

## EFFECTS OF WIFE'S EMPLOYMENT ON PURCHASES OF DURABLES: A TEACHING NOTE

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Berman (1990), Schoell and Gultinan (1990), and Stanton, Etzel and Walker (1991).

### ABSTRACT

While most Principles of Marketing texts label the increased participation of married women in the labor force during the 1980s as one of the most significant changes affecting household purchasing behavior, Consumer Behavior texts often a) devote less attention than expected on this topic and b) reveal conflicting views regarding the effects of such employment. The coverage of the effects of wife's employment on purchases of durables in Consumer Behavior texts is contrasted to research findings based on a national sample of 11,832 married women. Our research findings point to the need of continuously updating marketing texts and the utility of syndicated data bases in providing guidance to students and marketing practitioners in areas not covered by marketing texts.

### INTRODUCTION

One of the most dramatic changes in women's roles in the past twenty years has been the greater participation of married women in the labor force. According to the U.S. Bureau of the Census, the labor force participation rate for wives with husbands present in the household, has gone from 44.5% in 1975 to 50.2% in 1980, 54.3% in 1985, and 56.7% in 1988. The labor force participation rate is even higher for women under age 45, especially for those ages 35-44 (72.7% in labor force), than for women ages 45 to 64 (52.7% in labor force, U.S. Bureau of Census, 1990).

Most Principles of Marketing texts point to the importance of the increased participation of married women in the workplace for marketers. McCarthy and Perreault state "when a wife works outside the home, it affects the family's spending habits. This fact must be considered when analyzing markets and planning marketing strategies" (190:166). McDaniel and Darden report "a third major social phenomenon that has had a profound effect on marketing is the changing role of families. The most important aspect from a marketing perspective is the huge growth in the number of working women" (1987:35). Similar coverage is found in Bennett (1988), Evans and

An examination, however, of the coverage given to the effects of wife's employment on family purchases in Consumer Behavior texts reveals little uniformity. Hawkins, Best and Coney (1992), Mowen (1990), Schiffman and Kanuk (1991), and Wilkie (1990) provide fairly limited coverage to the topic and focus primarily on the greater need for convenience related products. Assael (1987) gives very extensive coverage to the effects of wife's employment and focuses on time-saving products, the need for differences in positioning, working women's reduced time for shopping, and the media strategies needed to reach working women. Very extensive coverage is also provided by Engel, Blackwell and Miniard (1990). These authors cite several studies and caution readers not to oversimplify the effects of wife's employment on family purchases. The greatest level of caution in determining the effects of wife's employment on purchases is advocated by Peter and Olson who state that "Although it has been speculated that one result of women's employment would be an increase in the number of convenience foods and time-saving durables, such as microwave ovens, the majority of studies that investigated this idea have found no support for it" (1990:390).

### SURVEY OF LITERATURE

Why do we find these differences in the conclusions drawn in Consumer Behavior texts? A survey of the literature regarding the effects of wife's employment on purchases of durables (one of the major categories of purchases discussed in these texts) reveals some contradictory findings. Some of the early studies conducted on this subject hypothesized that income from married women's employment is viewed as a supplement to the family's regular income and is used to a large extent to purchase durables needed by the household (Mincer 1962; Agarwala and Drinkwater 1972). Later research (Reilly 1982; Strober and Weinberg 1977, 1980; Weinberg and Winer 1983), however, indicates that families where the wife works outside the home are not different from families with similar incomes where the wife does not work outside the

home in terms of the purchases of durables such as dishwashers, dryers, refrigerators, stoves and washers. Thus, wife's employment outside the home only has an effect on major appliance purchases in that the employment contributes additional income to the family. Weinberg and Winer (1983) also note that there are some categories of durables, such as furniture, where wife's employment appears to have a significant effect even after controlling for income.

When Bryant (1988) analyzed data from the Michigan Survey Research Center's 1977-78 Survey of Consumer Credit, he found that when controlling for income, wife's employment outside the home resulted in fewer expenditures for durables in total. Bryant accounts for this finding by noting that household durables and the time the wife spends inside the home are complements - not substitutes. Thus, the less time a married woman spends doing housework, the lower her need for newer or more household durables.

In summary, most of the studies examining the effect of wife's employment outside the home found that such employment has a significant impact on the purchase of durables only because of the additional income added to the household. If one controls for the effects of this added income, research studies on the effect of wife's employment on purchases of durables do not always point in the same direction.

