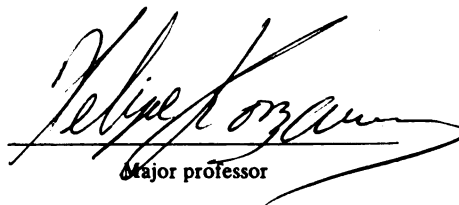


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THE RELATION BETWEEN WORK ROLES AND
INFORMATION NEEDS IN WOMEN'S INFORMATION-SEEKING BEHAVIOR

By

Wanda Del Toro

A THESIS

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ABSTRACT

THE RELATION BETWEEN WORK ROLES AND INFORMATION NEEDS IN WOMEN'S INFORMATION SEEKING BEHAVIOR

By

Wanda Del Toro

This study assessed the relationship between women's work roles and information needs in their information-seeking activity. A model for Women's Information-Seeking Process was presented, and a segment of it was here investigated. The segment under consideration contends that women's information needs and the sources of information used to satisfy these needs are influenced by women's work roles considering the amount of time available.

A systematic randomized sample of households in a midsized Michigan community produced 623 completed telephone interviews. The results indicated that the higher the frequency for an expressed information need, the higher women's information-seeking activity depending on their work roles. In addition, two general trends emerged from the data: a general profile of women's work roles based on their information needs, and a general profile of information needs based on their work roles and the sources of information used.

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CHAPTER I

INTRODUCTION

For years women have been revolutionizing their lives. They have been moving into the labor force, staying single or getting divorced, having fewer children, and going to college in greater numbers than ever before. Thus, women need information to cope with their changing roles. Their different work roles create information needs that will vary from woman to woman and from occupation to occupation. As a response to these needs, women will actively seek information through the sources available to them. They will choose a particular medium expecting to obtain the desired information. The acquired information may satisfy those needs providing her with gratifications. Thereafter, women will use the information according to their unique interests. If the need is not satisfied, then women must further seek through alternative channels.

Information seeking has not been formally linked to the uses and gratifications approach nor to the expectancy theory of motivation. The uses and gratifications perspective assumes that individuals select media because of the latter's ability to satisfy or gratify people's needs. It seems to be that information seeking can be encompassed

by the uses and gratifications approach, since the information seeker is an active individual who is looking for a gratification, in this case, "information." On the other hand, the core notion of the expectancy theory of motivation is that the motivational force upon a person to perform an act depends upon the valence of the outcomes of the act and the expectancy that those outcomes will occur. Therefore, information seeking can be related to expectancy theory, since the information seeker exposes herself to a particular medium because she expects to find the desired information.

Focusing the present investigation on women has several implications. Women have long been stereotyped as passive, conformists, insecure, and, in general, not information oriented (Darley, 1976). Women's main occupations ought to contribute to the creation of needs for information. In this study women are seen as active seekers of information influenced by their work roles.

Being able to determine which are women's information needs and which are their preferred sources of information can be highly beneficial for society, in general, and for their employers and the mass media, in particular. For instance, if women have information needs related to their present jobs, it is important for the employers that these women acquire the desired information, since it will most likely improve their performance in the workplace and, as a possible consequence, will increase their productivity. In relation to the mass media, realizing that they are not

reaching segments of their audience can justify restructuring aspects of their programming. The mass media continuously thrive on the increasing number of their audience. Networks compete to attract each other's audience. The discovery of possible unsatisfied information needs can, therefore, provide the media with new options for attracting and retaining their audience.

There are four key aspects in this investigation that need further consideration. First, why women? What makes this group the target of the study? Second, the term work roles needs clarification, since it is prone to misinterpretations. Hence, a definition of work roles is imperative together with a discussion of why the study of women's work roles demands researchers' attention. Third, information needs require a workable definition as well as an explanation of their role in this study. Finally, information seeking must also be defined within the framework of this project. In addition, a model of the Women's Information-Seeking Process is proposed highlighting the segment of the model that motivates this investigation.

Why Women

In the last few decades, a profound change has occurred in the labor force participation of women. By 1982 women constituted 52.6 percent of the total labor force (Norwood, 1982). Women have been joining the labor force in increasing numbers. Along with this increase, there have been

social changes as well as structural changes in the nature of work itself. Virtually no aspect of American society has remained untouched by the rush of women into the labor market since the 1940s. The female labor force has changed dramatically in composition and in size. The work force has become younger, marital patterns have changed, fertility rates have dropped, and women have increasingly sought higher education (U.S. Department of Labor, 1982). Employed women are changing every sector of society -- from the institution of marriage to their consumer behavior. The rise in the numbers of employed women has been a subtle revolution (Hoffman & Nye, 1974; Myrdal, 1956; Stromberg & Harkess, 1978). Economists contend that it is employed women who are helping maintain high standards of living in the face of inflation (Stromberg & Harkess, 1978; Waite, 1981).

Women are getting and holding on to male-dominated positions in the work force. With this flow into male-dominated occupations has come a change in women's role in general. The number of children from women who are in professional areas are shrinking, and husbands are sharing in the wives' home responsibilities and in child rearing (Fogarty, Rapoport, & Rapoport, 1971; Stromberg & Harkess, 1978). Women are moving out of the house and into the office and factory, taking over jobs that men used to dominate. However, women and men work for similar reasons: to provide for their own welfare, their families, or others. As indicated by the U.S. Department of Labor

(1982), "about two-thirds of the women in the labor force worked to support themselves and their families, or to supplement low family incomes. Of course, all women in the paid labor force or those working at home contribute to the well-being of themselves and their families" (p. 1).

The women's movement has also contributed to the increase in women's labor force participation. The way society has been structured rewards typically masculine qualities. Hence, the women's movement is also leading the change toward a greater acceptance of androgyny. As Robinson (1977) states:

With the rising education of women, we have seen more concern with equalizing their bread-winning role in the world of work and a liberation from their traditional role as child-bearers and "house" wives. The equalization or liberation of women has in turn been one impetus toward their increased participation in the world of work, with its lags in marriage and child-bearing. (p. 1)

Therefore, a combination of economic and psychological needs mediated by their marital status, number of children, educational level, and family income appear to be motivating women to work. Women's potential earnings are also a major determinant of whether or not they choose to work and, thus, accumulate experience. More experience leads to higher earnings. Consequently, altering any of these variables is likely to trigger a change in women's roles. Although not all women have the same preferences and

priorities, these appear to be changing over time. These trends suggest the changing roles of women.

Due in part to the growth of female labor participation, sociologists have begun to give more attention to women's work roles in the labor market and in the home (National Commission for Manpower Policy, 1978). Until recently, little attention had been devoted to women. Attention had been concentrated on male-dominated occupations neglecting female-dominated ones (Stromberg & Harkess, 1978). The labor force participation of women had been seen as slightly important compared to that of men. An argument supporting male dominance relates to the traditional male and female stereotypes: "men are breadwinners and women are wives or widows; men provide necessary income for their families, but women do not; women and families are supported by men not women" (Blaxall & Reagan, 1976, p. 8). These stereotypes have delayed the attention to women's work roles and their important contribution to society.

The role of women in the working world varies constantly; this is particularly so in our contemporary information society. The increased use of technology in working environments is producing changes in the composition and structure of work roles. For instance, consider the clerical positions and in particular the role of a typist. Traditional methods of typing are gradually being replaced by word processors. Consequently, due to the

efficiency and time reducing capabilities of this new tool, the "typist" role has had to transform in order to adjust to technological innovations. Because of the rapid increase of working women, their roles are gaining in importance as they vary in response to environmental changes. Therefore, women need information to cope with these changes.

Sociology of Work Roles

Work can be defined as a "goal-directed expenditure of energy" (Vroom, 1964, p. 42). This definition implies that almost everyone works -- students, volunteers in community organizations, and housewives, as well as participants in the labor force (Stromberg & Harkess, 1978). Work is not considered as synonymous to paid employment; hence, workers are not equivalent to those employed or seeking employment. By definition, the labor force includes people either seeking employment or holding paid jobs (U.S. Department of Labor, 1976). People not in the labor force are "those not classified as employed or unemployed; this group includes persons retired, those engaged in their own housework, those not working while attending school, those unable to work because of long-term illness, those discouraged from seeking work because of personal or job market factors and those who are voluntarily idle" (U.S. Department of Labor, 1976, p. 5).

