	0.00430164	0.004694	0.839786	0.3595
DHHC0	1	-0.0000803	0.003001	0.000717	0.9786
DHHC1	1	-0.0035193	0.003496	1.013251	0.3141
DHHC2	1	0.00019243	0.001939	0.009851	0.9209
DHHC3	1	0.00042331	0.00201	0.044355	0.8332
DHHC4	1	-0.0068476	0.00429	2.548116	0.1104
DHHC6	1	0.00125187	0.002637	0.225347	0.6350
DHHC7	1	-0.0193561	0.012261	2.49229	0.1144
DHHC8	1	0.00335956	0.002228	2.273973	0.1316
DHHC9	1	0.00121197	0.005089	0.056726	0.8117
DHHC10	1	-0.0019414	0.00323	0.361288	0.5478
DQTR2	1	-0.0011222	0.00406	0.076404	0.7822
DQTR3	1	-0.0013356	0.004448	0.090142	0.7640
DQTR4	1	0.00467653	0.005654	0.684098	0.4082
HEADAGE	1	-0.0000273	0.000081	0.113907	0.7357
REALSB	1	-0.0654157	0.067698	0.933721	0.3339
REALSBSQ	1	0.17966823	0.207231	0.751683	0.3859
SB2NX	1	0.10086094	0.039841	6.408798	0.0114
RNETEXP	1	0.02971796	0.011003	7.294879	0.0069
NETEXPSQ	1	-0.0156593	0.00663	5.579236	0.0182
RFAMALL	1	0.11002863	0.165128	0.443984	0.5052
RFAMALSQ	1	-1.4544092	2.367772	0.377306	0.5390
CB2NX	1	-0.1676835	0.124963	1.80059	0.1796
SCALE	1	0.02004677	0.000479		Normal scale parameter

Table A-4 (continued)

## OLS Model for SHRFUEL

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	1.17122	0.02492	10.727	0.0001
Error	1455	3.37999	0.00232		
C Total	1502	4.55121			
Root MSE	0.04820	R-square	0.2573		
Dep Mean	0.09367	Adj R-sq	0.2334		
C.V.	51.45710				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.550355	0.58441003	-0.942	0.3465
SB	1	0.019464	0.01159412	1.679	0.0934
TREND	1	-0.047698	0.02376663	-2.007	0.0449
TRENDSQ	1	0.001334	0.00094146	1.417	0.1567
P_FOOD	1	0.000283	0.08318748	0.003	0.9973
P_ALCH	1	-0.100900	0.17997403	-0.561	0.5751
P_TOBCO	1	0.072235	0.07365842	0.981	0.3269
P_CLOTH	1	-0.145749	0.29451533	-0.495	0.6208
P_TSPT	1	0.330362	0.13849863	2.385	0.0172
P_MISC	1	0.246255	0.17142971	1.436	0.1511
P_SVCS	1	0.142704	0.11652076	1.225	0.2209
P_FDOUT	1	-0.030022	0.23437009	-0.128	0.8981
P_HOUS	1	0.033246	0.04567466	0.728	0.4668
P_FUEL	1	-0.154158	0.07252611	-2.126	0.0337
P_DURBL	1	-0.237276	0.16340930	-1.452	0.1467
DREG1	1	0.016147	0.00627853	2.572	0.0102
DREG2	1	0.003229	0.00530780	0.608	0.5430
DREG3	1	0.014876	0.00667984	2.227	0.0261
DREG4	1	0.011960	0.00758882	1.576	0.1153
DREG6	1	0.011126	0.00462439	2.406	0.0163
DREG7	1	0.002969	0.00612305	0.485	0.6278
DREG8	1	0.011683	0.00649528	1.799	0.0723
DREG9	1	0.001555	0.00520043	0.299	0.7649
DREG10	1	0.005343	0.00481823	1.109	0.2676
DREG11	1	0.014218	0.00520521	2.732	0.0064
DREG12	1	0.046942	0.01003431	4.678	0.0001
DHHC0	1	0.009904	0.00635507	1.559	0.1193
DHHC1	1	-0.010646	0.00731459	-1.455	0.1457
DHHC2	1	-0.007560	0.00405233	-1.866	0.0623
DHHC3	1	-0.011758	0.00449667	-2.615	0.0090
DHHC4	1	0.027330	0.00814889	3.354	0.0008
DHHC6	1	0.012680	0.00572430	2.215	0.0269
DHHC7	1	0.028346	0.01864606	1.520	0.1287
DHHC8	1	0.001585	0.00486394	0.326	0.7445
DHHC9	1	0.016847	0.00991258	1.700	0.0894
DHHC10	1	-0.009669	0.00666134	-1.452	0.1468
DQTR2	1	-0.019512	0.00857158	-2.276	0.0230
DQTR3	1	-0.035629	0.00951506	-3.745	0.0002
DQTR4	1	-0.032178	0.01206275	-2.668	0.0077
HEADAGE	1	0.000646	0.00017251	3.746	0.0002
REALSB	1	-0.244339	0.14522667	-1.682	0.0927
REALSBSQ	1	0.223732	0.44610809	0.502	0.6161
SB2NX	1	-0.019841	0.08763068	-0.226	0.8209
RNETEXP	1	-0.199961	0.02483340	-8.052	0.0001
NETEXPSQ	1	0.083052	0.01519982	5.464	0.0001
RFAMALL	1	-0.148522	0.36142758	-0.411	0.6812
RFAMALSQ	1	-1.063468	5.04596634	-0.211	0.8331
CB2NX	1	0.129587	0.27998522	0.463	0.6436

Table A-4 (continued)

Tobit Model for SHRFUEL

Noncensored Values= 1477 Right Censored Values= 0

Left Censored Values= 26 Interval Censored Values= 0

Log Likelihood for NORMAL 2349.3853904

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.5586939	0.584313	0.914231	0.3390
SB	1	0.01936029	0.011583	2.793898	0.0946
TREND	1	-0.0473887	0.023756	3.979195	0.0461
TRENDSQ	1	0.00133263	0.000941	2.004449	0.1568
P_FOOD	1	0.00054685	0.08317	0.000043	0.9948
P_ALCH	1	-0.0950919	0.179969	0.279186	0.5972
P_TOBCO	1	0.06924314	0.073691	0.882924	0.3474
P_CLOTH	1	-0.1346786	0.294482	0.20916	0.6474
P_TSPRT	1	0.32947092	0.138443	5.663576	0.0173
P_MISC	1	0.24121043	0.171391	1.980692	0.1593
P_SVCS	1	0.15025629	0.11647	1.664315	0.1970
P_FDOUT	1	-0.040218	0.234384	0.029443	0.8638
P_HOUS	1	0.03341706	0.045678	0.535206	0.4644
P_FUEL	1	-0.1546065	0.072523	4.544709	0.0330
P_DURBL	1	-0.2408865	0.163293	2.176142	0.1402
DREG1	1	0.01638135	0.006273	6.820505	0.0090
DREG2	1	0.00298231	0.005307	0.315743	0.5742
DREG3	1	0.01516304	0.006673	5.163313	0.0231
DREG4	1	0.01186904	0.007588	2.446663	0.1178
DREG6	1	0.01066374	0.004627	5.31258	0.0212
DREG7	1	0.0027606	0.006125	0.203152	0.6522
DREG8	1	0.01173274	0.006492	3.265953	0.0707
DREG9	1	0.00140654	0.005201	0.073124	0.7868
DREG10	1	0.00525292	0.004816	1.189434	0.2754
DREG11	1	0.0144736	0.005201	7.744566	0.0054
DREG12	1	0.04726811	0.010023	22.23933	0.0001
DHHC0	1	0.00973603	0.00635	2.350502	0.1252
DHHC1	1	-0.0113233	0.007317	2.394917	0.1217
DHHC2	1	-0.0078513	0.004054	3.751247	0.0528
DHHC3	1	-0.0118244	0.004497	6.915213	0.0085
DHHC4	1	0.02747338	0.00814	11.39243	0.0007
DHHC6	1	0.01262415	0.00572	4.871373	0.0273
DHHC7	1	0.02830073	0.018623	2.3093	0.1286
DHHC8	1	0.0015024	0.004861	0.095533	0.7573
DHHC9	1	0.01653712	0.009911	2.784361	0.0952
DHHC10	1	-0.0102529	0.006666	2.365641	0.1240
DQTR2	1	-0.0190897	0.008571	4.960653	0.0259
DQTR3	1	-0.035281	0.009515	13.74932	0.0002
DQTR4	1	-0.0316055	0.01206	6.868449	0.0088
HEADAGE	1	0.00064858	0.000173	14.13298	0.0002
REALSB	1	-0.2430702	0.145069	2.807471	0.0938
REALSBSQ	1	0.22050001	0.445597	0.244868	0.6207
SB2NX	1	-0.0147328	0.087566	0.028307	0.8664
RNETEXP	1	-0.2011231	0.02483	65.60942	0.0001
NETEXPSQ	1	0.08335378	0.015192	30.10241	0.0001
RFAMALL	1	-0.1647835	0.361352	0.207954	0.6484
RFAMALSQ	1	-0.8296664	5.046532	0.027028	0.8694
CB2NX	1	0.13303755	0.279964	0.225811	0.6346
SCALE	1	0.04813713	0.00089	Normal scale parameter	

Table A-4 (continued)

OLS Model for SHRHOUS

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	5.27773	0.11229	15.195	0.0001
Error	1455	10.75235	0.00739		
C Total	1502	16.03008			
Root MSE	0.08596	R-square	0.3292		
Dep Mean	0.19891	Adj R-sq	0.3076		
C.V.	43.21837				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	1.091187	1.04234516	1.047	0.2953
SB	1	0.023324	0.02067910	1.128	0.2596
TREND	1	0.110259	0.04238981	2.601	0.0094
TRENDSQ	1	-0.003382	0.00167918	-2.014	0.0442
P_FOOD	1	-0.073523	0.14837197	-0.496	0.6203
P_ALCH	1	0.620130	0.32099904	1.932	0.0536
P_TOBCO	1	-0.176633	0.13137609	-1.344	0.1790
P_CLOTH	1	0.521159	0.52529323	0.992	0.3213
P_TSPT	1	-0.551494	0.24702413	-2.233	0.0257
P_MISC	1	-0.325871	0.30575951	-1.066	0.2867
P_SVCS	1	-0.036748	0.20782472	-0.177	0.8597
P_FDOUT	1	-0.588313	0.41801906	-1.407	0.1595
P_HOUS	1	0.093855	0.08146465	1.152	0.2495
P_FUEL	1	0.106687	0.12935652	0.825	0.4096
P_DURBL	1	0.181566	0.29145443	0.623	0.5334
DREG1	1	-0.053371	0.01119830	-4.766	0.0001
DREG2	1	-0.055405	0.00946692	-5.853	0.0001
DREG3	1	-0.056093	0.01191407	-4.708	0.0001
DREG4	1	-0.038466	0.01353530	-2.842	0.0045
DREG6	1	-0.004527	0.00824800	-0.549	0.5832
DREG7	1	-0.027495	0.01092098	-2.518	0.0119
DREG8	1	-0.040999	0.01158488	-3.539	0.0004
DREG9	1	-0.016759	0.00927542	-1.807	0.0710
DREG10	1	-0.028918	0.00859373	-3.365	0.0008
DREG11	1	-0.067063	0.00928394	-7.224	0.0001
DREG12	1	-0.066281	0.01789704	-3.703	0.0002
DHHC0	1	-0.022967	0.01133482	-2.026	0.0429
DHHC1	1	0.045642	0.01304620	3.498	0.0005
DHHC2	1	0.009896	0.00722769	1.369	0.1711
DHHC3	1	0.009197	0.00802020	1.147	0.2517
DHHC4	1	0.028309	0.01453424	1.948	0.0516
DHHC6	1	0.006548	0.01020978	0.641	0.5214
DHHC7	1	0.017516	0.03325685	0.527	0.5985
DHHC8	1	-0.010903	0.00867525	-1.257	0.2090
DHHC9	1	-0.018160	0.01767993	-1.027	0.3045
DHHC10	1	-0.002837	0.01188106	-0.239	0.8113
DQTR2	1	0.019622	0.01528814	1.283	0.1995
DQTR3	1	0.028062	0.01697092	1.654	0.0984
DQTR4	1	0.047578	0.02151495	2.211	0.0272
HEADAGE	1	-0.000174	0.00030769	-0.564	0.5728
REALSB	1	0.534644	0.25902417	2.064	0.0392
REALSBSQ	1	-1.404008	0.79567186	-1.765	0.0778
SB2NX	1	-1.046247	0.15629679	-6.694	0.0001
RNETEXP	1	-0.070673	0.04429248	-1.596	0.1108
NETEXPSQ	1	-0.003554	0.02711018	-0.131	0.8957
RFAMALL	1	-0.755092	0.64463694	-1.171	0.2417
RFAMALSQ	1	-0.363698	8.99991166	-0.040	0.9678
CB2NX	1	0.298855	0.49937754	0.598	0.5496

Table A-4 (continued)

Tobit Model for SHRHOUS

Noncensored Values= 1490 Right Censored Values= 0  
 Left Censored Values= 13 Interval Censored Values= 0

Log Likelihood for NORMAL 1535.6289156

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	1.02348922	1.034005	0.979763	0.3223
SB	1	0.02219235	0.020537	1.167698	0.2799
TREND	1	0.10988517	0.042046	6.829968	0.0090
TRENDSQ	1	-0.0033426	0.001666	4.026985	0.0448
P_FOOD	1	-0.0743394	0.147155	0.255204	0.6134
P_ALCH	1	0.64107242	0.31857	4.049537	0.0442
P_TOBCO	1	-0.18524	0.130369	2.018918	0.1553
P_CLOTH	1	0.55554297	0.521164	1.136282	0.2864
P_TSPRT	1	-0.5712113	0.24513	5.430005	0.0198
P_MISC	1	-0.3304801	0.303302	1.187243	0.2759
P_SVCS	1	-0.0262082	0.20616	0.016161	0.8988
P_FDOUT	1	-0.6116765	0.41481	2.174427	0.1403
P_HOUS	1	0.09683864	0.080829	1.435369	0.2309
P_FUEL	1	0.10786221	0.128325	0.706504	0.4006
P_DURBL	1	0.18284343	0.289056	0.400125	0.5270
DREG1	1	-0.0535888	0.011108	23.27287	0.0001
DREG2	1	-0.0554485	0.009391	34.86003	0.0001
DREG3	1	-0.0568035	0.011829	23.05953	0.0001
DREG4	1	-0.0386784	0.013428	8.296467	0.0040
DREG6	1	-0.0043844	0.008179	0.287381	0.5919
DREG7	1	-0.0275069	0.010832	6.448869	0.0111
DREG8	1	-0.0408308	0.011487	12.63437	0.0004
DREG9	1	-0.0172152	0.009203	3.49939	0.0614
DREG10	1	-0.0286914	0.008522	11.33565	0.0008
DREG11	1	-0.0672669	0.00921	53.34836	0.0001
DREG12	1	-0.0675329	0.017791	14.40928	0.0001
DHHC0	1	-0.0230938	0.011248	4.21523	0.0401
DHHC1	1	0.0462936	0.012944	12.79148	0.0003
DHHC2	1	0.01056169	0.007172	2.168795	0.1408
DHHC3	1	0.01014552	0.007959	1.625039	0.2024
DHHC4	1	0.02898031	0.014413	4.042746	0.0444
DHHC6	1	0.0071837	0.010125	0.503358	0.4780
DHHC7	1	0.01803652	0.032975	0.299183	0.5844
DHHC8	1	-0.0104584	0.008603	1.477681	0.2241
DHHC9	1	-0.0175743	0.017531	1.004887	0.3161
DHHC10	1	-0.0023718	0.011782	0.040526	0.8405
DQTR2	1	0.0202445	0.01517	1.780931	0.1820
DQTR3	1	0.02825551	0.016837	2.816151	0.0933
DQTR4	1	0.04799704	0.021349	5.054523	0.0246
HEADAGE	1	-0.0001662	0.000305	0.29632	0.5862
REALSB	1	0.56409758	0.257159	4.811757	0.0283
REALSBSQ	1	-1.4669139	0.789635	3.451095	0.0632
SB2NX	1	-1.0536764	0.155035	46.19076	0.0001
RNETEXP	1	-0.0660873	0.043959	2.260191	0.1327
NETEXPSQ	1	-0.0056656	0.026897	0.04437	0.8332
RFAMALL	1	-0.7102786	0.639849	1.23226	0.2670
RFAMALSQ	1	-0.6324069	8.927276	0.005018	0.9435
CB2NX	1	0.27773612	0.495398	0.314309	0.5750
SCALE	1	0.0852343	0.001566		Normal scale parameter

