TELEPHONE SURVEY OF A SELECT GROUP OF COLUMBIA, MISSOURI RESIDENTS: RELATIONSHIP OF WORK TIME, HOUSEWORK TIME, AND RECREATION AND LEISURE TIME

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Chien-Chung Yuan

Jaclyn A. Card, Ph.D., Project Supervisor

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ABSTRACT

According to studies by Robinson (1989b) and Schor (1992), work time, housework time and recreation and leisure time have close relationships. The purpose of this study is to conducted a telephone survey of a select group of Columbia, Missouri residents to determine the relationship of the time they spend on work, housework and recreation and leisure. The design of this study was correlational and non-experimental. Telephone questionnaire interviews were conducted with 300 Columbia residents by the random digit dialing method. StatPac Gold (1992) computer software was used to calculate the frequencies and percentages of collected data. Also, chi square test was used to analyze the data. In addition, the study results were used to compare with the results from previous studies by Robinson (1989b) and Schor (1992). The study results showed that there is a significant relationship between work time and housework time; and work time and recreation and leisure time.

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CHAPTER I

INTRODUCTION

The work week has decreased from 80 hours to 50 hours or less from 1840 to 1930 (Lundberg, 1933). In 1920, 40% to 50% of the population's waking hours were available for recreation and leisure (Lundberg, 1933). In the late 1950s, the proposed four-day work-week was a dream for working people, yet it is still a dream for people in the 1990s (Schor, 1992). Since work hours have not reduced over the past four decades, there have been arguments relating to the amount of time people have for recreation and leisure.

According to the Americans' Use of Time Project in 1985, Americans' recreation and leisure time increased from about 35 hours to nearly 40 hours per week between 1965 and 1985 (Cornish, Willard, & Fields, 1991). However, Decision Research Corporation's 1990 study showed recreation and leisure time decreased from 22 hours to 18 hours per week since 1986 (Decision Research Corporation, 1990). In addition, National Recreation and Park Association's (NRPA) 1992 survey revealed that most people said they have less time for recreation and leisure than they had in 1987, though the exact amount of time was not identified (Godbey, Graefe, & James, 1992).

While there is a contradiction of the increase or decrease of recreation and leisure, Robinson (1988) claimed that less time spent on housework was one of the reasons for

increasing time for recreation and leisure for women. However, Schor (1992) pointed out that men did not share more housework responsibility and the amount of time women spend on housework remained constant for the past two decades. Is there a significant relationship between work time and housework time, work time and recreation and leisure time; and between housework time and recreation and leisure time? These questions are addressed in this study.

Purpose of Study

The purpose of this study was to conduct a telephone survey of a select group of Columbia, Missouri residents to determine relationship of the time they spend on work, housework, and recreation and leisure compared to five years ago.

Sub-Problems

The purpose of this study was achieved by dividing the purpose into seven subproblems. The subproblems are:

1. To determine if a select group of residents of Columbia, Missouri spend more, less or about the same time on work compared to five years ago.

2. To determine if a select group of residents of Columbia, Missouri spend more, less, or about the same time on housework compared to five years ago.

3. To determine if residents of Columbia, Missouri have

more, less, or about the same time for recreation and leisure compared to five years ago.

4. To determine relationship of work time, housework time, and recreation and leisure time compared to five years ago.

5. To determine whether there is a significant relationship between work time and demographic information.

6. To determine whether there is a significant relationship between housework time and demographic information.

7. To determine whether there is a significant relationship between recreation and leisure time and demographic information.

Limitations

The limitations that were beyond the control of the study were:

1. This study was limited to the year and the month the study was conducted.

2. This study was limited to those people who have a phone in their household.

3. This study was limited to the respondents' accurate recalled memories of their activities.

4. This study was limited to the respondents' personal perception of work, housework, recreation and leisure.

5. This study was limited by the respondents'

willingness to answer the questionnaire.

Delimitations

This study was delimited to people age 23 to 64, who have been living in Columbia, Missouri for at least five years. Also, this study was delimited to those people who have a telephone in their households.

Assumptions

It was assumed that the respondents understood the meanings of work, housework, and recreation and leisure. It was assumed that the respondents answered the questionnaires honestly and accurately. It was assumed that the select group of Columbia,Missouri respondents do not represent the general population of residents of Columbia, Missouri.

Definitions

For the purpose of this study, the following terms were defined based on definitions in the study of Robinson, Andreyenkov, and Patrushev (1988), and updated by the researcher:

Housework Time - The estimated amount of time that is used for housework. Housework includes preparing food, washing dishes, cleaning house, gardening, mowing the lawn, doing outdoor tasks, shopping, paying bills, maintaining automobiles, driving family members, caring for pets, caring for children, and doing laundry.

Recreation and Leisure Time - The estimated amount of time that is used for recreation and leisure excluding work time and housework time. This includes socializing, playing sports, watching TV, exercising, resting, and reading.

Work Time - The estimated amount of time that is used for work. This includes regular work, class hours, paid, volunteer and second jobs, and commuting to and from work.

Research Design

The study was a correlational and non-experimental study; therefore, the subjects received no treatment. A one-time telephone survey method was used to collect data. Data were used to analyze the relationship of leisure time, work time and housework time of a select group of Columbia, Missouri residents.

Need for the Study

Time is a limited resource because there are only 24 hours in each day. Time is also fair because each person, no matter his or her race, gender, social or economic status, has 24 hours in each day. The increasing or decreasing amount of time for any activities will result in the increasing or decreasing of time for other activities (Robinson, et al., 1988). If people spend more time on work related activities, they will have less time for other activities.

Some people in the United States believe that their leisure time is shrinking because of their increasing work hours (Cutler, 1990). Studies (Robinson, 1989b; Schor, 1992) related to the subject of recreation and leisure time offered two differing views. Robinson (1989b) claimed that the time for recreation and leisure is increasing and Schor (1992) said the time is decreasing. Robinson (1989b) claimed that the increase of recreation and leisure time is because both genders spend less time on work and women spend less time on housework. Schor (1992) claimed that both genders spend more time on work and have less time for recreation and leisure, and females spend about the same time on housework. These findings lead to the question of: whether residents of Columbia, Missouri spent more, less, or about the same time on work, housework, and recreation and leisure compared to five years ago? One way to answer the question was to conduct a survey based on interviews with a select group of Columbia, Missouri residents.

The relationship of work time, housework time, and recreation and leisure time relates to social change. According to Robinson, Andreyenkov, and Patrushev (1988), work related activities, housework related activities, and free time related activities compose activities for one day. The increasing or decreasing time for one activities could influence the time spend on other activities (Robinson, et al., 1988).

According to Robinson's (1989a) study, free time for recreation and leisure increased because of less work hours. Schor (1992) noted that free time was cut due to more work hours. Robinson (1989a) suggested that men were doing more housework because more women were in the job market. Unlike full time homemakers, working women have less time to do housework; therefore, men are doing more housework than in the past (Robinson, 1989a). Since more women are in the work force and spend more time on work (Harris, 1987), there could be a change in their time use pattern. By knowing the relationship of work time, housework time and recreation and leisure time, this change could be better understood.

Understanding the relationship of work time, housework time and recreation and leisure time of residents of Columbia, Missouri was the focal point of this study. Since the previous studies (Robinson, 1988, Schor, 1992) claimed that their study represent the nation, the findings of this study could determine whether residents of Columbia, Missouri spend more, less, or about the same time on work, housework, and recreation and leisure compared to five years ago.

CHAPTER II

LITERATURE REVIEW

Introduction

For almost a hundred years, work hours have been declining and free time for leisure has been increasing (Schor, 1992). Since the late 1940s, free time for recreation and leisure started to decline (Schor, 1992). Not until lately have studies (Schor, 1992; Godbey, et al., 1992; Decision Research Corporation, 1990) revealed decreasing free time for recreation and leisure. On the contrary, there are study results showing that free time for recreation and leisure has been increasing for the past two decades (Robinson, 1989b).

The focus of this study was the relationships of work time, housework time and recreation and leisure time of people in Columbia, Missouri compared with five years ago. This chapter is divided into three sections. They are: (1) the history of use of time study, (2) the contemporary use of time studies, (3) the methodology of use of time studies.

History of the Use of Time

For more than 70 years, scholars have been interested in the way time was used and how daily activities changed over time (Robinson, Andreyenkov, & Patrushev, 1988). Time studies before 1965 focused on work hours and economists were

interested in how to apply the time studies to improve productivity. The other interest in time study focused on social change. One concern of the change was on how daily activities changed over time and how housework shifted between males and females (Robinson, 1988).

Starting in the 1920s, there were studies focusing on women's use of time, especially farm homemakers. Those studies were fact finding procedures to record the exact time that homemakers spent on housework, such as laundry, cleaning and preparing meals (Vanek, 1974). In 1959, Reiss studied the differences of rural-urban lifestyles. Reiss (1959) used time-budget to gather data on urban, rural-non-farm, and rural-farm residents. Time budget was used to record every activity that respondents did in their everyday lives and with whom they did those activities (Reiss, 1959). These earlier studies were conducted to determine the use of time of women and the differences of lifestyle and daily activities among people in urban and rural settings.

In 1965, the Survey Research Center at the University of Michigan conducted a time diary survey to record a total of 1,244 respondents' activities in one day (Robinson, et al., 1988). People who lived in rural areas and non-employed households were excluded from the sample (Robinson, et al., 1988). The same time diary study was conducted again in 1975 and 1985. After comparing the results of his previous studies, there was a five hour increase of free time from 35

to 40 hours per week. Therefore, Robinson proposed the trend of increasing free time for recreation and leisure (1989b).

Contemporary Studies of Time Use

For the last 30 years, time scarcity has been a problem for Americans and had an impact on leisure behavior (Scott, 1993). The increase of free time could not keep pace with the increasing time for work and other activities, causing the time scarcity problem. Americans felt that they did not have enough time for activities in which they wanted to participate (Scott, 1993). The studies of recreation and leisure time gained importance from the late 1980s. Since then, researches related to recreation and leisure time studies were separated into two major schools of thought. One thought asserts that recreation and leisure time is increasing; the other asserts that recreation and leisure time is decreasing.