For the women involved, household responsibilities at home represent a particular occupation, a kind of work.

Similarly, for students who are pursuing some academic goals which require performance of specific tasks -- a kind of work. Moreover, students will join either the paid or unpaid workers after attaining their academic goals or while doing so. That these particular work roles are not classified as occupations affects many employment studies. "Women at work, their accomplishments, and even their productive potential are measured and analyzed by standards and terminology developed for the labor force, even where (as in the case of women's work at home) these are inappropriate" (Stromberg & Harkess, 1978, p. 14).

There are several misconceptions about housework. In general, it is thought that housewives work fewer hours, at their own pace, and less strenuously, than other workers (Hoffman & Nye, 1974; Stromberg & Harkess, 1978). Although housewives use many labor-saving appliances and services, many researchers have shown that housewives continue to work long hours (Oakley, 1974; Smuts, 1971; Vanek, 1974). Furthermore, many married women are housewives in addition to holding paid jobs. "Indeed, if we consider keeping house as an occupation, then it is by far the most important occupation . . . which shows approximately the same distribution of intelligence and of all aptitudes as the general population" (Caplow, 1954, p. 260). Lopata (1971) also argues that being a housewife is a full-time job requiring skills and responsibilities towards herself, her

family, and society which are no less important than those corresponding to any other occupation.

Work has served as a foundation for the conceptualization of the structure of society (Caplow, 1954; Stromberg & Harkess, 1978). What is to be studied in the sociology of the work has been constrained by the concept of labor force. The labor force includes those seeking employment and those holding paid jobs; it excludes the unpaid workers. Thus, the category labor force is not congruent with women's work reality. Since analytic categories are only tools for approaching the empirical world, the U.S. Department of Labor's Occupational Classification for Women (U.S. Department of Commerce, 1973) plus the classifications for unpaid workers will be used in this study as the measure of women's work roles. This synthesis provides a better understanding of the work lives of women considering all women who work, whether for pay or not.

A common and condensed categorization of paid workers is by type of worker and occupation (Stromberg & Harkess, 1978). They are: 1) White-collar workers which include professional-technical workers, nonfarm managers and administrators, clerical workers, and sales workers; 2) Blue-collar workers which include craft and kindred workers, operatives including transport, and nonfarm laborers; 3) Service workers which include private household workers, and all other service workers; and 4) Farm workers which include farmers and farm managers, farm laborers and supervisors.

The more education a woman has, the more likely she is to be in the labor force. According to Krause (1971), the American educational system can be viewed as the key to the present occupational structure of the society. Occupations could be considered as links between individuals and society. The occupations perform a mediating role between the aims, goals and needs of the individuals and those of society. Any changes in the organization of society may lead to a change in employment opportunities and job recruitment of workers. Depending on the type of occupation, the individual can establish a relationship with her occupation, or the occupation can bear down on her to the point where she is made over in the image of the occupation. Either way, information is needed to create this relationship. "The underlying sociological rationale . . . seek to look at the character of work as a shaper of the character of individuals" (Bell, 1979, p. 178).

Women can build lines of communication within their organizations so that they can receive and share important and necessary information. Putting women in contact with necessary information, as well as building ties between women, employers, educators, and the government involves extensive networking. Ideas and actions in the form of information flow in and among networks and much is accomplished through loose, informal arrangements (Blaxall & Reagan, 1976). Everyone is part of a network, and most networks are informal. For example, a woman's relationship

with her family form one type of network; her business contacts form another (Blaxall & Reagan, 1976). However, these connections are ever-changing. Therefore, information obtained by women from their networking can be a powerful tool; for instance, if properly used, this information can help her cope with environmental changes as well as provide a basis for constructing or opening new lines of communication within their respective work roles.

Information Needs

Women's information needs and sources of information is a topic demanding more theoretical and practical concern. Perhaps there is more pressure to define the type of information that a woman needs to assure her well-being in contemporary society. In this study, needs will refer to a requirement of information essential or desirable that is perceived as lacking. Obviously, information needs are diverse among women, but an overlap in certain basic information needs is expected. One of the concerns of this study is the correspondence between women's information needs and their work roles.

The present information society has brought about changes in the labor force. New technology has affected the amount and kind of jobs available. Along with these changes there have also been changes in women's roles. These changes began to attract attention when women entered the labor force (Coser, 1980; Frieze, Paisons,

Johnson, Ruble, & Zellman, 1978). Since this entry has had an impact in society's composition and structure, women need information to cope with their changing roles. Their wide array of work roles also create information needs. Of course, information needs vary among women and their corresponding work roles. But women will actively seek information through the sources available to them in order to satisfy these needs. She will select a particular medium expecting to obtain the desired information. The acquired information may satisfy those needs providing her with gratifications. Notwithstanding, women will use this information according to their unique interests. If the need is not satisfied, then alternative sources may be used to seek the information.

Information Seeking

The present "Information Age" has focused on the construct information, and researchers have devoted increasing attention to the processes of information seeking. Information has been conceptualized and operationalized in diverse ways. Some scholars approach information as external to the individual, providing a complete description of reality so it can be quantitatively and unidimensionally measured (Dervin, Jacobson, & Nilan, 1982). An alternative approach views information as capable of providing only an incomplete description of reality. In addition,

this second relativistic approach assumes that information exists internally in the individual; thus, it can be measured in terms of multidimensional qualities (Dervin, Jacobson, & Nilan, 1982). In this second approach, individuals actively participate in information seeking and use in order to make sense out of their world (Dervin, 1976).

Information seeking will be defined in this study as an activity the individual engages in to gather essential or desirable data that are perceived as lacking. Information seeking appears to be influenced by certain social factors that incline people to use some information sources rather than others (Beinstein, 1977).

A Theoretical Model of the Information-Seeking Process

The process of women's information seeking proposed in this investigation (see Figure 1) has conceptual ties to the expectancy value theory of uses and gratifications advanced by Palmgreen and Rayburn (1982). This theory integrates the expectancy theory of social psychology and the mass media uses and gratifications approach, distinguishing between gratifications sought and gratifications obtained. Vroom (1964) popularized the expectancy theory of motivation with his model proposing that motivation is equal to the product of expectancy, valence, and instrumentality. This theory considers the interface of the individual with the situation and the environment. Therefore,

the likelihood that women will select a particular medium depends on their expectation that a message of interest will follow their choice, and on how important that message is in satisfying their personal needs. On the other hand, the uses and gratifications approach assumes that people select a particular medium while searching for a particular content because of that medium's ability to satisfy or gratify their needs. Moreover, the uses and gratifications perspective states that mass media are functional alternatives for gratifying needs (Cazeneuve, 1974).

According to Palmgreen, Wenner, and Rayburn (1981), the expectancy perspective of gratifications sought is defined as the "seeking of a particular outcome mediated by the expectancy of obtaining the outcome, times the evaluation of the outcome" (Palmgreen & Rayburn, 1982, p. 565). Analogously, in the process of women's information seeking, gratifications or satisfactions are sought from a medium X, with the belief that X possesses some attribute or that a behavior related to X will have a particular outcome which is important to her; subsequently, she evaluates the particular attribute or outcome. A woman's purpose in behaving must be analyzed with respect to the person's perceived likelihood that her action will lead to a certain outcome or goal and with respect to the valence of said outcome. The specific outcomes that a person attains depends both on her choices and on the events beyond her control. Thus,

personal cognitive needs will motivate women to seek or expose themselves to varying amounts of information.

Although, in general, this model may also be applicable to men, what makes it idiosyncratic of women is the fact that the process is first initiated from the current work roles of women. Given the emergence of androgyny and the fact that women are getting and holding on to male-dominated positions, they are bound to be more conscious of their information needs in order to succeed in the present male-dominated societal structure. Hence, every woman has her individual needs for information. The eventual satisfaction of these needs goes through several stages in the information-seeking process.