Thus, the contradictory conclusions drawn in Consumer Behavior texts are due to the research findings in this area. Our goal in conducting this research, however, is not just to point out to the contradictions in these texts, but to see if we can find an explanation that could account for these findings. Since we had a syndicated data base at our disposal that contained detailed information on women's employment status and household purchases of durables, we wondered if an analysis of the data would reveal a significant interaction between the effects of wife's employment and other demographic variables. Wife's employment status may have a significant effect on purchases of durables only under certain conditions. We believe that it is worthwhile to examine the conditions under which wife's employment has a significant effect on purchases of other durables such as major appliances, furniture and floor coverings.

Also, while a large number of studies have been conducted to determine the effect of wife's employment on purchases of time-saving durables or major appliances, and on total spending for durables, there have been no research studies that have focused on purchases of consumer electronics,

such as televisions, VCRs, stereos, PCs, etc. Such durables are not linked to housekeeping or time-saving, thus they are not meant to reduce the working-wife's role overload. Instead, consumer electronics are used to enhance the quality of one's leisure.

## RESEARCH METHOD

In this study we will analyze the relationship between wife's work status, household income and the presence of dependent children on purchases of several categories of consumer durables such as major appliances, furniture, floorcoverings, home electronics, audio equipment, television sets, VCRs, and PCs. The durables included in our study were dictated by information available in the data base provided for us by Leigh Stowell and Company. Although they do not exhaust all the categories of durables purchased by consumers, they represent an adequate number for the purposes of this study. Our analysis controls for the effects of wife's age and education because these variables are associated with wife's employment status and have been shown to have a significant effect on family purchases in previous studies.

The data for this study are drawn from a database of 68,900 interviews collected by Leigh Stowell & Co. in 1989. The telephone interviews were collected in sixty metropolitan areas in the United States, representing all geographic regions with the exception of Alaska and Hawaii. The sample in each metropolitan area was drawn using randomly generated numbers so that both unlisted telephone numbers and new listings would also be contacted.

For each market, we selected married women respondents whose spouses worked. This procedure resulted in a nationally based sample of 11,832 married women on which to perform our analyses. It should be noted, however, that all respondents were not asked every question in the questionnaire. As a result, the number included in the analyses of covariance ranged from a sample of 1615 respondents who had purchased home electronics during the previous twelve months to a sample of 5874 respondents who had purchased a major appliance in the same time period.

## FINDINGS

The data were analyzed using analysis of covariance (ANCOVA). Wife's employment status, the presence of dependent children, and household income were entered as factors. To control for the effects of age and education, these variables were used as covariates in the analysis.

Significant interactions between the variables were plotted in order to understand the relationships between the variables involved.

### **Wife's Employment and Purchases of Major Appliances**

In order to examine the effect of wife's employment status on major appliance purchases, we used purchases made during the past year as our dependent variable. As expected, wife's participation in the labor force has no significant effect on major appliance purchases independent of household income (see Table 1). Household income, on the other hand, has a significant effect on major appliance purchases. A significant interaction, however, was observed between household income and wife's employment. This interaction is illustrated in Figure 1. The differences in the proportion of households who bought a major appliance during the past year is more pronounced in those households earning between \$25,000 and \$40,000 a year. Households with non-working wives have the lowest rate of major appliance purchases at that income level. The employment status of the wife appears to make little difference at all other income levels.

### **Wife's Employment and Purchases of Furniture**

In contrast to the findings of Weinberg and Winer (1983), wife's employment does not have a significant effect on the proportion of households purchasing furniture (see Table 1). This difference may be due to the fact that in our analysis we used the proportion of households purchasing furniture during the previous year rather than total household spending on furnishings. Household income and wife's age, however, are statistically significant. There is also a statistically significant interaction term between household income and the presence of dependent children.

### **Wife's Employment and Purchases of Floorcoverings**

We were particularly interested in the category of floorcoverings because these are often purchases dictated by a desire to achieve a certain decor in a house rather than the need to replace a carpet or to purchase a carpet for a brand new home. The ANCOVA results indicate that wife's employment, her education, and household income all have a significant effect on floorcovering purchases (see Table 1). There is also a statistically significant interaction between wife's employment and household income (see Figure 2). Middle income (\$25,000-\$40,000) and high income households (over \$75,000) with a non-working wife are the most likely to have purchased floorcoverings during the previous year. The effect is most pronounced among

affluent households where 46% of the households with homemakers purchased floorcoverings compared to 26% of the households where the wife works full-time.