In 1985, Robinson claimed that free time increased over the last 20 years by comparing his previous study results with his 1985 study (Robinson, 1989b). Robinson's use of time study explained the change of the society and the relationship of housework shifting between genders.

According to all three of Robinson's use of time studies, people gained about five more hours of free time per week from 1965 to 1985. He suggested two reasons. First, women in 1985 were doing eight hours less housework a week

than in 1965 (Robinson, 1989b). Second, the total work hours recorded in their 1985 daily diaries were shorter than the same study in 1965. Men worked seven hours less per week and women worked eight hours less per week in 1985 than in 1965 (Robinson, 1989a).

Robinson mentioned reduced housework for women is one of the two reasons for women to have more time, and there are four factors to support the reason. The first factor is marriage. Because married men were doing more housework than they did in 1965, married women had reduced their housework by eight hours a week in 1985, compared with the same study in 1965 (Robinson, 1988). The number of children in a household is another factor. Reduced numbers of children mean less time spent on child care. Paid employment is the third factor. In 1985, more women were employed than in 1965. Because women spent more time on their paid job, the time for housework decreased. The last factor is age. Women ages 18 to 35 were doing 17 hours of housework a week compared with 26 hours in 1965. They were not doing as much housework as the women of 20 years ago. Men were doing 33% of the housework compared with 15% in 1965 (Robinson, 1988). These factors apply to time's special property that the increasing of time in one activity will be offset by decreasing of time in other activities. The result of more women employed full-time caused less time spent on housework.

The other major reason for the increasing of free time for leisure is less work hours in a week (Robinson, 1989b).

This claim was based on information of Robinson's activities diaries rather than government figures. Robinson stated even though the government record of weekly work hours stayed the same through decades for both men and women, the actual work hours recorded in the diaries were decreasing (Robinson, 1989b). One of the reasons for the different work hours between government's record and Robinson's study was the government figures did not subtract the time that employees spent on running errands during work hours, or even going for a doctor's appointment (Robinson, 1989b). Therefore, Robinson's use of time studies, from 1965 to 1985, claimed that the available recreation and leisure time was increasing.

In terms of decreasing recreation and leisure time, studies important to this aspect are the surveys conducted by Louis Harris and Associates from 1973 to 1985. The results of the surveys indicated that work hours increased from 40.6 to 48.8 hours per week from 1973 to 1985. Also available recreation and leisure time dropped from 24.3 hours to 17.7 hours per week during the same period of time, a 32% decrease (Harris, 1987). Hence, Harris' study implies that the recreation and leisure time for American people is decreasing.

The rising number of working women was the reason proposed by Harris for the shift between working hours and leisure time. The estimated 56% increase in the female work

force led to the result of more time at work and less time for recreation and leisure. Another key factor proposed was the transition of the labor force. The labor force has shifted from blue-collar manufacturing labor to white-collar service labor. Because blue-collar labor was paid by the hour and white-collar labor was paid by the month, the white-collar labor forces devoted more time to their work, and it caused the reduction of their leisure time (Harris, 1987). From these observations, Harris found that the recreation and leisure time for people in the United States was decreasing.

Since 1980, Decision Research Corporation has conducted several time studies focusing on how people use their time. In the 1990 report, people in the United States have less recreation and leisure time than a similar study in 1986. An average of 22 hours per week in recreation and leisure time was estimated in 1986 compared to 18 hours in 1990. Recreation and leisure time in 1990 dropped 18% from the results of the previous study. Furthermore, the study claimed that the decreasing of recreation and leisure time would be a trend for the 1990s (Decision Research Corporation, 1990).

In 1992, Godbey et al. conducted a national telephone survey. Out of 1,305 respondents, 47% of them expressed less recreation and leisure time, 22% of the respondents expressed more recreation and leisure time, while 31% of the respondents expressed the amount of time for recreation and

leisure remained unchanged compared with five years ago. Another finding was that 60% of the respondents who expressed less recreation and leisure time had one or more children. In addition, the respondents with more members in the household expressed that they had less recreation and leisure time (Godbey, et al., 1992). The result indicated respondents living in a household with more children and more members had less time for recreation and leisure (Godbey, et al., 1992). These results reveal that the number of children in the household as well as family size reduce people's recreation and leisure time.

In The Overworked American: The Unexpected Decline of Leisure, Schor (1992) supported the theory of diminishing leisure time. She pointed out that Americans spent more time on their job, and enjoyed less time for leisure over the past two decades. Schor's study focused on economic impacts of leisure time. She stated capitalism plays a major role in the decreasing of leisure time, and "it was the rise of capitalism itself which created today's sharp and identifiable distinction between work and leisure" (Schor, 1992, p. 14). She indicated that people are trapped in the work and spend cycle to pursue a higher standard; therefore, the result is more work hours and less leisure time.

Schor (1992) pointed out that average working hours increased from 1,786 hours annually in 1969 to 1,949 hours in 1987. A 163 hours difference equals about an extra month of work a year. The extra month of work would certainly cause

the decreasing of time for doing other activities. Thus, Schor's study lends support to trends of decreasing leisure time.

In conclusion, on the side of increasing leisure time, from 1965 to 1985, Robinson explained the study results with a sociological aspect, such as women's changing lifestyle and the interaction between the roles of men and women. On the side of decreasing recreation and leisure time, Harris (1985) used the transition of the labor force, such as increasing numbers of working women and the white-collar labor force, to support the assertion of decreasing leisure time. Number of children and family size were the reasons for diminishing leisure time used by NRPA. Finally, Schor (1992) used her economic view to show the dynamics between work and leisure and gave the assertion of decreasing leisure time.

Methodology of the Use of Time Studies

This section first presents the methodology of Harris's (1985), Decision Research Corporation's (1990), and Godbey, et al. (1992) study. The methodology of Robinson's (1988) and Schor's (1992) studies are presented and compared later in this section. Their studies received national coverage and their research methods have several points in common.

The telephone interview method was used by Harris (1985), Decision Research Corporation (1990) and Godbey, et al. (1992). Harris conducted a total of five national cross

section studies in 1973, 1975, 1980, 1984, and 1985 by telephone interview (Harris, 1987). The focus of Harris' studies was on the relationship among gender, occupation, work hours, and recreation and leisure time. The amount of time for work and recreation and leisure was identified; however, the time for housework was not identified (Harris, 1987). Because work, housework, and recreation and leisure compose a person's daily activity (Robinson, et al. 1988), the unidentified housework hours could be a factor that influenced the results of the study.

Decision Research Corporation first conducted leisure time research in 1986. In 1989, Decision Research Corporation repeated the study. A total of 300 subjects from a nation-wide sample responded to a telephone interview in October 1989. The study focused mainly on what people do for leisure. The results of the leisure time study have been used to help marketers to better understand the lifestyle changes and services needed by consumers (Decision Research Corporation, 1990). The marketer used the information of the study to predict what people need for their free time and they try to provide more services and products to accommodate the needs. Time for work and housework were not in the study, so there is no way to determine the relationship among work time, housework time and recreation and leisure time.

Godbey, et al. (1992) also conducted a nation-wide survey, the Perceived Benefits Questionnaire. The

questionnaire mainly focused on parks and recreation benefits perceived by American people. The increasing or decreasing of recreation and leisure time was a part of the second section of the questionnaire. However, the questionnaire did not ask the amount of work time and housework time the respondents had.

There are two characteristics in Robinson's use of time serial studies. The first one is the use of a time dairy. The advantage of a time diary is its accuracy in recording daily activities. Robinson stated that a time diary "produces highly replicable and reliable results" (Robinson, 1985, p. 59). If recorded correctly, time diaries will be more accurate than the government recorded figures. However, the disadvantage of it is that time diaries require respondents to record their daily activities correctly, otherwise, the results will not be dependable.

The other characteristic of Robinson's studies is the definition of free time. He defined free time as the leftover after subtracting the time people spend on work, work related time, and personal needs, such as commuting, family care, housework, shopping, sleeping, eating and other personal care activities (Robinson, 1989a). This definition clearly separates free time from work time.

In comparing Robinson's studies with Schor's, there are some common factors. One is that Schor's estimate of household hours was based on Robinson's use of time studies

in 1975 and 1980. However, Schor claimed that Robinson's 1965 study did not sufficiently represent the population. Several shortcomings, such as heads of household and business cycle, were noted. Schor said that the head of a household was defined as the male in a household when a female could be the head. She indicated, "the 1965 sample was whiter, more affluent, and more employed than the actual population" (Schor, 1992, p. 168). Thus, Schor pointed out that the result of Robinson's 1985 use of time study was biased.

The other common factor is the definition of free time for leisure. Schor explained leisure as the residual of the combined total working hours which are paid employment and household labor (Schor, 1992). Schor's definition of leisure time is similar to Robinson's definition of leisure time as the leftover after subtracting the time people spent on work and work related time (1989a).

The major factor which makes Robinson's and Schor's studies different is that Schor introduced the influence of capitalism. Schor's study was based on her own estimates of work hours. Unlike Robinson's study, many of Schor's estimates focused on the increasing work hours rather than on leisure itself. From her economic point of view, leisure is the leftover of long work hours.

Although Schor used some of Robinson's data for part of her estimates and their definitions of leisure were similar, the results from their studies were different. Schor claimed that the available leisure time was falling. Robinson said

that Americans were gaining more leisure time.

Summary

Some scholars conducted studies regarding how American people use their time. Telephone interview and time diary methods were used for these studies. Most study results (Harris, 1985; Decision Research Center, 1990; Godbey et al., 1992; Schor, 1992) revealed that people in the United States spend more time on work and have less free time to do their leisure activities. However, Robinson's (1985) study shows increasing free time for leisure, and the shifting of housework between males and females (Robinson, 1989b). According to Robinson (1989b), men are doing more housework than before because more women are employed.

Those previous studies (Harris, 1987, Robinson, 1988, Decision Research Corporation, 1990, and Schor, 1992) claimed their studies represent the nation. This study focused on a select group of Columbia, Missouri residents to determine the relationship of work time, housework time and recreation and leisure time compared to five years ago based on the results of previous studies.

