Economic Dimensions of Household Gift Giving

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The purpose of this research was to explore economic dimensions of a consumer gift-giving model. Two dimensions of extra household gift expenditures were modeled: the probability of giving and the expected value of the corresponding expenditures. Data were from 4,139 households in the Quarterly Interview component of the 1984-1985 U.S. Continuing Consumer Expenditure Survey. The results demonstrated that both the probability of giving and the value of annual expenditures for gifts given outside the consumer unit are related to total expenditures (a proxy for income), family size, life-cycle stage, and education. In addition, the probability of gift giving is related to the number of female adults, ethnicity, and urbanization, and the value of gift expenditures is related to region. Extra household gift expenditures appear to be a luxury-as income increases, gift expenditures increase more rapidly.

Gift giving is a research issue of burgeoning interest in consumer behavior. Much of this interest stems from Sherry's (1983) model of consumer gift giving, in which he creatively and provocatively integrates concepts from anthropology, sociology, and psychology. The potential contribution of economics to the gift-giving model, however, is not well developed, probably because the fundamental assumptions of traditional economic theory (which are based on market exchange) appear to be at odds with gift giving (a form of social exchange). Indeed, most of the conceptual work on gift giving is the purview of social sciences other than economics. Market exchange and gift exchange, however, do not operate independently. Expenditures for gifts to individuals and charitable organizations, including purchased goods and cash gifts, are of substantial economic importance. Purchased gifts are estimated to account for more than 4 percent of the typical household budget (Davis 1972), and at least one-third of this amount is thought to involve gifts for nonfamily members (Belk 1979). Charitable contributions are estimated to account for an additional 2 percent of the household budget (Lamale and Clorety 1959), which suggests that in the United States alone a minimum of $78 billion maybe spent annually on extrahousehold giving.[1] Thus, household gift expenditures are an important research issue because of the aggregate economic importance of gift giving and because of the vital role of gift giving in creating and maintaining social relationships (Sherry 1983).

Over 30 years ago, Lamale and Clorety (1959) noted economists' failure to systematically study household gift expenditures. Despite the availability of data from the U.S. Bureau of Labor Statistics' (BLS) Consumer Expenditure (CE) Survey series, ensuing economic research has been meager and often lacking in statistical rigor. In the meantime, gift giving has become a popular topic in other social science disciplines, including consumer behavior. Although the purpose of much past research has been to explore the social dimensions of giving, preliminary information on economic dimensions has also been collected (e.g., Belk 1979; Caplow 1982; Cheal 1987, 1988). These results are valuable in providing direction for expenditure research, but they must be interpreted with caution because of limitations inherent in these studies' research methodologies, particularly with respect to sample size and selection.

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[1]This estimate was based on the assumption that total expenditures for purchased gifts were 4.3 percent of mean total annual expenditures (Davis 1972). We assumed that approximately one-third of this gift expenditure was for extrahousehold giving (Belk 1979). An additional 2 percent of annual expenditures was allocated to charity (Lamale and Clorety 1959). The BLS (U.S. Department of Labor, Bureau of Labor Statistics 1988) estimates that in 1988 there were approximately 93,568,000 consumer units, with mean total annual expenditures of $24,549.

 • Vol. 18 • December 1991
 0093-5301/92/1803-0009$2.00

In this article, we used concepts and methods from the economic theory of consumer behavior (Becker 1974, 1976; Deaton and Muellbauer 1980) to analyze how income and a set of other socioeconomic and demographic variables affected expenditures for extrahousehold gifts. Data were from the 1984-1985 Continuing CE Survey, the largest and most comprehensive source of information on the incomes and expenditures of U.S. households, which are classified by socioeconomic and demographic characteristics. Two research questions were addressed: (1) How do socioeconomic and demographic characteristics affect the probability that a household will allocate part of its budget to extrahousehold gift expenditures, and (2) what is the relationship between the socioeconomic and demographic characteristics of households and the expected value of extrahousehold giving? The first question was addressed through a probit model. Heckman's two-step estimator (1976, 1979) was used to model the second relationship.

GIFT GIVING AND ECONOMIC THEORY

Gift giving involves both economic and social exchange-any resource, such as a good, a service, or cash, may be transformed into a gift via social interaction between a donor and a recipient. A party to the exchange may be an individual, household, or organization (Sherry 1983). The social norm underlying gift giving is reciprocity (Gouldner 1960), which implies the obligation to give, receive, and reciprocate gifts (Mauss 1967). Reciprocity may differ with respect to the nature and immediacy of return. Thus, a tangible gift may be reciprocated with an intangible return. A gift may be returned immediately or not for several months or years. Although the return is expected to be equivalent to the original gift, value is not always measured strictly in economic terms (Arrow 1975). For example, an expensive toy that a grandparent gives to a grandchild may be reciprocated with love, an intangible gift of great social but little cash value. By observing reciprocity, consumers create and maintain social interaction, which allows them to meet their social needs. Reciprocity is related to the extent of social interaction between donor and recipient. Thus, gift giving is most common among family members but is also extended to unrelated individuals, families, and organizations with whom the donor has frequent contact (Becker 1976).