### **Wife's Employment and Consumer Electronics Purchases**

Five categories of consumer electronics were available in our data set (audio equipment, TV, VCR, PC, and a general category of consumer electronics). Households where the wife worked either full-time or part-time were significantly more likely to have made purchases of audio equipment, TVs, PCs, and consumer electronics during the previous twelve months (see Table 1). The proportion of households who had purchased each type of consumer electronics is illustrated in Figure 3. The differences in the proportion of households purchasing some of these products is not only statistically significant, but also substantial even within same income categories. For example, over 40% of the households with incomes under \$40,000 and with wives working full-time had purchased consumer electronics; while only 30% of the households with homemakers in the same income category had made such purchases.

With regard to PC purchases, the effects of wife's employment, her education, and an interaction between wife's employment and household income are significant (see Table 1). Figure 4 depicts the interaction between wife's employment and income. Interestingly, wife's full-time employment status appears to result in higher purchases of PCs only for families earning over \$75,000. Overall, wife's employment appears to have a significant effect on purchases of most types of consumer electronics. The only category of consumer electronics not affected by wife's employment are purchases of VCRs.

## **SUMMARY AND CONCLUSIONS**

On the one hand, the results of our research support earlier findings with regard to purchases of furniture and major household appliances (labelled time-saving durables by some researchers). For those types of durables, it appears that wife's employment is only important in that it contributes to household income. Unfortunately, this information is not adequately conveyed in many Consumer Behavior texts.

We also found, however, that wife's employment status is a significant predictor of purchases of floorcoverings. With regard to consumer electronics, again our findings point to the importance of wife's employment status in predicting household purchases. Even after controlling for the effects

of household income, presence of dependent children, wife's age and education, we found that households with working wives tend to make more purchases of television sets, audio equipment, general consumer electronics, and PCs. This study also documents the presence of significant interaction effects between wife's employment and other demographic variables. These interaction effects indicate that the effect of wife's employment on family purchases is more complex than had been previously thought and that it needs to be further elaborated. Most frequently wife's employment interacts with household income. Consumer Behavior texts, however, do not include this type of information.

Obviously, the products examined in this study represent a small proportion of the types of durables purchased by households. Additional research is needed to identify other products for which the wife's employment status is an important predictor. More importantly, our findings point to the need of continuously updating the information available in marketing texts. As change is the rule rather than the exception in the marketing environment, marketing educators may need to consider integrating information about syndicated data bases in classroom teaching. Marketing students need to be introduced to all the tools available in order to obtain the most updated information possible with regard to consumer purchases.

TABLE 1  
Effects of independent variables on purchases of consumer durables.  
Effects Of

	Factors		Household Income	Interaction	Covariates	
	Wife's Employ.	Dependent Children			Age	Educ.
Furniture			***	a	***	
Major Appliances			***	b	***	
Floor coverings	***		***	b		*
Electronics	**		**		**	
Audio Equipment	*		***		*	
Television Set	***	*	**			*
VCR					*	
PC	*			b		***