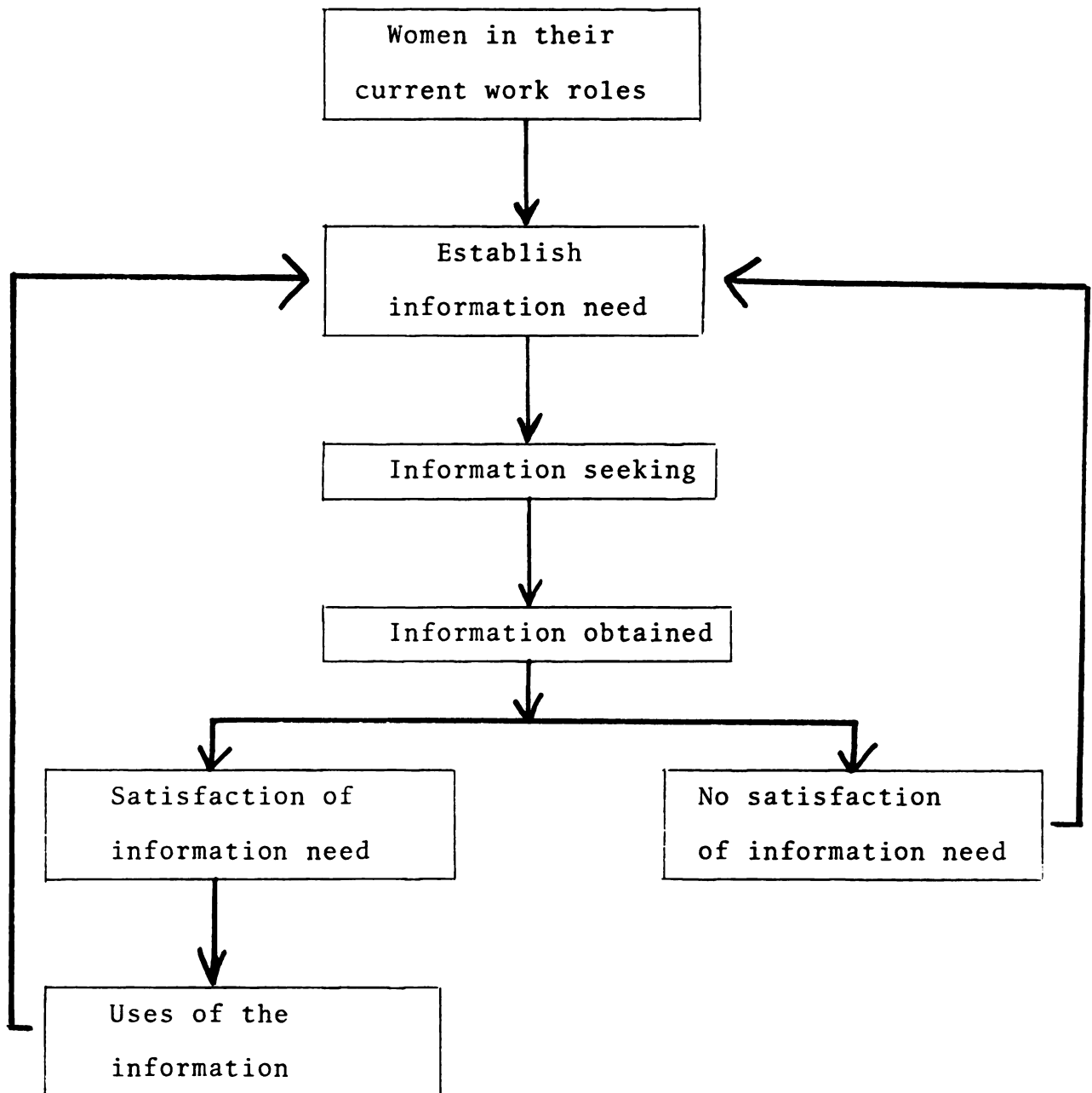


Figure 1. Women's Information-Seeking Process

Establishing the need. Before women can seek any information, they ought to have a need for said information. They should realize the existence of a gap (i.e., something that is lacking) that is to be filled by the acquired information. Therefore, establishing a need is a prerequisite for any information-seeking activity.

Nevertheless, it is certainly true that women, as well as people in general, are bombarded by numerous messages, and that they may selectively attend or perceive some but not others depending on their particular interests. Furthermore, based on their selectivity, they will obtain some information on certain topics. However, in this situation they become acquainted with the information without actively seeking it. Notwithstanding, the knowledge gained by this information may establish needs they were not previously aware of and for which they may seek additional information.

Hence, a distinction can be drawn between information sought and information selectively exposed to in order to reduce the overload of messages produced by the media and/or by interpersonal channels. The focus of this study is on information actively sought by women.

Information seeking. Now that the woman is aware of her need for information, she actively engages in the information-seeking activity. Various sources can be used to seek the desired information. Women may seek information

from the mass media or through interpersonal relations. The channel or channels she chooses depends on the type and availability of the information she seeks, the time available, and her relatively easy access to the channel.

At this point where women are actively seeking the needed information, they are being exposed (selectively or not) to a wide variety of data. In the next stage, they will selectively perceive the data they will process and convert into information.

Information obtained. From all the sources of information available to her, the woman chooses the particular source where she will get the information. That is, she acquires the particular data from a particular source(s), and she converts the data into information. This information is retained or stored for further use. The degree to which women can get the desired information is contingent upon its availability. If this information is not currently available to them, the information need will not be satisfied. As previously stated, this has implications, especially for the mass media. This situation leads to the fourth stage of the process.

Satisfaction versus no satisfaction. If the information acquired by the woman is the information she needed and/or wanted, then that need is said to be satisfied. Thus, this information will be retained and may later be retrieved for use (Weick, 1979). How women use this

information is a function of their work roles and of multiple factors such as motivations, attitudes, individual interests, aspirations, age, education, to mention just a few. The retrieval of the information and its subsequent use will trigger and establish additional needs which will start another loop in the process.

On the other hand, if the woman perceives that the acquired information is inadequate, incomplete or irrelevant to her needs, then it can be said that the need for information is not satisfied. This information may or may not be retained depending on the degree of relevance of this information to her particular needs. Consequently, she is still aware of this unsatisfied need which starts another loop in the process of information seeking, perhaps utilizing alternative channels.

As seen the information-seeking process is complex. It goes through several stages, and the gathering of information may or may not be gratifying. The present investigation will focus on a segment of the information-seeking model. The contention is that the type of work role (including paid and unpaid workers) will create or sustain information needs. Women will seek this information by exposing themselves to different sources of information in order to satisfy those needs. So this study will attempt to determine women's information needs as influenced by their work roles and the sources of information used considering the amount of time available.

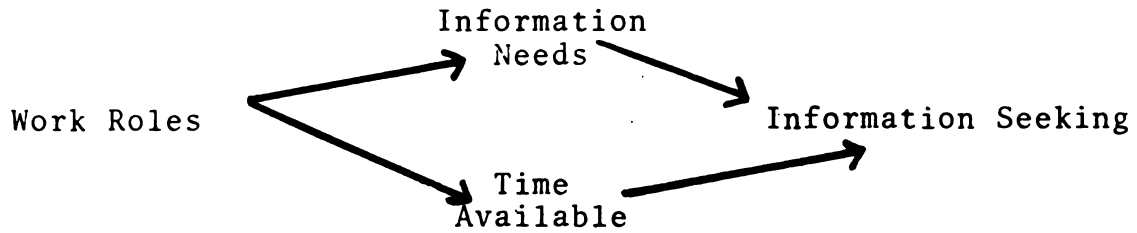


Figure 2. Path Model of Women's Work Roles and Their Information-Seeking Activity.

Note: Arrows denote the causal paths.

It should be noted that other independent variables are closely related to the work roles variable. Work roles do not exist in a vacuum, rather they combine with variables such as age, income, education, marital status, and number of children to produce the information needs. Therefore, there is a high probability that these factors will produce spurious relations between women's work roles and their information-seeking behavior. As will be indicated in the Procedure section, these variables will be controlled for when conducting statistical analyses in order to attempt to exclude alternative explanations in the possible causal link between work roles and information seeking.