Because of its role in meeting social needs, the amenability of gift giving to economic analysis has been actively debated (Arrow 1975; Becker 1974, 1976; Burling 1962; Cancian 1966; Herskovits 1952; Polyani 1958). The focus of this debate has been the utility-maximization assumption-of the economic theory of consumer behavior. Under this assumption, consumers allocate resources among commodities that are traditionally assumed to be goods needed for personal consumption given their budget constraints. The objective of such decisions is to maximize personal satisfaction. In contrast, the objective of most gift giving is ostensibly to maximize the satisfaction and well-being of others. While scholars (e.g., Cheal 1988; Harris 1972; Mauss 1967; Reece 1979; Trivers 1985) in a variety of disciplines contend that such altruism is more apparent than real, Sherry (1983) argues that both altruism and self-interest affect giving. A resolution to this debate is offered by Becker (1974, 1976), who proposed extending the concept of a commodity to include social needs, such as affection, status, and distinction, that Sherry indicates are met by gift giving. Such intangible commodities are produced, given the household budget constraint, by combining market goods and services, the donor's time, education, and experience, "environmental" variables, and the characteristics and behavior of recipients. The Sherry model suggests that relevant characteristics of the recipient may include not only financial, physical, and emotional well-being, but also appearance, social role, and attitudes and opinions; behavior may include hints and direct requests for gifts. Like goods and services for personal consumption, such intangible commodities enter the household utility function and contribute to consumer satisfaction.

Consumers may differ with respect to the utility derived from giving. While most choose to give, some may not (Firth 1967). Either decision is likely to convey information about the household's characteristics. Households choosing to give must also decide how much to spend on gifts, a decision that is likely to be related to household income. In economic theory, the relationship between the quantity of a good purchased and household income is called an Engel curve. When using cross-sectional data, such as those of the CE Survey, prices are assumed to be constant (Phlips 1983), so the resulting Engel curve represents the relationship between household income and expenditures. Becker's (1974) theory of social interaction implies that the importance of giving might be measured by analyzing income's effect on gift expenditures.

Engel-curve analysis may be used to classify normal goods (i.e., those for which expenditures increase as household income increases) as either necessities or luxuries. The results of such analyses support the notion that physiological needs, particularly those related to survival, must be met before social needs can be addressed (Douglas and Isherwood 1979). Thus, a good such as food is a necessity (Deaton and Muellbauer 1980). For a necessity, when a household experiences a change in income, the proportional change in expenditures is smaller than that of income. Because extrahousehold gifts are instrumental in meeting social needs (Sherry 1983), they are likely to be luxuries. Therefore, we propose the following hypothesis:

H1: As income changes, the proportional change in extrahousehold gift expenditures will be greater than that of income.

PREVIOUS RESEARCH ON CONSUMER GIFT GIVING

Previous research on the economic and social dimensions of gift giving has been hampered by a variety of methodological problems, including data limitations (Davis 1972), lack of statistical rigor (Lamale and Clorety 1959), possible bias in parameter estimation (Cheal 1986; Ryans 1977), and small sample sizes (Belk 1979; Caplow 1982; Cheal 1987). Nevertheless, such studies have performed a valuable exploratory function and provided a rich point of departure for the development of our model.

Consumer Gift Expenditures

Studies of consumer gift expenditures have been conducted at both the aggregate and household levels. Davis (1972) explored aggregate gift giving in the United Kingdom. In the absence of comprehensive data on gift expenditures, information from government data on retail sales and a variety of consumer surveys was integrated to derive the estimate that purchases of gifts represent 4.3 percent of total annual expenditures. Belshaw (1965) offered the "conservative" estimate that expenditures for gifts account for 10 percent of retail sales in North America. Although this estimate is widely cited, Belshaw failed to provide information on either his method or his source of data.

Data on household gift expenditures have been collected periodically by the BLS for a century. Prior to the 1972-1973 CE Survey, data were collected approximately once every 10 years in a single interview in which consumers were asked to recall extrahousehold gift expenditures for the previous year. During the course of a year, consumers encounter many gift-giving occasions, including holidays, rites of passage, and spontaneous events (Sherry 1983). Thus, gift purchases are likely to be frequent and, with the exception of weddings and anniversaries, of relatively low value (Cheal 1988). Total annual expenditures for gifts may then be difficult for consumers to recall accurately. To improve accuracy, the CE data are now collected on a quarterly basis. Given the large sample size, the scientific nature of the sampling technique, and improvements in the collection procedures, the CE data are among the best available for studying extrahousehold gift expenditures.

Previous analyses of the CE data have shown that 94 percent of households allocate part of their budgets to extrahousehold gift giving, including purchased goods and gifts of cash (U.S. Department of Labor, Bureau of Labor Statistics 1970). Research to date has been limited to charitable contributions. Simple cross tabulations have shown that expenditures for gifts to charity are positively correlated with income, negatively correlated with family size, and related to region, with households in the South spending the most (Lamale and Clorety 1959). More rigorous statistical techniques have been used to explore the effect of income-tax policy on contributions to charity. The results demonstrate that contributions increase with age and that the unconditional income elasticity of such expenditures is greater than unity (Reece 1979; Reece and Zieschang 1985).

In other social sciences, the effect of income on gift giving has been studied with mixed results. Ryans (1977) analyzed the effect of household income and degree of urbanization on purchases of small-appliance gifts in department stores. The results of an ordinary least squares (OLS) regression procedure showed that income had no effect but that urban households were more likely to purchase such gifts in department stores than were rural households. The effect of economic resources on the value of Christmas gifts was studied by Cheal (1986), who also used an OLS analysis. The results demonstrated that income was related to the value of the gifts given. However, only households reporting positive values for Christmas gifts were included. Use of OLS in this context may create bias in estimating the parameters.

Social Dimensions of Gift Giving

The focus of most research on household gift giving has been its social dimensions. Although such studies have been characterized by small samples, which limit the generalizability of their results, two pervasive themes have emerged. First, gifts are vital in maintaining "networks of love"-cross-household ties with family, kin, and friends (Belk 1979; Caplow 1982; Cheal 1987). Second, gift giving is gender based, with women assuming primary responsibility for giving gifts (Caplow 1982; Cheal 1986; DiLeonardo 1987; Fischer and Arnold 1990).