Table A-4 (continued)

OLS Model for SHRmisc					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	0.36852	0.00784	2.714	0.0001
Error	1455	4.20375	0.00289		
C Total	1502	4.57227			
Root MSE	0.05375	R-square	0.0806		
Dep Mean	0.08483	Adj R-sq	0.0509		
C.V.	63.36237				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.486506	0.65174618	-0.746	0.4555
SB	1	-0.000672	0.01293000	-0.052	0.9586
TREND	1	-0.031328	0.02650504	-1.182	0.2374
TRENDSQ	1	0.001779	0.00104994	1.694	0.0904
P_FOOD	1	-0.081585	0.09277240	-0.879	0.3793
P_ALCH	1	-0.185093	0.20071077	-0.922	0.3566
P_TOBCO	1	-0.080965	0.08214540	-0.986	0.3245
P_CLOTH	1	0.249727	0.32844960	0.760	0.4472
P_TSPRT	1	-0.074121	0.15445654	-0.480	0.6314
P_MISC	1	0.096391	0.19118196	0.504	0.6142
P_SVCS	1	0.141859	0.12994637	1.092	0.2752
P_FDOUT	1	-0.122072	0.26137439	-0.467	0.6405
P_HOUS	1	0.061250	0.05093732	1.202	0.2294
P_FUEL	1	0.165361	0.08088263	2.044	0.0411
P_DURBL	1	-0.036338	0.18223743	-0.199	0.8420
DREG1	1	-0.008664	0.00700195	-1.237	0.2162
DREG2	1	-0.002375	0.00591937	-0.401	0.6884
DREG3	1	0.006705	0.00744950	0.900	0.3682
DREG4	1	0.016544	0.00846321	1.955	0.0508
DREG6	1	0.000530	0.00515722	0.103	0.9182
DREG7	1	-0.001257	0.00682855	-0.184	0.8539
DREG8	1	-0.008266	0.00724367	-1.141	0.2540
DREG9	1	-0.003469	0.00579963	-0.598	0.5498
DREG10	1	-0.003724	0.00537340	-0.693	0.4883
DREG11	1	-0.007402	0.00580496	-1.275	0.2025
DREG12	1	-0.026938	0.01119047	-2.407	0.0162
DHHC0	1	-0.006705	0.00708731	-0.946	0.3443
DHHC1	1	0.000994	0.00815739	0.122	0.9031
DHHC2	1	0.000673	0.00451925	0.149	0.8816
DHHC3	1	-0.003516	0.00501478	-0.701	0.4834
DHHC4	1	-0.019846	0.00908781	-2.184	0.0291
DHHC6	1	-0.005974	0.00638386	-0.936	0.3495
DHHC7	1	-0.031819	0.02079448	-1.530	0.1262
DHHC8	1	0.006351	0.00542436	1.171	0.2418
DHHC9	1	-0.004291	0.01105471	-0.388	0.6979
DHHC10	1	-0.019792	0.00742886	-2.664	0.0078
DQTR2	1	-0.003247	0.00955920	-0.340	0.7341
DQTR3	1	-0.001328	0.01061139	-0.125	0.9004
DQTR4	1	0.008285	0.01345263	0.616	0.5381
HEADAGE	1	0.000057327	0.00019239	0.298	0.7658
REALSB	1	-0.017059	0.16195980	-0.105	0.9161
REALSBSQ	1	-0.035874	0.49750899	-0.072	0.9425
SB2NX	1	0.166454	0.09772755	1.703	0.0887
RNETEXP	1	0.016199	0.02769472	0.585	0.5587
NETEXPSQ	1	-0.021857	0.01695116	-1.289	0.1975
RFAMALL	1	0.773814	0.40307153	1.920	0.0551
RFAMALSQ	1	-5.292977	5.62736631	-0.941	0.3471
CB2NX	1	-0.461575	0.31224532	-1.478	0.1396

Table A-4 (continued)

Tobit Model for SHRMISC  
 Noncensored Values= 1501 Right Censored Values= 0  
 Left Censored Values= 2 Interval Censored Values= 0

Log Likelihood for NORMAL 2278.5660561

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.4864044	0.641986	0.574043	0.4487
SB	1	-0.0007428	0.012736	0.003402	0.9535
TREND	1	-0.031171	0.026109	1.425341	0.2325
TRENDSQ	1	0.00177524	0.001034	2.946309	0.0861
P_FOOD	1	-0.0822274	0.09138	0.809713	0.3682
P_ALCH	1	-0.182858	0.197699	0.855501	0.3550
P_TOBCO	1	-0.0816842	0.080912	1.019171	0.3127
P_CLOTH	1	0.25217751	0.323524	0.607575	0.4357
P_TSPRT	1	-0.0765932	0.152144	0.253439	0.6147
P_MISC	1	0.09456948	0.188313	0.252199	0.6155
P_SVCS	1	0.14253167	0.127993	1.240077	0.2655
P_FDOUT	1	-0.1244287	0.257449	0.233593	0.6289
P_HOUS	1	0.0615751	0.050179	1.505811	0.2198
P_FUEL	1	0.16729183	0.079681	4.408023	0.0358
P_DURBL	1	-0.0360424	0.179512	0.040313	0.8409
DREG1	1	-0.0086321	0.006897	1.566592	0.2107
DREG2	1	-0.0023189	0.00583	0.158188	0.6908
DREG3	1	0.00674761	0.007338	0.845672	0.3578
DREG4	1	0.01654441	0.008336	3.939072	0.0472
DREG6	1	0.00054701	0.00508	0.011596	0.9142
DREG7	1	-0.0012216	0.006726	0.032985	0.8559
DREG8	1	-0.0082192	0.007135	1.327087	0.2493
DREG9	1	-0.0034257	0.005712	0.359634	0.5487
DREG10	1	-0.0036798	0.005293	0.483392	0.4869
DREG11	1	-0.0075343	0.005719	1.735414	0.1877
DREG12	1	-0.0277718	0.011047	6.319466	0.0119
DHHC0	1	-0.0067346	0.006981	0.930705	0.3347
DHHC1	1	0.00103177	0.008035	0.016489	0.8978
DHHC2	1	0.00073779	0.004452	0.027469	0.8684
DHHC3	1	-0.0035215	0.004939	0.5083	0.4759
DHHC4	1	-0.0198175	0.008951	4.901475	0.0268
DHHC6	1	-0.0062409	0.006291	0.983967	0.3212
DHHC7	1	-0.0318079	0.020482	2.411767	0.1204
DHHC8	1	0.0062022	0.005344	1.346854	0.2458
DHHC9	1	-0.0042511	0.010889	0.152426	0.6962
DHHC10	1	-0.0197847	0.007317	7.310936	0.0069
DQTR2	1	-0.0031991	0.009416	0.115442	0.7340
DQTR3	1	-0.0012341	0.010452	0.013941	0.9060
DQTR4	1	0.00839896	0.013251	0.401744	0.5262
HEADAGE	1	0.00005723	0.000189	0.091199	0.7627
REALSB	1	-0.0161281	0.159526	0.010221	0.9195
REALSBSQ	1	-0.0362425	0.490035	0.00547	0.9410
SB2NX	1	0.16681461	0.096259	3.003219	0.0831
RNETEXP	1	0.01668977	0.02728	0.374294	0.5407
NETEXPSQ	1	-0.0223241	0.0167	1.786952	0.1813
RFAMALL	1	0.77047272	0.397095	3.764661	0.0523
RFAMALSQ	1	-5.3342858	5.542811	0.926174	0.3359
CB2NX	1	-0.4518269	0.30774	2.155637	0.1420
SCALE	1	0.05294276	0.000967		Normal scale parameter

Table A-4 (continued)

OLS Model for SHRSVCS

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	1.46459	0.03116	6.064	0.0001
Error	1455	7.47716	0.00514		
C Total	1502	8.94174			
Root MSE	0.07169	R-square	0.1638		
Dep Mean	0.08304	Adj R-sq	0.1368		
C.V.	86.32310				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.626531	0.86921681	-0.721	0.4711
SB	1	-0.004214	0.01724440	-0.244	0.8070
TREND	1	-0.038312	0.03534908	-1.084	0.2786
TRENDSQ	1	0.001321	0.00140027	0.943	0.3457
P_FOOD	1	-0.135735	0.12372812	-1.097	0.2728
P_ALCH	1	0.042044	0.26768270	0.157	0.8752
P_TOBCO	1	0.034500	0.10955517	0.315	0.7529
P_CLOTH	1	0.262367	0.43804463	0.599	0.5493
P_TSPT	1	0.335857	0.20599465	1.630	0.1032
P_MISC	1	-0.014357	0.25497438	-0.056	0.9551
P_SVCS	1	-0.155666	0.17330607	-0.898	0.3692
P_FDOUT	1	-0.005977	0.34858817	-0.017	0.9863
P_HOUS	1	-0.004995	0.06793378	-0.074	0.9414
P_FUEL	1	0.109173	0.10787104	1.012	0.3117
P_DURBL	1	-0.311757	0.24304529	-1.283	0.1998
DREG1	1	-0.016822	0.00933832	-1.801	0.0718
DREG2	1	0.007105	0.00789451	0.900	0.3683
DREG3	1	0.003396	0.00993520	0.342	0.7325
DREG4	1	0.005074	0.01128716	0.450	0.6531
DREG6	1	0.014186	0.00687805	2.062	0.0393
DREG7	1	0.001069	0.00910706	0.117	0.9066
DREG8	1	-0.012628	0.00966069	-1.307	0.1914
DREG9	1	-0.014019	0.00773482	-1.812	0.0701
DREG10	1	0.004557	0.00716636	0.636	0.5249
DREG11	1	0.001602	0.00774192	0.207	0.8361
DREG12	1	-0.007585	0.01492443	-0.508	0.6114
DHHC0	1	-0.011833	0.00945216	-1.252	0.2108
DHHC1	1	-0.011536	0.01087929	-1.060	0.2892
DHHC2	1	0.009153	0.00602720	1.519	0.1291
DHHC3	1	0.006877	0.00668809	1.028	0.3040
DHHC4	1	-0.004348	0.01212017	-0.359	0.7198
DHHC6	1	0.016887	0.00851398	1.983	0.0475
DHHC7	1	0.012854	0.02773305	0.464	0.6431
DHHC8	1	-0.005496	0.00723433	-0.760	0.4476
DHHC9	1	0.004436	0.01474338	0.301	0.7635
DHHC10	1	0.008156	0.00990768	0.823	0.4105
DQTR2	1	-0.021636	0.01274886	-1.697	0.0899
DQTR3	1	-0.019128	0.01415213	-1.352	0.1767
DQTR4	1	-0.032781	0.01794142	-1.827	0.0679
HEADAGE	1	0.000066768	0.00025659	0.260	0.7947
REALSB	1	0.049815	0.21600154	0.231	0.8176
REALSBQS	1	0.117505	0.66351472	0.177	0.8595
SB2NX	1	-0.175128	0.13033667	-1.344	0.1793
RNETEXP	1	0.146713	0.03693572	3.972	0.0001
NETEXPSQ	1	-0.003049	0.02260732	-0.135	0.8927
RFAMALL	1	0.831381	0.53756595	1.547	0.1222
RFAMALSQ	1	-10.266262	7.50507107	-1.368	0.1716
CB2NX	1	-0.300061	0.41643341	-0.721	0.4713

Table A-4 (continued)

Tobit Model for SHRSVCS  
 Noncensored Values= 1479 Right Censored Values= 0  
 Left Censored Values= 24 Interval Censored Values= 0

Log Likelihood for NORMAL 1782.3829932

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.5539079	0.867302	0.407882	0.5230
SB	1	-0.0051789	0.017195	0.090712	0.7633
TREND	1	-0.038229	0.035274	1.174588	0.2785
TRENDSQ	1	0.00131551	0.001397	0.886678	0.3464
P_FOOD	1	-0.1357766	0.123365	1.211341	0.2711
P_ALCH	1	0.01439901	0.266756	0.002914	0.9570
P_TOBCO	1	0.03544903	0.109161	0.105456	0.7454
P_CLOTH	1	0.21927824	0.436982	0.251805	0.6158
P_TSPRT	1	0.35647848	0.20544	3.010892	0.0827
P_MISC	1	-0.0148162	0.25415	0.003399	0.9535
P_SVCS	1	-0.1700179	0.172752	0.968598	0.3250
P_FDOUT	1	0.02128371	0.347564	0.00375	0.9512
P_HOUS	1	-0.0107257	0.067743	0.025068	0.8742
P_FUEL	1	0.1196929	0.107541	1.238762	0.2657
P_DURBL	1	-0.2958375	0.242479	1.488535	0.2224
DREG1	1	-0.0171257	0.009331	3.368376	0.0665
DREG2	1	0.00759629	0.007879	0.929533	0.3350
DREG3	1	0.00431635	0.009896	0.190232	0.6627
DREG4	1	0.00582948	0.011242	0.2689	0.6041
DREG6	1	0.01493246	0.006859	4.740279	0.0295
DREG7	1	0.00195075	0.009073	0.04623	0.8298
DREG8	1	-0.0120366	0.009637	1.560104	0.2116
DREG9	1	-0.0138665	0.007725	3.222195	0.0726
DREG10	1	0.00504603	0.007149	0.498252	0.4803
DREG11	1	0.00236889	0.007724	0.094052	0.7591
DREG12	1	-0.0097116	0.014975	0.420559	0.5167
DHHC0	1	-0.0121834	0.009416	1.674125	0.1957
DHHC1	1	-0.0162547	0.010955	2.201502	0.1379
DHHC2	1	0.00814949	0.006008	1.8398	0.1750
DHHC3	1	0.00638619	0.006665	0.917985	0.3380
DHHC4	1	-0.0037307	0.012067	0.095583	0.7572
DHHC6	1	0.01738737	0.008477	4.206825	0.0403
DHHC7	1	0.008187	0.028059	0.085136	0.7705
DHHC8	1	-0.0060024	0.00721	0.693053	0.4051
DHHC9	1	0.0038864	0.014728	0.069629	0.7919
DHHC10	1	0.00862705	0.009865	0.764756	0.3818
DQTR2	1	-0.0218785	0.012708	2.964259	0.0851
DQTR3	1	-0.019429	0.014115	1.894681	0.1687
DQTR4	1	-0.0334828	0.017895	3.500777	0.0613
HEADAGE	1	0.00009161	0.000256	0.128154	0.7204
REALSB	1	0.0630306	0.215342	0.085673	0.7698
REALSBSQ	1	0.07219539	0.66164	0.011906	0.9131
SB2NX	1	-0.1613541	0.130072	1.538826	0.2148
RNETEXP	1	0.15010509	0.036817	16.62241	0.0001
NETEXPSQ	1	-0.0047046	0.022523	0.04363	0.8345
RFAMALL	1	0.84009104	0.535754	2.458794	0.1169
RFAMALSQ	1	-10.198544	7.475588	1.861168	0.1725
CB2NX	1	-0.3168161	0.414775	0.58343	0.4450
SCALE	1	0.07136327	0.001315		Normal scale parameter

Table A-4 (continued)