CHAPTER III

METHODOLOGY

Introduction

Chapter III includes how data were collected and analyzed. This research was a correlational study. The procedure involved selecting subjects, choosing an instrument to collect data, collecting data from respondents, and interpreting the collected data.

Chapter III is divided into four sections. They are: (1) selection of subjects, (2) selection of instrument, (3) collection of data, and (4) statistical analysis of data.

Selection of Subjects

Since the focus of this study was the relationship of work time, housework time and recreation and leisure time of a select group of Columbia, Missouri residents, people who live in Columbia were the subjects. According to data from the Bureau of the Census, the population size of Columbia, Missouri was 69,101 in 1990 (Bureau of the Census, 1990). This number is based on the number of people residing in Columbia during the census period. Also, this number included students at University of Missouri-Columbia, Stephens College and Columbia College (Bureau of the Census, 1990). This study was limited to 300 people age 23-64 who have been living in Columbia for five years and have a

telephone in their residence. The number of 300 subjects were generated by StatPac Gold (1992), using the function of Determine Sample Size.

The reason for choosing the 23 to 64 age level was because there were questions that required them to compare the time they spend on activities now and five years ago. They were 18 to 59 years old at that time. This is the age group that Robinson (1988) and Decision Research Corporation (1990) used in their studies.

Also, there was a limitation of not exceeding 55% on either male or female respondents selection as Godbey, et al. did in their study (1992). The study results show that there were 140 male (46.7%) and 160 female (53.3%) respondents. Subjects' phone numbers were selected randomly by StatPac Gold computer program (StatPac Gold, 1992). The detailed explanation of the sampling process is discussed in the Collection of Data section.

This study used random digit dialing to select samples because it can access all phone numbers even though the numbers are not listed in the phonebook (Dillman, 1978). First, the researcher picked the identified three-digit exchange prefixes of the Columbia area. They are 442, 443, 445, 446, 449, 474, 499, 874, 875, 876, 882, 884, 886. The prefix 882 was not included in this study because it is a business prefix of the University of Missouri-Columbia. Also, the prefix 884 was not included because it is a student

residence halls' prefix.

The researcher used the 11 prefixes preceding the four-digit random numbers generated by the StatPac Gold Computer Program (StatPac Gold, 1992) to produce the phone numbers used in this study. The researcher collected 84 surveys from the prefixes 442, 443, 445 and 216 surveys from the remaining prefixes to complete the collection of 300 subjects.

In case some numbers were not eligible, such as business phone number, fax number, computer modem numbers and numbers that had been disconnected, the researcher prepared more numbers than needed as Wimmer and Dominick (1991) suggested. Therefore, a total of 900 random four digit numbers were generated by StatPac Gold (1992).

Selection of Instrument

The instrument used in this study was a questionnaire developed by the researcher based on studies of Godbey, et al. (1992) and Robinson (1989a). The first three questions dealing with work time, housework time, and recreation and leisure time were based on Robinson's use of time study in 1985. The demographic questions were based on the study by Godbey, et al. (1992). They included gender, age, marital status, number of people in the household, number of children and teens in the household, educational level, employment status, race or ethnic status, and household income level. The questionnaire was reviewed by the committee members. The

researcher then made corrections based on the suggestions from the committee members.

The researcher turned in a request form for exemption from review by the Institutional Review Board for Research Involving Human Subject and it was exempted. The researcher conducted the survey by following the suggestions from the Institutional Review Board, such as not revealing the telephone number of the respondents, and telling the respondents that they were not obligated to answer any of the questions.

Collection of Data

Data were collected by telephone interviews. There were three reasons for choosing this method. First, it costs less than other methods, such as mail surveys. The researcher could make as many calls as needed for free when making calls within Columbia, Missouri. In a situation of self-supported research, the telephone survey was most feasible. Second, the response rate of telephone surveys is higher than most mail surveys (Fowler, 1993). Third, the actual time of collecting data was shorter because the researcher could get immediate responses from telephone interviews.

According to Downs, Smeyak, and Martin (1980), the proper time to do telephone surveys is between 10:00 a.m. and 9:00 p.m., everyday of the week. The researcher actually made those calls from 5:00 p.m. to 9:00 p.m., Monday through Friday, and from 2:00 p.m. to 9:00 p.m. Saturday and Sunday.

The researcher conducted interviews from October 7 to October 22, 1994.

The researcher continued the survey with the next random number when certain situations happened, such as no answer, an answering machine, and disconnected numbers. Callbacks were made for the following situations: Subjects who could not answer on the first call, calls that no one answered, and those calls with answering machines. When the person who answered the phone did not qualify, the researcher asked for someone who was qualified. The researcher called the next number when no one in the household qualified.

The researcher made call backs for several situations, such as no one answer, answering machines, and busy lines. The researchers made 33 call backs. The researcher left an address for the respondents in case they wanted to know the outcome of the study. There were 26 respondents who asked for the study results.

Four minutes was the average time to complete one questionnaire. The average number of completed interview each day was 15. The researcher was the sole interviewer. The researcher practiced the telephone interviewing with volunteers to acquire better interview techniques, and to revise questionnaire protocol.

The researcher received a response rate of 69% (Appendix C). Out of a total of 1,798 calls, there were 300 completed surveys and 129 refusals. The response rate was determined

by dividing the number of the completed 300 surveys by the total of the 429 completed surveys and refusals. The results of call backs were counted in the results of completed surveys and refusals. The researcher did not leave a message on answering machines. Also, some respondents did not answer the survey because they had difficulty understanding the researcher. These respondents were categorized as language problems and the four of them were also categorized as refusals.

Statistical Analysis of Data

The StatPac Gold (StatPac Gold, 1992) computer software was used to analyze the data. The statistical program calculated the data and produced frequencies and percentages. Next, chi square was used to determine the relationship between variables (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975). The Stat-Pac Gold Computer Program did crosstabulations to calculate chi square values, degrees of freedom, and probability of chance.

Demographic data comprised the independent variables, and work time, housework time and recreation and leisure time were the dependent variables. Because the level of data used in this study was nominal, chi square was considered suitable for testing the significance between each variable. According to Frederick (1986), chi square can be used to compare different samples and how items within a sample will

distribute in a set of categories. Chi square was used to analyze the relationships of work time, housework time and recreation and leisure time. Also chi square was use to analyze the relationship between demographic data and work time; demographic data and housework time; and demographic data and recreation and leisure time. A significance level of the chi square test was set at .05.

The first three questions in the questionnaire related to whether respondents spend more, less, or about the same time on work, housework, and recreation and leisure. The remaining questions dealt with demographic information of the respondents.

The results of crosstabulations of relationships of work time, housework time and recreation and leisure time are discussed in Chapter IV. Also, the relationships between demographic background and work time; demographic background and housework time; and demographic background and recreation and leisure time are in Chapter IV.

Summary

The purpose of this study was to conduct a telephone survey of a select group of Columbia, Missouri residents to determine the relationship of the time they spend on work, housework, and recreation and leisure compared to five years ago. The 300 survey subjects were chosen from the population of Columbia, Missouri. The questionnaire of this study was based on the studies of Robinson (1988) and Godbey, et al.

(1992). Data were collected by telephone interviews. Finally, the collected data were analyzed by the StatPac Gold (StatPac Gold, 1992) computer program using chi square.

CHAPTER IV

ANALYSIS OF DATA

Introduction

The purpose of this study was to conducted a telephone survey of a select group of Columbia, Missouri residents to determine the relationship of the time they spend on work, housework, and recreation and leisure compared to five years ago. The survey results are reported in this chapter.

Frequencies and Percentages of Work Time, Housework Time, and Recreation and Leisure Time

This study results show that, compared to five years ago, 45 (15%) respondents said they had more time for recreation and leisure, while 173 (57.7%) respondents reported less time for recreation and leisure. The remaining 82 (27.3%) respondents said they had about the same time for recreation and leisure compared to five years ago. Compared to five years ago, 158 (52.7%) respondents said that they spent more time on work, 51 (17.0%) respondents said that they spent less time on work, and 91 (30.3%) respondents said that the time they spent on work remained the same. Also, for housework time, 109 (36.3%) respondents said that today they spend more time on housework, and 76 (25.3%) respondents reported less time, while 115 (38.3%) respondents said the time for housework remained the same compared to five years

ago.

Frequencies and Percentages of Demographic Information

Table 1 through Table 5 contain data representing demographic background of the respondents. Table 1 shows that 140 (46.7%) respondents were male and 160 (53.7%) respondents were female.

The second item listed in Table 1 is the age group of the respondents. Respondents' ages were grouped into seven categories. Two hundred and one (67%) respondents were under the age of 41. Forty-two (10.6%) respondents were between 41 and 46 and 25 (8.3%) respondents were age between 47 and 52. The remaining 39 (12.9%) respondents were between 53 and 64.

Marital status is the last item in Table 1. There were 185 (61.7%) married respondents and 87 (29%) single respondents. Also, 24 (8.0%) respondents were either divorced or separated, and four (1.3%) respondents were either widows or widowers.

Table 1

Frequencies and Percentages of Respondents' Gender, Age Group, and Marital Status

Item	Frequency	Percent
Gender		
Male	140	46.7
Female	160	53.3
Age Group		
23-28	75	25.0
29-34	69	23.0
35-40	57	19.0
41-46	32	10.6
47-52	25	8.3
53-58	19	6.3
59-64	20	6.6
No response	3	1.0
Marital Status		
Single	87	29.0
Married	185	61.7
Divorced/separated	24	8.0
Widow/widower	4	1.3

The number of people in the household is displayed in Table 2. Forty-seven (15.3%) respondents lived by themselves. Households with two, three or four members have 87 (29.0%) respondents, 73 (24.3%) respondents and 59 (19.7%) respondents. Twenty-eight (9.3%) respondents lived in a household with five members.