Most gift exchange occurs among family members (Belk 1979), and it is intergenerational and downward, meaning that parents give to children and grandchildren (Caplow 1982; Cheal 1988). The social networks supported by giving are not, however, limited to family members; as much as one-third of all giving involves unrelated individuals (Belk 1979). The range of giving networks may vary by culture. For example, Mexican households give to a broader range of family members than do French households (Jolibert and FernandezMoreno 1983). The Chinese are more likely to extend their giving to friends and even to strangers than are the English (Ma 1985). Similarly, Japanese consumers report more obligatory gift-giving occasions (kosai) involving individuals outside the family than do Americans (Alden and Green 1988). Although most people are part of a giving network, the nature and extent of reciprocity may differ by age, financial resources, or status (Belk 1979). For example, young children often give handmade items in return for purchased gifts. Gifts of cash are considered appropriate when adults give them to children but not vice versa. Cash gifts can also

be given to service providers of relatively low status (Caplow 1982).

As the "unpaid social directors" of their households (Schnudson 1986), women are responsible for creating and nurturing social networks (DiLeonardo 1987). Consequently, women give the majority of gifts, either as individuals or as part of a couple (Caplow 1982; Cheal 1987; Fischer and Arnold 1990). Females' dominance of household gift giving pervades Western culture. Mexican women make most decisions regarding Christmas giving (Jolibert and Fernandez-Moreno 1983); poor urban black women orchestrate the "swapping" of gifts of time and possessions among family and friends (Stack 1974). Although most gifts are given by women, more expensive gifts are given by men (Caplow 1982; Cheal 1986; Fischer and Arnold 1990).

The research described in this article was based on data from a large national sample of households in the United States. We used a two-step regression procedure (Heckman 1976, 1979) that allowed us to correct for possible sample-selection bias. In the first step, we tested how socioeconomic and demographic variables affected a household's probability of choosing to allocate part of its budget to extrahousehold gifts. In the second step, we tested for these variables' effects on expenditures among households that did choose to spend for such gifts.

METHOD

Sample

Data were from the Quarterly Interview component of the 1984-1985 U.S. Continuing CE Survey. The CE Survey data are collected via personal interview by the U.S. Bureau of the Census, under the auspices of the BLS, and are based or, a rotating panel. The panel's composition is determined by a national probability sample, stratified by primary sampling units that consist of counties (or parts thereof), groups of counties, or independent cities. The sample size is targeted at 5,000 interviews per quarter. In each quarter, 20 percent of the panel rotates out and another 20 percent is added. Information on expenditures, income, and other socioeconomic and demographic characteristics is collected from consumer units within households for five consecutive quarters. Data from the first interview are for bounding purposes only. A consumer unit is defined as (1) all members of a particular housing unit who are related by blood, marriage, or adoption, (2) two or more persons who pool their incomes to make joint expenditures, or (3) a single consumer who is financially independent (U.S. Department of Labor, Bureau of Labor Statistics 1988).

The expenditure component of the survey instrument is organized by category of goods and services. Within each category, respondents are asked to report what they purchased during the previous quarter for members of the consumer unit, what they purchased as gifts to be given outside the consumer unit, and the amount spent. For gifts of cash, including contributions, respondents are asked to report the amount they gave to individuals and organizations separately. As in any survey, responses are subject to a variety of nonsampling errors, because of differences in interpretation of the questions and respondents' inability or unwillingness to provide correct information. Total extrahousehold gift expenditures were determined by summing expenditures in each category of purchased gifts and contributions. Although there may have been missing values in individual gift categories, the likelihood of encountering missing values in all categories is estimated to be less than .1 percent (U.S. Department of Labor, Bureau of Labor Statistics 1990).

To capture an entire year's worth of gift-giving occasions, the 4,146 households included in the sample were those from which four consecutive quarters of expenditure data were available. Seven consumer units reporting extreme values for either total annual expenditures or gift expenditures were eliminated to avoid the effects of outliers. Consequently, the subsample used in the analysis consisted of 4,139 consumer units.

Dependent Variables

The dependent variables were (1) the probability that a consumer unit will allocate part of its budget to extrahousehold gift expenditures and (2) the corresponding level of gift expenditures. Extrahousehold gift expenditures were defined as total annual expenditures for gifts of goods, services, or money given to individuals, households, and organizations outside the consumer unit. For the remainder of this article, the terms "consumer unit" and "household" are used synonymously, as are the terms "probability of gift giving" and "probability of gift expenditures."

Independent Variables

Income is a concept that is central to any economic analysis of household expenditures. The permanent-income hypothesis suggests that total annual expenditures are an appropriate proxy for income because, in the short run, households have more control over expenditures than they do over income. Moreover, total annual expenditures are less subject to random transitory variation than is income (Friedman 1957). Use of this proxy has a long and venerable tradition in expenditure analysis (Deaton and Muellbauer 1980). Because gift expenditures are one of its components, there may be bias resulting from the use of total annual expenditures; however, this bias is likely to be minimal because gift expenditures are a relatively small proportion of total household expenditures.

To control for the effects of household characteristics other than income on gift expenditures, family size,

number of female adults, stage in the family life cycle, ethnicity, education of the reference person,[2] urbanization, and region were included in the estimating equations. Total annual expenditures, family size, and the number of female adults were treated as continuous variables. The remaining variables were treated as sets of dummy variables.

We used a modified version of the Murphy and Staples (1979) family life-cycle model to create a set of 20 dummy variables that represented stages in the family life cycle. Each variable was defined by the age, marital status, and employment status of the reference person and by the presence or absence of children 18 years of age or younger. Households were cross classified by age as being young (18-34 years), mature (35-64 years), or older (65 years or more); by marital status as being either single or married; and by employment status as being either employed or retired. Households with children were initially classified by the age of the youngest child into parental stages I (birth to age 2), 11 (ages 3-5), III (ages 6-11), and IV (ages 12-18). However, some cells were underpopulated. Consequently, stages were collapsed for the purposes of statistical analysis. For young single parents, the parental stages were collapsed across the four categories into one category that included children from birth to age 18. Young married parents were grouped into three stages based on the age of the youngest child: I (birth to age 2), II (ages 3-5), and III (ages 6-18). Mature single parents were classified into two stages: I (birth to age 11) and 11 (ages 12-18). Mature married parents were grouped in the original four stages. Households in which the reference person was unemployed and households reporting a youngest child 19 years of age or older were included in the "other" category. Young, single adult was the base category.