OLS Model for SHRTOBCO

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	0.33378	0.00710	3.864	0.0001
Error	1455	2.67420	0.00184		
C Total	1502	3.00798			
Root MSE	0.04287	R-square	0.1110		
Dep Mean	0.03871	Adj R-sq	0.0822		
C.V.	110.75597				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.347986	0.51982497	0.669	0.5033
SB	1	0.005937	0.01031281	0.576	0.5649
TREND	1	0.022221	0.02114010	1.051	0.2934
TRENDSQ	1	-0.001149	0.00083742	-1.372	0.1703
P_FOOD	1	-0.132249	0.07399416	-1.787	0.0741
P_ALCH	1	0.064356	0.16008451	0.402	0.6877
P_TOBCO	1	0.087962	0.06551819	1.343	0.1796
P_CLOTH	1	-0.029108	0.26196748	-0.111	0.9115
P_TSPRT	1	-0.003018	0.12319270	-0.024	0.9805
P_MISC	1	-0.125583	0.15248445	-0.824	0.4103
P_SVCS	1	-0.003016	0.10364367	-0.029	0.9768
P_FDOUT	1	0.057639	0.20846909	0.276	0.7822
P_HOUS	1	0.001537	0.04062700	0.038	0.9698
P_FUEL	1	-0.058224	0.06451102	-0.903	0.3669
P_DURBL	1	0.071143	0.14535040	0.489	0.6246
DREG1	1	0.015673	0.00558467	2.807	0.0051
DREG2	1	0.008278	0.00472122	1.753	0.0798
DREG3	1	0.004766	0.00594163	0.802	0.4226
DREG4	1	0.003477	0.00675015	0.515	0.6066
DREG6	1	-0.000142	0.00411334	-0.034	0.9725
DREG7	1	0.002874	0.00544637	0.528	0.5979
DREG8	1	0.014989	0.00577746	2.594	0.0096
DREG9	1	0.003544	0.00462572	0.766	0.4437
DREG10	1	0.003510	0.00428576	0.819	0.4130
DREG11	1	0.020831	0.00462997	4.499	0.0001
DREG12	1	0.009328	0.00892538	1.045	0.2961
DHHC0	1	0.015620	0.00565275	2.763	0.0058
DHHC1	1	0.001424	0.00650623	0.219	0.8268
DHHC2	1	-0.000236	0.00360450	-0.065	0.9478
DHHC3	1	0.003902	0.00399973	0.976	0.3295
DHHC4	1	0.005353	0.00724833	0.739	0.4603
DHHC6	1	0.003327	0.00509169	0.653	0.5137
DHHC7	1	0.011774	0.01658543	0.710	0.4779
DHHC8	1	0.013091	0.00432641	3.026	0.0025
DHHC9	1	0.012292	0.00881711	1.394	0.1635
DHHC10	1	0.005699	0.00592517	0.962	0.3363
DQTR2	1	0.000348	0.00762431	0.046	0.9637
DQTR3	1	0.006019	0.00846352	0.711	0.4771
DQTR4	1	0.007092	0.01072966	0.661	0.5087
HEADAGE	1	-0.000444	0.00015345	-2.897	0.0038
REALSB	1	-0.160781	0.12917720	-1.245	0.2135
REALSBSQ	1	0.042067	0.39680723	0.106	0.9156
SB2NX	1	0.077932	0.07794633	1.000	0.3176
RNETEXP	1	-0.094670	0.02208898	-4.286	0.0001
NETEXPSQ	1	0.033489	0.01352004	2.477	0.0134
RFAMALL	1	-0.439042	0.32148504	-1.366	0.1723
RFAMALSQ	1	-2.525188	4.48832018	-0.563	0.5738
CB2NX	1	0.336431	0.24904314	1.351	0.1769

**Table A-4 (continued)****Tobit Model for SHRTOBCO**

Noncensored Values= 904 Right Censored Values= 0  
 Left Censored Values= 599 Interval Censored Values= 0

**Log Likelihood for NORMAL 744.96392312**

<u>Variable</u>	<u>DF</u>	<u>Estimate</u>	<u>Std Err</u>	<u>ChiSquare</u>	<u>Pr&gt;Chi</u>
INTERCPT	1	0.03823992	0.819289	0.002179	0.9628
SB	1	0.00412385	0.016135	0.06532	0.7983
TREND	1	0.02009612	0.033395	0.362137	0.5473
TRENDSQ	1	-0.0012854	0.001321	0.946404	0.3306
P_FOOD	1	-0.2074206	0.116531	3.168242	0.0751
P_ALCH	1	0.20064407	0.253489	0.626519	0.4286
P_TOBCO	1	0.14802579	0.103559	2.043147	0.1529
P_CLOTH	1	0.14612294	0.4089	0.127704	0.7208
P_TSPRT	1	0.03537804	0.19662	0.032375	0.8572
P_MISC	1	-0.2691176	0.240568	1.251433	0.2633
P_SVCS	1	-0.0403137	0.163084	0.061106	0.8048
P_FDOUT	1	0.09038258	0.325726	0.076995	0.7814
P_HOUS	1	0.0034689	0.06416	0.002923	0.9569
P_FUEL	1	-0.1091691	0.101898	1.147806	0.2840
P_DURBL	1	-0.0019839	0.228448	0.000075	0.9931
DREG1	1	0.02818485	0.008675	10.55463	0.0012
DREG2	1	0.01483243	0.007426	3.988932	0.0458
DREG3	1	0.00872544	0.009448	0.85293	0.3557
DREG4	1	0.00650956	0.010782	0.364539	0.5460
DREG6	1	0.00031585	0.006634	0.002267	0.9620
DREG7	1	0.00249733	0.008796	0.080612	0.7765
DREG8	1	0.02483066	0.009002	7.608344	0.0058
DREG9	1	0.00845558	0.00735	1.32349	0.2500
DREG10	1	0.00707701	0.006814	1.078736	0.2990
DREG11	1	0.03189043	0.007235	19.42607	0.0001
DREG12	1	0.01106766	0.014179	0.609276	0.4351
DHHC0	1	0.02259049	0.008825	6.552622	0.0105
DHHC1	1	0.00027927	0.010162	0.000755	0.9781
DHHC2	1	-0.0013889	0.005747	0.058415	0.8090
DHHC3	1	0.00860677	0.006325	1.851939	0.1736
DHHC4	1	0.00445365	0.011393	0.152806	0.6959
DHHC6	1	0.00593076	0.007955	0.555888	0.4559
DHHC7	1	0.01705452	0.025387	0.451293	0.5017
DHHC8	1	0.02131591	0.00678	9.884766	0.0017
DHHC9	1	0.0232009	0.013344	3.023052	0.0821
DHHC10	1	0.00741672	0.009304	0.635495	0.4253
DQTR2	1	0.00036759	0.012043	0.000932	0.9756
DQTR3	1	0.00543917	0.013373	0.165428	0.6842
DQTR4	1	0.00985019	0.016939	0.338164	0.5609
HEADAGE	1	-0.0007047	0.000242	8.46972	0.0036
REALSB	1	-0.166323	0.201807	0.679252	0.4098
REALSBSQ	1	0.00906459	0.618208	0.000215	0.9883
SB2NX	1	0.15676144	0.122139	1.647282	0.1993
RNETEXP	1	-0.1181562	0.036401	10.53638	0.0012
NETEXPSQ	1	0.03609273	0.02308	2.445398	0.1179
RFAMALL	1	-0.6744365	0.516298	1.706404	0.1915
RFAMALSQ	1	-3.9564979	7.315061	0.292541	0.5886
CB2NX	1	0.63224808	0.402571	2.466555	0.1163
SCALE	1	0.06305184	0.001625	Normal scale parameter	

Table A-4 (continued)

OLS Model for SHRTSPRT

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	1.64015	0.03490	6.104	0.0001
Error	1455	8.31855	0.00572		
C Total	1502	9.95870			
Root MSE	0.07561	R-square	0.1647		
Dep Mean	0.06306	Adj R-sq	0.1377		
C.V.	119.89862				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.038250	0.91681909	-0.042	0.9667
SB	1	-0.032995	0.01818878	-1.814	0.0699
TREND	1	0.038096	0.03728495	1.022	0.3071
TRENDSQ	1	-0.000348	0.00147696	-0.235	0.8140
P_FOOD	1	0.181815	0.13050404	1.393	0.1638
P_ALCH	1	0.515969	0.28234222	1.827	0.0678
P_TOBCO	1	-0.270993	0.11555491	-2.345	0.0192
P_CLOTH	1	0.258055	0.46203395	0.559	0.5766
P_TSPRT	1	-0.177152	0.21727586	-0.815	0.4150
P_MISC	1	-0.585070	0.26893794	-2.175	0.0298
P_SVCS	1	-0.054562	0.18279710	-0.298	0.7654
P_FDOUT	1	-0.429347	0.36767845	-1.168	0.2431
P_HOUS	1	0.028400	0.07165414	0.396	0.6919
P_FUEL	1	0.097564	0.11377855	0.857	0.3913
P_DURBL	1	0.441085	0.25635556	1.721	0.0855
DREG1	1	-0.004674	0.00984972	-0.474	0.6352
DREG2	1	-0.000133	0.00832685	-0.016	0.9873
DREG3	1	0.005613	0.01047930	0.536	0.5923
DREG4	1	0.001805	0.01190529	0.152	0.8795
DREG6	1	0.009403	0.00725472	1.296	0.1952
DREG7	1	0.029640	0.00960580	3.086	0.0021
DREG8	1	0.002224	0.01018976	0.218	0.8272
DREG9	1	0.015077	0.00815841	1.848	0.0648
DREG10	1	0.002092	0.00755882	0.277	0.7820
DREG11	1	0.003887	0.00816590	0.476	0.6341
DREG12	1	0.021165	0.01574176	1.345	0.1790
DHHC0	1	-0.002993	0.00996980	-0.300	0.7640
DHHC1	1	-0.003159	0.01147509	-0.275	0.7831
DHHC2	1	-0.003463	0.00635728	-0.545	0.5860
DHHC3	1	0.000694	0.00705436	0.098	0.9217
DHHC4	1	-0.021918	0.01278393	-1.714	0.0867
DHHC6	1	-0.018060	0.00898025	-2.011	0.0445
DHHC7	1	-0.008851	0.02925184	-0.303	0.7622
DHHC8	1	-0.017705	0.00763052	-2.320	0.0205
DHHC9	1	-0.011614	0.01555080	-0.747	0.4553
DHHC10	1	-0.011949	0.01045027	-1.143	0.2530
DQTR2	1	0.023524	0.01344705	1.749	0.0804
DQTR3	1	0.024416	0.01492717	1.636	0.1021
DQTR4	1	0.030199	0.01892398	1.596	0.1107
HEADAGE	1	-0.000075358	0.00027064	-0.278	0.7807
REALSB	1	-0.036451	0.22783077	-0.160	0.8729
REALSBSQ	1	0.407242	0.69985181	0.582	0.5607
SB2NX	1	0.020113	0.13747450	0.146	0.8837
RNETEXP	1	0.139630	0.03895849	3.584	0.0003
NETEXPSQ	1	-0.067182	0.02384540	-2.817	0.0049
RFAMALL	1	-1.686372	0.56700551	-2.974	0.0030
RFAMALSQ	1	16.491206	7.91608298	2.083	0.0374
CB2NX	1	1.100953	0.43923920	2.506	0.0123

Table A-4 (continued)

Tobit Model for SHRTSPRT

Noncensored Values= 1365 Right Censored Values= 0  
 Left Censored Values= 138 Interval Censored Values= 0

Log Likelihood for NORMAL 1401.744952

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.1511497	0.973984	0.024083	0.8767
SB	1	-0.0361972	0.019395	3.483065	0.0620
TREND	1	0.04460712	0.039714	1.26159	0.2614
TRENDSQ	1	-0.0002968	0.001572	0.035641	0.8503
P_FOOD	1	0.223591	0.138414	2.609429	0.1062
P_ALCH	1	0.64397757	0.300619	4.588909	0.0322
P_TOBCO	1	-0.3284505	0.123333	7.0922	0.0077
P_CLOTH	1	0.38197687	0.492797	0.60081	0.4383
P_TSPRT	1	-0.2066179	0.231458	0.796877	0.3720
P_MISC	1	-0.6361732	0.286601	4.927139	0.0264
P_SVCS	1	-0.0369054	0.19451	0.035999	0.8495
P_FDOUT	1	-0.594177	0.393111	2.284558	0.1307
P_HOUS	1	0.03615693	0.076409	0.223923	0.6361
P_FUEL	1	0.08142123	0.121395	0.449855	0.5024
P_DURBL	1	0.4597526	0.27227	2.851344	0.0913
DREG1	1	-0.0043421	0.010515	0.170509	0.6797
DREG2	1	0.00301798	0.008885	0.115374	0.7341
DREG3	1	0.00707957	0.011164	0.40217	0.5260
DREG4	1	0.00055732	0.012734	0.001916	0.9651
DREG6	1	0.00967331	0.007726	1.567787	0.2105
DREG7	1	0.03179784	0.010211	9.697085	0.0018
DREG8	1	0.00268483	0.010889	0.060788	0.8053
DREG9	1	0.018582	0.008666	4.597419	0.0320
DREG10	1	0.00562054	0.008044	0.488251	0.4847
DREG11	1	0.00410149	0.008721	0.221192	0.6381
DREG12	1	0.01538038	0.017015	0.817048	0.3660
DHHC0	1	-0.0041576	0.01065	0.152404	0.6962
DHHC1	1	-0.0014305	0.012311	0.013502	0.9075
DHHC2	1	-0.0014544	0.006766	0.0462	0.8298
DHHC3	1	0.00269526	0.007492	0.129432	0.7190
DHHC4	1	-0.0218769	0.013736	2.536575	0.1112
DHHC6	1	-0.0179889	0.0096	3.511656	0.0609
DHHC7	1	0.00084108	0.030755	0.000748	0.9782
DHHC8	1	-0.0181238	0.008123	4.978296	0.0257
DHHC9	1	-0.0087783	0.016562	0.28094	0.5961
DHHC10	1	-0.0123119	0.011195	1.209522	0.2714
DQTR2	1	0.02784762	0.01436	3.760576	0.0525
DQTR3	1	0.03002158	0.015937	3.548654	0.0596
DQTR4	1	0.04022708	0.020227	3.955388	0.0467
HEADAGE	1	-0.0000758	0.000288	0.069573	0.7920
REALSB	1	-0.0520381	0.242936	0.045884	0.8304
REALSBSQ	1	0.61953812	0.744024	0.693366	0.4050
SB2NX	1	0.05432424	0.14544	0.139515	0.7088
RNETEXP	1	0.16880158	0.041203	16.784	0.0001
NETEXPSQ	1	-0.0824101	0.02518	10.71169	0.0011
RFAMALL	1	-1.6064979	0.6005	7.157048	0.0075
RFAMALSQ	1	16.0690908	8.360793	3.693922	0.0546
CB2NX	1	1.06608172	0.464225	5.273797	0.0216
SCALE	1	0.07942963	0.001537	Normal scale parameter	

Table A-4 (continued)