Table 2

Frequencies and Percentages of Respondents' Number of People in Household

Item	Frequency	Percent
Number of People in Household		
One	47	15.7
Two	87	29.0
Three	73	24.3
Four	59	19.7
Five	28	9.3
Six	4	1.3
Seven	1	0.3
No response	1	0.3

The frequencies of number of children under five are reported in Table 3. Two hundred and five (68.3%) respondents did not have children under five. Sixty-five (21.7%) respondents (21.7%) and 27 (9.0%) respondents each had one and two children under five.

Also in Table 3 is the number of children ages 6-12 living in the household. Table 3 shows that 241 (80.3%) respondents did not have children ages 6-12. Forty-one (13.7%) respondents and 15 respondents (5.0%) of the respondents had one and two children age 6-12. The number of teens ages 13-18 living in the household is the last item shown in Table 6. Two hundred and sixty-three (87.7) of the respondents did not have teens. The frequencies of household with one, two and three teens in the household are 25 (8.3%) respondents, seven (2.3%) respondents and four (1.3%) respondents.

Table 3

Frequencies and Percentages of Respondents' Number of Children Under Five, Number of Children Ages 6-12, and Teens Ages 13-18

Item	Frequency	Percent
Number of children under five		
None	205	68.3
One	65	21.7
Two	27	9.0
Three	2	0.7
No response	1	0.3
Children ages 6-12		
None	241	80.3
One	41	13.7
Two	15	5.0
Three	1	0.3
Four	1	0.3
No response	1	0.3
Teens ages 13 to 18		
None	263	87.7
One	25	8.3
Two	7	2.3
Three	4	1.3
No response	1	0.3

The frequencies of respondents' educational level are displayed in Table 4. Eight (2.7%) respondents did not finish high school and 63 (21.0%) respondents graduated high school. The remaining respondents attended college, and 100 (33.3%) of them were college graduates. In addition, there are 40 (13.3%) respondents with graduate degrees and 14 (4.7%) Ph.D.s or M.D.s (4.7%).

Employment status is also in Table 4. The majority (65.0%) of the respondents were employed full time, and 21 (7.0%) respondents were employed part time. Twenty eight (9.3%) respondents were either full time or part time students. There were 11 (3.7%) full time homemakers, and 17 (5.7%) respondents were retired. Twenty-seven (9.0%) respondents were both students and employee.

Table 4

Frequencies and Percentages of Respondents' Educational Level and Employment Status

Item	Frequency	Percent
Education level		
Less than 12 years	8	2.7
High school graduate	63	21.0
Some college	46	15.3
College graduate	100	33.3
Some graduate study	29	9.7
Graduate degree	40	13.3
Ph.D.or M.D.	14	4.7
Employment status		
Employed full time	195	65.0
Employed Part time	21	7.0
Unemployed	1	0.3
Retired	17	5.7
Full time student	27	9.0
Part time student	1	0.3
Full time homemaker	11	3.7
Multiple response*	27	9.0

*Note Multiple response means the respondent was a student and was either employed full time or part time.

The race or ethnic status of the respondents is displayed in Table 5. The majority (85.3%) of the respondents were white. Twenty-one (7.0%) respondents were African American, 12 (4,0%) respondents were Asian or Pacific Islander, and three (1.0%) respondents were Hispanic.

The frequencies of respondents' household income level in 1993 are displayed in Table 6. Twelve (4.0%) respondents have household income levels above $80,000, and 28 (9.3%) respondents' household income levels were between $60,000-$79,999. There were 56 (18.7%) respondents with household income level between $40,000-$59,999, and 85 (28.3%) respondents with household income levels between $20,000-$39,999. Forty-five (15.0%) respondents' household income levels were between $10,000-$19,999. Fifteen (5.0%) respondents' household income levels were under $10,000.

Table 5

Frequencies and Percentages of Respondents' Race or Ethnic Status and Household Income Level

Item	Frequency	Percent
Race or ethnic status		
Native American	1	0.3
African American	21	7.0
White	256	85.3
Asian or Pacific Islander	12	4.0
Hispanic	3	1.0
Other	3	1.0
No response	4	1.3
Household income level		
$80,000 and above	12	4.0
$60,000-$79,999	28	9.3
$40,000-$59,999	56	18.7
$20,000-$39,999	85	28.3
$10,000-$19,999	45	15.0
Under $10,000	15	5.0
No response	59	19.7

Relationships of Work Time, Housework Time, and Recreation and Leisure Time

The frequency distributions of how people responded to their work time, housework time and recreation and leisure time were analyzed using the chi square test. There were 158 (52.7%) responses of more time on work and 173 (57.7%) responses of less time for recreation and leisure compared to five years ago. The result of the chi square test shows that there is a significant ($\chi 2$ = 137.458, df = 4, p = .00) relationship between work time and recreation and leisure time of residents of Columbia, Missouri.

Table 6

Relationship Between Recreation and Leisure Time (RLT) and Work Time (WT)

	More WT		Less WT		Same WT		Total
	n	%	n	%	n	%	n
More RLT	7	2.3	29	9.7	9	3.0	45
Less RLT	128	42.7	11	3.7	34	11.3	173
Same RLT	23	7.7	11	3.7	48	16.0	82
Total	158	52.7	51	17.0	91	30.3	300 100%

χ^2 = 137.458, df = 4, p = .00

There is no significant ($\chi 2$ = 3.988, df = 4, p = .408) relationship between housework time and recreation and leisure time. As shown in Table 7, out of 173 total respondents, 67 (38.7%) reported that they had more time on housework, 44 (25.4%) reported less time on housework, and 62 (35.8%) reported about the same time on housework compared to five years ago. Also, the responses of more, less, and about the same time on housework have about the same response percentage for recreation and leisure time

Table 7

Relationship Between Recreation and Leisure Time (RLT) and Housework Time (HWT)

	More HWT		Less HWT		Same HWT		Total
	n	%	n	%	n	%	n
More RLT	13	4.3	9	3.0	23	7.7	45
Less RLT	67	22.3	44	14.7	62	20.7	173
Same RLT	29	9.7	23	7.7	30	10.0	82
Total	109	36.3	76	25.3	115	38.3	300 100%

$\chi^2 = 3.988$, df = 4, $p = .408$

Compared to five years ago, there were 68 responses of more time spent on work and about the same time housework, 44 responses of more time on work and less time for housework, and 46 responses of more time on work and housework. There were 24 responses of spending less time on work compared to five years ago, and 19 respondents said they spent less time on work. Only eight respondents reported they spent less time on work and housework. There is a significant ($\chi 2$ = 9.54, df = 4, p = .049) relationship between work time and housework time.

Table 8

Relationship Between Work Time (WT) and Housework Time (HWT)

	More HWT		Less HWT		Same HWT		Total
	n	%	n	%	n	%	n
More WT	46	15.3	44	14.7	68	22.7	158
Less WT	24	8.0	8	2.7	19	6.3	51
Same WT	39	13.0	24	8.0	28	9.3	91
Total	109	36.3	76	25.3	115	38.3	300 100%

$\chi 2 = 9.54$, df = 4, p = .049

Relationship Between Demographic Information and Work Time, Housework time, and Recreation and Leisure Time

Crosstabulations on the relationship between work time and demographic information were also conducted (Appendix D). The tables are listed There is a significant relationship between work time and gender ($\chi 2 = 9.036$, df = 2, p = .011); between work time and age ($\chi 2 = 67.473$, df = 12, p = .00); between work time and marital status ($\chi 2 = 22.134$, df = 4, p = .00); between work time and number of people in household

(χ2 = 32.781, df = 8, p = .00); between work time and number of children ages 6-12 (χ2 = 18.866, df = 4, p = .001); between work time and number of teens ages 13-18 (χ2 = 20.825, df = 6, p = .002); between work time and employment status (χ2 = 104.665, df = 14, p = .00); and between work time and household income level (χ2 = 25.737, df = 10, p = .004).

The relationship is non-significant between work time and number of children under five (χ2 = 5.715, df = 4, p = .221); between work time and educational level (χ2 = 17.068, df = 12, p = .147); and between work time and race or ethnic status (χ2 = 11.032, df = 10, p = .355).

Also, the crosstabulations on the relationship between housework time and demographic information were conducted (Appendix D). There is a significant relationship between housework time and gender (χ2 = 15.717, df = 2, p = .00); between housework time and age (χ2 = 29.379, df = 12, p = .003); between housework time and marital status (χ2 = 12.412, df = 4, p = .015); between housework time and number of people in household (χ2 = 16.983, df = 8, p = .03); and between housework time and number of children under five (χ2 = 41.313, df = 4, p = .00).

There is no significant relationship between housework time and number of children ages 6-12 (χ2 = 9.413, df = 4, p = .052); between housework time and number of teens ages 13-18 (χ2 = 5.266, df = 6, p = .51); between housework time and

educational level ($\chi 2$ = 14.819, df = 12, p = .251); between housework time and employment level ($\chi 2$ = 20.643, df = 14, p = .111); between housework time and race or ethnic level ($\chi 2$ = 10.936, df = 10, p = .363); and between housework time and household income level ($\chi 2$ = 8.491, df = 10, p = .581)

The crosstabulations on the relationship between recreation and leisure time and demographic information were conducted (Appendix D). There is a significant relationship between recreation and leisure time and age ($\chi 2$ = 70.419, df = 12, p = .00); between recreation and leisure time and marital status ($\chi 2$ = 25.77, df = 4, p = .00); between recreation and leisure time and number of people in household ($\chi 2$ = 18.123, df = 8, p = .02); between recreation and leisure time and educational level ($\chi 2$ = 22.905, df = 12, p = .029); and between recreation and leisure time and employment status ($\chi 2$ = 48.278, df = 14, p = .00).

There is no significant relationship between recreation and leisure time and gender ($\chi 2$ = 2.976, df = 2, p = .226); between recreation and leisure time and number of children under five in household ($\chi 2$ = 8.882, df = 4, p = .064); between recreation and leisure time and number of children ages 6-12 ($\chi 2$ = 2.159, df = 4, p = .707); between recreation and leisure time and teens ages 13-18 ($\chi 2$ = 10.024, df = 6, p = .124); between recreation and leisure time and race or ethnic level ($\chi 2$ = 12.968, df = 10, p = .225); and between recreation and leisure time and household income level ($\chi 2$ = 7.85, df = 10, p = .643).

