

**การวิเคราะห์ความแตกต่างของความไม่พึงพอใจ  
ในการจัดการงานบ้านและงานอาชีพ**  
***Discriminant Analysis of Dissatisfaction with  
Managing Work and Home Tasks***

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**บทคัดย่อ**

การเข้าใจปัจจัยที่มีผลกระทบต่อความไม่พึงพอใจในการจัดการงานบ้านและงานอาชีพ จะช่วยในการหารูปแบบที่ยืดหยุ่นซึ่งเอื้อประโยชน์ให้พนักงานสามารถจัดการกับปัญหาที่ได้อัตโนมัติ อันจะส่งผลดีต่อผลผลิตภาพการผลิตของบริษัท การศึกษาค้นคว้าครั้งนี้จึงมุ่งวิเคราะห์ตัวแปรตาม ได้แก่ ความไม่พึงพอใจในการจัดการงานบ้านและงานอาชีพของพนักงานบัญชี ส่วนตัวประกอบ ได้แก่ เพศ รายได้ ระดับตำแหน่ง เชื้อชาติ จำนวนบุตร อายุ และจำนวนชั่วโมงที่ใช้ในการทำงานบ้านและงานอาชีพของผู้ตอบแบบสอบถามและคู่สมรส

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## **Abstract**

*Understanding factors affecting dissatisfaction with managing work and home tasks should help design flexible benefits that enable employees to better cope with this issue. Improved company productivity should also result. The study examined employee dissatisfaction within the accounting profession as the dependent variable. Independent variables included gender, income, professional level, race, number of children, age, and hours spent on work and home tasks by respondents and their spouses or partners.*

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## ***Introduction***

Employee dissatisfaction with managing work and home tasks contributed to some employees leaving particular professions. Some gravitate towards professions that traditionally have provided more flexibility to manage these tasks. This phenomenon is especially observed in public accounting [12], where productivity losses occur as a result of high employee turnover. Those that stay will seek ways to better manage their lives. Thus, the accounting profession and especially public accounting firms stand to benefit from exploring ways to help employees better manage work and home tasks.

This paper starts with the review of the literature examining dissatisfaction with managing work and home tasks. Second, a survey conducted among accounting professionals is discussed with results from a discriminant model. The last section offers practical suggestions for dealing with this issue.

## ***Literature Review***

The costs and causes of turnover have been well researched and documented. In general these findings closely correspond to those in the industrial psychology literature. The primary determinants of personnel turnover include work-related stress, job dissatisfaction and turnover intentions [11]. Accounting professionals, in particular, appear to evidence higher levels of emotional exhaustion relative to several other professions [3]. Accounting firms may need to explore better ways to help employees manage work and home tasks rather than focusing merely on reducing turnover in order to improve productivity and the bottom line.

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It appears that some employers are getting the message. A recent survey of 1,400 chief financial officers revealed that 47 percent of the respondents said that these benefits have increased somewhat over the last five years and 16 percent said they increased significantly [5]. The 2000 Randstad North American Employee Review shows that 51 percent of employees would stay in their current job if their employer offered flexible working hours [2]. Reducing employee turnover has been a consistent goal of many firms. This reduction results in greater productivity and improves company image. However, merely decreasing employee dissatisfaction and turnover without determining the main factors involved may result in less effective implementation of benefit programs.

Recently, some studies from Messmer [9] and Kaye [7] have been conducted to determine issues relating to employees and work-life issues. Findings from these studies revealed that pay was not a significant factor in terms of satisfaction, while growth potential, flexible work hours and control over work schedules played a greater role. This study expands previous studies by investigating factors that contribute to dissatisfaction with managing work and home tasks. Knowledge of these factors can help human resource managers in designing a flexible benefit program to reduce employee dissatisfaction and, subsequently, turnover.

### ***Methodology***

The theoretical framework is divided into four subsections: sample, dependent variable, independent variables statistical analysis.

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### **A. Sample**

The data were obtained from the survey conducted in April 2001. A questionnaire was sent to 1,000 randomly chosen members of the State of Indiana Certified Public Accountant (CPA) society. Membership in the society includes mainly licensed CPAs either residing or practicing in the State of Indiana. The survey response rate is 42 percent. A total of 248 males and 169 females responded to the survey with two respondents not declaring gender. The survey was a one-time mailing without utilization of any follow-up postcard or incentive.

### **B. Dependent Variable**

The dichotomous dependent variable is dissatisfaction with managing and home tasks. The outcome is either "Yes" or "No" to the question of whether the respondents are dissatisfied with managing work and home tasks. The survey did not include questions pertaining to self-reported reasons for dissatisfaction in order to reduce the effects of subjective opinions of the respondents. In addition, information was collected regarding the varying degrees of dissatisfaction. However, there were insufficient observations to significantly discriminate the levels of dissatisfaction. For example, the number reporting very dissatisfied was low, representing only four percent of the respondents.