Main Hypothesis

The segment of the information-seeking process under investigation suggests the principal hypothesis of this study:

H_1 : The higher the frequency of an expressed information need, the higher the woman's

information-seeking activity depending on her work role and the amount of time available.

It is expected that the type of work role will create information needs. Women will establish their information needs as an antecedent that motivates them to engage in information seeking. The different work roles will influence women's disposable time. So the time available will be considered as a variable contemporary to the information needs in women's information-seeking activity.

Women in paid work roles exist in a continuously changing and turbulent environment. They are likely to need educational and job-related information for maintaining their current work roles and for advancing in their work environment. News information may also be needed to keep on top of events and to appear as knowledgeable in their work settings. Since these women may be more self-conscious due to their self-presentation in their everyday lives (Frieze, et.al., 1978) it is likely that they may be oriented towards information about women. Based on the work role trends of women, students are expected to be more similar to these occupational categories (National Commission for Manpower Policy, 1978; Smuts, 1971; U.S. Department of Labor, 1982).

Working women are considered to have less time available to expose themselves to broadcast media, other than

prime-time. Therefore, radio is expected to be used for news information since radio's prime-time hours occur during their daily commuting period to and from work (Greenberg, in press). Furthermore, it is expected that working women will seek educational and job-related information more frequently from interpersonal sources due to time constraints imposed by their work roles (Ginzberg, 1966; Steeves and Bostian, 1980; Waite, 1981). They will tend to seek educational and job-related information from their established informal networks (Blaxall & Reagan, 1976).

Because of the nature of their work role, students are also expected to seek more information about women and news from the print media. Print media are more versatile. Students are likely to have relatively easy access to at least their own school newspaper. In addition, the popular use of the Walkman and portable transistor radios increases the likelihood that students will use these means to seek information about the world and not only for entertainment, relaxation, escapism, or companionship motives. Considering the educational environment to which they are continuously exposed, it is expected for them to seek educational and job-related information from their informal networks.

Television is not expected to be highly used for information-seeking because it is believed that working women use TV prime-time mainly for relaxation and escapism (Butler & Paisley, 1980). Neither is television expected to be

used as a source of news information for the student group. Students have a preference to use television for soap opera viewing and for entertainment (Korzenny & Del Toro, 1984).

In American society, the ideology still exists which limits housewives to constricted family roles. The housewife is seen as cloistered within their home walls having limited interpersonal contacts (Lopata, 1971). The interpersonal contacts are limited to their family networks. Hence, it is less likely that she will seek information more often from interpersonal sources (Butler & Paisley, 1980). They will tend to be more media oriented.

Service jobs are traditional stereotypical occupations defining appropriate roles for women which limit women's options. Therefore, it is expected that service workers will have information-seeking patterns similar to those of housewives (Fogarty, Rapoport, & Rapoport, 1971; Stromberg & Harkess, 1978).

Women have been able to enter into the semiskilled and skilled blue-collar jobs. Although their employment in this sector has grown, little research has been done on blue-collar women (Roby, 1975). Similar to homemakers, blue-collar workers are expected to be more consumer and family oriented, preferring mass media rather than interpersonal channels as their sources of information. Even though they have their family networks, information related to their family will most likely be sought from sources outside the system so as to decrease entropy. Due to the

nature and constraints of their work role, they will probably use more mass media sources.

Finally, retired workers are no longer active participants in the labor force. They are expected to have the largest amounts of disposable time and to prefer mass media channels for family related information. Although some retired persons engage in community activities, most of their time is spent at home (Oakley, 1974; Stromberg & Harkess, 1978). As women get older, they tend to use the media more often to satisfy their information needs (Butler & Paisley, 1980).

CHAPTER II

METHODS

This chapter will begin by describing how the sample was selected, followed by the procedures and instruments used. In addition, the sample obtained will be described based on the exogenous and endogenous variables. Finally, the statistical procedures for the analysis of the data will be presented.

Subjects

Six hundred twenty-three women, 18 years old and older, were randomly selected from the Lansing telephone directory, and were interviewed by telephone.¹ The telephone survey was preferred in order to obtain a more representative sample of the population of women. The groups of interest included both paid and unpaid workers. Through the telephone survey, these women could be reached at home without intruding in their workplace. Notwithstanding, the survey is obtrusive. Telephone interviews are unnatural intrusions at a single point in time into the individual's everyday life. As such, people are fully aware of being the subjects of the study.

However, relative to other types of research, a survey can obtain in a short time a lot of information about many people in many places (Kerlinger, 1973). Furthermore, this method is confidential, fast, cheap, and free of many perceptual biases; over 90 percent of the homes have phones. Considering a margin of error due to sampling, surveys can be used to generalize about many types of women characterized by their work roles by studying only a few of them.

Procedure

Nine undergraduate students enrolled in junior and senior communication courses at Michigan State University during the Summer session of 1983 were trained to conduct a pilot study and a telephone survey (refer to Appendix A for the pilot instrument and to Appendix B for the telephone survey).

Sixty-eight pilot interviews were conducted as a preliminary step in order to determine women's information needs and time use. The name and addresses of the interviewees were systematically selected with a random start from the Polk's Lansing City Directory (1983). The Polk Directory is an alphabetical listing of all business firms and individuals, 18 years and older, residing or employed within their canvass areas. As part of the training for conducting the interviews, the interviewers were given instructions on how to ask the questions (see Appendix C).

Interviewers had practice sessions in which mock interviews were held in order to increase their confidence and mastery of the questionnaire as well as of the interview situation.

The information needs gathered through the pilot study were combined with those suggested in the studies of Steeves and Bostian (1980), Frank and Greenberg (1980), and Williams, Dordick, and Horstmann (1977), to produce the first question of the telephone survey (see Appendix B). Of these previous studies, only Steeves and Bostian's focused on women. However, their purpose was to create a typology of employed women as related to their use of time. Women's use of time, as suggested by Steeves and Bostian's study as well as by question 13 of the pilot study, emerged as a variable that could strongly intervene in women's information-seeking behavior. Although the other two previous studies dealt with males and females, all three studies proved to be very useful as a check of the inclusion of a wide variety of information needs that would be sufficiently generalizable.

The instrument for the telephone survey was pretested in preparation for the main survey. The interviewers received an intensive training to minimize errors in telephone interviewing and in the coding of data. In these training sessions, interviewers were warned against forging data. They were trained to scrutinize the questionnaire for errors, omissions, and ambiguous codifications. These training sessions helped keep hang-ups and respondents'

uncooperativeness to a minimum. Interviewers received questionnaire instructions as well as telephone interviewing instructions (see Appendix E), and coding instructions (see Appendix F).

A random sample was drawn to represent the views of the population. A total of 2106 phone numbers were called during the telephone survey. This study was oversampled in order to fill up the work roles cells so as to have minimum quotas that would allow to make statistical comparisons. The numbers were obtained by drawing a systematic sample with a random start from the Lansing Telephone Directory, with the last two digits randomized to account for unlisted numbers and to maximize representativeness within the different work role strata. Interviewees were encouraged to respond honestly to minimize the fact that they could respond differently from how they might if they were unaware of the researcher's interest in them. A final sample of 623 women was obtained after accounting for hang-ups, business and disconnected numbers.

The telephone survey was conducted during weekday evenings and all day Saturdays and Sundays. The telephone numbers were distributed to the interviewers in the form that appears under Appendix D. The interviewers were instructed to try each number at least three times at different times, before proceeding to the next one as substitution. They were also advised against substituting another

person for any of the assigned phone numbers. Additional telephone interviewing instructions may be found in Appendix E. In order to check if the numbers listed on the questionnaires were actually interviewed, 249 of the completed interviews were randomly verified (approximately 40%).

Instrument

The questionnaire for the telephone survey consisted of items designed to determine the areas in which women need information, and which sources they use for information seeking. The instrument had three parts: 1) Frequency of experiencing information needs, 2) Exposure to sources of information or information-seeking, and 3) Demographics. Appendix B provides a copy of the instrument used.