In the CE Survey, ethnicity is based on self-identification. A set of five dummy variables was created from the original 17 ethnic categories that were provided by the BLS. This collapsing of categories was again necessary because some cells were underpopulated. All households of Mexican-American, Mexican, Chicano, Puerto Rican, Cuban, Central or South American, or Spanish descent were considered to be Hispanic. Households of English, Scottish, Welsh, Irish, or German descent were termed "Anglo-Saxon." The "other Europeans" category comprised households reporting French, Polish, Russian, or Italian ancestry. Afro-Americans[3] included all households identifying themselves as such. Asians included all households identifying their ethnicity as "other" and their race as Oriental.[4] The remaining households were classified as "other" and were included in the base variable. This included both households in ethnic groups that were not classified by the BLS and households in which ethnic identity was reported as "not known." Since many households in the United States are of mixed ethnicity, it was expected that many would fall into the "other" category.

Education was specified in terms of the five dummy variables of never attended school or completed elementary school only, less than a high school graduate, less than a college graduate, college graduate, or postgraduate. The base category was high school graduate.

Location was represented by two sets of dummy variables-one for region of residence and one for degree of urbanization. Region was represented by three dummy variables: Northeast, Midwest, and West. South was the base variable. Degree of urbanization was defined in terms of two dummy variables: "city" included all households located in central cities and other areas with populations of 50,000 or more and "rural" included all households in rural farm and nonfarm areas, both inside and outside Metropolitan Statistical Areas. Suburban, which was the base category, included all other households.

The Model

We assumed that a consumer unit makes an extrahousehold gift expenditure when the utility from giving is greater than the utility from not giving. The first dimension of the gift-giving decision was modeled through a probit qualitative-choice specification (see App. A). We also assumed that a household chooses levels of extrahousehold gift giving and personal consumption so as to maximize its utility subject to a budget constraint. However, because households may differ in their preferences, we expected that no extrahousehold gift expenditures would be observed for some households. Consequently, those expenditures were assumed to be truncated at zero, and the second dimension of extrahousehold gift giving was modeled as a censored sample using OLS with a sample selection correction (see App. B).

RESULTS

Descriptive statistics, including mean values for the continuous variables and frequencies for the dummy variables, are presented in Table 1. Results of the probit and OLS analyses are also presented.

Extrahousehold gift expenditures were reported by 3,711 households, which was 90 percent of the sample.

[2]According to the BLS, the reference person is the first person the interview respondent names as owning or renting the housing unit.

[3]The term "African-American" has recently become popular; however, when the 1984-1985 data were collected, "Afro-American" was still considered the proper term.

[4]Although Asians represented only 2.5 percent of the subsample, this segment of the population is growing rapidly. Consequently, it was included in the analysis to provide a benchmark for comparison in future studies.

TABLE 1

RESULTS OF THE ANALYSES OF GIFT EXPENDITURES

Independent variables (base category)	All households (n = 4,139)	Households with gift expenditures (n = 3,711)	Probability of gift expenditures		Magnitude of gift expenditures	
			Coefficients	Asymptotic SE	Corrected coefficients	SE
Mean values for continuous variables:						
Total annual expenditures ($)	21,720.00	22,890.00	.5703[a,***]	.0473[a]	.0561**	.0031
Family size	2.74	2.73	−.1426**	.0296	−117.8970**	30.0772
Number of female adults	1.02	1.04	.2009**	.0650	−66.6264	60.1014
Absolute frequencies for dummy variables:						
Family life-cycle stage:						
(Young single adult)	278	252	...	...	...	...
Young single parent	64	52	−.0442	.2282	−42.7112	234.3050
Young married adult	132	117	−.2081	.2236	−539.9260**	174.6070
Young married parent I	235	218	.2072	.1907	−208.6920	156.0720
Young married parent II	100	93	.0891	.2435	−216.3640	198.5500
Young married parent III	77	67	−.0223	.2386	−214.1680	217.2250
Mature single adult employed	397	362	−.0099	.1462	148.4640	126.9180
Mature single adult retired	48	43	.3015	.2863	512.9190***	252.6260
Mature single parent I	44	40	.0618	.3025	−242.2920	266.4700
Mature single parent II	87	77	−.0345	.2252	169.2810	201.3850
Mature married adult employed	546	520	.1543	.1631	758.8790**	128.4890
Mature married adult retired	73	72	.9331***	.4421	499.8100***	217.6410
Mature married parent I	82	74	.3571	.2745	−123.8970	222.1950
Mature married parent II	116	110	.2869	.2582	−63.7571	196.6470
Mature married parent III	276	252	−.2172	.1831	−265.0600	158.2890
Mature married parent IV	327	302	−.1613	.1835	180.6040	150.7310
Older single retired	370	325	.2907***	.1510	432.7930**	135.4760
Older married retired	331	299	.2525	.1602	353.8930**	139.5040
Older single employed	56	47	−.0742	.2462	474.3740***	239.1430
Older married employed	101	92	.0133	.2342	464.5590**	191.6200
Other	400	297	−.1325	.1429	191.7110	140.8940
Ethnicity:						
(Other)	1,850	1,683	...	...	...	...
Afro-American	404	307	−.1909***	.0952	−2.6395	104.2020
Hispanic	219	173	−.1203	.1264	40.4623	129.6200
Anglo-Saxon	1,134	1,067	.1766***	.0808	27.8823	61.5461
Other European	428	389	.0293	.1064	5.6258	88.2212
Asian	104	92	−.3258	.1946	86.5612	170.6210
Education:						
(High school graduate)	1,230	1,102	...	...	...	...
Elementary or none	597	467	−.1223	.0910	−126.1770	94.3577
Less than high school	566	477	−.0133	.0893	−116.5100	85.0380
Less than college	844	792	.2052***	.0933	155.2120***	74.7270
College graduate	468	453	.3714**	.1435	357.5810**	92.2725
Postgraduate	434	420	.1577	.1425	203.9310***	93.8866
Degree of urbanization:						
(Suburban)	1,610	1,498	...	...	...	...
City	1,433	1,237	−.2331**	.0737	−77.8459	63.1365
Rural	1,096	986	−.1773***	.0798	−2.3468	66.0314
Region:						
(South)	1,203	1,054	...	...	...	...
Northeast	891	792	−.1088	.0861	150.0910***	75.3983
Midwest	1,180	1,065	.0370	.0805	34.3378	68.0567
West	865	800	.0882	.0960	−125.8630	76.0153
Intercept			.5404**	.1573	−458.4930**	158.2790
$\hat{\lambda}_i$			...	...	963.4760**	328.7280
Chi-square (df = 38)			534.2300**	...	...	...
Rho-squared			.1940	...	...	...
F-statistic (df = 39, 3,671)			...	...	25.8628**	...
Adjusted R^2			...	...	.2072	...