### **C. Independent Variables**

Ten independent variables are included in the model. There are two types: continuous and categorical. Gender, income class, level in profession, and race are categorical variables. Gender is

included, as it has been previously regarded as mainly a female issue in relation to managing work and home tasks. The respondents' incomes are divided into seven categories, from less than 26,000 to above \$175,000. An increase in income level is anticipated to lessen dissatisfaction. The professional levels of the respondent's current position were divided into four categories: upper management, middle management, staff and self-employed. In the study conducted by Marriott, Sexton, and Staley [8], the primary factor of job satisfaction that emerged was position satisfaction. Race is added to detect the possibility that it may have an influence on dissatisfaction. However, the survey shows a low response rate from minorities due to number of hours on lack of representation in the accounting profession.

Continuous variables include number of children, age, number of hours on work and house spent by the respondent, and by the respondent's spouse or partner. The hypothesis is that an increase in the number of children may contribute to dissatisfaction with managing work and home tasks. Of those respondents reporting the number of children, 96.34 percent reported having four or fewer children. Although some respondents reported having as many as 10 children, the mean number of children was 2. The age of the respondents ranged from 22 to 76, with an average of 42. Older respondents are hypothesized to be more content with their work and home tasks. This may be due, in part, to reducing additional time required by young children. In general, dissatisfaction arises because of work time needed to attend to home tasks, without sufficient leisure time. The average weekly hours spent on work was 46. A recent study by the Families and Work

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Institute in New York revealed that on average the number of hours spent on work weekly for respondents to that survey was 44 hours [4]. The average hours spent per week on household tasks was 14 hours. Spouse or partner's hours spent at work or home also impact dissatisfaction. If a spouse or partner works more, dissatisfaction increase. Conversely, if they devote more time to house hours, dissatisfaction may be reduced. The survey indicates 32 average weekly hours spent on work by spouse or partner while the average hours spent per week on household tasks by spouse or partner is 21 hours. Roxburgh [31] found that partner support significantly influenced females' job satisfaction, but did not affect males.

#### **D. Analysis**

It is important to examine the correlation among the independent variables. In this analysis, the pooled within-group matrix was examined. All values are relatively low, from .01 to 0.4 in absolute numbers. Hence, there is little correlation among variables. Discriminant analysis is employed to (a) discriminate two groups of respondents who answered "Yes" and "No" to the question of whether they were dissatisfied, and (b) identify the characteristics that contribute most to the group distinction. Discriminant analysis is a well-accepted technique that has been used in many studies in predicting functional turnover [14] and job satisfaction of teachers [1], for example. A random sample was drawn and used to establish a discriminant model. Stepwise method with minimizing Wilk's lamda criteria is used to select variables to be included in the discriminant model.

### **Empirical Results**

Certain assumptions about the data must be met in order for the linear discriminant function to provide a classification rule that minimizes the probability of misclassification. In this case, Box's M test is a measure of multivariate normality based on the similarities of determinants of the covariance matrices of the two groups. Test results indicate Box's M statistics equal 4.796. The significant probability of 0.582 is based on an F value of .785. Therefore, the null hypothesis of equal population covariance matrices is accepted. The results of the discriminant analysis summarized in Table 1 reveal that work hour, gender, and household hour statistically contribute to the discriminatory power of the discriminant function.

	Wilks' Lambda	Significance of F to Remove
Work hour	.984	.000
Gender	.894	.002
House hour	.880	.021

Table 2 reports analysis of the statistically significant discriminant function. The group centroids, the mean values of the individual discriminant function scores, are 0.692 for the "Yes" group and -0.231 for the "No" group. Centroids can be used to interpret the discriminant function. Although the traditional approach used in interpreting discriminant functions involves examining the sign and the magnitude of the standardized discriminant coefficients, there is reason to exercise caution when this method is utilized.



The coefficient signs are arbitrary. The positive coefficient of one variable could just as well be negative if the coefficient signs of other variables were reversed. Additionally, interpreting the magnitudes of the coefficients as indicators of the relative importance of the variables is not a good measure when the variables differ in the units in which they are measured [10]. Therefore, other approaches should be utilized in determining which independent variables contribute more to the discriminating power of the function. Structure correlations have been used increasingly as a basis for interpreting the relative importance of each independent variable in discriminating between the two groups. They measure the simple linear correlation between each independent variable and the discriminant function. The structure matrix (not shown) revealed that work hour variable has the highest discriminating power with a value of 0.701, followed by gender (0.314) and house hours (0.109). One of the standard outputs of discriminate analysis is a measure of the statistical significance of the function. The chi-square for this function is 38.157. This statistical test assesses the significance of the function (see Table 2).