The exogenous variables were work roles along with other demographic variables such as age, income, education, marital status, and number of children. Amount of fixed time and amount of flexible time were also independent variables. Information needs were considered as antecedent variables to the information-seeking activity. However, in the causal model tested, information needs constituted an intervening step. Although the main exogenous variable of interest was women's work roles, the rest of the demographic independent variables were measured, because they may potentially confound the true relationship between

work roles, information needs, and the information-seeking activity. Following is the operationalization of the exogenous and endogenous variables.

Exogenous variables

Demographics. Interviewers were asked their age. To qualify as a respondent, women must have been 18 years old or older. Education was measured by asking respondents to indicate the highest level of education they had completed. They were provided with several categories ranging from "8th grade or less" to "completion of an M.A. or Ph.D." Income was measured through a question that provided ranges from which the respondent selected the one which most appropriately described her household income. The categories ranged from "under \$5,000" to "over \$40,000." Income was measured because the higher the income, the higher the probability that they will have more sources of information available. Respondents were also asked to state their marital status and the number of children they had.

Work roles were measured by asking respondents to state their main occupation. The respondents were asked to specify their job title, place of work, and type of work. The purpose of this three-part question was to be able to determine as unambiguously as possible respondents' current work roles. Paid workers were classified according to the Intermediate Occupational Classification for Females (103 Items) with Component Detailed Items (U.S. Department

of Commerce, 1973). This listing presents twelve main job classifications (see Appendix G). These categories were adapted to suit interviewees' responses as follows:

Professional, Technical, and Kindred Workers. Professional occupations usually require college training and specialized study in a specific field, such as accounting, engineering, science, education, nursing, medical practice, counseling, and journalism, among others. Other professional occupations require great skill or experience in a particular field. These include art, music, acting, and other forms of entertainment. Technical occupations generally require some postsecondary specialized training in a field. Technicians work with and under the supervision of professional workers.

Managers and Administrators, except Farm. These are office employees who run or help run businesses or other organizations. Most of these jobs require a college degree from diverse fields. This classification also includes self-employed businesswomen.

Sales Workers. These are generally employed in retail trade stores, manufacturing, and wholesale firms, insurance companies, and real estate agencies. Jobs in this category range from salesclerks to more specialized occupations requiring more education.

Clerical and Kindred Workers. This is the largest occupational group and includes bank tellers, cashiers, secretaries, typists, file clerks, receptionists, office

machine operators, and telephone operators, among others. Clerical workers range from highly skilled such as executive secretaries to relatively unskilled jobs such as messengers and file clerks.

Crafts and Kindred Workers. This classification includes a wide variety of highly skilled workers such as carpenters, machinists, tool and die makers, electricians, and plumbers. Many skilled workers learn their jobs through an on-the-job training or via apprenticeships. Others learn through educational training programs in trade, technical, or vocational schools.

Operatives, including Transport. This group includes production workers such as assemblers, painters, welders, spinners, weavers, stitchers, and operators in specialized processing equipment in the food, paper, leather, chemical, metal, and petroleum industries. Transport operatives drive buses, trucks, forklifts, taxis, and are parking attendants, among others.

Laborers, including Farm. This category includes garbage collectors, construction laborers, and freight and stock handlers. Most of the learning occurs on-the-job and usually requires little formal training. Farmers, farm managers, and farm laborers also pertain to this category.

Service Workers, including Private Household Workers. Service occupations include a wide range of jobs in food service, such as cooks and food servers; cleaning services; protective services, such as police, firefighters, and

guards; health services, such as practical nurses, nursing aides, dental assistants, and hospital attendants; personal service, such as hairdressers, cosmetologists, barbers, airline stewardesses, and welfare service aides; and private household service, such as child care, maids, and cleaning jobs. The educational level for these jobs range from no formal training to one or two years of training or education.

Categories for unpaid workers were formed from respondents' answers as follows: Homemakers, Students, Retired, and Unemployed. A homemaker was defined as a woman who does not work for pay outside her home, and/or for whom housework constitutes her full-time work role. Homemakers may or may not have been seeking employment. Either way they remained classified as homemakers since that is the way they perceived themselves. In other words, they acknowledged homemaking as their main work role. The category of students included women whose work role consist of attaining an education, and who perceive "student" as their main work role. Retired implies previous employment, but these women are no longer part of the labor force nor are seeking re-entry because they reached retiring age. After retirement, the principal work of these women may be homemakers. It should be noted though, that the two categories, homemakers and retired, encompass two different types of women with different information needs emerging from their work roles. Women were classified in these categories

according to their perception of being a "homemaker" or "retired." Unemployed women are considered as part of the labor force, but were not employed at the time of the survey, even though they were available for work (U.S. Department of Labor, 1976).

Endogenous variables

Information needs were defined as a requirement of essential or desirable data that are perceived as lacking. As previously stated, this study is concerned with the information needs established by the women. In other words, the woman has perceived a gap she may fill by seeking information through particular channels. The establishment of this need was measured as the frequency with which they need a particular type of information. The information need items included in the instrument were considered to be adequate and representative of the universe of information needs. The items were selected as follows. First, a pilot study was conducted to explore areas in which women need information as well as their use of time. The pilot study has already been described in the Procedure section. Second, the information needs found in the pilot study were combined with information needs elicited in the studies of Steeves and Bostian (1980), Frank and Greenberg (1980), and Williams, Dordick, and Horstmann (1977). Interviewees were asked if they frequently, sometimes, rarely, or never needed these types of information. Refer

to Appendix B, question 1, for the information needs used in the telephone survey. As per Frank and Greenberg's (1980) study, the information needs were arranged in alphabetical order to reduce bias in the ordering of the items.

Information seeking was defined in this study as an activity the woman engaged in to gather essential or desirable facts that she perceived as lacking. This variable was measured by their exposure to mass media and interpersonal sources in order to acquire the information they needed. Thus, for each of the information needs, respondents were asked which medium they frequently, sometimes, rarely, or never used to look for the particular type of information. Mass media were followed by interpersonal sources, and they were also arranged in alphabetical order. The sources of information provided were books, magazines, newspapers, radio, television, coworkers, family and friends, professionals, and others.

Time available. Several questions were asked to measure the amount of available time women had. Three questions focused on the amount of fixed or nondisposable time. Two of them aimed at determining the amount of time they spend working for pay inside and outside their home, excluding housework. The third question probed the amount of time spent in housework. The more hours they have committed to their main work role, the less time they will have available to expose themselves to sources of

information, such as mass media and interpersonal channels. Consequently, these women were expected to be more selective in the information channels they chose.

Description of the Sample

Exogenous variables

A description of the sample respondents according to their main work role, age, income, marital status, and number of children follows. As previously indicated, compliance with minimal quotas lead to oversampling. Therefore, high agreement with census data should not be expected.

Work roles was the main exogenous variable of interest. The sample represented women in the Lansing area. Table 1 presents the percentages of respondents in each work role category. Almost 70% of the sample were employed women while approximately 30% were unpaid workers. The crafts, laborers, and unemployed categories were deleted from future statistical analyses because of the small percent of respondents in each of these categories. Significant and generalizable conclusions cannot be derived from such a small representation.

Table 1
Work Roles

	Percent	N
Professionals and Technicians	16.4%	102
Managers and Administrators	8.5	53
Saleswomen	9.3	58
Clerical Workers	18.3	114
Crafts Workers	.2	1
Operatives, including Transport	7.9	49
Laborers, including Farm	.2	1
Service Workers	9.0	56
Homemakers	12.2	76
Students	7.7	48
Retired	7.7	48
Unemployed	<u>2.2</u>	<u>14</u>
TOTALS	99.6%	620

The sample was relatively young with a median age of 34.5, a mean of 37.7, and a modal age group of 26-35 which constitutes almost one-fourth of the sample. Less than one-third of the sample are over 45 years of age. Table 2 presents this sample profile.