## OLS Model for SHRBOOKS

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	0.00179	0.00004	1.470	0.0218
Error	1455	0.03776	0.00003		
C Total	1502	0.03955			
Root MSE	0.00509	R-square	0.0453		
Dep Mean	0.00139	Adj R-sq	0.0145		
C.V.	367.18125				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.003591	0.06177089	-0.058	0.9536
SB	1	0.000608	0.00122547	0.496	0.6196
TREND	1	0.000118	0.00251208	0.047	0.9627
TRENDSQ	1	0.000030151	0.00009951	0.303	0.7619
P_FOOD	1	0.001298	0.00879274	0.148	0.8827
P_ALCH	1	0.005075	0.01902287	0.267	0.7897
P_TOBCO	1	0.004715	0.00778554	0.606	0.5448
P_CLOTH	1	0.015650	0.03112964	0.503	0.6152
P_TSPT	1	0.005161	0.01463901	0.353	0.7245
P_MISC	1	-0.029570	0.01811975	-1.632	0.1029
P_SVCS	1	0.000240	0.01231600	0.020	0.9844
P_FDOUT	1	0.006733	0.02477242	0.272	0.7858
P_HOUS	1	-0.002988	0.00482771	-0.619	0.5360
P_FUEL	1	-0.002449	0.00766586	-0.319	0.7495
P_DURBL	1	-0.003049	0.01727201	-0.177	0.8599
DREG1	1	-0.000189	0.00066363	-0.284	0.7762
DREG2	1	-0.000053356	0.00056102	-0.095	0.9242
DREG3	1	-0.000170	0.00070605	-0.241	0.8095
DREG4	1	-0.001051	0.00080212	-1.310	0.1905
DREG6	1	0.000619	0.00048879	1.266	0.2058
DREG7	1	-0.000053937	0.00064719	-0.083	0.9336
DREG8	1	-0.000735	0.00068654	-1.071	0.2844
DREG9	1	0.000566	0.00054967	1.029	0.3037
DREG10	1	-0.000443	0.00050928	-0.870	0.3847
DREG11	1	-0.001066	0.00055018	-1.937	0.0529
DREG12	1	0.000192	0.00106060	0.181	0.8566
DHHC0	1	0.000007988	0.00067172	0.012	0.9905
DHHC1	1	-0.000782	0.00077314	-1.011	0.3121
DHHC2	1	0.000409	0.00042832	0.955	0.3399
DHHC3	1	0.000629	0.00047529	1.323	0.1860
DHHC4	1	-0.000448	0.00086132	-0.520	0.6033
DHHC6	1	0.000240	0.00060505	0.397	0.6912
DHHC7	1	-0.001186	0.00197085	-0.602	0.5473
DHHC8	1	-0.000143	0.00051411	-0.279	0.7806
DHHC9	1	-0.001065	0.00104774	-1.016	0.3097
DHHC10	1	0.000158	0.00070409	0.224	0.8226
DQTR2	1	-0.000112	0.00090600	-0.123	0.9020
DQTR3	1	0.000048324	0.00100572	0.048	0.9617
DQTR4	1	0.001202	0.00127501	0.943	0.3459
HEADAGE	1	-0.000021170	0.00001823	-1.161	0.2458
REALSB	1	0.001934	0.01535015	0.126	0.8998
REALSBSQ	1	-0.003450	0.04715267	-0.073	0.9417
SB2NX	1	-0.009510	0.00926238	-1.027	0.3047
RNETEXP	1	0.007094	0.00262484	2.702	0.0070
NETEXPSQ	1	-0.002925	0.00160659	-1.821	0.0688
RFAMALL	1	0.073490	0.03820212	1.924	0.0546
RFAMALSQ	1	-0.935140	0.53334787	-1.753	0.0798
CB2NX	1	-0.046055	0.02959384	-1.556	0.1199

Table A-4 (continued)

Tobit Model for SHRBOOKS

Noncensored Values= 298 Right Censored Values= 0  
 Left Censored Values=1205 Interval Censored Values= 0

Log Likelihood for NORMAL 446.79536955

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.1044908	0.252933	0.170666	0.6795
SB	1	-0.0012459	0.005222	0.05693	0.8114
TREND	1	0.00060825	0.010335	0.003464	0.9531
TRENDSQ	1	0.00019681	0.000402	0.239753	0.6244
P_FOOD	1	0.00671347	0.035214	0.036347	0.8488
P_ALCH	1	0.00763928	0.080375	0.009034	0.9243
P_TOBCO	1	0.00283517	0.031706	0.007996	0.9287
P_CLOTH	1	0.10772393	0.130737	0.678932	0.4100
P_TSPRT	1	-0.0001387	0.060429	5.27E-6	0.9982
P_MISC	1	-0.1914255	0.076538	6.255249	0.0124
P_SVCS	1	-0.0011032	0.049823	0.00049	0.9823
P_FDOUT	1	0.00176028	0.104707	0.000283	0.9866
P_HOUS	1	0.00194069	0.020273	0.009163	0.9237
P_FUEL	1	0.03603878	0.031319	1.324077	0.2499
P_DURBL	1	0.0473337	0.07141	0.439358	0.5074
DREG1	1	-0.002731	0.00278	0.965184	0.3259
DREG2	1	-0.0019366	0.002338	0.68621	0.4075
DREG3	1	0.00035454	0.002742	0.016714	0.8971
DREG4	1	-0.0045925	0.003321	1.911851	0.1668
DREG6	1	0.00178982	0.001865	0.921301	0.3371
DREG7	1	0.00045119	0.002513	0.032227	0.8575
DREG8	1	-0.0041767	0.002973	1.973759	0.1600
DREG9	1	0.0015494	0.002129	0.52946	0.4668
DREG10	1	-0.0026282	0.002094	1.574815	0.2095
DREG11	1	-0.0073567	0.002475	8.834138	0.0030
DREG12	1	0.00005175	0.004168	0.000154	0.9901
DHHC0	1	0.00027149	0.002685	0.010222	0.9195
DHHC1	1	-0.0032893	0.003532	0.86706	0.3518
DHHC2	1	0.00131563	0.001724	0.582345	0.4454
DHHC3	1	0.00225818	0.001923	1.378312	0.2404
DHHC4	1	-0.0042993	0.004062	1.120112	0.2899
DHHC6	1	0.00235202	0.002424	0.941502	0.3319
DHHC7	1	-0.0658349	4.601386	0.000205	0.9886
DHHC8	1	-0.0019396	0.00215	0.813878	0.3670
DHHC9	1	-0.0034884	0.004692	0.552778	0.4572
DHHC10	1	0.00154702	0.002888	0.286908	0.5922
DQTR2	1	0.00003419	0.003732	0.000084	0.9927
DQTR3	1	0.00078444	0.004222	0.034522	0.8526
DQTR4	1	0.00433209	0.005374	0.649819	0.4202
HEADAGE	1	-0.000123	0.000076	2.63732	0.1044
REALSB	1	0.02993523	0.066488	0.202714	0.6525
REALSBSQ	1	-0.0981341	0.206976	0.224802	0.6354
SB2NX	1	0.03560609	0.036236	0.965536	0.3258
RNETEXP	1	0.02938491	0.009669	9.236566	0.0024
NETEXPSQ	1	-0.0101699	0.005323	3.649831	0.0561
RFAMALL	1	0.27849256	0.153443	3.294061	0.0695
RFAMALSQ	1	-3.098037	2.06143	2.258584	0.1329
CB2NX	1	-0.1701335	0.116068	2.148588	0.1427
SCALE	1	0.01456993	0.000678		Normal scale parameter

Table A-4 (continued)

## OLS Model for SHRCIGS

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	0.20054	0.00427	5.886	0.0001
Error	1455	1.05468	0.00072		
C Total	1502	1.25522			
Root MSE	0.02692	R-square	0.1598		
Dep Mean	0.02248	Adj R-sq	0.1326		
C.V.	119.75830				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.558095	0.32645268	1.710	0.0876
SB	1	0.002606	0.00647650	0.402	0.6875
TREND	1	0.029000	0.01327609	2.184	0.0291
TRENDSQ	1	-0.000497	0.00052590	-0.945	0.3450
P_FOOD	1	-0.013722	0.04646870	-0.295	0.7678
P_ALCH	1	0.117482	0.10053387	1.169	0.2428
P_TOBCO	1	0.002670	0.04114575	0.065	0.9483
P_CLOTH	1	-0.041808	0.16451689	-0.254	0.7994
P_TSPRT	1	-0.055548	0.07736563	-0.718	0.4729
P_MISC	1	-0.100614	0.09576100	-1.051	0.2936
P_SVCS	1	-0.024477	0.06508874	-0.376	0.7069
P_FDOUT	1	-0.046341	0.13091963	-0.354	0.7234
P_HOUS	1	-0.073212	0.02551396	-2.869	0.0042
P_FUEL	1	-0.045626	0.04051324	-1.126	0.2603
P_DURBL	1	0.157108	0.09128078	1.721	0.0854
DREG1	1	0.008541	0.00350720	2.435	0.0150
DREG2	1	0.005081	0.00296495	1.714	0.0868
DREG3	1	0.003422	0.00373138	0.917	0.3593
DREG4	1	0.004207	0.00423913	0.993	0.3211
DREG6	1	-0.001371	0.00258320	-0.531	0.5957
DREG7	1	0.000489	0.00342035	0.143	0.8863
DREG8	1	0.009354	0.00362828	2.578	0.0100
DREG9	1	0.001382	0.00290497	0.476	0.6344
DREG10	1	0.001703	0.00269148	0.633	0.5270
DREG11	1	0.010533	0.00290764	3.622	0.0003
DREG12	1	0.003122	0.00560518	0.557	0.5776
DHHC0	1	0.012363	0.00354996	3.483	0.0005
DHHC1	1	0.001958	0.00408595	0.479	0.6319
DHHC2	1	0.000031232	0.00226364	0.014	0.9890
DHHC3	1	0.001236	0.00251185	0.492	0.6229
DHHC4	1	0.003584	0.00455199	0.787	0.4312
DHHC6	1	0.001707	0.00319761	0.534	0.5936
DHHC7	1	0.008023	0.01041573	0.770	0.4413
DHHC8	1	0.008891	0.00271701	3.272	0.0011
DHHC9	1	0.007697	0.00553719	1.390	0.1647
DHHC10	1	0.003420	0.00372104	0.919	0.3582
DQTR2	1	0.011344	0.00478810	2.369	0.0180
DQTR3	1	0.015214	0.00531513	2.862	0.0043
DQTR4	1	0.019761	0.00673828	2.933	0.0034
HEADAGE	1	-0.000271	0.00009637	-2.814	0.0050
REALSB	1	-0.072796	0.08112393	-0.897	0.3697
REALSBSQ	1	-0.121312	0.24919692	-0.487	0.6265
SB2NX	1	0.054741	0.04895068	1.118	0.2636
RNETEXP	1	-0.052806	0.01387199	-3.807	0.0001
NETEXPSQ	1	0.019043	0.00849065	2.243	0.0251
RFAMALL	1	-0.304978	0.20189421	-1.511	0.1311
RFAMALSQ	1	-2.156493	2.81868748	-0.765	0.4444
CB2NX	1	0.200750	0.15640034	1.284	0.1995

Table A-4 (continued)

Tobit Model for SHRCIGS

Noncensored Values= 892 Right Censored Values= 0  
 Left Censored Values= 611 Interval Censored Values= 0

Log Likelihood for NORMAL 1148.9111295

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.37035764	0.516862	0.513444	0.4737
SB	1	0.00183701	0.01017	0.032625	0.8567
TREND	1	0.02952078	0.021063	1.964252	0.1611
TRENDSQ	1	-0.0005406	0.000833	0.420689	0.5166
P_FOOD	1	-0.0602392	0.073593	0.67002	0.4130
P_ALCH	1	0.2284108	0.159758	2.044134	0.1528
P_TOBCO	1	0.03616577	0.065494	0.304925	0.5808
P_CLOTH	1	0.09058895	0.258254	0.123043	0.7258
P_TSPRT	1	-0.0292198	0.124412	0.055161	0.8143
P_MISC	1	-0.1994747	0.152208	1.717512	0.1900
P_SVCS	1	-0.0473479	0.103204	0.21048	0.6464
P_FDOUT	1	-0.0516001	0.20581	0.062859	0.8020
P_HOUS	1	-0.0829101	0.040526	4.185405	0.0408
P_FUEL	1	-0.0854069	0.06424	1.767539	0.1837
P_DURBL	1	0.11469266	0.144487	0.630102	0.4273
DREG1	1	0.01656128	0.005455	9.216106	0.0024
DREG2	1	0.00909207	0.004678	3.777423	0.0519
DREG3	1	0.00589155	0.005951	0.980267	0.3221
DREG4	1	0.0049615	0.006826	0.528361	0.4673
DREG6	1	-0.0016006	0.004186	0.14618	0.7022
DREG7	1	0.00043064	0.005535	0.006052	0.9380
DREG8	1	0.01480809	0.005683	6.790525	0.0092
DREG9	1	0.00426379	0.004635	0.846155	0.3576
DREG10	1	0.00390834	0.004293	0.828638	0.3627
DREG11	1	0.01762952	0.004555	14.9767	0.0001
DREG12	1	0.00426576	0.008942	0.227556	0.6333
DHHC0	1	0.01796331	0.00556	10.4366	0.0012
DHHC1	1	0.00177166	0.006377	0.077179	0.7812
DHHC2	1	-0.0004247	0.003629	0.013697	0.9068
DHHC3	1	0.00405317	0.003978	1.037903	0.3083
DHHC4	1	0.00328525	0.007178	0.209448	0.6472
DHHC6	1	0.00352034	0.005016	0.492531	0.4828
DHHC7	1	0.01169185	0.016057	0.53019	0.4665
DHHC8	1	0.01444845	0.004277	11.41107	0.0007
DHHC9	1	0.01374267	0.008451	2.644144	0.1039
DHHC10	1	0.00525638	0.005862	0.804027	0.3699
DQTR2	1	0.01263117	0.007579	2.777586	0.0956
DQTR3	1	0.01651392	0.008414	3.852483	0.0497
DQTR4	1	0.02317528	0.010661	4.725868	0.0297
HEADAGE	1	-0.0004232	0.000153	7.698189	0.0055
REALSB	1	-0.0759433	0.127207	0.356417	0.5505
REALSBSQ	1	-0.1611655	0.389798	0.170949	0.6793
SB2NX	1	0.10422553	0.077007	1.831827	0.1759
RNETEXP	1	-0.0680326	0.022978	8.765931	0.0031
NETEXPSQ	1	0.02108084	0.0146	2.084886	0.1488
RFAMALL	1	-0.4513794	0.325829	1.919124	0.1660
RFAMALSQ	1	-3.7184902	4.6448	0.640913	0.4234
CB2NX	1	0.40177025	0.253733	2.507275	0.1133
SCALE	1	0.03956828	0.001022	Normal scale parameter	

Table A-4 (continued)

OLS Model for SHRCOSM

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	0.00453	0.00010	2.595	0.0001
Error	1455	0.05404	0.00004		
C Total	1502	0.05857			
Root MSE	0.00609	R-square	0.0774		
Dep Mean	0.00342	Adj R-sq	0.0475		
C.V.	177.96616				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.042752	0.07389631	0.579	0.5630
SB	1	0.000278	0.00146603	0.190	0.8495
TREND	1	0.001264	0.00300520	0.421	0.6740
TRENDSQ	1	0.000183	0.00011904	1.535	0.1249
P_FOOD	1	-0.000910	0.01051872	-0.087	0.9311
P_ALCH	1	-0.027035	0.02275700	-1.188	0.2350
P_TOBCO	1	-0.014006	0.00931381	-1.504	0.1328
P_CLOTH	1	0.018709	0.03724029	0.502	0.6155
P_TSPRT	1	-0.016012	0.01751260	-0.914	0.3607
P_MISC	1	-0.021755	0.02167660	-1.004	0.3157
P_SVCS	1	0.020604	0.01473358	1.398	0.1622
P_FDOUT	1	-0.022442	0.02963516	-0.757	0.4490
P_HOUS	1	-0.007816	0.00577538	-1.353	0.1762
P_FUEL	1	0.021054	0.00917064	2.296	0.0218
P_DURBL	1	0.040581	0.02066245	1.964	0.0497
DREG1	1	-0.000925	0.00079390	-1.165	0.2442
DREG2	1	0.000033275	0.00067115	0.050	0.9605
DREG3	1	0.001232	0.00084464	1.459	0.1447
DREG4	1	0.001340	0.00095958	1.396	0.1628
DREG6	1	0.001170	0.00058474	2.002	0.0455
DREG7	1	-0.000048949	0.00077423	-0.063	0.9496
DREG8	1	-0.000344	0.00082130	-0.418	0.6758
DREG9	1	0.000462	0.00065757	0.702	0.4825
DREG10	1	0.001172	0.00060925	1.923	0.0546
DREG11	1	-0.000148	0.00065818	-0.224	0.8225
DREG12	1	-0.000998	0.00126880	-0.787	0.4316
DHHC0	1	-0.000525	0.00080357	-0.653	0.5140
DHHC1	1	0.002131	0.00092490	2.304	0.0214
DHHC2	1	0.000565	0.00051240	1.103	0.2704
DHHC3	1	0.001243	0.00056859	2.186	0.0290
DHHC4	1	-0.001824	0.00103039	-1.770	0.0769
DHHC6	1	0.000411	0.00072381	0.568	0.5699
DHHC7	1	-0.000909	0.00235772	-0.385	0.6999
DHHC8	1	0.000325	0.00061503	0.528	0.5978
DHHC9	1	-0.000100	0.00125341	-0.080	0.9363
DHHC10	1	-0.000921	0.00084230	-1.094	0.2742
DQTR2	1	0.001808	0.00108384	1.668	0.0955
DQTR3	1	0.002564	0.00120314	2.131	0.0332
DQTR4	1	0.003011	0.00152529	1.974	0.0486
HEADAGE	1	-0.000036297	0.00002181	-1.664	0.0963
REALSB	1	0.005759	0.01836333	0.314	0.7539
REALSBSQ	1	-0.040396	0.05640859	-0.716	0.4740
SB2NX	1	0.013161	0.01108055	1.188	0.2351
RNETEXP	1	0.004303	0.00314008	1.370	0.1708
NETEXPSQ	1	-0.001658	0.00192196	-0.863	0.3885
RFAMALL	1	0.046643	0.04570107	1.021	0.3076
RFAMALSQ	1	-0.413763	0.63804229	-0.648	0.5168
CB2NX	1	-0.041027	0.03540301	-1.159	0.2467