Summary of Findings

The population in this study consisted of 140 males and 160 females ages 23-64 living in Columbia, Missouri for at least five years. More than half of the respondents reported that they had less time for recreation and leisure and they spend more time on work than five years ago.

Out of 160 female respondents, there were 98 employed full time, 18 worked part time, and one was unemployed. Ten female respondents were retired, 21 were either part time or full time students and ten were full time homemakers. There were 12 female students who were also employed. Ninety-seven out of 140 male respondents were employed full time, three worked part time, and seven were retired. Seventeen male respondents were students, one was a full time homemaker, and 15 male respondents were students and also employed.

There is a significant relationship between work time and recreation and leisure time, and work time and housework time. There is no significant relationship between housework time and recreation and leisure time. There is a significant relationship between work time and gender; between work time and age; between work time and marital status; between work time and number of people in household; between work time and number of children ages 6-12; between work time and number of teens ages 13-18; between work time and employment status; and work time and household income level.

There is a significant relationship between housework

time and gender; between housework time and age; between housework time and marital status; between housework time and number of people in household; and between housework time and number of children under five. Also, there is a significant relationships between recreation and leisure time and age; between recreation and leisure time and marital status; between recreation and leisure time and number of people in household; between recreation and leisure time and educational level; and between recreation and leisure time and employment status.

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Introduction

The summary of the study is presented in this chapter. Also, conclusions and recommendations based on the findings are in Chapter V.

Summary

The purpose of this study was to conduct a telephone survey of a select group of Columbia, Missouri residents to determine the relationship of the time they spend on work, housework and recreation and leisure compared to five years ago. This study was conducted by telephone interview method. A randomly selected sample of 300 people ages 23-64, living in Columbia, Missouri for at least five years answered the questionnaire for this study. The response rate for this study was 69%.

The profile of this select group of Columbia, Missouri residents showed that they were almost equally divided between males and females. Most of them are married with no kids in their household, and the size of their household is two. Most of the select group of Columbia, Missouri residents were college graduate and employed full time. Most of these people are white and with a household income of $20,000-$39,999.

There is a contradiction of whether recreation and leisure time has increased or decreased over the past 30 years (Harris, 1987, Robinson, 1989b; Decision Research Corporation, 1990; Godbey et al., 1992; Schor 1992). In this study, more than half of the survey respondents said they had less time for recreation and leisure. More than half of the respondents reported that they spend more time on work than five years ago. The results agree with the findings from Decision Research Corporation (1990), Godbey et al. (1992), and Schor (1992). The results do not support Robinson's hypothesis of increasing recreation and leisure time.

According to the results of the chi square test, there was a significant relationship between work time and housework time, and between work time and recreation and leisure time. There is no significant relationship between housework time and recreation and leisure time.

Conclusions

Relationship of Work time; Housework Time; and Recreation and Leisure Time

There are 52.7% of the respondents that said they spend more time on work than five years ago, and 57.7% of the respondents reported that their recreation and leisure time is less than five years ago. Among them, 42.7% of the respondents said that they spend more time on work and have less time for recreation and leisure today compared to five

years ago. The findings reveal significant relationship between work time and recreation and leisure time. That is, when people spend more time on work, they have less time for recreation and leisure. This finding supports the study results of Schor (1992), Godbey, et al. (1992), Harris (1987) and Decision Researcher Corporation (1990), but does not support Robinson's findings (1988). One reason for spending more time on work could be to earn more money to achieve a better life or to make a living. Under this circumstance, the time for recreation and leisure may be given up for more time to spend on work.

Compared to five years ago, 38.3% of the respondents said their time spent on housework today remains the same compared to five years ago. In addition, 22.7% of the respondents said that they spend more time on work and spend about the same time on housework than five years ago. Only 6.3% of the respondents said that they spend less time on work when they spend about the same time on housework. This finding leads to the significant relationship between work and housework and that is when the respondents spend the same amount of time on housework, they spend more time on work.

There were 57.7% of the respondents who said they have less time for recreation and leisure today than five years ago. However, there is no difference in the crosstabulations, which means there is no significant relationship between housework time and recreation and

leisure time. The amount of time people spend on housework does not have a impact on the time people have for recreation and leisure.

Relationship Between Gender and Work Time; Housework Time; and Recreation and Leisure Time

There is a significant relationship between work time and gender. More males responded that they spent more time on work than females did than five years ago. It could be that males are still the majority in the labor force even though there are more women working outside the home. This finding agrees with study results of Harris (1987) and Robinson (1988).

While 15.7% of the male respondents said that they spend more time on housework than five years ago, only 8.0% of them reported that they spend less time on housework. This finding of the significant relationship between housework and gender supports Robinson's (1988) conclusion that of males do share more housework than five years ago. A large number of women in the work place may result in less time spent on housework because they have to spend more time on work. This could be the reason for male respondents doing more housework.

There is no significant relationship between recreation and leisure time and gender because 28.0% of male respondents and 29.7% of female respondents said that they have less time for recreation and leisure. Both males and females are

spending more time on work may be the reason for having less time for recreation and leisure.

Relationship Between Age and Work Time; Housework Time; and Recreation and Leisure Time

There is a significant relationship between work time and age because the older the respondent, the less of them spent more time on work than five years ago. While 16.8% of the respondents of the age group of 23-28 said that they spend more time on work, only 0.3% of the respondents of the age group of 59-64 said so. Age does have an influence on the time people spend on work.

The study finding shows that the time spent on housework declines as the respondents get older. For the age group of 23-28, 12.5% of the respondents said that they spend more time on housework than five years ago, while only 1.0% of the age group of 47-52 said that they spend more time on housework. There is a significant relationship between housework and age because older respondents did not spend as much time on housework than the younger respondents. As the respondents get older they may rearrange the time that they spend on housework for other activities could be the reason for spending less time on housework.

For the age group of 23-28, 19.9% of them said that they have less time for recreation and leisure compared to five years ago, whereas 0.3% of the age group of 59-64 had less

time on recreation and leisure. The finding shows that there is a significant relationship between recreation and leisure time and age. Younger respondents spend more time on work may be the reason for having less time for recreation and leisure.

Relationship Between Marital Status and Work Time; Housework Time; and Recreation and Leisure Time

There is a significant relationship between work time and marital status because 20.3% of the respondents who were single reported that they spend more time on work than five years ago, while 28.3% of the respondents who were married had the same answer. Married people have to taking care of their husbands, wives or children and they have to do more housework than the single respondents could be a reason for not spending more time on work in this finding.

According to the study finding, 26% of the respondents who were married said that they spend more time on housework than five years ago, whereas 8.3% of the respondents who were single said that they spend more time on housework. There is a significant relationship between housework time and marital status, and that is married respondents spend more time on housework than five years ago than single respondents.

Whereas, 20% of the respondents who were reported that they have less time for recreation and leisure, 34.3% of the respondents who were married had less time for recreation and

leisure than five years ago. The relationship between recreation and leisure time is significant because more respondents who were single have less time for recreation and leisure than married people. The finding of people spending more time at work may be the reason for the decreased time for recreation and leisure.

Relationship Between Number of People in Household and Work Time; Housework Time; and Recreation and Leisure Time

There is a significant relationship between work time and the number of people in the household because the more members in a household, fewer of them spend more time on work than five years ago. For households with only one member, 9.5% of them reported that they spend more time on work than five years ago, while only 2.4% of the respondents with five people in their households said that they spend more time on work than five years ago. The finding of the household with more member spending more time spend on housework may be the reason.

More people in the household may create more time on doing housework. Number of people in household has a significant relationship with housework time because the more people in a household, the more respondents spent more time on housework. More people in the household may require more time on housework taking care of their children, preparing more food, taking care of the sick ones or the older people,

and doing more cleaning. Single household respondents only have to take care of themselves. The finding supports Robinson's (1988) study result of the number of people in a household affects time spent on housework.

There is a significant relationship between recreation and leisure time and the number of people in the household. The more people in a household, the more respondents said that they have less time for recreation and leisure than five years ago. According to the study finding, household with more members spend more time on housework may be the reason for having less time for recreation and leisure.

Relationship Between Number of Children Under Five in Household and Work Time; Housework Time; and Recreation and Leisure Time

The relationship between work time and number of children under five in the household is not significant. With or without children under five, 52.5% of all respondents said that they spend more time on work.

The number of children under five in the household has a significant relationship with housework time. There are 6.7% of the respondents who had two children under five. They said that they spend more time on housework than five years ago, whereas 17.2% of the respondents had no children under five said that they spend more time on housework. This finding shows that number of children under five does relate

to the amount of time spent on housework. It could be that children under five are not old enough to take care of themselves so that they required more caring. This result agrees with Robinson's (1988) finding that it takes more time on housework for people who have children under five in their households.

No significant relationship was found between recreation and leisure time and number of children under five in household. There were 7.4% of the respondents who had two children under five. They have less time for recreation and leisure than five years ago. Respondents with two children under five said that they have less time for recreation and leisure may be that they have to spend more time on housework and taking care of their children and other members in the household.

Relationship Between Number of Children Ages 6-12 in Household and Work Time; Housework Time; and Recreation and Leisure Time

The number of children ages 6-12 in a household has a significant relationship with work time. Forty-four point eight percent of the respondents had no children ages 6-12 said that they spend more time on work compared to five years ago, while 5.4% of the respondents who had one child between the age of 6-12 reported the same answer. Spending more time on housework may be the factor because children 6-12 years of

age still need some caring.

According to the chi square test result, there is no relationship between housework and number of children ages 6-12 in a household. However, 7.4% of the respondents had one child aged 6-12 said that they spend more time on housework than five years ago. This finding shows that people with children ages 6-12 spend more time on housework, and it may be that they have to spend more time on caring for children than the respondents who have no children ages 6-12.

Also, there is no significant relationship between recreation and leisure time and children ages 6-12 in the household because all respondents with or without children age 6-12 in the household had less time for recreation and leisure.