Table 2
Age (N=592)

(in years)	Percent
18-20	10.9%
21-25	16.4
26-35	24.9
36-45	18.6
46-55	14.5
56-65	8.6
Over 65	5.9

Since women have been increasingly seeking higher education, the sample was expected to reflect this trend. Table 3 indicates that approximately 68% of the sample had some education beyond high school, and that 61% had some college. It should be noted, though, that 70% of the sample were working women and that 8% were students. However, this distribution emphasizes the consistent interest of women in increasing their level of education.

Table 3
Level of Education (N=621)

	Percent
8th grade or less	1.1%
Some high school	4.2
High school graduate	26.0
Trade/technical/vocational	7.1
Some college	24.4
2 yr. college graduate	10.0
4 yr. college graduate	14.3
Post college graduate work	6.4
Completed an M.A. or Ph.D.	6.3

Table 4 shows the annual household income for the sample respondents. Over 50% reported an annual household income above \$15,000. The mean and the median fell in the range from \$25,000 to \$30,000, with the mode in the over \$40,000 range.

Table 4
Annual Household Income (N=537)

	Percent
Under \$5,000	4.2%
\$5,001-\$10,000	6.6
\$10,001-\$15,000	11.9
\$15,001-\$20,000	12.4
\$20,001-\$25,000	12.4
\$25,001-\$30,000	10.8
\$30,001-\$40,000	10.6
Over \$40,000	17.5

Over half of the respondents were married (55.7%), one-fourth were single, and 10.3% were divorced as indicated in Table 5. The more formal obligations a woman has, the less time she will have available to seek information.

Table 5
Marital Status (N=622)

	Percent
Single	25.7%
Married	55.7
Divorced	10.3
Widowed	6.7
Other	1.4

The number of children has declined for the contemporary woman. This was confirmed by a mean of 1.74 and a median of 1.57 for the sample respondents. This was expected since 70% of the sample were working women and 8% were students. This shrinkage is consistent with the movement of women into the labor force. As women assume new work roles, they have less time for child care, and those who have less number of children will tend to have a lesser need for information concerning child care. Since 34.3% report having no children, then over 60% of the sample respondents have one or more children, with 37.1% having one or two.

Table 6
Number of Children (N=599)

	Percent
No children	34.3%
One child	13.8
2 children	23.3
3 children	14.1
4 children	6.3
5 children	3.2
6 children	2.4
7 children	1.0
8 or more children	1.0

Endogenous variables

The 43 information needs, the nine information-seeking measures, and the time available were the endogenous variables.

A factor analysis was run on the information needs as a data reduction tool. Factor analysis is a procedure for investigating the possibility that a large number of variables have a small number of factors in common which account for their intercorrelations. The method of factor analysis sorts out a complex set of variables into groups or clusters. It may give some insight about the underlying dimension which each cluster represents. Methods which yield factor loadings provide some indication of the extent of the relationship between the cluster and an individual variable. But it is up

to the researcher to interpret the results and determine whether there are any meaningful patterns. The utility of this method is that one may have a better understanding for the observed interrelations in the data through the reduction of the data to a smaller set of factors.

Factor analysis was very applicable to the present investigation in order to explore how the 43 information needs clustered together reducing the number of information needs to a more manageable number having an interpretable conceptual meaning. Rather than subjecting the data to a priori judgments as to what categories to use, data taken directly from the respondents was used. With this tool, patterning of variables were explored and detected in order to reduce the data and create indices to be used as new variables in later analyses.

All respondents were asked for the frequency in which they needed 43 types of information. The 43 x 43 correlation matrix was subjected to a principal components analysis with communalities in the main diagonal. This was followed by a varimax rotation of factors having eigenvalues greater than or equal to 1.00. The resulting eleven factors accounted for 56.8% of the variance in the correlation matrix.

The factor loadings are the simple correlations between each original information need and the new factor. A loading greater than or equal to .31 was the criterion used to retain an information need within a factor. Although generally a .35 criterion is used, the factors with loadings between .31 and .34 were considered to have strong conceptual ties with

their underlying dimensions; therefore, they were kept in the factor in which they had the largest loading. In the case of Money Management, its load was .31 both under Factor 1 and Factor 2. Hence, this variable was deleted from the factors due to lack of discrimination among them. However, this item was used independently, because Steeves and Bostian's (1980) study had indicated that it was a type of information needed by employed women. Factor eleven was a one-item factor, Advertising, with a loading of .48. The remaining factors with loadings greater than or equal to .31 are presented in Table 7. These factors were named according to the underlying dimension they seemed to represent. These labels will be used to refer to these new variables throughout this study. In addition, communalities are indicated. The communality of each variable refers to the total variance of the variable accounted for by the combination of all common factors. Eigenvalues for each factor as well as the percentage of total variance accounted for in the entire set of 43 information needs are also presented in Table 7. The one-item factor and those needs with loadings below .31, including the ambiguous case of Money Management, are presented in Table 8. The information needs in Table 8 were not discarded since they were considered important enough in their own right to merit inclusion in the regression analyses. Thus, the 43 information needs were reduced to ten composite measures and six independent information needs.

Table 7

Varimax Rotated Factor Structure for Information Needs

	Loadings	Communalities	Eigenvalues	Percent of Variance
FACTOR 1: Comprehensive News Information				
			8.89	20.7
Community Issues	.63	.46		
Economy	.47	.43		
Int'l. News	.53	.48		
Local News	.66	.47		
National News	.78	.60		
Politics	.47	.45		
State News	.82	.61		
FACTOR 2: Family and Household Activities				
			3.12	7.3
Cooking Ideas	.38	.27		
Family Relationships	.36	.40		
Housekeeping/ House Care	.67	.39		
Personal Care	.59	.48		
Relations with Others	.37	.34		
Religion	.41	.27		
FACTOR 3: Exclusive Women's Issues				
			2.42	5.6
Coping with Discrimination	.35	.40		
Sexual Harassment	.31	.40		
Women's Movement	.84	.61		
Women's Rights	.73	.60		
FACTOR 4: Job-Related Information				
			1.63	3.8
Career Guidance	.58	.40		
Employment Opportunities	.66	.36		
Fashions	.37	.35		
Job-Related Information	.42	.30		

Table 7 (Continued)

	Loadings	Communalities	Eigenvalues	Percent of Variance
FACTOR 5: Specialized Issues in Education			1.38	3.2
Children/Child care	.70	.36		
Coping with Multiple Roles	.41	.35		
Education or Schools	.42	.43		
Sex Education	.37	.33		
FACTOR 6: Legal Concerns			1.38	3.2
Divorce	.49	.25		
Legal Information	.45	.29		
Marriage Issues	.34	.43		
FACTOR 7: Consumer and Health Affairs			1.19	2.8
Consumer Information	.39	.34		
Health or Nutrition	.47	.37		
Medical Information	.43	.34		
FACTOR 8: Culture/Science/ New Technology			1.15	2.6
Cultural Information	.40	.39		
Science/New Tech.	.53	.32		
FACTOR 9: Popular Entertainment			1.12	2.6
Entertainment	.55	.27		
Sports	.39	.17		

Table 7 (Continued)

	Loadings	Commu- nalities	Eigen- values	Percent of Variance
FACTOR 10: Controversial Issues on Women			1.05	2.4
Abortion vs. Right- to-Life Issues	.33	.25		
About Women	.48	.34		

Table 8

One-Item and Low Factor Loadings for Information
Needs Which Were Analyzed Independently

<u>Information Needs</u>	<u>Loadings</u>
Advertising or Marketing	.48
Family Planning or Birth Control	.28
Money Management	.31
Time Management	.27
Travel Information	.26
Weather Information	.18

Indices for the ten factors in Table 7 were created by adding the scores of the items loading .31 or above within a single factor. The survey instrument was constructed so that for each information need there were nine information-seeking measures of mass media and interpersonal sources of

information. Therefore, for each information need index formed, nine corresponding media indices were generated. These media indices were also produced by summing the corresponding scores of each medium for a particular need. Consider, for example, the Legal Concerns Index. The new variable, Legal Concerns, was formed by adding the scores of Divorce, Legal Information, and Marriage Issues. The nine corresponding media indices were Legal Concerns Books, Legal Concerns Magazines, Legal Concerns Newspapers, Legal Concerns Radio, Legal Concerns Television, Legal Concerns Coworker, Legal Concerns Family/Friends, Legal Concerns Professionals, and Legal Concerns Others. The Legal Concerns Book Index was produced by adding the scores for Divorce Books, Legal Information Books, and Marriage Issues Books. The eight remaining exposure indices corresponding to the Legal Concerns Index were created similarly. Likewise, for the rest of the nine information needs factors in Table 8 and their corresponding information-seeking measures, the same procedure was followed resulting in ten information needs composite measures and ninety information-seeking indices.