[a]Divided by 10,000.
**Significant at $p < .01$.
***Significant at $p < .05$.

TABLE 2

RESULTS OF TESTS OF SIGNIFICANCE FOR SETS OF DUMMY VARIABLES

Sets of variables	Likelihood-ratio statistic (*df*)	*F*-values for OLS (*df*)
Family life cycle	39.4** (20)	7.03** (20, 3,671)
Ethnicity	15.2** (5)	.10 (5, 3,671)
Education	16.0** (5)	34.88** (5, 3,671)
Urbanization	10.8** (2)	.90 (2, 3,671)
Region	4.8 (3)	3.61*** (3, 3,671)

**$p < .01$.
***$p < .05$.

Among those households, the mean annual expenditure was $852, which was an average of 3.7 percent of total annual expenditures. For the sample as a whole, the mean expenditure was $ 764, which was an average of 3.5 percent of total expenditures.

The probit results represent the relationship between the socioeconomic and demographic characteristics of households and the probability of gift expenditures. The OLS results represent the relationship between the socioeconomic and demographic characteristics of households and the expected value of gift expenditures. The results of the asymptotic t-tests for the coefficients in the probit model and the t-tests for the coefficients in the OLS model show that both the probability and the value of extrahousehold gift expenditures were related to total annual expenditures and family size. The probability of gift expenditures was related to the number of female adults. As shown in Table 1, the coefficient of λ_i, the variable correcting for sample-selection bias, was significant.

The results of likelihood-ratio tests for the groups of variables in the probit model and joint F-tests for the groups of variables in the OLS model are presented in Table 2. The significance tests for the groups of variables were conducted in two stages. First, the likelihood-ratio statistics were calculated from the full and reduced equations in the probit model. Then the joint F-statistics were calculated from the full and reduced equations in the OLS model. Family life-cycle stage and education were related to both the probability and the value of extrahousehold gift expenditures. The probability of gift expenditures made was also related to ethnicity and urbanization. The value of expenditures was related to region of residence.

Both models were effective in describing relationships, as indicated by the value of the likelihood-ratio statistic for the probit model and the F-statistic for the OLS model. The rho-squared value for the probit model was 0.19, which, according to Domencich and McFadden (1985), is comparable to an R^2 of 0.50, suggesting a good fit. The adjusted R^2 value for the OLS model was 0.21.

TABLE 3

UNCONDITIONAL INCOME ELASTICITIES AND ESTIMATED GIFT EXPENDITURES

Total annual expenditures ($)	Income elasticity	Estimated extrahousehold gift expenditures ($)
22,890 (mean)	1.51	752.83
10,000	1.59	206.23
20,000	1.51	605.99
30,000	1.43	1,104.71
40,000	1.33	1,647.95
50,000	1.26	2,205.42
60,000	1.21	2,766.14
70,000	1.18	3,327.40
80,000	1.15	3,888.72
90,000	1.13	4,450.04
100,000	1.12	5,011.38

DISCUSSION

The percentage of households reporting extrahousehold gift expenditures was somewhat lower than that of previous CE Surveys (see U.S. Department of Labor, Bureau of Labor Statistics 1970). While this result may represent a real decline, it may also be attributable to changes in collection procedures. The percentage of the household budget allocated to gifts was slightly lower than that estimated by Davis (1972) for the United Kingdom. However, the two are not directly comparable in that Davis's estimate includes gifts given within the home but does not include charitable contributions.

Total annual expenditures, the proxy for income, were positively related to both the probability and the value of gift expenditures. This relationship shows that (1) the higher the household income, the more likely it is that there will be expenditures for gifts and (2) as household income increases, expenditures for gifts increase. A series of unconditional income elasticities was calculated for the total sample (see App. B); these are presented in Table 3.