Relationship Between Number of Teens ages 13-18 in Household and Work Time; Housework Time; and Recreation and Leisure Time

For the relationship between work time and the number of teens ages 13-18, there is a significant relationship. Forty-seven point two percent of the respondents had no teens ages 13-18 in their household said that they spend more time on work compared to five years ago, and there are 4% of the respondents who had one teens ages 13-18 said they spend more time on work. This finding shows that without teens ages 13-18 in their household, people spend more time on work.

time and the number of teens in household. Eighty-eight percent of the respondents did not have teens in their household is the reason for this finding. Since there is no difference within the 88% of the respondents, there is no difference for the entire group.

There is no significant relationship between recreation and leisure time and number of teens ages 13-18 in household. Due to the number of the respondents who did not have teens ages 13-18 in their household is so large, there is no difference in the crosstabulations.

Relationship Between Educational Level and Work Time; Housework Time; and Recreation and Leisure Time

The finding shows that there is no significant relationship between work time and educational level. Regardless of educational level, most respondents said that they spent more time on work than five years ago.

There is no significant relationship between educational level and housework. Because respondents of all educational levels said that they spent less time on housework than five years ago.

From the study findings, the higher the respondents' educational level, the less time that they had for recreation and leisure compared to five years ago. So, there is a significant relationship between recreation and leisure time and educational level. Educational level does influence the time people have for recreation and leisure compared to five

years ago.

Relationship Between Employment Status and Work Time; Housework Time; and Recreation and Leisure Time

Between work time and employment status, there is a significant relationship. There are 37.7% of the respondents who were full time employed said that they spend more time on work than five years ago. There are 0.3% of the respondents who were full time homemaker said that they spend more time on work. For the full time employed respondents they spend more time on work than full time homemakers. It may be the full time homemaker spent more time on housework rather than on work.

There is no significant relationship between housework time and employment status because no difference was found in the chi square test. Employment status does not influence the time people spend on housework.

There is a significant relationship between recreation and leisure time and employment status. There are 37% of the respondents who were employed full time said that they have less time for recreation and leisure than five years ago, while 0.3% of the respondents who were retired said that they have less time for recreation and leisure. Since full time employed respondents spend more time on work, it may be the reason that they had less time for recreation and leisure.

Relationship Between Race and Ethnic Status and Work Time; Housework Time; and Recreation and Leisure Time

There is no significant relationship between work time and race or ethnic status; between housework time and race or ethnic status; and between recreation and leisure time and race or ethnic status. Race and Ethnic Status does not influence work time, housework time, and recreation and leisure time. All respondents said that they spend more time on work, about the same time on housework, and less time for recreation and leisure compared to five years ago.

Relationship Between Household Income Level and the Work Time; Housework Time; and Recreation and Leisure Time

There is a significant relationship between work time and household income level. There are 19.9% of the respondents with their income level $20,000-$39,999. They said that they spend more time at work than five years ago, whereas 2.9% of the respondents with household income level under $10,000 said that they spend more time on work. In this study, people spend more time on work than five years ago to maintain a higher household income. Just as Schor (1992) said that money and time are both commodities and could be exchanged for each other.

From the study finding, there is no significant relationship between housework time and household income level. Household income level does not influence the time

level. Household income level does not influence the time people spend on housework time. All respondents said that they spent about the same time on housework.

The study finding shows that 60.6% of the respondents from all household income levels said that they have less time for recreation and leisure than five years ago. This finding may be due to people spending more time at work. The amount of time allocated to recreation and leisure may be eaten up by work. There is no significant relationship between household income level and recreation and leisure time.

Recommendations

The following recommendations are suggested. First, since Columbia, Missouri is a representative city of itself, the author recommends that similar studies be conducted in other cities. Because every city has its own unique demographic profile, the study results may not be the same.

The author also recommends the same study be conducted every five years. Robinson (1988) conducts his use of time study every ten years, Decision Research Corporation conducted their second leisure study three years after the study in 1986. Because there would be changes in Columbia, Missouri every year, a five year period is long enough to note the changes. A repeated study every five years can update the study findings and pick up the current trends of Columbia, Missouri.

One of the study findings suggests that older people have more time for recreation and leisure compared to five years ago. It is valuable information for the Columbia Parks and Recreation Department. This information could be used to update its current programs offered for older people.

Since the study finding shows that people have less time for recreation and leisure, they need programs that can match their schedule. One recommendation for future study is to find out when people have time for recreation and leisure. Different people with different backgrounds have different time frames for recreation and leisure activities. The Columbia Parks and Recreation Department could use the study findings to offer programs with various schedules.

The response rate of this study is 69%. The reasons for refusal to answer the questionnaire varied. Less calls were answered from 5:00 p.m. to 6:30 p.m. and from 8:30 p.m. to 9:00 p.m. One recommendation to improve the response rate for telephone interviews is to make calls between 6:30 p.m. and 8:30 p.m.

The other recommendation for future study is to do surveys with a group of people that could better represent the residents of Columbia, Missouri. In this study, a select group of Columbia, Missouri residents were randomly selected by the telephone number. The future study could use the stratified random sampling to have a group of people. In this way, a group of people selected based on the general

population characteristics of Columbia, Missouri could represent the residents of Columbia, Missouri.

Finally, it is recommended that future studies include broader age groups, such as teenagers and older people. Teenagers may be working part time and doing more housework while attending school, and people over the age of 64 may be still working. Since this study was delimited to people age 23-64, a lot of respondents were eliminated because of their age. It will be better to include the teenagers and older people so that the researchers can get a better understanding of the way people spend their time.

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APPENDIX A

Oct., 7, 1994

Hello, my name is Jimmy Yuan. I am a graduate student at the University of Missouri-Columbia. I am working on my Master's project concerning how people in Columbia use their time. It would help me a lot if you could spend a couple of minutes answering few questions for me. You are not obligated to answer the questions.

I am looking for people who have lived in Columbia for at least five years. Have you?

yes no

Are you between 24 and 64 years old?

yes no

(If respondent does not qualify): is there anybody else in your family between 24 and 64 years old and have been living in Columbia for at least five years?

(If nobody qualifies): Thank you for your time.

(If respondent hesitates or says no): If now is not a convenient time, may I make an appointment to call back to complete the interview some other time?

yes no

(If respondent still hesitates or says no): This survey will

only take five minutes and your responses will be strictly confidential.

(If respondent still refuses): Thank you for your time. Bye.

APPENDIX B

Date _____
Time _____

(If respondent is willing to answer): Thank you. Here are the questions:

1. Compared with five years ago, would you say you have
   _____ more
   _____ less
   _____ or about the same time for recreation and leisure?

2. Compared with five years ago, would you say you spend
   _____ more
   _____ less
   _____ or about the same time on work?

3. Compared with five years ago, would you say you spend
   _____ more
   _____ less
   _____ or about the same time on housework?

I would like to ask you a few questions about yourself. Again, your responses will be confidential.

4. What is your gender? (if can't differentiate)
   _____ male
   _____ female

5. May I ask your age (wait for answer)
   _____

6. What is your current martial status?
   (wait, then make suggestions)
   _____ single
   _____ married
   _____ divorced/separated
   _____ widow/widower
   _____ other

7. How many people live in your household?

_____

8. How many of them are

_____children under 5

_____children ages 6-12

_____teens age 13-18

9 What's the highest level of formal education you have completed? (Wait for answer. If not answering, then ask)

_____ less than 12 years

_____ high school graduate

_____ some college

_____ college graduate

_____ some graduate study

_____ graduate degree (Master of Science, Master of Arts)

_____ Ph.D., M.D., etc.

10. What is your current employment status?

_____ employed full time

_____ employed part time

_____ unemployed

_____ retired

_____ full time student

_____ part time student

_____ full time homemaker

11. May I ask your race or ethnic status?

_____ Native American

_____ African American

_____ White

_____ Asian or Pacific Islander

_____ Hispanic

_____ Other

12. What was your total household income in 1993?

_____ under $10,000
_____ $10,000 to $19,999
_____ $20,000 to $39,999
_____ $40,000 to $59,999
_____ $60,000 to $79,999
_____ $80,000 and above

Thank you very much for your help. If you would like a copy of the study results, please write to the University of Missouri-Columbia, 624 Clark Hall, Columbia, MO, 65211 to Jimmy Yuan. Once I receive the message, I will send you a copy as soon as possible. Thank you again and goodbye.

The study is completed.

APPENDIX C

Telephone Code	Number of Calls
Terminated during interview	1
Completed surveys	300
Refusals	129
No answer	271
Answering machine	241
Busy	69
Language	4
Fax	31
Call back	33
Disconnected	443
No qualified respondent	111
Government/Business	166
Total calls	1798

APPENDIX D

Table 9

Crosstabulations of Work Time (WT) by Gender

	Male		Female		Total
	n	%	n	%	n
More WT	85		73		158
		28.3		24.3	
Less WT	24		27		51
		8.0		9.0	
Same WT	31		60		91
		10.3		20.0	
Total	140		160		300
		46.7		53.3	100%

$\chi^2 = 9.036$, df = 2, $p = .011$

Table 10

Crosstabulations of Housework Time (HWT) by Gender

	Male		Female		Total
	n	%	n	%	n
More HWT	47	15.7	62	20.7	109
Less HWT	24	8.0	52	17.3	76
Same HWT	69	23.0	46	15.3	115
Total	140	46.7	160	53.3	300 100%

$\chi^2 = 2.976$, df = 2, $p = .226$

Table 11

Crosstabulations of Recreation and Leisure Time (RLT) by Gender

	Male		Female		Total
	n	%	n	%	n
More RLT	24	8.0	21	7.0	45
Less RLT	84	28.0	89	29.7	173
Same RLT	32	10.7	50	16.7	82
Total	140	46.7	160	53.3	100%

$\chi^2 = 2.976$, df = 2, $p = .226$

Table 12

Crosstabulations of Work Time (WT) by Age Group

	23-28		29-34		35-40		41-46		47-52		53-58		59-64		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
More WT	50	16.8	43	14.5	29	9.8	16	5.4	12	4.0	6	2.0	1	0.3	157
Less WT	13	4.4	5	1.7	6	2.0	1	0.3	4	1.3	8	2.7	13	4.4	50
Same WT	12	4.0	21	7.1	22	7.4	15	5.1	9	3.0	5	1.7	6	6.7	90
Total	75	25.3	69	23.2	57	19.2	32	10.8	25	8.4	19	6.4	22	6.7	297* 100%

*Note. Respondents with no response were excluded.