Table A-4 (continued)

Tobit Model for SHRCOSM  
 Noncensored Values= 747 Right Censored Values= 0  
 Left Censored Values= 756 Interval Censored Values= 0

Log Likelihood for NORMAL 1919.2193199

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.06841958	0.134253	0.259725	0.6103
SB	1	0.00124109	0.002649	0.219514	0.6394
TREND	1	0.00367139	0.005438	0.455885	0.4996
TRENDSQ	1	0.00026228	0.000215	1.486093	0.2228
P_FOOD	1	-0.0039208	0.019344	0.041085	0.8394
P_ALCH	1	-0.0509687	0.041645	1.497895	0.2210
P_TOBCO	1	-0.0283331	0.01697	2.787585	0.0950
P_CLOTH	1	0.0433281	0.068387	0.401413	0.5264
P_TSPRT	1	-0.0373925	0.031477	1.411152	0.2349
P_MISC	1	-0.0156973	0.039776	0.155743	0.6931
P_SVCS	1	0.05786831	0.026913	4.623211	0.0315
P_FDOUT	1	-0.0731064	0.054479	1.800736	0.1796
P_HOUS	1	-0.0109543	0.010651	1.057751	0.3037
P_FUEL	1	0.03661498	0.016739	4.785017	0.0287
P_DURBL	1	0.06562049	0.037359	3.085294	0.0790
DREG1	1	-0.0020588	0.001505	1.870182	0.1715
DREG2	1	0.000173	0.001238	0.019522	0.8889
DREG3	1	0.00324244	0.001497	4.694357	0.0303
DREG4	1	0.0032806	0.001697	3.739332	0.0531
DREG6	1	0.00272721	0.00105	6.746732	0.0094
DREG7	1	0.00029517	0.001414	0.043548	0.8347
DREG8	1	-0.0010191	0.001548	0.433503	0.5103
DREG9	1	0.00159132	0.001188	1.794841	0.1803
DREG10	1	0.00207878	0.001105	3.536604	0.0600
DREG11	1	-0.0003109	0.001214	0.065618	0.7978
DR3G12	1	-0.0028583	0.002495	1.311871	0.2521
DHHC0	1	-0.0014927	0.001491	1.001879	0.3169
DHHC1	1	0.00348272	0.001664	4.382788	0.0363
DHHC2	1	0.00096307	0.000931	1.071217	0.3007
DHHC3	1	0.00213295	0.00102	4.37679	0.0364
DHHC4	1	-0.0039193	0.002019	3.769452	0.0522
DHHC6	1	0.0006719	0.001324	0.257623	0.6118
DHHC7	1	-0.0034764	0.004948	0.493572	0.4823
DHHC8	1	0.00052025	0.001109	0.219906	0.6391
DHHC9	1	-0.0010338	0.002382	0.188412	0.6642
DHHC10	1	-0.0025363	0.001611	2.47738	0.1155
DQTR2	1	0.00393105	0.001962	4.015335	0.0451
DQTR3	1	0.00565547	0.00219	6.671354	0.0098
DQTR4	1	0.00563307	0.002783	4.098328	0.0429
HEADAGE	1	-0.0000538	0.00004	1.802276	0.1794
REALSB	1	0.00411923	0.03352	0.015101	0.9022
REALSBSQ	1	-0.0321274	0.104223	0.095021	0.7579
SB2NX	1	0.0342994	0.019851	2.985359	0.0840
RNETEXP	1	0.01325345	0.005513	5.778513	0.0162
NETEXPSQ	1	-0.0046806	0.003263	2.057202	0.1515
RFAMALL	1	0.09154261	0.082628	1.227429	0.2679
RFAMALSQ	1	-0.4943126	1.135959	0.189356	0.6635
CB2NX	1	-0.0722467	0.063294	1.302898	0.2537
SCALE	1	0.0098777	0.000278	Normal scale parameter	

Table A-4 (continued)

OLS Model for SHRDOMSV					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	0.04175	0.00089	3.092	0.0001
Error	1455	0.41802	0.00029		
C Total	1502	0.45977			
Root MSE	0.01695	R-square	0.0908		
Dep Mean	0.00365	Adj R-sq	0.0614		
C.V.	464.81955				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.123421	0.20552199	0.601	0.5482
SB	1	-0.000185	0.00407735	-0.045	0.9639
TREND	1	0.004011	0.00835811	0.480	0.6314
TRENDSQ	1	0.000127	0.00033109	0.384	0.7007
P_FOOD	1	0.031974	0.02925490	1.093	0.2746
P_ALCH	1	0.005551	0.06329224	0.088	0.9301
P_TOBCO	1	-0.005862	0.02590377	-0.226	0.8210
P_CLOTH	1	0.003730	0.10357347	0.036	0.9713
P_TSPRT	1	-0.030706	0.04870641	-0.630	0.5285
P_MISC	1	-0.050434	0.06028742	-0.837	0.4030
P_SVCS	1	-0.011642	0.04097736	-0.284	0.7764
P_FDOUT	1	-0.018261	0.08242194	-0.222	0.8247
P_HOUS	1	-0.009508	0.01606260	-0.592	0.5540
P_FUEL	1	0.014124	0.02550557	0.554	0.5798
P_DURBL	1	0.045329	0.05746685	0.789	0.4304
DREG1	1	0.001251	0.00220800	0.566	0.5712
DREG2	1	0.002202	0.00186662	1.180	0.2383
DREG3	1	0.001020	0.00234913	0.434	0.6641
DREG4	1	0.001266	0.00266879	0.474	0.6353
DREG6	1	0.000611	0.00162628	0.376	0.7073
DREG7	1	-0.000541	0.00215332	-0.251	0.8017
DREG8	1	0.004257	0.00228422	1.863	0.0626
DREG9	1	0.000427	0.00182886	0.233	0.8155
DREG10	1	0.004458	0.00169445	2.631	0.0086
DREG11	1	0.001515	0.00183054	0.827	0.4081
DREG12	1	-0.000564	0.00352881	-0.160	0.8730
DHHC0	1	0.000803	0.00223492	0.359	0.7194
DHHC1	1	0.002205	0.00257235	0.857	0.3915
DHHC2	1	0.004247	0.00142510	2.980	0.0029
DHHC3	1	0.002841	0.00158136	1.797	0.0726
DHHC4	1	0.002261	0.00286575	0.789	0.4303
DHHC6	1	0.003427	0.00201309	1.702	0.0889
DHHC7	1	0.000914	0.00655734	0.139	0.8892
DHHC8	1	-0.000123	0.00171052	-0.072	0.9426
DHHC9	1	0.017314	0.00348600	4.967	0.0001
DHHC10	1	0.003220	0.00234262	1.375	0.1695
DQTR2	1	-0.000814	0.00301440	-0.270	0.7871
DQTR3	1	0.001691	0.00334620	0.505	0.6133
DQTR4	1	0.001712	0.00424216	0.404	0.6865
HEADAGE	1	-0.000261	0.00006067	-4.301	0.0001
REALSB	1	-0.053191	0.05107249	-1.041	0.2978
REALSBSQ	1	0.178457	0.15688475	1.138	0.2555
SB2NX	1	0.019659	0.03081746	0.638	0.5236
RNETEXP	1	0.008066	0.00873327	0.924	0.3558
NETEXPSQ	1	-0.008177	0.00534539	-1.530	0.1263
RFAMALL	1	0.006263	0.12710479	0.049	0.9607
RFAMALSQ	1	-3.209279	1.77453669	-1.809	0.0707
CB2NX	1	0.298464	0.09846361	3.031	0.0025

Table A-4 (continued)

Tobit Model for SHRDMSV

Noncensored Values= 192 Right Censored Values= 0  
 Left Censored Values=1311 Interval Censored Values= 0

Log Likelihood for NORMAL -13.55422448

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.3061375	1.244249	0.060537	0.8056
SB	1	0.00020895	0.02925	0.000051	0.9943
TREND	1	0.03643992	0.050024	0.530644	0.4663
TRENDSQ	1	0.00094874	0.001982	0.2291	0.6322
P_FOOD	1	0.18524037	0.178716	1.074345	0.3000
P_ALCH	1	0.0368771	0.376194	0.009609	0.9219
P_TOBCO	1	0.09457758	0.165672	0.325895	0.5681
P_CLOTH	1	0.48863027	0.667923	0.535189	0.4644
P_TSPRT	1	-0.0978042	0.297523	0.108062	0.7424
P_MISC	1	-0.7657822	0.37881	4.086655	0.0432
P_SVCS	1	-0.1676142	0.258004	0.422054	0.5159
P_FDOUT	1	-0.319021	0.552454	0.333462	0.5636
P_HOUS	1	-0.0259378	0.099405	0.068084	0.7941
P_FUEL	1	0.10674119	0.151114	0.498948	0.4800
P_DURBL	1	0.38392611	0.360487	1.134268	0.2869
DREG1	1	0.02015945	0.013617	2.191777	0.1387
DREG2	1	0.01851397	0.011536	2.575736	0.1085
DREG3	1	0.00300735	0.014995	0.040225	0.8410
DREG4	1	0.01937173	0.015527	1.556606	0.2122
DREG6	1	0.01735099	0.009984	3.020406	0.0822
DREG7	1	0.00972533	0.013456	0.522397	0.4698
DREG8	1	0.00264802	0.015842	0.027939	0.8673
DREG9	1	0.0156332	0.01126	1.927631	0.1650
DREG10	1	0.03177844	0.010019	10.05951	0.0015
DREG11	1	0.01110046	0.011209	0.980746	0.3220
DREG12	1	-0.0096946	0.025728	0.141984	0.7063
DHHC0	1	0.02738964	0.013804	3.937124	0.0472
DHHC1	1	0.01851071	0.014514	1.626527	0.2022
DHHC2	1	0.02866399	0.009188	9.733622	0.0018
DHHC3	1	0.01766829	0.010193	3.00435	0.0830
DHHC4	1	0.04262236	0.014306	8.876283	0.0029
DHHC6	1	0.03108076	0.0111	7.840956	0.0051
DHHC7	1	0.02132212	0.038401	0.308301	0.5787
DHHC8	1	0.00966137	0.011319	0.72854	0.3934
DHHC9	1	0.05331936	0.017562	9.21764	0.0024
DHHC10	1	0.0318194	0.013491	5.562491	0.0183
DQTR2	1	-0.0104165	0.01804	0.333414	0.5637
DQTR3	1	0.0110329	0.020072	0.30213	0.5826
DQTR4	1	0.00674038	0.025655	0.069028	0.7928
HEADAGE	1	-0.0029157	0.000445	42.96246	0.0001
REALSB	1	-0.3653601	0.356988	1.047456	0.3061
REALSBSQ	1	1.15161928	1.071411	1.155328	0.2824
SB2NX	1	-0.0185558	0.195833	0.008978	0.9245
RNETEXP	1	0.06896392	0.048166	2.050054	0.1522
NETEXPSQ	1	-0.026326	0.024249	1.178618	0.2776
RFAMALL	1	0.47669345	0.726614	0.430399	0.5118
RFAMALSQ	1	-20.339302	10.53471	3.727581	0.0535
CB2NX	1	0.84658227	0.522942	2.620787	0.1055
SCALE	1	0.05932946	0.003448		Normal scale parameter

Table A-4 (continued)

OLS Model for SHRHAIRD					
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	0.00712	0.00015	2.168	0.0001
Error	1455	0.10175	0.00007		
C Total	1502	0.10887			
Root MSE	0.00836	R-square	0.0654		
Dep Mean	0.00295	Adj R-sq	0.0353		
C.V.	283.53459				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.049184	0.10139522	-0.485	0.6277
SB	1	-0.000194	0.00201158	-0.097	0.9230
TREND	1	-0.007607	0.00412351	-1.845	0.0653
TRENDSQ	1	0.000427	0.00016334	2.614	0.0090
P_FOOD	1	0.004243	0.01443304	0.294	0.7688
P_ALCH	1	-0.041722	0.03122552	-1.336	0.1817
P_TOBCO	1	0.001771	0.01277975	0.139	0.8898
P_CLOTH	1	0.011354	0.05109845	0.222	0.8242
P_TSPRT	1	0.030394	0.02402953	1.265	0.2061
P_MISC	1	-0.028978	0.02974308	-0.974	0.3301
P_SVCS	1	-0.008641	0.02021637	-0.427	0.6691
P_FDOUT	1	0.028929	0.04066324	0.711	0.4769
P_HOUS	1	-0.011828	0.00792456	-1.493	0.1358
P_FUEL	1	0.032735	0.01258329	2.601	0.0094
P_DURBL	1	-0.004611	0.02835153	-0.163	0.8708
DREG1	1	-0.000452	0.00108933	-0.415	0.6784
DREG2	1	0.001181	0.00092090	1.283	0.1999
DREG3	1	0.001738	0.00115895	1.500	0.1338
DREG4	1	0.002561	0.00131666	1.945	0.0520
DREG6	1	-0.000437	0.00080233	-0.544	0.5863
DREG7	1	0.001654	0.00106235	1.557	0.1197
DREG8	1	-0.001634	0.00112693	-1.450	0.1474
DREG9	1	-0.000318	0.00090228	-0.353	0.7242
DREG10	1	-0.000116	0.00083596	-0.138	0.8899
DREG11	1	0.000556	0.00090310	0.615	0.5385
DREG12	1	0.001513	0.00174095	0.869	0.3848
DHHC0	1	-0.000544	0.00110261	-0.493	0.6221
DHHC1	1	0.001259	0.00126908	0.992	0.3214
DHHC2	1	0.000449	0.00070308	0.638	0.5235
DHHC3	1	0.001702	0.00078017	2.181	0.0293
DHHC4	1	0.000947	0.00141383	0.670	0.5033
DHHC6	1	0.000707	0.00099317	0.712	0.4765
DHHC7	1	-0.000388	0.00323509	-0.120	0.9046
DHHC8	1	-0.000500	0.00084389	-0.593	0.5534
DHHC9	1	-0.001182	0.00171983	-0.687	0.4922
DHHC10	1	0.000480	0.00115574	0.415	0.6779
DQTR2	1	-0.001559	0.00148717	-1.049	0.2946
DQTR3	1	-0.001494	0.00165086	-0.905	0.3655
DQTR4	1	-0.003832	0.00209289	-1.831	0.0673
HEADAGE	1	0.000008917	0.00002993	0.298	0.7658
REALSB	1	-0.022158	0.02519685	-0.879	0.3793
REALSBSQ	1	0.120189	0.07739981	1.553	0.1207
SB2NX	1	0.010858	0.01520393	0.714	0.4753
RNETEXP	1	0.004414	0.00430860	1.025	0.3057
NETEXPSQ	1	-0.004139	0.00263717	-1.569	0.1168
RFAMALL	1	0.061586	0.06270773	0.982	0.3262
RFAMALSQ	1	-0.790431	0.87547584	-0.903	0.3668
CB2NX	1	0.041990	0.04857747	0.864	0.3875

Table A-4 (continued)

Tobit Model for SHRHAIRD  
 Noncensored Values= 332 Right Censored Values= 0  
 Left Censored Values=1171 Interval Censored Values= 0