Since the amount of fixed time was available, a new variable was created to represent time available. Fixed time refers to the sum of the number of hours per week women work for pay outside and inside their homes plus the amount of time per week they spend in housework interpreted as house maintenance. There are 168 hours in a week. Time available is, therefore, the difference between 168

and fixed time. Certainly, this is a broad conceptualization of time available. There are a number of hours people spend sleeping, eating, in personal care, and so forth. However, it has been assumed throughout this study that women are active actors, and as such, they will use their time to suit their best interests. Consequently, this difference has been left open and at the disposal of women.

Statistical Analyses

The data collected was analyzed using the routines of the Statistical Package for the Social Sciences (SPSS). These programs were run in the CDC Cyber 170, Model 750 computer system at Michigan State University. Before running any statistical programs, a printout of the raw data in the computer file was checked against the questionnaires to insure accuracy of the keypunched data. The data file was edited for invalid values or characters.

Initial frequencies were run to determine the central tendencies, count, and the distribution of all the variables. Frequencies indicated that most variables approximated a normal distribution. Some information needs were somewhat skewed depending on how frequently women felt a need for them. (Refer to Appendix H for descriptive statistics of all the information needs.) A skew was especially noticeable for the following information needs: abortion, divorce, family planning or birth control, marriage issues, sex education, and sexual harassment. The private and

personal nature of these information needs may have been the reason as to why women responded as rarely or never having these types of information needs. The relative tabooeness that still exists in our society with respect to personally private issues may have biased the genuine frequency of need for information on these topics. It should also be noted that the fact that this was a telephone survey may have also impinged on the results. Perhaps, had it been personal interviews, different responses could have been obtained.

Regression analyses were conducted to test the main hypothesis and to evaluate the model as a whole. Dummy coding was used to include the categorical work roles variable in the regression analyses. The homemakers category was left out as the reference category. The category of homemakers was chosen as the reference category, because it was considered to be the most representative category of the unpaid workers. Therefore, it could provide a more meaningful contrast with the paid workers and with the other unpaid workers in the regression results. To meet regression criteria, marital status was recoded so that the value of two corresponded to married women, and unmarried women were assigned the value of one.

Hierarchical and stepwise solutions were employed conjunctly. Hierarchical regression models include the variables in the regression equation as specified a priori. These a priori specifications were established according to

theoretical, causal, or logical considerations. Thus, the block of work roles variables was entered first in their respective equations.

In stepwise estimations, variables are entered from best to worst, that is, the variable that explains the largest amount of variance in the dependent variable enters first, followed by the variable that explains the largest amount of variance not explained by the variable already in the equation, and so on. Therefore, variables are entered and removed from the equation based on their unique contribution to the dependent variable. Since no specific causal ordering was designated for the demographic variables, but a notable influence was expected, these were entered in a stepwise fashion so that each variable could account for their unique contribution to the dependent variables.

Three main regression analyses were performed. First, information needs were regressed on work roles and demographics. Second, the regression of time available on work roles and demographics. Third, the information-seeking measures were regressed on the information needs and the amount of time available.

In the first regression analyses, the main exogenous variable of interest, work roles, was entered first in the equation as a block variable in order to assess the contribution of each work role to the sixteen information needs. As previously indicated, most of these information needs were clustered using factor analysis; they were created to

be almost orthogonal to each other. Therefore, multiple regression analyses were the most appropriate procedures assuming small intercorrelations among the dependent variables. In steps two to six of these regression analyses, the demographic variables were entered stepwise to determine their effect on the endogenous variables as well as on the significant contribution of work roles. Descriptive statistics of the information needs by each work role can be found in Appendix I.

In the second set of regression analyses, work roles and the demographic variables followed the same entry procedures as in the first equations. However, in this case, amount of time available was the endogenous variable.

Finally, in the third type of regression analyses, there were nine information-seeking measures for each of the sixteen information needs. Based on how the questionnaire was constructed and how questions one and two of the telephone survey were asked, there was an inherent correlation between each information need and its corresponding sources of information. These artificial correlations produced inflated beta weights. Consequently, "Do Loops" were created using SPSS routines in order to screen the data for the number of valid cases in each composite variable and in order to reduce an artificial dependency of the dependent indices on their corresponding independent ones.

The existing interrelationships among the nine information-seeking dependent variables justified the use of

the multivariate multiple regression procedure available in the MANOVA program of SPSS to test the last part of the model. According to the theoretical model, both information needs and time available are concurrent antecedents to the information-seeking activity. Therefore, they were entered together in the regression equations as predictors of the criterion variables. Since no direct link was hypothesized between work roles and information seeking, descriptive statistics of media and interpersonal use by work roles is not relevant for this study.

Due to the hierarchical nature of the MANOVA program, the information need entered first followed by the amount of time available. This is one of the costs of using the MANOVA program currently available in the system; variables cannot be entered simultaneously. However, the positive aspect is that MANOVA takes into consideration the intercorrelations among the criterion variables. Although MANOVA ignores the interdependencies among criteria when computing the beta weights, it does take them into account in significance testing. Hence, the multiple criterion variables are tested simultaneously, increasing the power of the test by maintaining .05 protection levels.

SPSS MANOVA prints values for four multivariate tests of significance: Pillais, Hotellings, Wilks, and Roys. If statistically significant, these tests would indicate that there is a significant relationship between the set of predictors and the set of criterion variables. For the

purposes of this study, Wilks results will be reported since this test constitutes a multivariate extension of the F-ratio test. Thus, Wilks significance test has an approximate F distribution (Monge & Cappella, 1980).

In all the regression analyses, the conventional probability level of .05 or less was used to establish statistically significant results. The significance of the beta weights will be denoted by an asterisk (*) in the corresponding tables.

CHAPTER III

RESULTS

This section will commence by presenting the main hypothesis of this study. A series of quantitative path models will be presented in support of the segment of the Women's Information-Seeking Process Model under investigation. Two general trends emerged from the analyses: a general profile of women's work roles based on their information needs, and a general profile of information needs based on their work roles and the sources of information used.

Main Hypothesis

H₁: The higher the frequency of an expressed information need, the higher the woman's information-seeking activity depending on her work role and the amount of time available.

Table 9 presents the beta weights and the squared multiple correlation coefficient (R) for the regression of information needs on the work roles and the demographic variables. All the results are compared to the reference category, homemakers. The squared multiple R indicates the

amount of variance accounted for by the variables in the first and last steps of the analyses,

Table 10 presents the sources used to seek the sixteen types of information. In addition, Table 11 presents the squared multiple R and Wilks' approximate F for the multivariate multiple regressions of the information-seeking measures on time available with each information need. Wilks' approximate F indicated that the linear combination of the information-seeking measures was related significantly ($p \leq .05$) to each set of predictors in the different MANOVA runs. Furthermore, Table 12 presents the results of the regression of time available on work roles and demographic variables. Subsequently, Table 13 presents the means and standard deviations of time available by each work role.

Work roles influenced the amount of time women had available. It was clear from Table 12 that all paid workers had less time available than homemakers. On the other hand, students and retired workers had more time available than homemakers. These results held regardless of the demographic variables. These findings were expected since paid workers have to perform according to the multiple roles imposed by their lifestyles. However, Table 10 notes that the amount of time available did not seem to play a crucial role in the selection of information sources. Independently of the time available, women sought the information they needed through various channels. As can be seen from Table 10, entering the amount of time available after the information

need had no significant effect on the sources of information chosen to seek a particular type of information. Coworkers were the only source that was almost consistently and significantly affected by the amount of time available. The general trend detected was that the more time women had available, the less they used coworkers as an information source. Consequently, this interpersonal source was less frequently used to fulfill information needs.