At the mean value of total annual expenditures, which was $22,890, the unconditional income elasticity of gift expenditures was 1.51. This elasticity suggests that extrahousehold gifts are a luxury-as income increases, the proportion that is allocated to expenditures for such gifts increases more rapidly than the proportional increase in income. This result is consistent with our hypothesis and lends support to Becker's (1974) theory of social interaction. Our finding is also consistent with the notion that, as income increases, tangible gifts may be substituted for intangible gifts because of a lack of time or, as Sherry (1983) suggests, because of an increase in the number of status subordinates. However, the elasticity of gift expenditures appears to decline as income increases. While the elasticity of gift expenditures was 1.59 for households with total annual expenditures of $10,000, it was only 1.12 for households

with total annual expenditures of $100,000. This result is consistent with the notion that gift giving is instrumental in meeting social needs (Sherry 1983). When low-income households experience a decline in income, they are likely to reduce their extrahousehold gift expenditures disproportionately. This reduction in gift expenditures may reflect the need to devote remaining income to physiological needs, which economists assume must be met before social needs (Douglas and Isherwood 1979).

Belk (1979) reported that consumers may be absolved from gift giving by a paucity of resources. Our results are consistent with this suggestion in that households at low incomes were less likely to give externally than were households at higher incomes. The income elasticities suggest, however, that even at low-income levels there are many households that derive utility from giving purchased goods or cash gifts, evincing the obligatory nature of gift giving (Mauss 1967) and the strength of the social needs that are met by reciprocity (Romans 1961).

Our results are consistent with previous conceptual and empirical work suggesting that gifts are important vehicles for maintaining social networks. Family size was negatively related to both the probability and the magnitude of extrahousehold gift expenditures; as family size increases, the probability of spending for gifts to be given outside the home decreases. For families giving extrahousehold gifts, the amount spent decreases as family size increases. In large families, most of the household budget for gift exchange may be allocated to members of the immediate family, an interpretation that is consistent with Becker's (1974) theory of social interaction as well as with theoretical and empirical work in sociobiology (Trivers 1985) that demonstrates that reciprocal behavior is more common among relatives. The view that large families concentrate their gift expenditures on family members is also consistent with the results of Belk (1979), Caplow (1982), and Cheal (1988) that indicated that members of the immediate family are not only the most frequent recipients but that they also receive the most expensive gifts. Caplow (1982) implies that failure to give gifts within the family entails greater risk than failure to give outside because the most important social relationships are within the family. Camerer (1988) contends that giving within the family is more efficient than giving outside. Family members are well acquainted with each others' tastes and preferences, so there is less risk involved. Consequently, intrahousehold gifts are likely to be more expensive than those given outside.

As Sherry (1983) suggests, gift-giving behavior differs by stage in the family life cycle. Family life cycle affected the probability of giving extrahousehold gifts only for mature married adults (retired) and older single adults (retired). Households in those stages were more likely to give such gifts than were young single adults. The effect of family life cycle on expenditures was more extensive. In the mature and older stages in which no children were present-mature single adult (retired), mature married adult (employed or retired), older single adult (employed or retired), and older married adult (employed or retired)-expenditures for gifts were higher than they were for young single adults. In contrast, young married adults spent less than young single adults on extrahousehold gifts.

The effect of family life cycle on extrahousehold gift expenditures lends support to previous research on the social and economic dimensions of giving. The mature and older stages of the family life cycle are traditionally considered the empty nest (see Wells and Gubar 1966). Since giving extends to family members living in other consuming units (Belk 1979; Caplow 1982; Cheal 1988), households in this stage may give frequently and generously to children and grandchildren who live elsewhere, which is consistent with the observation that giving tends to be intergenerational and downward (Caplow 1982; Reece 1979). Although giving intergenerationally and downward appears to contradict the notion that balance is important in gift giving (Sherry 1983), balance among family members, particularly across generations, is not measured strictly in terms of expenditures (Arrow 1975). In the process of giving, individuals in mature and older households may derive utility from the intangible returns of attention and love. According to Reece (1979), contributions to charitable and religious organizations tend to increase as household members age. While such contributions appear to be altruistic, they are often in return for services rendered during the lifetime of the donor.

Our observations concerning the relationship between family life cycle and extrahousehold gift giving may reflect a cohort rather than a life-cycle effect. A cohort effect seems unlikely, however, because rituals of reciprocity tend to be similar among households in the same stage of the family life cycle. The gifts that accompany rituals are used to keep definitions of social categories, like stage in the family life cycle, stable (Douglas and Isherwood 1979).

Education of the reference person was related to both the likelihood of allocating income to extrahousehold gifts and the amount allocated. The probability of such expenditures was greater among households in which the reference person had either some college education or an undergraduate degree. Similarly, the expected value of extrahousehold gifts was greater among households in which the reference person had some college, an undergraduate degree, or postgraduate education. Although income and occupation may be more influential, education is considered an important indicator of social class (Coleman 1983). Households of higher social class tend to have more extensive social networks. Conversely, lower-class families tend to have more limited social networks (Douglas and Isherwood 1979; Young and Willmott 1973). More educated fam-

ilies may encounter more gift-giving situations than their less educated counterparts.

Our results extend those of previous research on ethnic differences in gift giving (e.g., Alden and Green 1988; Jolibert and Fernandez-Moreno 1983; Ma 1985) by showing that Afro-Americans are less likely than others to spend money on extrahousehold gifts. This result does not necessarily imply that fewer gifts are given by Afro-Americans. In fact, "swapping" (Stack 1974) may serve as a substitute for the exchange of purchased gifts and cash among poor urban blacks. Because we controlled for the effects of income and other household characteristics that are often used to explain ethnic differences in consumption, our results suggest that swapping may be a pervasive feature of Afro-American culture.

Among households reporting Anglo-Saxon ethnicity, the probability of allocating a proportion of the household budget to extrahousehold gifts was higher than that of other households. In a witty commentary on the Anglo-Saxon character, King (1977) described members of that ethnic group as obsessed with social decorum, committed to noblesse oblige, and craving emotional detachment, suggesting that Anglo-Saxons may be more likely than others to observe reciprocity, to have a highly developed sense of obligation to give to those of lesser status, and to use gifts as "silent gestures"-vehicles for expressing emotions that they are reluctant to verbalize. No differences were observed, however, among the ethnic groups in their expenditures for gifts given outside the home.