Log Likelihood for NORMAL 358.04899591

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.138443	0.393951	0.123497	0.7253
SB	1	-0.0046052	0.007848	0.344324	0.5573
TREND	1	-0.0236456	0.016037	2.174043	0.1404
TRENDSQ	1	0.00116512	0.000639	3.322092	0.0684
P_FOOD	1	0.02786355	0.056967	0.239232	0.6248
P_ALCH	1	-0.1333203	0.121388	1.206252	0.2721
P_TOBCO	1	-0.0240106	0.049263	0.237555	0.6260
P_CLOTH	1	-0.034422	0.195999	0.030843	0.8606
P_TSPRT	1	0.05672349	0.093733	0.366218	0.5451
P_MISC	1	-0.0801427	0.113216	0.501089	0.4790
P_SVCS	1	-0.0448014	0.078398	0.326568	0.5677
P_FDOUT	1	0.13027374	0.155367	0.703062	0.4018
P_HOUS	1	-0.0246261	0.031928	0.594916	0.4405
P_FUEL	1	0.13108617	0.050369	6.773103	0.0093
P_DURBL	1	0.02714749	0.11124	0.059558	0.8072
DREG1	1	0.00291525	0.004418	0.435371	0.5094
DREG2	1	0.01093568	0.003663	8.914538	0.0028
DREG3	1	0.00855678	0.00446	3.680635	0.0550
DREG4	1	0.01112749	0.004871	5.219101	0.0223
DREG6	1	0.00327076	0.003229	1.025886	0.3111
DREG7	1	0.01065908	0.004069	6.862651	0.0088
DREG8	1	-0.0029676	0.004954	0.358792	0.5492
DREG9	1	0.00105607	0.003757	0.079014	0.7786
DREG10	1	0.00390494	0.003425	1.299579	0.2543
DREG11	1	0.00752272	0.003586	4.400273	0.0359
DREG12	1	0.00815907	0.006611	1.523025	0.2172
DHHC0	1	-0.0039501	0.00428	0.851834	0.3560
DHHC1	1	-0.0017888	0.006111	0.08568	0.7697
DHHC2	1	0.00049992	0.002788	0.032144	0.8577
DHHC3	1	0.00575409	0.002997	3.685945	0.0549
DHHC4	1	0.00299588	0.005689	0.277319	0.5985
DHHC6	1	0.002426	0.003925	0.381965	0.5366
DHHC7	1	-0.1288261	144.4193	7.957E-7	0.9993
DHHC8	1	-0.0013404	0.003241	0.170989	0.6792
DHHC9	1	-0.011843	0.009167	1.669102	0.1964
DHHC10	1	-0.0010499	0.004668	0.050591	0.8220
DQTR2	1	-0.0037159	0.005802	0.410242	0.5218
DQTR3	1	-0.0036318	0.006361	0.325964	0.5680
DQTR4	1	-0.0129762	0.008182	2.515003	0.1128
HEADAGE	1	0.00010055	0.000117	0.742346	0.3889
REALSB	1	-0.029267	0.096644	0.091709	0.7620
REALSBSQ	1	0.39558665	0.294463	1.80477	0.1791
SB2NX	1	0.03673154	0.054296	0.457653	0.4987
RNETEXP	1	0.04171115	0.015131	7.599672	0.0058
NETEXPSQ	1	-0.0222479	0.008534	6.796421	0.0091
RFAMALL	1	0.20634213	0.231015	0.797802	0.3718
RFAMALSQ	1	-1.0982844	3.124558	0.123553	0.7252
CB2NX	1	0.05672659	0.170309	0.110942	0.7391
SCALE	1	0.02366603	0.001067	Normal	scale parameter

Table A-4 (continued)

## OLS Model for SHROTHTB

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	0.0000768507	1.6351213E-6	1.517	0.0143
Error	1455	0.0015682569	1.0778398E-6		
C Total	1502	0.00165			
Root MSE	0.00104	R-square	0.0467		
Dep Mean	0.00012	Adj R-sq	0.0159		
C.V.	899.28462				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.011957	0.01258834	-0.950	0.3423
SB	1	0.000357	0.00024974	1.429	0.1533
TREND	1	-0.000392	0.00051194	-0.765	0.4444
TRENDSQ	1	0.000030015	0.00002028	1.480	0.1391
P_FOOD	1	0.001568	0.00179188	0.875	0.3816
P_ALCH	1	0.000411	0.00387669	0.106	0.9155
P_TOBACO	1	-0.000604	0.00158662	-0.381	0.7033
P_CLOTH	1	0.006037	0.00634394	0.952	0.3415
P_TSPRT	1	-0.002440	0.00298330	-0.818	0.4136
P_MISC	1	0.000788	0.00369264	0.213	0.8311
P_SVCS	1	0.000779	0.00250989	0.311	0.7562
P_FDOUT	1	-0.005385	0.00504839	-1.067	0.2863
P_HOUS	1	0.000561	0.00098384	0.570	0.5685
P_FUEL	1	0.001173	0.00156223	0.751	0.4530
P_DURBL	1	-0.000228	0.00351988	-0.065	0.9483
DREG1	1	-0.000017277	0.00013524	-0.128	0.8984
DREG2	1	0.000186	0.00011433	1.626	0.1041
DREG3	1	0.000029978	0.00014389	0.208	0.8350
DREG4	1	0.000340	0.00016347	2.080	0.0377
DREG6	1	0.000220	0.00009961	2.212	0.0271
DREG7	1	0.000116	0.00013189	0.881	0.3783
DREG8	1	0.000408	0.00013991	2.917	0.0036
DREG9	1	0.000132	0.00011202	1.180	0.2383
DREG10	1	0.000060885	0.00010379	0.587	0.5575
DREG11	1	0.000013528	0.00011212	0.121	0.9040
DREG12	1	-0.000005724	0.00021614	-0.026	0.9789
DHHC0	1	-0.000036616	0.00013689	-0.267	0.7891
DHHC1	1	0.000093100	0.00015756	0.591	0.5547
DHHC2	1	0.000099683	0.00008729	1.142	0.2536
DHHC3	1	0.000242	0.00009686	2.499	0.0126
DHHC4	1	0.000023875	0.00017553	0.136	0.8918
DHHC6	1	0.000089077	0.00012330	0.722	0.4702
DHHC7	1	-0.000041209	0.00040164	-0.103	0.9183
DHHC8	1	-0.000061171	0.00010477	-0.584	0.5594
DHHC9	1	0.000202	0.00021352	0.945	0.3446
DHHC10	1	-0.000122	0.00014349	-0.849	0.3959
DQTR2	1	0.000087629	0.00018463	0.475	0.6351
DQTR3	1	-0.000051580	0.00020496	-0.252	0.8013
DQTR4	1	0.000013806	0.00025983	0.053	0.9576
HEADAGE	1	-0.000000330	0.00000372	-0.089	0.9291
REALSB	1	-0.006460	0.00312822	-2.065	0.0391
REALSBSQ	1	0.029757	0.00960928	3.097	0.0020
SB2NX	1	0.002382	0.00188759	1.262	0.2072
RNETEXP	1	0.000245	0.00053492	0.457	0.6475
NETEXPSQ	1	-0.000135	0.00032741	-0.414	0.6792
RFAMALL	1	0.013783	0.00778524	1.770	0.0769
RFAMALSQ	1	-0.079003	0.10869140	-0.727	0.4674
CB2NX	1	-0.002575	0.00603095	-0.427	0.6695

Table A-4 (continued)

Tobit Model for SHROTHB  
 Noncensored Values= 33 Right Censored Values= 0  
 Left Censored Values=1470 Interval Censored Values= 0

Log Likelihood for NORMAL 25.528946179

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.3113049	0.559204	0.309907	0.5777
SB	1	0.00097051	0.009942	0.009529	0.9222
TREND	1	-0.0068312	0.018966	0.129732	0.7187
TRENDSQ	1	0.00075621	0.000727	1.080521	0.2986
P_FOOD	1	0.0438859	0.069697	0.39648	0.5289
P_ALCH	1	0.0210752	0.188318	0.012524	0.9109
P_TOBCO	1	-0.0227793	0.067824	0.112801	0.7370
P_CLOTH	1	0.14686225	0.278905	0.277273	0.5985
P_TSPRT	1	-0.1220204	0.128432	0.902648	0.3421
P_MISC	1	-0.0137833	0.139608	0.009747	0.9214
P_SVCS	1	-0.0286798	0.106289	0.072808	0.7873
P_FDOUT	1	-0.1416904	0.196054	0.52231	0.4699
P_HOUS	1	0.02190707	0.037457	0.342068	0.5586
P_FUEL	1	0.0570058	0.059777	0.909435	0.3403
P_DURBL	1	0.09795772	0.161365	0.368519	0.5438
DREG1	1	-0.0656741	840.7614	6.102E-9	0.9999
DREG2	1	0.00840748	0.004409	3.636709	0.0565
DREG3	1	-0.0602733	902.2865	4.462E-9	0.9999
DREG4	1	0.00964958	0.005375	3.222639	0.0726
DREG6	1	0.00800898	0.003851	4.32542	0.0375
DREG7	1	0.00520323	0.005053	1.060164	0.3032
DREG8	1	0.00960902	0.004548	4.463304	0.0346
DREG9	1	0.00722645	0.004173	2.999252	0.0833
DREG10	1	0.00062114	0.004578	0.018412	0.8921
DREG11	1	-0.0613208	628.4481	9.521E-9	0.9999
DREG12	1	-0.0593578	1481.648	1.605E-9	1.0000
DHHC0	1	0.00130297	0.004164	0.09791	0.7544
DHHC1	1	-0.0594693	999.7835	3.538E-9	1.0000
DHHC2	1	0.00172103	0.003898	0.194946	0.6588
DHHC3	1	0.00928128	0.003692	6.319963	0.0119
DHHC4	1	-0.068641	1170.471	3.439E-9	1.0000
DHHC6	1	0.00420667	0.004388	0.919151	0.3377
DHHC7	1	-0.058669	2914.827	4.05E-10	1.0000
DHHC8	1	0.00119232	0.003534	0.113822	0.7358
DHHC9	1	0.00726052	0.005629	1.663568	0.1971
DHHC10	1	-0.0673662	938.552	5.152E-9	0.9999
DQTR2	1	0.00707705	0.006484	1.191357	0.2751
DQTR3	1	-0.0031966	0.007692	0.172693	0.6777
DQTR4	1	0.00653374	0.008938	0.534368	0.4648
HEADAGE	1	-0.0001402	0.000156	0.809293	0.3683
REALSB	1	0.05687433	0.114108	0.248426	0.6182
REALSBSQ	1	0.2322995	0.281972	0.678711	0.4100
SB2NX	1	-0.107398	0.077818	1.904719	0.1676
RNETEXP	1	0.07685183	0.038753	3.932709	0.0474
NETEXPSQ	1	-0.0578188	0.038973	2.200954	0.1379
RFAMALL	1	0.54141112	0.313262	2.987019	0.0839
RFAMALSQ	1	-1.2097958	3.314175	0.133252	0.7151
CB2NX	1	-0.3742179	0.246456	2.305527	0.1289
SCALE	1	0.01107719	0.001688	Normal scale parameter	

Table A-4 (continued)

## OLS Model for SHRPETS

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	0.01259	0.00027	2.716	0.0001
Error	1455	0.14350	0.00010		
C Total	1502	0.15609			
Root MSE	0.00993	R-square	0.0807		
Dep Mean	0.00536	Adj R-sq	0.0510		
C.V.	185.37123				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.054052	0.12041714	-0.449	0.6536
SB	1	0.000124	0.00238896	0.052	0.9587
TREND	1	-0.003613	0.00489709	-0.738	0.4607
TRENDSQ	1	0.000241	0.00019399	1.241	0.2147
P_FOOD	1	0.007045	0.01714070	0.411	0.6811
P_ALCH	1	0.014397	0.03708348	0.388	0.6979
P_TOBACO	1	0.002766	0.01517725	0.182	0.8554
P_CLOTH	1	0.017334	0.06068461	0.286	0.7752
P_TSPRT	1	-0.003197	0.02853751	-0.112	0.9108
P_MISC	1	0.013044	0.03532293	0.369	0.7120
P_SVCS	1	-0.010762	0.02400899	-0.448	0.6540
P_FDOUT	1	0.001349	0.04829174	0.028	0.9777
P_HOUS	1	-0.011089	0.00941122	-1.178	0.2389
P_FUEL	1	-0.006352	0.01494394	-0.425	0.6709
P_DURBL	1	-0.010244	0.03367033	-0.304	0.7610
DREG1	1	-0.000907	0.00129369	-0.701	0.4831
DREG2	1	-0.002026	0.00109367	-1.853	0.0641
DREG3	1	-0.001513	0.00137638	-1.099	0.2719
DREG4	1	-0.001013	0.00156367	-0.648	0.5171
DREG6	1	0.001821	0.00095285	1.911	0.0562
DREG7	1	0.00069826	0.00126165	0.055	0.9559
DREG8	1	-0.001755	0.00133835	-1.311	0.1900
DREG9	1	-0.000410	0.00107154	-0.382	0.7023
DREG10	1	-0.000625	0.00099279	-0.630	0.5290
DREG11	1	-0.002748	0.00107253	-2.562	0.0105
DREG12	1	-0.004828	0.00206756	-2.335	0.0197
DHHC0	1	0.000216	0.00130946	0.165	0.8692
DHHC1	1	-0.004274	0.00150717	-2.836	0.0046
DHHC2	1	-0.001373	0.00083498	-1.644	0.1003
DHHC3	1	-0.000188	0.00092654	-0.203	0.8389
DHHC4	1	-0.004341	0.00167907	-2.586	0.0098
DHHC6	1	-0.002786	0.00117949	-2.362	0.0183
DHHC7	1	-0.005411	0.00384200	-1.408	0.1593
DHHC8	1	0.000810	0.00100221	0.809	0.4189
DHHC9	1	-0.000953	0.00204248	-0.466	0.6409
DHHC10	1	-0.003367	0.00137256	-2.453	0.0143
DQTR2	1	0.000899	0.00176617	0.509	0.6110
DQTR3	1	0.000328	0.00196057	0.167	0.8670
DQTR4	1	0.000335	0.00248552	0.135	0.8929
HEADAGE	1	0.000054879	0.00003555	1.544	0.1228
REALSB	1	-0.026415	0.02992382	-0.883	0.3775
REALSBSQ	1	0.009328	0.09192015	0.101	0.9192
SB2NX	1	0.016086	0.01805622	0.891	0.3731
RNETEXP	1	-0.013509	0.00511690	-2.640	0.0084
NETEXPSQ	1	0.006117	0.00313191	1.953	0.0510
RFAMALL	1	-0.061945	0.07447181	-0.832	0.4057
RFAMALSQ	1	0.846830	1.03971662	0.814	0.4155
CB2NX	1	-0.023150	0.05769069	-0.401	0.6883

Table A-4 (continued)

Tobit Model for SHRPETS

Noncensored Values= 703 Right Censored Values= 0  
 Left Censored Values= 800 Interval Censored Values= 0