$\chi^2 = 67.473$, df = 12, p = .00

Table 13

Crosstabulations of Housework Time (HWT) by Age Group

	23-28		29-34		35-40		41-46		47-52		53-58		59-64		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
More HWT	37	12.5	31	10.4	23	7.7	5	1.7	3	1.0	5	1.7	5	1.7	109
Less HWT	19	6.4	19	6.4	11	3.7	9	3.0	7	2.4	3	1.0	6	2.0	74
Same HWT	19	6.4	19	6.4	23	7.7	18	6.1	15	5.1	11	3.7	9	3.0	114
Total	75	25.3	69	23.2	57	19.2	32	10.8	25	8.4	19	6.4	20	6.7	297* 100%

*Note. Respondents with no response were excluded.

$\chi^2 = 29.379$, df = 12, p = .003

Table 14

Crosstabulations of Recreation and Leisure Time (RLT) by Age Group

	23-28		29-34		35-40		41-46		47-52		53-58		59-64		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
More RLT	9	3.0	6	2.0	11	3.7	1	0.3	4	1.3	7	2.4	7	2.4	45
Less RLT	59	19.9	51	17.2	30	10.1	17	5.7	9	3.0	4	1.3	1	0.3	171
Same RLT	7	2.4	12	4.0	16	5.4	14	4.7	12	4.0	8	2.7	12	4.0	81
Total	75	25.3	69	23.2	57	19.2	32	10.8	25	8.4	19	6.4	22	6.7	297* 100%

*Note. Respondents with no response were excluded.

$\chi^2 = 70.419$, df = 12, p = .00

Table 15

Crosstabulations of Work Time (WT) by Marital Status

	Single		Married		Other		Total
	n	%	n	%	n	%	n
More WT	61		85		12		158
		20.3		28.3		4.0	
Less WT	16		29		6		51
		5.3		9.7		2.0	
Same WT	10		71		10		91
		3.3		23.7		3.3	
Total	87		185		28		300
		29.0		61.7		9.3	100%

Note. Other = divorced, separated, widow, or widower.

χ^2 = 22 134, df = 4, p = .00

Table 16

Crosstabulations of Housework Time (HWT) by Marital Status

	Single		Married		Other		Total
	n	%	n	%	n	%	n
More HWT	25	8.3	78	26.0	6	2.0	109
Less HWT	28	9.3	36	12.0	12	4.0	76
Same HWT	34	11.3	71	23.7	10	3.3	115
Total	87	29.0	185	61.7	28	9.3	300 100%

Note. Other = divorced, separated, widow, or widower.

$\chi^2 = 12.412$, df = 4, $p = .015$

Table 17

Crosstabulations of Recreation and Leisure Time (RLT) by Marital Status

	Single		Married		Other		Total
	n	%	n	%	n	%	n
More RLT	16	5.3	19	6.3	10	3.3	45
Less RLT	60	20.0	103	34.3	10	3.3	173
Same RLT	11	3.7	63	21.0	8	2.7	82
Total	87	29.0	185	61.7	28	9.3	300 100%

Note. Other = divorced, separated, widow, or widower.

χ^2 = 25 77, df = 4, p = .00

Table 18

Crosstabulations of Work Time (WT) by Number of People In Household

	One		Two		Three		Four		Five		Total
	n	%	n	%	n	%	n	%	n	%	n
More WT	28	9.5	48	16.3	39	13.3	31	10.5	7	2.4	153
Less WT	16	5.4	15	5.1	9	3.1	7	2.4	4	1.4	51
Same WT	3	1.0	24	8.2	25	8.5	21	7.1	17	5.8	90
Total	47	16.0	87	29.6	73	24.8	59	20.1	28	9.5	294* 100%

*Note Respondents with six and more members (n=5) and respondents with no response (n=1) were excluded.

$\chi^2 = 32.781$, df = 8, p = .00

Table 19

Crosstabulations of Housework Time (HWT) by Number of People In Household

	One		Two		Three		Four		Five		Total
	n	%	n	%	n	%	n	%	n	%	n
More HWT	12	4.1	23	7.8	32	10.9	24	8.2	16	5.4	107
Less HWT	15	5.1	27	9.2	17	5.8	9	3.1	6	2.0	74
Same HWT	20	6.8	37	12.6	24	8.2	26	8.8	6	2.0	113
Total	47	16.0	87	29.6	73	24.8	59	20.1	28	9.5	294* 100%

*Note Respondents with six and more members (n=5) and respondents with no response (n=1) were excluded.

$\chi^2 = 16.983$, df = 8, p = .03

Table 20

Crosstabulations of Recreation and Leisure Time (RLT) by Number of People In Household

	One		Two		Three		Four		Five		Total
	n	%	n	%	n	%	n	%	n	%	n
More RLT	16	5.4	13	4.4	8	2.7	6	2.0	2	0.7	45
Less RLT	24	8.2	47	16.0	44	15.0	36	12.2	18	6.1	169
Same RLT	7	2.4	27	9.2	21	7.1	17	5.8	8	2.7	80
Total	47	16.0	87	29.6	73	24.8	59	20.1	28	9.5	294* 100%

*Note Respondents with six and more members (n=5) and respondents with no response (n=1) were excluded. $\chi^2 = 18.123$, df = 8, p = .02

Table 21

Crosstabulations of Work Time (WT) by Children Under Five in Household

	None		One		Two		Total
	n	%	n	%	n	%	n
More WT	111		33		12		156
		37.4		11.1		4.0	
Less WT	39		7		4		50
		13.1		2.4		1.3	
Same WT	55		25		11		91
		18.5		8.4		3.7	
Total	205		65		27		297*
		69.0		21.9		9.1	100%

*Note. Respondents with three children under five (n=2)and respondent with no response (n=1)were excluded.

$\chi^2 = 5.715$, df = 4, p = .221

Table 22

Crosstabulations of Housework Time (HWT) by Children Under Five in Household

	None		One		Two		Total
	n	%	n	%	n	%	n
More HWT	51		37		20		108
		17.2		12.5		6.7	
Less HWT	64		10		1		75
		21.5		3.4		0.3	
Same HWT	90		18		6		114
		30.3		6.1		2.0	
Total	205		65		27		297*
		69.0		21.9		9.1	100%

*Note. Respondents with three children under five (n=2) and respondent with no response (n=1) were excluded.

χ^2 = 41 313, df = 4, p = .00

Table 23

Crosstabulations of Recreation and Leisure Time (RLT) by Children Under Five in Household

	None		One		Two		Total
	n	%	n	%	n	%	n
More RLT	36		8		1		45
		12.1		2.7		0.3	
Less RLT	109		40		22		171
		36.7		13.5		7.4	
Same RLT	60		17		4		81
		20.2		5.7		1.3	
Total	205		65		27		297*
		69.0		21.9		9.1	100%

*Note. Respondents with three children under five (n=2) and respondent with no response (n=1) were excluded.

$\chi^2 = 8.882$, df = 4, p = .064

Table 24

Crosstabulations of Work Time (WT) by Children Ages 6-12 in Household

	None		One		Two		Total
	n	%	n	%	n	%	n
More WT	133		16		6		155
		44.8		5.4		2.0	
Less WT	47		2		2		51
		15.8		0.7		0.7	
Same WT	61		23		7		91
		20.5		7.7		2.4	
Total	241		41		15		297*
		81.1		13.8		5.1	100%

*Note. Respondents with three (n=1) and four (n=1) children ages 6-12 and respondent with no response (n=1) were excluded.

$\chi^2 = 18.866$, df = 4, p = .001

Table 25

Crosstabulations of Housework Time (HWT) by Children Ages 6-12 in Household

	None		One		Two		Total
	n	%	n	%	n	%	n
More HWT	79	26.6	22	7.4	7	2.4	108
Less HWT	62	20.9	11	3.7	3	1.0	76
Same HWT	100	33.7	8	2.7	5	1.7	113
Total	241	81.1	41	13.8	15	5.1	297* 100%

*Note. Respondents with three (n=1) and four (n=1) children under five and respondent with no response (n=1) were excluded.

$\chi^2 = 9.413$, df = 4, p = .052

Table 26

Crosstabulations of Recreation and Leisure Time (RLT) by Children Ages 6-12 in Household

	None		One		Two		Total
	n	%	n	%	n	%	n
More RLT	38		4		3		45
		12.8		1.3		1.0	
Less RLT	139		23		9		171
		46.8		7.7		3.0	
Same RLT	64		14		3		81
		21.5		4.7		1.0	
Total	241		41		15		297*
		81.1		13.8		5.1	100%

*Note. Respondents with three (n=1) and four (n=1) children ages 6-12 and respondent with no response (n=1) were excluded.

$\chi^2 = 2.159$, df = 4, p = .707

Table 27

Crosstabulations of Work Time (WT) by Number of Teens Ages 13-18 in Household

	None		One		Two		Three		Total
	n	%	n	%	n	%	n	%	n
More WT	141		12		4		0		157
		47.2		4.0		1.3		0	
Less WT	51		0		0		0		51
		17.1		0		0		0	
Same WT	71		13		3		4		91
		23.7		4.3		1.0		1.3	
Total	263		25		7		4		299*
		88.0		8.4		2.3		1.3	100%

*Note Respondents with no response were excluded.

$\chi^2 = 20.825$, df = 6, p = .002

Table 28

Crosstabulations of Housework Time (HWT) by Number of Teens Ages 13-18 in Household

	None		One		Two		Three		Total
	n	%	n	%	n	%	n	%	n
More HWT	99	33.1	8	2.7	1	0.3	1	0.3	109
Less HWT	65	21.7	9	3.0	1	0.3	1	0.3	76
Same HWT	99	33.1	8	2.7	5	1.7	2	0.7	114
Total	263	88.0	25	8.4	7	2.3	4	1.3	299* 100%

*Note Respondents with no response were excluded.