Urban and rural households were less likely than suburban households to allocate income to extrahousehold gifts. In urban areas, social networks are diffuse. Social interaction is often superficial (Hannerz 1980), inhibiting the development of gift-giving relationships. In rural areas, on the other hand, networks may be limited in scope, so social interaction that is of sufficient intensity to foster gift giving may be limited. Ryans (1977) observed that rural households purchase fewer gifts in department stores, so our results may also reflect rural residents' limited access to shopping.

The number of female adults in the household was positively related to the probability that a household spends for gifts, confirming the argument that gift giving is gender based (Caplow 1982; Cheal 1987; Fischer and Arnold 1990) and that women perform most of the "ritual celebration of cross-household ties" (DiLeonardo 1987). Among households giving gifts, however, the number of female adults appeared to have no effect on expenditures.

We observed no differences in the probability of extrahousehold gift giving by region. However, among households choosing to give, expenditures for such gifts were highest in the Northeast. Lamale and Clorety (1959) found that households in the South gave more than households in other regions. However, our results are not directly comparable because Lamale and Clorety used simple cross-tabulations with no controls for potentially confounding variables. Region is a variable that is often included in expenditure analyses to capture regional differences in prices, so our results may reflect the tendency of prices to be higher in the Northeast than in other regions.

Our results must be interpreted in light of the limitations inherent in the CE Survey data. First, the data are limited to expenditures for gifts that are to be given outside the home. Second, the data only include information on donor households; no information on recipients is available. Third, no data on gifts of time are available. Such information would enhance the implications of our research with respect to economic theory. Finally, no information is available on the cost of gift wrapping. Although wrapping is likely to be a small component of gift expenditures, it may be viewed by some consumers as an integral part of a gift.

CONCLUSION

Becker's (1974) theory of social interaction was used as a framework for analyzing the economic dimensions of extrahousehold gift giving. The results showed that income is positively related to both the probability of expenditures for extrahousehold gifts and the expected value of those expenditures. The results also indicated that extrahousehold gift expenditures are a luxury with a change in income, the proportionate change in expenditures is greater than that of income. This change is greater at low than at high incomes, providing evidence of the obligatory nature of giving (Mauss 1967).

We included a set of socioeconomic and demographic variables in the estimating equations to control for their effect on income. Our results showed that the probability of extrahousehold gift expenditures is related to family size, number of female adults in the household, stage in the family life cycle, ethnicity and education of the reference person, and degree of urbanization. The expected value of these expenditures is related to family size, stage in the family life cycle, education of the reference person, and region.

Lutz (1979) questioned the need for a model that is specific to consumer gift giving. We propose that, in future research, the need for a separate gift-giving model should be tested by comparing a model of extrahousehold gift expenditures to a similar model of expenditures for personal consumption. In the meantime, our results suggest that income and other socioeconomic and demographic characteristics should be incorporated into the Sherry (1983) model of consumer gift giving.

By identifying how extrahousehold gift expenditures differ among socioeconomic and demographic groups, our results offer a point of departure for future ethnographic research that compares the giving practices of different social groups. For example, consumers from a variety of income groups might be interviewed to learn how they view expenditures for extrahousehold gifts as

compared with gifts for either their own consumption (Mick and DeMoss 1990) or for that of family members. Consumers who cannot afford to give might be studied to explore how their financial situation affects their social relationships; the homeless pose a special challenge (see Hill and Stamey 1990). Our results showed that Afro-American households appear to be less likely than others to allocate income to extrahousehold gifts. An intriguing possibility might be to use interpretive techniques to explore this phenomenon. Given globalization of the world economy, cross-cultural research on extrahousehold giving may also present opportunities for consumer researchers.

The CE Survey data are a rich source of information on extrahousehold gift expenditures. We suggest that, in future research involving these data, the socioeconomic and demographic determinants of expenditures in major gift categories, including clothing, toys, china, and plants (Belk 1979; Caplow 1982), be explored. Given that the CE data are collected on a continuous basis, an analysis of extrahousehold gift expenditures over time may also be in order. At a more ambitious level, we propose that expenditure data on intrahousehold giving be collected and compared with data on extrahousehold giving. Such research will be valuable to scholars interested in continuing to build the Sherry (1983) model.

APPENDIX A

The decision to allocate income to extrahousehold giving is unique to the individual consumer unit and can be explained in terms of the relationship between an unobservable response variable and the characteristics of individual consumer units. Assume there is an unobservable variable G_i^* defined by the regression relationship

$$G_i^* = X_i'\beta + u_i, \quad i = 1, 2, \ldots, n, \tag{A1}$$

where X_i is a vector of regressors relating to the ith observation and u_i is the error term that has a standard normal distribution. The greater the value of G_i^*, the greater is the probability that an expenditure will be made. As noted, G_i^* is not observed; however, a dummy variable G_i is observed and can be defined as

$$\begin{aligned} &G_i = 1 \quad \text{if} \quad G_i^* > 0, \quad \text{and} \\ &G_i = 0 \quad \text{otherwise.} \end{aligned} \tag{A2}$$

The probability that an extrahousehold gift expenditure is made can be expressed as

$$\begin{aligned} \mathrm{P}(G_i = 1) &= \mathrm{P}(G_i^* > 0) \\ &= \mathrm{P}(u_i > -X_i'\beta) \\ &= 1 - \Phi\left(\frac{-X_i'\beta}{\sigma}\right), \end{aligned} \tag{A3}$$

where $\Phi(\cdot)$ represents the cumulative standard-normal-distribution function for u_i, β is the regression coefficient, and σ is the standard error of the regression equation (Maddala 1984). For this model it is assumed that u_i has a mean of zero and is independently, identically, and normally distributed, with a variance of σ^2. On the basis of symmetry,

$$\Phi\left(\frac{X_i'\beta}{\sigma}\right) = 1 - \Phi\left(\frac{-X_i'\beta}{\sigma}\right). \tag{A4}$$