Log Likelihood for NORMAL 1397.4835854

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.1513931	0.232815	0.422854	0.5155
SB	1	0.0014281	0.004493	0.10101	0.7506
TREND	1	-0.0048575	0.009488	0.262089	0.6087
TRENDSQ	1	0.00036159	0.000375	0.931426	0.3345
P_FOOD	1	-0.0027319	0.033435	0.006676	0.9349
P_ALCH	1	0.03765043	0.071389	0.278145	0.5979
P_TOBCO	1	-0.0032463	0.029285	0.012288	0.9117
P_CLOTH	1	0.0888928	0.117357	0.573739	0.4488
P_TSPRT	1	-0.0222278	0.05532	0.161446	0.6878
P_MISC	1	-0.0023698	0.067537	0.001231	0.9720
P_SVCS	1	-0.0215275	0.046845	0.211181	0.6458
P_FDOUT	1	-0.0225421	0.093207	0.058492	0.8089
P_HOUS	1	-0.0008391	0.018213	0.002122	0.9633
P_FUEL	1	0.01181963	0.028725	0.16931	0.6807
P_DURBL	1	-0.0297517	0.06578	0.204566	0.6511
DREG1	1	0.000634	0.002457	0.066559	0.7964
DREG2	1	-0.0027871	0.002146	1.686528	0.1941
DREG3	1	-0.0013088	0.002655	0.242971	0.6221
DREG4	1	-0.0001144	0.002956	0.001498	0.9691
DREG6	1	0.00416786	0.001807	5.321678	0.0211
DREG7	1	0.00232491	0.002373	0.96023	0.3271
DREG8	1	-0.0022629	0.002605	0.754629	0.3850
DREG9	1	0.00065621	0.002056	0.101828	0.7496
DREG10	1	-0.0006288	0.001923	0.106881	0.7437
DREG11	1	-0.0059414	0.002177	7.450563	0.0063
DREG12	1	-0.010659	0.004378	5.928369	0.0149
DHHC0	1	0.00060885	0.002483	0.060107	0.8063
DHHC1	1	-0.0120977	0.00335	13.03771	0.0003
DHHC2	1	-0.0032043	0.001609	3.964034	0.0465
DHHC3	1	-0.0007796	0.001743	0.200136	0.6546
DHHC4	1	-0.0104456	0.00358	8.513742	0.0035
DHHC6	1	-0.0056405	0.00236	5.713858	0.0168
DHHC7	1	-0.0159018	0.009532	2.782907	0.0953
DHHC8	1	0.00236096	0.001851	1.62746	0.2021
DHHC9	1	-0.0021316	0.003982	0.286577	0.5924
DHHC10	1	-0.0075024	0.002808	7.136101	0.0076
DQTR2	1	0.00155451	0.003398	0.209298	0.6473
DQTR3	1	0.00021639	0.003773	0.003289	0.9543
DQTR4	1	0.00012105	0.004766	0.000645	0.9797
HEADAGE	1	0.00014404	0.000069	4.406249	0.0358
REALSB	1	-0.0406818	0.056525	0.517987	0.4717
REALSBSQ	1	0.03511687	0.172477	0.041454	0.8387
SB2NX	1	0.02784057	0.034748	0.641957	0.4230
RNETEXP	1	-0.0112102	0.009665	1.345345	0.2461
NETEXPSQ	1	0.00636269	0.005658	1.264792	0.2607
RFAMALL	1	-0.0528107	0.141644	0.139011	0.7093
RFAMALSQ	1	1.18294635	1.941876	0.371097	0.5424
CB2NX	1	-0.0516832	0.108216	0.228096	0.6329
SCALE	1	0.01679638	0.000491		Normal scale parameter

Table A-4 (continued)

OLS Model for SHRPKTMO

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	0.00912	0.00019	4.287	0.0001
Error	1455	0.06585	0.00005		
C Total	1502	0.07497			
Root MSE	0.00673	R-square	0.1216		
Dep Mean	0.00311	Adj R-sq	0.0933		
C.V.	216.31062				
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	-0.005901	0.08157376	-0.072	0.9423
SB	1	0.003366	0.00161834	2.080	0.0377
TREND	1	-0.003821	0.00331742	-1.152	0.2496
TRENDSQ	1	0.000235	0.00013141	1.789	0.0739
P_FOOD	1	0.009993	0.01161157	0.861	0.3896
P_ALCH	1	-0.020701	0.02512133	-0.824	0.4100
P_TOBCO	1	0.000216	0.01028147	0.021	0.9832
P_CLOTH	1	0.004728	0.04110936	0.115	0.9084
P_TSPRT	1	0.020032	0.01933207	1.036	0.3003
P_MISC	1	-0.002437	0.02392869	-0.102	0.9189
P_SVCS	1	-0.006687	0.01626433	-0.411	0.6810
P_FDOUT	1	0.004729	0.03271410	0.145	0.8851
P_HOUS	1	-0.004070	0.00637541	-0.638	0.5233
P_FUEL	1	0.013031	0.01012342	1.287	0.1982
P_DURBL	1	-0.016428	0.02280918	-0.720	0.4715
DREG1	1	0.000753	0.00087638	0.859	0.3905
DREG2	1	0.000077201	0.00074088	0.104	0.9170
DREG3	1	0.001501	0.00093239	1.610	0.1076
DREG4	1	0.000525	0.00105927	0.496	0.6203
DREG6	1	-0.000562	0.00064549	-0.871	0.3839
DREG7	1	-0.000102	0.00085467	-0.120	0.9047
DREG8	1	0.001236	0.00090663	1.363	0.1730
DREG9	1	-0.000701	0.00072589	-0.966	0.3344
DREG10	1	0.000017991	0.00067254	0.027	0.9787
DREG11	1	0.002006	0.00072656	2.761	0.0058
DREG12	1	-0.000579	0.00140062	-0.413	0.6796
DHHC0	1	-0.001303	0.00088706	-1.469	0.1419
DHHC1	1	-0.002711	0.00102099	-2.655	0.0080
DHHC2	1	-0.001338	0.00056564	-2.365	0.0182
DHHC3	1	-0.002321	0.00062766	-3.697	0.0002
DHHC4	1	-0.002822	0.00113745	-2.481	0.0132
DHHC6	1	-0.001937	0.00079902	-2.424	0.0155
DHHC7	1	-0.003197	0.00260268	-1.228	0.2196
DHHC8	1	0.000775	0.00067892	1.142	0.2536
DHHC9	1	-0.002925	0.00138363	-2.114	0.0347
DHHC10	1	-0.002428	0.00092981	-2.611	0.0091
DQTR2	1	0.000137	0.00119645	0.115	0.9085
DQTR3	1	0.000621	0.00132814	0.468	0.6400
DQTR4	1	-0.001192	0.00168376	-0.708	0.4792
HEADAGE	1	0.000093708	0.00002408	3.892	0.0001
REALSB	1	-0.034217	0.02027119	-1.688	0.0916
REALSBSQ	1	0.129796	0.06226915	2.084	0.0373
SB2NX	1	0.000619	0.01223176	0.051	0.9596
RNETEXP	1	-0.000328	0.00346632	-0.095	0.9247
NETEXPSQ	1	-0.000644	0.00212164	-0.304	0.7615
RFAMALL	1	0.154716	0.05044918	3.067	0.0022
RFAMALSQ	1	-0.230750	0.70433163	-0.328	0.7432
CB2NX	1	-0.074198	0.03908121	-1.899	0.0578

Table A-4 (continued)

Tobit Model for SHRPKTMO  
 Noncensored Values= 509 Right Censored Values= 0  
 Left Censored Values= 994 Interval Censored Values= 0

Log Likelihood for NORMAL 1012.2038159

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	-0.2250657	0.21232	1.12366	0.2891
SB	1	0.00639355	0.00404	2.504991	0.1135
TREND	1	-0.0140868	0.008638	2.659266	0.1029
TRENDSQ	1	0.00059601	0.000345	2.984771	0.0841
P_FOOD	1	0.00854197	0.029944	0.081374	0.7754
P_ALCH	1	0.0170797	0.064082	0.071039	0.7898
P_TOBCO	1	0.00256391	0.026392	0.009438	0.9226
P_CLOTH	1	0.052203	0.104267	0.250667	0.6166
P_TSPRT	1	0.04205185	0.05076	0.686333	0.4074
P_MISC	1	-0.0008508	0.060404	0.000198	0.9888
P_SVCS	1	-0.0116551	0.04209	0.076677	0.7819
P_FDOUT	1	0.00540193	0.083282	0.004207	0.9483
P_HOUS	1	-0.0019984	0.016398	0.014851	0.9030
P_FUEL	1	0.00569588	0.026076	0.047712	0.8271
P_DURBL	1	-0.0697495	0.058169	1.437777	0.2305
DREG1	1	0.00327301	0.002237	2.140385	0.1435
DREG2	1	0.00118173	0.001958	0.3641	0.5462
DREG3	1	0.00312581	0.002383	1.720859	0.1896
DREG4	1	0.00243823	0.00267	0.833711	0.3612
DREG6	1	-0.000565	0.00169	0.111748	0.7382
DREG7	1	-0.00022	0.002233	0.009711	0.9215
DREG8	1	0.00363766	0.002286	2.531988	0.1116
DREG9	1	-0.001535	0.001948	0.620939	0.4307
DREG10	1	0.0003956	0.001759	0.050587	0.8220
DREG11	1	0.00437451	0.001866	5.49833	0.0190
DREG12	1	-0.0012605	0.003593	0.123106	0.7257
DHHC0	1	-0.0041842	0.002163	3.741304	0.0531
DHHC1	1	-0.0216791	0.005666	14.63705	0.0001
DHHC2	1	-0.0038966	0.001432	7.404525	0.0065
DHHC3	1	-0.0076432	0.001634	21.89229	0.0001
DHHC4	1	-0.0185227	0.005045	13.47787	0.0002
DHHC6	1	-0.0060613	0.002128	8.112702	0.0044
DHHC7	1	-0.0411257	0.073904	0.309661	0.5779
DHHC8	1	0.0004303	0.001581	0.074099	0.7855
DHHC9	1	-0.0195097	0.006523	8.945937	0.0028
DHHC10	1	-0.0061897	0.002387	6.726933	0.0095
DQTR2	1	-0.0007497	0.003074	0.059489	0.8073
DQTR3	1	-0.0021997	0.003411	0.415825	0.5190
DQTR4	1	-0.0053572	0.004336	1.526367	0.2167
HEADAGE	1	0.00026251	0.000062	17.79238	0.0001
REALSB	1	-0.0548971	0.050468	1.183235	0.2767
REALSBSQ	1	0.28297439	0.150448	3.537715	0.0600
SB2NX	1	0.00086808	0.032511	0.000713	0.9787
RNETEXP	1	0.01495705	0.011057	1.829902	0.1761
NETEXPSQ	1	-0.0146048	0.009104	2.573643	0.1087
RFAMALL	1	0.45526793	0.129347	12.38866	0.0004
RFAMALSQ	1	-2.4776883	1.702827	2.117154	0.1457
CB2NX	1	-0.1568237	0.101356	2.394004	0.1218
SCALE	1	0.01387206	0.000485		Normal scale parameter

Table A-4 (continued)

## OLS Model for SHRTOYS

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	0.02325	0.00049	2.984	0.0001
Error	1455	0.24119	0.00017		
C Total	1502	0.26444			
Root MSE	0.01287	R-square	0.0879		
Dep Mean	0.00319	Adj R-sq	0.0585		
C.V.	403.53964				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.094174	0.15611264	0.603	0.5464
SB	1	-0.002958	0.00309712	-0.955	0.3396
TREND	1	-0.000697	0.00634875	-0.110	0.9125
TRENDSQ	1	0.000208	0.00025149	0.826	0.4091
P_FOOD	1	0.037472	0.02222176	1.686	0.0920
P_ALCH	1	-0.004430	0.04807621	-0.092	0.9266
P_TOBCO	1	0.005176	0.01967627	0.263	0.7925
P_CLOTH	1	-0.027006	0.07867347	-0.343	0.7314
P_TSPRT	1	0.008518	0.03699695	0.230	0.8179
P_MISC	1	-0.062483	0.04579378	-1.364	0.1726
P_SVCS	1	-0.049274	0.03112603	-1.583	0.1136
P_FDOUT	1	0.045004	0.06260696	0.719	0.4724
P_HOUS	1	-0.021359	0.01220101	-1.751	0.0802
P_FUEL	1	0.015764	0.01937380	0.814	0.4160
P_DURBL	1	0.034252	0.04365130	0.785	0.4328
DREG1	1	-0.001136	0.00167718	-0.677	0.4983
DREG2	1	-0.001192	0.00141787	-0.841	0.4006
DREG3	1	-0.000018719	0.00178438	-0.010	0.9916
DREG4	1	0.003326	0.00202719	1.641	0.1011
DREG6	1	-0.001607	0.00123531	-1.301	0.1935
DREG7	1	-0.001343	0.00163564	-0.821	0.4118
DREG8	1	0.001529	0.00173507	0.881	0.3784
DREG9	1	-0.001786	0.00138918	-1.286	0.1987
DREG10	1	-0.001127	0.00128709	-0.876	0.3814
DREG11	1	-0.002270	0.00139046	-1.633	0.1027
DREG12	1	0.000065572	0.00268045	0.024	0.9805
DHHC0	1	-0.002245	0.00169762	-1.322	0.1863
DHHC1	1	-0.000582	0.00195394	-0.298	0.7659
DHHC2	1	-0.000123	0.00108249	-0.114	0.9095
DHHC3	1	-0.001982	0.00120119	-1.650	0.0991
DHHC4	1	-0.001742	0.00217680	-0.800	0.4238
DHHC6	1	0.001292	0.00152912	0.845	0.3981
DHHC7	1	-0.000464	0.00498090	-0.093	0.9258
DHHC8	1	-0.001390	0.00129930	-1.070	0.2849
DHHC9	1	-0.000310	0.00264793	-0.117	0.9068
DHHC10	1	-0.000141	0.00177943	-0.079	0.9367
DQTR2	1	-0.000611	0.00228971	-0.267	0.7897
DQTR3	1	0.000439	0.00254174	0.173	0.8630
DQTR4	1	0.006138	0.00322231	1.905	0.0570
HEADAGE	1	-0.000143	0.00004608	-3.103	0.0019
REALSB	1	0.056592	0.03879420	1.459	0.1448
REALSBSQ	1	-0.179736	0.11916824	-1.508	0.1317
SB2NX	1	0.020443	0.02340866	0.873	0.3826
RNETEXP	1	0.009532	0.00663371	1.437	0.1510
NETEXPSQ	1	-0.005793	0.00406031	-1.427	0.1538
RFAMALL	1	0.049690	0.09654765	0.515	0.6069
RFAMALSQ	1	-1.109424	1.34792203	-0.823	0.4106
CB2NX	1	-0.041356	0.07479207	-0.553	0.5804

Table A-4 (continued)

Tobit Model for SHRTOYS  
 Noncensored Values= 343 Right Censored Values= 0  
 Left Censored Values=1160 Interval Censored Values= 0

Log Likelihood for NORMAL 315.28794794

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	0.19703046	0.525737	0.140452	0.7078
SB	1	-0.0167313	0.011796	2.011755	0.1561
TREND	1	0.02272152	0.021197	1.149008	0.2838
TRENDSQ	1	0.00009961	0.000816	0.014906	0.9028
P_FOOD	1	-0.0109363	0.073114	0.022374	0.8811
P_ALCH	1	0.09819675	0.174989	0.314902	0.5747
P_TOBCO	1	-0.0387963	0.066964	0.33566	0.5623
P_CLOTH	1	0.21189469	0.27818	0.580215	0.4462
P_TSPRT	1	-0.1354524	0.13149	1.061176	0.3029
P_MISC	1	-0.3954317	0.166731	5.624812	0.0177
P_SVCS	1	0.00916714	0.103548	0.007838	0.9295
P_FDOUT	1	-0.1169002	0.221931	0.277457	0.5984
P_HOUS	1	-0.0573862	0.043184	1.765939	0.1839
P_FUEL	1	0.13590915	0.065929	4.249559	0.0393
P_DURBL	1	0.24466955	0.150963	2.626762	0.1051
DREG1	1	-0.0042596	0.00596	0.510759	0.4748
DREG2	1	0.00048251	0.004877	0.009789	0.9212
DREG3	1	0.00405464	0.006073	0.445735	0.5044
DREG4	1	0.00867601	0.00667	1.692038	0.1933
DREG6	1	-0.0001691	0.004199	0.001622	0.9679
DREG7	1	0.00055553	0.00554	0.010057	0.9201
DREG8	1	0.00793256	0.005689	1.944513	0.1632
DREG9	1	0.00189479	0.004663	0.165114	0.6845
DREG10	1	0.00074906	0.004413	0.028809	0.8652
DREG11	1	-0.0035432	0.004778	0.54993	0.4583
DREG12	1	0.0039076	0.009165	0.181769	0.6699
DHHC0	1	-0.003477	0.005813	0.357811	0.5497
DHHC1	1	0.00461297	0.006243	0.54596	0.4600
DHHC2	1	0.00468914	0.003664	1.6379	0.2006
DHHC3	1	-0.0081541	0.00436	3.497798	0.0615
DHHC4	1	0.00173862	0.007183	0.058594	0.8087
DHHC6	1	0.01396925	0.00475	8.6492	0.0033
DHHC7	1	0.00924285	0.015001	0.379659	0.5378
DHHC8	1	-0.0022313	0.004546	0.24091	0.6235
DHHC9	1	0.00553412	0.008263	0.448556	0.5030
DHHC10	1	0.0083183	0.005808	2.051115	0.1521
DQTR2	1	0.00710201	0.007736	0.842844	0.3586
DQTR3	1	0.01066452	0.008781	1.474856	0.2246
DQTR4	1	0.03575231	0.011216	10.16013	0.0014
HEADAGE	1	-0.0006395	0.000165	14.9442	0.0001
REALSB	1	0.25659785	0.149381	2.95064	0.0858
REALSBSQ	1	-0.8504292	0.462963	3.374304	0.0662
SB2NX	1	0.13656801	0.077381	3.114796	0.0776
RNETEXP	1	0.04667029	0.021435	4.740761	0.0295
NETEXPSQ	1	-0.0192294	0.011638	2.730017	0.0985
RFAMALL	1	0.15771091	0.326494	0.233331	0.6291
RFAMALSQ	1	-2.6669645	4.586014	0.338192	0.5609
CB2NX	1	-0.1076055	0.237984	0.204443	0.6512
SCALE	1	0.03141254	0.001316	Normal scale parameter	