<b>Table 2</b>		
<b>Discriminant Analysis Results</b>		
Canonical discriminant functions at group centroids		
Dissatisfaction : Yes No	.691	
	-.231	
Standardized Canonical Discriminant Function Coefficients		
Work hour	.548	
Gender	1.109	
House hour	.460	
Eigenvalue = .161	Wilks' Lambda = .861	df = 3
Canonical correlation = .372	Chi-square = 38.157	F < .000

A classification matrix was constructed to examine the validity of the discriminant function. Classification matrices provide an assessment of the discriminating power of the function by revealing how well the function classifies the cases. The classification results in Table 3 indicate that for the original data, 96.8 percent of the "Yes" group and 85.6 percent of the "No" group can be classified correctly by the discriminant function. This results in an overall 77.5 percent of the original grouped cases correctly classified. In addition, a cross-validation is performed to validate the discriminant function. Cross-validation is performed for only those

<b>Table 3</b>				
<b>Classification Results</b>				
Dissatisfaction		Predicted Group Membership		Total
		Dissatisfaction		
		Yes	No	
<b>Original</b>				
Count	Yes	83	14	97
	No	10	307	317
	Ungrouped cases	5	0	5
Percent	Yes	85.6	14.4	100.0
	No	3.2	96.8	100.0
	Ungrouped cases	100.0	.0	100.0
<b>Cross-validated</b>				
Count	Yes	84	13	97
	No	14	303	317
Percent	Yes	86.6	13.4	100.0
	No	4.4	95.6	100.0
Note : 77.5 percent of original grouped cases correctly classified. 76.3 percent of cross-validated grouped cases correctly classified.				

*Cases in the analysis.* In cross-validation, each case is classified by the functions derived from all cases other than that case. This results in an overall 76.3 percent of the cross-validated grouped cases correctly classified. The accuracy rate derived from classifying the original group is greater than that obtained from the cross-validated group the original data accuracy rate is upwardly biased, as a result of classifying the same observation used in computing the discriminant function. The utmost measurement of

the usefulness of the model lies in its ability to predict better than chance does. Hair, Anderson, and Tatham provide the proportional chance criterion (C<sub>pro</sub>)[6]. The C<sub>pro</sub> for the sample used in this study was 62.5 percent. When compared with 76.3 percent accuracy rate of the cross-validated group, the classification accuracy met this criterion. The level of explanatory power seems to be quite acceptable.

### ***Discussions***

The findings in this study add to the growing literature in which issues of dissatisfaction are explored and look beyond the job to include aspects concerning the home. The number of weekly hours to perform work and home tasks is a significant factor in the discriminant function measuring dissatisfaction. Extended work hours are unavoidable in many professions. However, programs such as telecommuting, compressed-work weeks of flexible time help to reduce some of the pressure. Telecommuting allows employees to avoid commuting times and manage work and home tasks simultaneously, such as caring for a sick child. Dialing capabilities have greatly facilitated this option. Compressed-work weeks allow employees to work the same amount of hours in fewer days. For example, some employees work 10 to 12 hours a day, four days a week. As a result, commuting time is reduced and employees gain an additional day to perform home tasks.

The issue of dissatisfaction with managing work and home tasks has sometimes been regarded as a female issue. Gender is found to be a significant factor. Male respondents reported dissatisfaction with managing work and home tasks at lower rates than female respondents, 19.5 percent for males and 29.5 percent for

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females. Many of the issues relating to gender are changing as society changes. Studies have shown that times are changing and males are assuming more home tasks. The National Study of the Changing Workforce released in 1998 by the Families and Work Institute in New York shows the amount of time males spend on household tasks is increasing and the amount of time females spend is decreasing [4]. Although females still spend 1.5 times more than the amount of time males do, the gap is narrowing. In addition, fathers are spending more time with their children while the time mothers spend is remaining steady, still just under 1.5 times more than the amount of time fathers spend. These changes increasingly make this kind of dissatisfaction an issue for all employees.

Also noteworthy is the evidence showing that professional level, number of children and income do not contribute to dissatisfaction in managing work and home tasks. For example, the number of children is not a factor, even when examined by age category. Although providing on-site daycare and other benefits for working parents continues to be important, these benefits alone will not address employee dissatisfaction. The finding that income is insignificant is consistent with previous findings. A 1999 Hay Group study found that of 50 retention factors, pay was the least important [7]. The 2000 Randstad North American Employee Review revealed that money was not the key in attracting and retaining talent [2].

The results of the study provide some good news for employers. When the ability to offer additional benefits is limited, it appears that some of the most effective are also the least costly. Offering employees flexible benefits that allow them to better

manage work and home tasks can lessen the dissatisfaction many employees feel when trying to manage work-life issues. Further studies may include surveys of other areas to determine regional differences. In addition, longitudinal studies of the changes in the availability of flexible work hours and the effect on dissatisfaction may be beneficial.

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