$\chi^2 = 5.226$, df = 6, p = .51

Table 29

Crosstabulations of Recreation and leisure Time (RLT) by Number of Teens Ages 13-18 in Household

	None		One		Two		Three		Total
	n	%	n	%	n	%	n	%	n
More RLT	43	14.4	2	0.7	0	0	0	0	45
Less RLT	153	51.2	14	4.7	2	0.7	3	1.0	172
Same RLT	67	22.4	9	3.0	5	1.7	1	0.3	82
Total	263	88.0	25	8.4	7	2.3	4	1.3	299* 100%

*Note Respondents with no response were excluded.

$\chi^2 = 10.024$, df = 6, p = .124

Table 30

Crosstabulations of Work Time (WT) by Educational Level

	Less than 12 years		High school graduate		Some college		College graduate		Some graduate study		Graduate degree		Ph.D. M.D.		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
More WT	2	0.7	27	9.0	21	7.0	57	19.0	17	5.7	25	8.3	9	3.0	158
Less WT	1	0.3	10	3.3	13	4.3	16	5.3	6	2.0	4	1.3	13	0.3	51
Same WT	5	1.7	26	8.7	12	4.0	27	9.0	6	2.0	11	3.7	4	1.3	91
Total	8	2.7	63	21.0	46	15.3	100	33.3	29	9.7	40	13.3	14	4.7	300 100%

$\chi^2 = 17.068$, df = 12, $p = .147$

Table 31

Crosstabulations of Housework Time (HWT) by Educational Level

	Less than 12 years		High school graduate		Some college		College graduate		Some graduate study		Graduate degree		Ph.D. M.D.		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
More HWT	4	1.3	28	9.3	18	6.0	36	12.0	10	3.3	10	3.3	3	1.0	109
Less HWT	2	0.7	17	5.7	15	5.0	24	8.0	8	2.7	8	2.7	2	0.7	76
Same HWT	2	0.7	18	6.0	13	4.3	40	13.3	11	3.7	22	7.3	9	3.0	115
Total	8	2.7	63	21.0	46	15.3	100	33.3	29	9.7	22	13.3	9	4.7	300 100%

$\chi^2 = 14.819$, df = 12, $p = .251$

Table 32

Crosstabulations of Recreation and Leisure Time (RLT) by Educational level

	Less than 12 years		High school graduate		Some college		College graduate		Some graduate study		Graduate degree		Ph.D. M.D.		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
More RLT	0	.0	10	3.3	11	3.7	15	5.0	2	0.7	6	2.0	1	0.3	45
Less RLT	1	0.3	33	11.0	26	8.7	58	19.3	21	7.0	25	8.3	9	3.0	173
Same RLT	7	2.3	20	6.7	9	3.0	27	9.0	6	2.0	9	3.0	4	1.3	82
Total	8	2.7	63	21.0	46	15.3	100	33.3	29	9.7	40	13.3	14297*	4.7	100%

$\chi^2 = 22.905$, df = 12, p = .029

Table 33

Crosstabulations of Work Time (WT) by Employment Status

	Employed full time		Employed part time		Un-employed		Retired		Full time student		Part time student		Full time homemaker		Multiple response*		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
More WT	113	37.7	7	2.3	0	0	0	0	16	5.3	1	0.3	1	0.3	20	6.7	158
Less WT	15	5.0	4	1.3	0	0	15	5.0	9	3.0	0	0	5	1.7	3	1.0	51
Same WT	67	22.3	10	3.3	1	0.3	2	0.7	2	0.7	0	0	5	1.7	4	1.3	91
Total	195	65	21	7.0	1	0.3	17	5.7	27	9.0	1	0.3	11	3.7	27	9.0	300 100%

*Note. Multiple Response means both as students and employed.

$\chi^2 = 67.473$, df = 12, p = .00

Table 34

Crosstabulations of Housework Time (HWT) by Employment Status

	Employed full time		Employed part time		Un-employed		Retired		Full time student		Part time student		Full time homemaker		Multiple response*		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
More HWT	60	20.0	10	3.3	0	0	9	3.0	12	4.0	0	0	8	2.7	10	3.3	158
Less HWT	50	16.7	6	2.0	0	0	2	0.7	8	2.7	1	0	1	0.3	8	2.7	51
Same HWT	85	28.3	5	1.7	1	0.3	6	2.0	7	2.3	0	0	2	0.7	9	3.0	91
Total	195	65	21	7.0	1	0.3	17	5.7	27	9.0	1	0.3	11	3.7	27	9.0	300 100%

*Note. Multiple response means as both students and employed.

$\chi^2 = 20.643$, df = 14, p = .111

Table 35

Crosstabulations of Recreation and Leisure Time (RLT) by Employment Status

	Employed full time		Employed part time		Un-employed		Retired		Full time student		Part time student		Full time homemaker		Multiple response*		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
More RLT	27	9.0	3	1.0	0	0	9	3.0	4	1.3	0	0	0	0	2	0.7	45
Less RLT	111	37.0	9	3.0	0	0	1	0.3	21	7.0	1	0	7	2.3	23	7.7	173
Same RLT	57	19.0	9	3.0	1	0.3	7	2.3	2	0.7	0	0	4	1.3	2	0.7	82
Total	195	65	21	7.0	1	0.3	17	5.7	27	9.0	1	0.3	11	3.7	27	9.0	300 100%

*Note. Multiple response means as both students and employed.

$\chi^2 = 48.278$, df = 14, p = .00

Table 36

Crosstabulations of Work Time (WT) by Race or Ethnic Status

	Native American		African American		White		(API)		Hispanic		(Other)		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n
More WT	1	0.3	16	5.4	127	42.9	8	2.7	2	0.7	3	1.0	157
Less WT	0	0	2	0.7	47	15.9	2	0.7	0	0	0	0	51
Same WT	0	0	3	1.0	82	27.7	2	0.7	1	0.3	0	0	88
Total	1	0.3	21	7.1	256	86.5	12	4.1	3	1.0	3	1.0	296*
													100%

Note. API = Asian or Pacific Islander. Other = None of the above

*Respondents with with no response (n=4) were excluded.

χ^2 = 11.032, df = 10, p = .355

Table 37

Crosstabulations of Housework Time (HWT) by Race or Ethnic Status

	Native American		African American		White		(API)		Hispanic		(Other)		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n
More HWT	0	0	10	3.4	90	30.4	6	2.0	2	0.7	0	0	108
Less HWT	1	0.3	3	1.0	67	22.6	2	0.7	1	0.3	2	0.7	76
Same HWT	0	0	8	2.7	99	33.4	4	1.4	0	0	1	0	112
Total	1	0.3	21	7.1	256	86.5	12	4.1	3	1.0	3	1.0	296* 100%

Note API = Asian or Pacific Islander. Other = None of the above.

*Respondents with with no response (n=4) were excluded.

$\chi^2 = 10.936$, df = 10, $p = .363$

Table 38

Crosstabulations of Recreation and Leisure Time (RLT) by Race or Ethnic Status

	Native American		African American		White		(API)		Hispanic		(Other)		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n
More RLT	1	0.3	3	1.0	39	13.2	0	0	0	0	1	0.3	44
Less RLT	0	0	14	4.7	144	48.6	9	3.0	3	1.0	2	0.7	172
Same RLT	0	0	4	1.4	73	24.7	3	1.0	0	0	0	0	80
Total	1	0.3	21	7.1	256	86.5	12	4.1	3	1.0	3	1.0	296*
													100%

Note. API = Asian or Pacific Islander. Other = None of the above.

*Respondents with with no response (n=4) were excluded.

$\chi^2 = 11.032$, df = 10, p = .355

Table 39

Crosstabulations of Work Time (WT) by Household Income Level

	Above $80,000		$60,000-$79,999		$40,000-$59,999		$20,000-$39,999		$10,000-$19,999		Under $10,000		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n
More WT	10	4.1	18	7.5	23	9.5	48	19.9	27	11.2	7	2.9	133
Less WT	0	0	2	0.8	10	4.1	6	2.5	11	4.6	5	2.1	34
Same WT	2	0.8	8	3.3	23	9.5	31	12.9	7	2.9	3	1.2	74
Total	12	5.0	28	11.6	56	23.2	85	35.3	45	18.7	15	6.2	241* 100%

*Note. Respondents with with no response (n=59) were excluded.

$\chi^2 = 25.737$, df = 10, p = .004

Table 40

Crosstabulations of Housework Time (HWT) by Household Income Level

	Above $80,000		$60,000-$79,999		$40,000-$59,999		$20,000-$39,999		$10,000-$19,999		Under $10,000		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n
More HWT	2	0.8	7	2.9	22	9.1	30	12.4	16	6.6	7	2.9	84
Less HWT	2	0.8	8	3.3	14	8.3	20	8.3	15	6.2	3	1.2	62
Same HWT	8	3.3	13	5.4	20	8.3	35	14.5	14	5.8	5	2.1	95
Total	12	5.0	28	11.6	56	23.2	85	35.3	45	18.7	15	6.2	241* 100%

*Note. Respondents with with no response (n=59) were excluded.

$\chi^2 = 8.491$, df = 10, p = .581

Table 41

Crosstabulations of Recreation and Leisure Time (RLT) by Household Income Level

	Above $80,000		$60,000-$79,999		$40,000-$59,999		$20,000-$39,999		$10,000-$19,999		Under $10,000		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n
More RLT	1	0.4	2	0.8	7	2.9	9	3.7	11	4.6	3	1.2	33
Less RLT	8	3.3	18	7.5	33	13.7	53	22.0	26	10.8	8	3.3	146
Same RLT	3	1.2	8	3.3	16	6.6	8	3.3	8	3.3	4	1.7	62
Total	12	5.0	28	11.6	56	23.2	85	35.3	45	18.7	15	6.2	241* 100%

*Note. Respondents with with no response (n=59) were excluded.

$\chi^2 = 7.85$, df = 10, p = .643