Table A-4 (continued)

## OLS Model for SHREDUC

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	47	0.13405	0.00285	3.481	0.0001
Error	1455	1.19203	0.00082		
C Total	1502	1.32608			
Root MSE	0.02862	R-square	0.1011		
Dep Mean	0.00559	Adj R-sq	0.0721		
C.V.	511.70504				

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob >  T
INTERCEP	1	0.180160	0.34705944	0.519	0.6038
SB	1	-0.000489	0.00688532	-0.071	0.9433
TREND	1	-0.005025	0.01411412	-0.356	0.7219
TRENDSQ	1	0.000082570	0.00055910	0.148	0.8826
P_FOOD	1	0.083431	0.04940196	1.689	0.0915
P_ALCH	1	-0.140650	0.10687990	-1.316	0.1884
P_TOBCO	1	0.045677	0.04374301	1.044	0.2966
P_CLOTH	1	-0.202244	0.17490173	-1.156	0.2477
P_TSPT	1	0.000021164	0.08224920	0.000	0.9998
P_MISC	1	0.234115	0.10180575	2.300	0.0216
P_SVCS	1	-0.060033	0.06919736	-0.868	0.3858
P_FDOUT	1	0.031921	0.13918371	0.229	0.8186
P_HOUS	1	-0.028752	0.02712449	-1.060	0.2893
P_FUEL	1	-0.004461	0.04307057	-0.104	0.9175
P_DURBL	1	-0.000079364	0.09704272	-0.001	0.9993
DREG1	1	-0.001655	0.00372859	-0.444	0.6573
DREG2	1	0.002202	0.00315211	0.698	0.4850
DREG3	1	0.003938	0.00396691	0.993	0.3210
DREG4	1	-0.001384	0.00450672	-0.307	0.7587
DREG6	1	0.007719	0.00274626	2.811	0.0050
DREG7	1	0.006952	0.00363625	1.912	0.0561
DREG8	1	0.000539	0.00385731	0.140	0.8889
DREG9	1	-0.000677	0.00308834	-0.219	0.8266
DREG10	1	0.000918	0.00286137	0.321	0.7483
DREG11	1	-0.000190	0.00309118	-0.061	0.9511
DREG12	1	-0.000689	0.00595900	-0.116	0.9079
DHHC0	1	-0.003980	0.00377404	-1.054	0.2918
DHHC1	1	-0.000559	0.00434387	-0.129	0.8976
DHHC2	1	-0.000443	0.00240653	-0.184	0.8539
DHHC3	1	-0.000326	0.00267041	-0.122	0.9029
DHHC4	1	-0.002809	0.00483932	-0.580	0.5617
DHHC6	1	0.000205	0.00339945	0.060	0.9520
DHHC7	1	-0.002312	0.01107321	-0.209	0.8347
DHHC8	1	-0.001729	0.00288851	-0.599	0.5494
DHHC9	1	-0.004457	0.00588671	-0.757	0.4491
DHHC10	1	-0.002856	0.00395592	-0.722	0.4704
DQTR2	1	-0.002453	0.00509034	-0.482	0.6300
DQTR3	1	0.002625	0.00565064	0.465	0.6423
DQTR4	1	-0.003771	0.00716362	-0.526	0.5986
HEADAGE	1	0.000088126	0.00010245	0.860	0.3898
REALSB	1	0.128262	0.08624474	1.487	0.1372
REALSBSQ	1	-0.227767	0.26492705	-0.860	0.3901
SB2NX	1	-0.162510	0.05204061	-3.123	0.0018
RNETEXP	1	0.069410	0.01474763	4.707	0.0001
NETEXPSQ	1	-0.009551	0.00902661	-1.058	0.2902
RFAMALL	1	0.499000	0.21463844	2.325	0.0202
RFAMALSQ	1	-5.802197	2.99661229	-1.936	0.0530
CB2NX	1	-0.340540	0.16627284	-2.048	0.0407

Table A-4 (continued)

Tobit Model for SHREDUC  
 Noncensored Values= 306 Right Censored Values= 0  
 Left Censored Values=1197 Interval Censored Values= 0

Log Likelihood for NORMAL 60.228650845

Variable	DF	Estimate	Std Err	ChiSquare	Pr>Chi
INTERCPT	1	2.46502412	1.349787	3.335124	0.0678
SB	1	-0.0483577	0.029774	2.637829	0.1043
TREND	1	0.02221378	0.051532	0.185817	0.6664
TRENDSQ	1	0.00077487	0.002048	0.143219	0.7051
P_FOOD	1	0.86055392	0.19812	18.86688	0.0001
P_ALCH	1	-1.3298957	0.442998	9.01222	0.0027
P_TOBCO	1	0.14037809	0.169231	0.688078	0.4068
P_CLOTH	1	-1.6544437	0.69177	5.719803	0.0168
P_TSPRT	1	-1.017436	0.301781	11.36661	0.0007
P_MISC	1	2.01100322	0.421467	22.76656	0.0001
P_SVCS	1	-0.2721293	0.25331	1.154106	0.2827
P_FDOUT	1	0.03444172	0.52053	0.004378	0.9472
P_HOUS	1	-0.1630021	0.10303	2.503	0.1136
P_FUEL	1	0.07631728	0.168646	0.204783	0.6509
P_DURBL	1	0.75014952	0.37249	4.055707	0.0440
DREG1	1	-0.0361693	0.016017	5.099421	0.0239
DREG2	1	-0.0020404	0.011933	0.029236	0.8642
DREG3	1	0.00836098	0.014065	0.353356	0.5522
DREG4	1	-0.0181735	0.018708	0.943643	0.3313
DREG6	1	0.02518372	0.009133	7.602688	0.0058
DREG7	1	0.02122367	0.011946	3.156204	0.0756
DREG8	1	-0.0072716	0.014179	0.263003	0.6081
DREG9	1	-0.0049999	0.011106	0.202656	0.6526
DREG10	1	-0.0007436	0.010379	0.005134	0.9429
DREG11	1	-0.0220071	0.012221	3.242656	0.0717
DREG12	1	-0.0215772	0.023375	0.852125	0.3560
DHHC0	1	-0.0117225	0.013791	0.722544	0.3953
DHHC1	1	-0.0469878	0.024509	3.675407	0.0552
DHHC2	1	-0.0006269	0.008721	0.005167	0.9427
DHHC3	1	0.00100795	0.009084	0.012312	0.9116
DHHC4	1	-0.0577896	0.026382	4.798355	0.0285
DHHC6	1	-0.0012303	0.012472	0.00973	0.9214
DHHC7	1	-0.409101	1312.316	9.718E-8	0.9998
DHHC8	1	-0.0008193	0.010101	0.006578	0.9354
DHHC9	1	-0.059174	0.033289	3.159757	0.0755
DHHC10	1	-0.0093993	0.015228	0.380997	0.5371
DQTR2	1	0.03241705	0.018323	3.130202	0.0769
DQTR3	1	0.06038548	0.021405	7.958772	0.0048
DQTR4	1	0.01988189	0.02591	0.588829	0.4429
HEADAGE	1	0.00014806	0.000369	0.160934	0.6883
REALSB	1	0.55113417	0.358988	2.356971	0.1247
REALSBSQ	1	-0.9358801	1.056912	0.784084	0.3759
SB2NX	1	-0.3100067	0.200003	2.402521	0.1211
RNETEXP	1	0.21419625	0.045323	22.33453	0.0001
NETEXPSQ	1	-0.0593899	0.025278	5.520187	0.0188
RFAMALL	1	1.03159922	0.736532	1.961727	0.1613
RFAMALSQ	1	-13.517899	10.49463	1.659145	0.1977
CB2NX	1	-0.5790715	0.516315	1.257868	0.2621
SCALE	1	0.06941862	0.002994	Normal	scale parameter

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### EDUCATION

Ph.D. (Economics) January 1999, University of Washington

Fields of specialization:

- Primary: Labor economics, Public Economics, Microeconomics
- Secondary: Development Economics, Econometrics (applied)

B.A. (Economics) 1993, University of North Carolina at Asheville

### DISSERTATION

“Essays on Intrahousehold Allocation”

Supervisory Committee:

Shelly J. Lundberg (chair), Yoram Barzel, Elaina Rose, Richard Startz

### RESEARCH PAPERS

“Modeling Family Expenditures to Test Income Pooling”, mimeo, Nov. 1997

- presented at the 1998 Population Association of America meetings

“Out of the Wallet and into the Purse: Using Micro Data to Test Income Pooling”, mimeo, Dec. 1996

- presented at the 1997 AEA meetings
- presented at the 1997 European Society for Population Economics conference

“An Experimental Test of Transaction Cost Economics,” presented at the Seventh National Conference on Undergraduate Research, University of Utah; published in the *Proceedings*, 1993.

### OTHER WORK IN PROGRESS

“Testing Income Pooling using Micro Data,” with Shelly Lundberg, Robert Pollak, and Terry Wales.

**HONORS AND AWARDS**

- 1996-97 Alfred P. Sloan Doctoral Dissertation Fellowship
- 1996-97 Grover and Creta Ensley Economic Policy Fellow, Department of Economics, University of Washington (forfeited monetary award to accept Sloan Fellowship)
- 1996 (Winter, Spring, Summer) National Institutes of Child Health and Human Development Traineeship
- 1996 Rachel M. Storer Award for outstanding paper in Labor Economics, Department of Economics, University of Washington
- 1993 Award for Outstanding Achievement in Economics, Department of Economics, University of North Carolina at Asheville
- UNC-Asheville, 1993:  
Distinction as a University Scholar, Distinction as a Research Scholar; Departmental Distinction

**TEACHING EXPERIENCE**

Teaching Assistant (Principles of Microeconomics) - Winter, Spring 1994

Instructor (Principles of Macroeconomics) - Fall 1994

Instructor (Principles of Microeconomics) - Winter, Spring 1995

Instructor (Intermediate Microeconomics) - Summer, Fall 1997, Winter 1998

Instructor (Labor Economics) - Spring 1998

**OTHER EXPERIENCE**

Reviewer for *Sociological Methods and Research*

Coordinated the Labor / Development Brown Bag Series (Mar. 1995 - Sept. 1997)

Provided research assistance to Prof. Richard Startz (Aug 1995-Aug 1997)

Created Web site for Dept. of Economics, UW (Summer 1995)

Employed in Operations Dept. at Asheville Federal Bank (July 1986-July 1992)

**REFERENCES**

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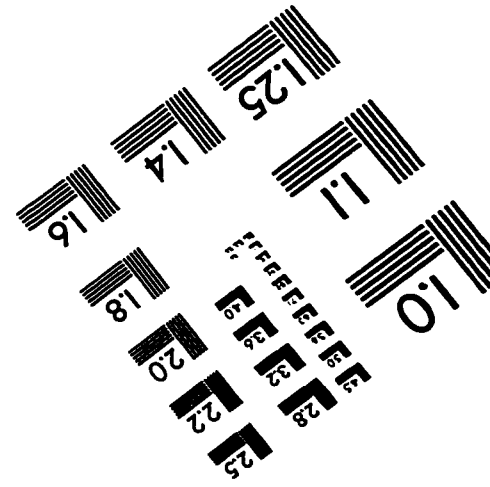
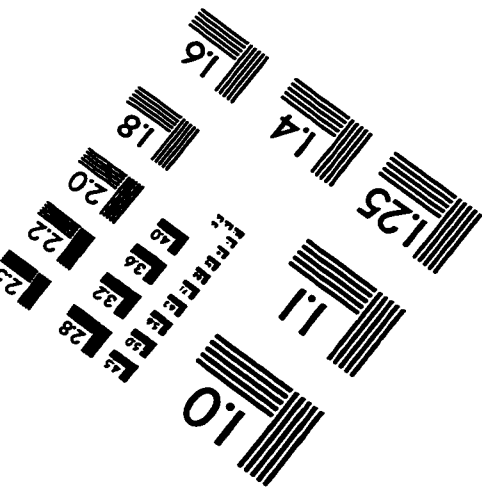
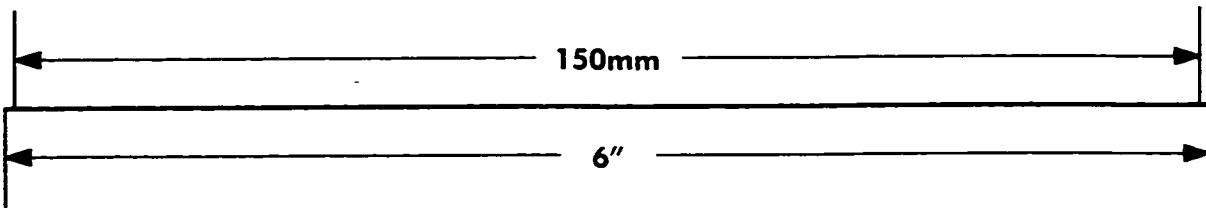
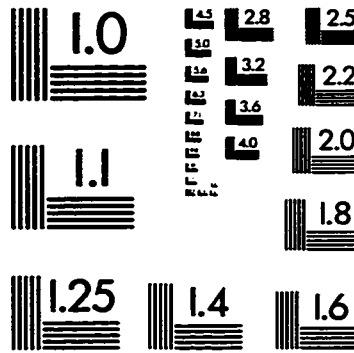
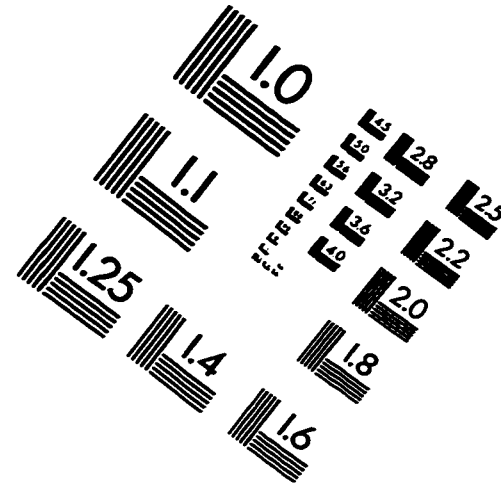
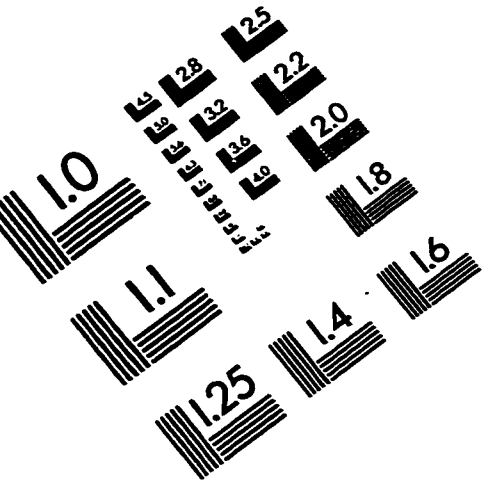
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