Levels of significance for factors

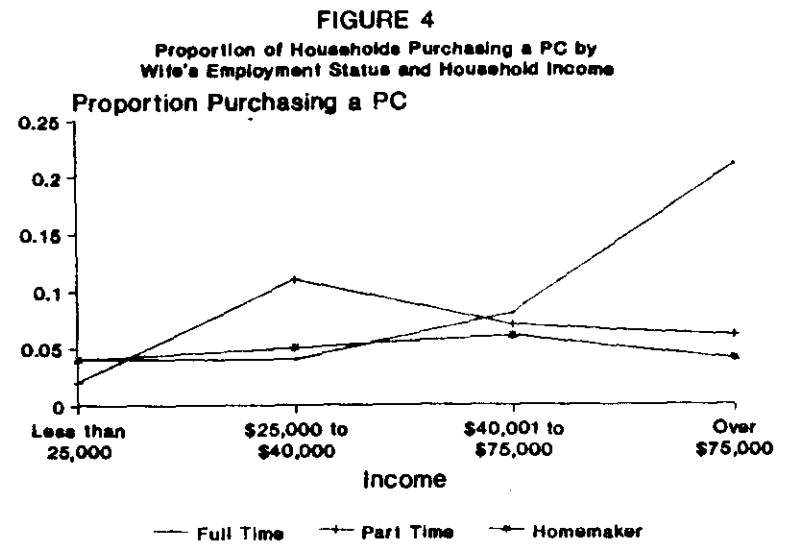
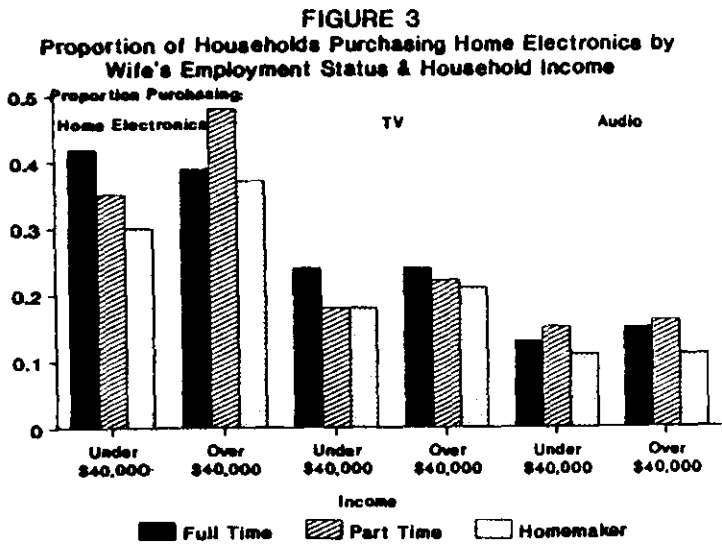
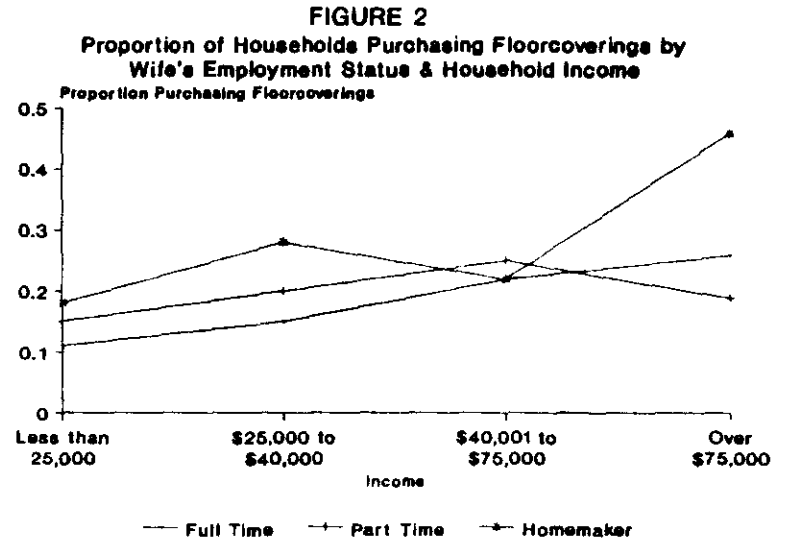
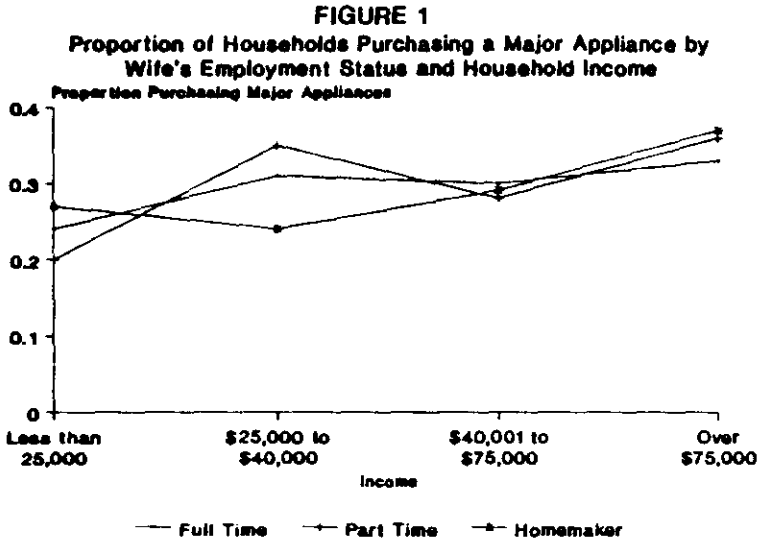
*	F probability $\leq .05$
**	F probability $\leq .01$
***	F probability $\leq .001$

Levels of significance for covariates

*	t probability $\leq .05$
**	t probability $\leq .01$
***	t probability $\leq .001$

Interaction effect significant at least at .05

- a: presence of dependent children with household income
- b: wife's employment with household income



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