Thus,

$$\mathrm{P}(G_i = 1) = \Phi\left(\frac{X_i'\beta}{\sigma}\right). \tag{A5}$$

The observed values of G_i are realizations of a binomial process with probabilities, varying from consumer unit to consumer unit (depending on X_i), that are given by Equation A5. The likelihood function is

$$\mathrm{L} = \prod_{G_i=0}\left[1 - \Phi\left(\frac{X_i'\beta}{\sigma}\right)\right] \prod_{G_i=1}\left[\Phi\left(\frac{X_i'\beta}{\sigma}\right)\right]. \tag{A6}$$

We estimated only β/σ and not β and σ separately. However, using the probit-normalization $\sigma = 1$ (see, e.g., Goldberger 1964, chap. 5), we obtained an asymptotically efficient estimate of β by maximizing the nonlinear likelihood function (Eq. A6). The probit was estimated with maximum likelihood using LIMDEP (Greene 1986).

APPENDIX B

This censored sample model is expressed as

$$\begin{aligned} &G_{1i}^* = X_{1i}'\beta_1 + u_{1i}, \\ &G_{2i}^* = X_{2i}'\beta_2 + u_{1i}, \quad \text{and} \\ &G_{2i} = G_{2i}^* \quad \text{if} \quad G_{1i}^* > 0, \quad \text{and} \\ &G_{2i} = 0 \quad \text{if} \quad G_{1i}^* \le 0 \quad i = 1, 2, \ldots, n, \end{aligned} \tag{B1}$$

where $\{u_{1i}, u_{2i}\}$ are independently, identically, and normally distributed with zero mean, variances are σ_1^2 and σ_2^2, and covariance is σ_{12}. It is assumed that only the sign of G_{1i}^* is observed and that G_{2i}^* is observed only when $G_{1i}^* > 0$. It is also assumed that X_{1i} are observed for all i but X_{2i} need not be observed for i such that $G_{1i}^* \le 0$. We define

$$\begin{aligned} &w_{1i} = 1 \quad \text{if} \quad G_{1i}^* > 0, \quad \text{and} \\ &w_{1i} = 0 \quad \text{if} \quad G_{1i}^* \le 0. \end{aligned} \tag{B2}$$

Then $\{w_{1i}, G_{2i}\}$ constitute the observed sample of the model (Amemiya 1984). A positive value of G_{1i}^* indicates that the consumer unit has a preference for giving. Actual expenditures are represented by G_{2i}.

For the censored sample, the expected value of G_{2i}^* that is conditional on $G_{1i}^* > 0$ is given by

$$\mathrm{E}(G_{2i}^* \mid G_{1i}^* > 0) = X_{2i}'\beta_2 + \mathrm{E}(u_{2i} \mid u_{1i} > -X_{1i}'\beta_1). \tag{B3}$$

The second term on the right-hand side of this equation is ignored in standard regression procedures. To correct for this specification bias, Heckman (1976, 1979) proposed a two-step estimator that in our case involves (1) estimation of the probability of a consumer unit's having an extrahousehold expenditure (see App. A) and (2) estimation of Equation B3 by OLS regression using information from the probability equation. The righthand term in Equation B3 can be rewritten as

$$\mathrm{E}(u_{2i} \mid G_{1i}^{*} > 0) = \mathrm{E}(u_{2i} \mid u_{1i} > -X'_{1i}\beta_1) = \frac{\sigma_{12}}{\sigma_1}\lambda(Z_i); \quad \textbf{(B4)}$$

where $\lambda(Z_i) = \dfrac{\phi(Z_i)}{\Phi(Z_i)}$ and $Z_i = X'_{1i}\dfrac{\beta_1}{\sigma_1}$.

The $\lambda(\cdot)$ is the reciprocal of the Mills' ratio, also known as the hazard rate (Amemiya 1984). The probability density function of the standard normal distribution is $\phi(\cdot)$, and the $\Phi(\cdot)$ is the cumulative distribution function of the standard normal. The expected expenditure by consumer unit *i*, conditional on its likelihood of extrahousehold giving being positive, can be defined as

$$\mathrm{E}(G_{2i}^{*} \mid G_{1i}^{*} > 0) = X'_{2i}\beta_2 + \frac{\sigma_{12}}{\sigma_1}\lambda(Z_i). \quad \textbf{(B5)}$$

The variable $\lambda(Z_i)$ was estimated for each consumer unit. Probit analysis was used to obtain consistent estimates of β_1/σ_1 (see Eq. A6 for specification of the probit-likelihood function). The estimates of β_1/σ_1 were used to calculate Z_i for each consumer unit. The appropriate transformation was then used to obtain $\hat{\lambda}_i$, the proxy for $\lambda(Z_i)$. In the second step, $\hat{\lambda}_i$ was added to the regressors, and then the expenditure function was estimated through OLS. The OLS coefficients that we present and discuss are corrected for the specification bias noted in Equation B3. The sample-selection model was estimated with LIMDEP (Greene 1986).

Unconditional income elasticities were computed by taking the derivative of the expected value of gift expenditures and dividing this by the expected value of expenditures at different income levels, while setting the values of the other variables equal to their means. The expected value of gift expenditures (G_{2i}) equals the probability that a consumer unit makes a gift expenditure multiplied by the right-hand side of Equation B5. Or, $\mathrm{E}(G_{2i}) = \Phi(Z_i)[X'_{2i}\beta_2 + (\sigma_{12}/\sigma_1)\lambda(Z_i)]$.

[*Received June 1990. Revised April 1991.*]

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