Based on the assumptions of this study, if a woman responded that she rarely or never had a particular information need, then she was not asked for sources of information. That is, a woman ought to establish a need prior to engaging in any information-seeking activity. Thus, given that the respondent had frequently or sometimes a need for a particular type of information, she sought that information through differential channels. Hence, Table 10 reflects women's information-seeking activity as related to her information needs. Thus, the higher the frequency of an information need, the more women looked for the desired information through the media and/or interpersonal channels.

Table 9. Regressions of Information Needs on Work Roles and Demographics

INFORMATION NEEDS	Profs.	Mgrs.	Cler.	Sales	Ops.	Service	Students	Retired	Education	Marital # of Status Children	Age	Household Income	R ²
Comprehensive News Information	.09 -.01	.09* -.05	-.04 -.07	.07 .05	.03 .07	-.15* -.07	-.16* .06	.07 -.00	.24* .07	.11* .07	-.04 .02	.33* -.01	.09 .20
Family and House- hold Activities	-.14* -.14*	-.15* -.15*	-.13* -.11*	-.13* -.12*	-.11* -.09	-.08 -.06	-.26* -.23*	.01 .03	.04 .03	.07 .07	.02 .02	-.01 -.01	.07 .07
Exclusive Women's Issues	.17* .10	.03 .01	.09 .06	.11* .08	.03 .04	.07 .04	.01 -.05	.03 .10	.13* .10	-.03 .06	.03 .08	-.12* -.04	.03 .05
Job-Related Information	.27* .20*	.14* .11*	.25* .20*	.19* .16*	.00 .02	.19* .13*	.21* .08	-.12* .07	.10* .07	-.04 .04	.02 .02	-.36* -.02	.14 .22
Specialized Issues In Education	-.02 -.00	-.08 -.08	-.16* -.12*	-.07 -.04	-.15* -.09	-.07 -.06	-.19* -.16*	-.20* .00	.07 .03	.21* .06	.16* .08	-.33* -.08	.06 .13
Legal Concerns	-.02 -.01	-.06 -.06	.01 .02	.02 .03	-.06 -.04	-.11* -.10*	-.19* -.16*	-.07 -.02	.03 .03	.06 .06	.08 .08	-.08 -.03	.04 .05
Consumer and Health Affairs	-.06 -.09	.08 .09	-.10 -.07	-.13* -.12*	-.04 .00	-.16* -.12*	-.29* -.20*	-.10* -.10	.11* .07	.17* .05	-.01 .01	.08 .09	.07 .11
Culture/Science/ New Technology	.16* .02	.04 .00	-.01 -.01	-.00 -.03	-.08 -.04	-.01 .01	-.06 -.04	-.01 -.02	.31* .07	.05 .05	.01 -.01	.09 -.05	.04 .12
Popular Entertainment	-.02 -.07	-.04 -.06	.08 .06	-.02 -.04	-.04 -.04	.03 .01	-.05 -.00	-.02 .01	.07 .07	-.05 .05	-.01 -.01	-.05 -.02	.02 .02
Controversial Issues on Women	.20* .12*	.05 .02	.11* .08	.05 .03	.03 .00	.01 -.01	.04 -.02	-.07 .04	.14* .07	.07 .07	-.05 -.05	-.16* -.01	.05 .09
Advertising or Marketing	-.05 -.07	.04 .04	-.08 -.07	.05 .04	-.11 -.11*	-.06 -.04	-.08 -.05	-.01 .05	.01 .01	.07 .07	-.08 -.08	.12 .03	.03 .04
Family Planning or Birth Control	-.01 -.06	-.05 -.08	.00 -.05	.02 -.00	-.12* -.08	.03 -.03	.07 -.05	-.12* .10	.06 .06	.11* .07	-.08 -.08	-.38* -.06	.04 .15
Money Management	-.06 -.11	-.02 -.04	-.06 -.06	.01 .00	-.02 .00	-.09 -.08	-.04 -.04	.07 .11	.13* .13	.03 .03	.07 .07	-.07 .03	.02 .04
Time Management	.06 .00	.04 .03	-.14* -.13*	-.03 -.03	.01 .02	-.03 -.02	-.12* -.09	-.03 .00	.15* .10	.08 .04	.05 .05	-.03 .16*	.04 .06
Travel Information	.06 .00	.00 -.02	-.07 -.07	.00 -.02	.01 .01	-.12* -.09	-.11* -.10	-.06 -.13*	.10* .10	.04 .04	-.10 -.10	.16* .04	.04 .06
Weather Information	-.05 -.10	-.08 -.09	-.13 -.11*	-.09 -.09	-.05 -.03	-.09 -.06	-.11* -.07	-.01 -.00	.13* .13	.08 .08	.02 .02	.03 .04	.02 .04

* $p \leq .05$

a Indicates the variable did not enter the equation.

Note: The first line of beta weights and R² corresponds to the first step of the regression excluding the demographic variables. The second row corresponds to the beta weights and R² after including the demographics in the regression equation.

Table 10. Regressions of Information-Seeking Measures on Information Needs and Time Available¹

	Books	Magazines	Newspapers	Radio	Television	Coworkers	Family/Friends	Profs.	Others	N
Comprehensive News Info. Time Available	.21* -.00	.53* -.06	.43* -.03	.17* -.08	.20* -.02	.23* -.36*	.37 -.09	.20* -.01	.15* .11	258
Family and Household Activ. Time Available	.26* -.10	.24* -.11	.26* -.06	.16 -.07	.56* .03	.16* -.39*	.24* -.18*	.31* -.13	.21* .13	129
Exclusive Women's Issues Time Available	.17* .05	.28* -.02	.18* .09	.21* -.04	.35* .02	.25* -.21*	.21* .03	.26* -.01	.25* .06	209
Job-Related Information Time Available	.22* .03	.34* .08	.24* .01	.16 .04	.27* -.05	.19* -.20*	.16 .07	.21* .09	.18* .12	143
Specialized Issues in Educ. Time Available	.52* .13	.38* -.02	.18 -.01	.27* -.07	.36* -.03	.23* -.24*	.21* .01	.26* -.05	.21* .07	113
Legal Concerns Time Available	.23 -.06	.20 -.03	.13 .04	.11 .11	.24 -.02	.15 -.32	.13 -.19	.26* -.20	.28* .07	60
Consumer and Health Affairs Time Available	.28* -.00	.28* -.05	.21* -.03	.18* -.02	.26* .03	.13* -.29*	.17* -.00	.17* -.07	.11* .06	412
Culture/Science/New Tech. Time Available	.14* .03	.12* -.11	.13* -.08	.16* -.09	.11 -.01	.09* -.29	.15* -.04	.15* -.04	.10 .04	301
Popular Entertainment Time Available	.20* .05	.24* -.05	.28* .01	.12* .06	.15* .04	.22* -.31*	.18* .03	.12* .08	.04 .03	421
Controversial Issues on Women Time Available	.23* .00	.13* -.02	.25* -.06	.44* .11	.33* .03	.14 -.02	.42* .05	.30* -.12	.34* .15	92
Advertising or Marketing Time Available	.06 .11	.08 .08	.24* .06	.05 .04	.17* .11	.06 -.22*	.12 .03	.13* .06	.10 .00	237
Family Planning or Birth Con. Time Available	.09 -.03	.19* -.02	.22* -.07	.34* .06	.12 .02	.25* -.13	.10 .14	.11 -.04	.20* .01	139
Money Management Time Available	.18* .06	.22* -.02	.28* .03	.17* .04	.23* .02	.18* -.24*	.11 .10	.18* -.03	.11* .07	341
Time Management Time Available	.29* .06	.20* .01	.12 .05	.12 .02	.19* -.00	.13* -.29*	.13 .04	.19* .08	.02 .03	202
Travel Information Time Available	.19* .00	.08 .02	.07 -.01	.03 .03	.14* .06	.09 -.25*	.04 .03	.20* -.03	.12* .04	406
Weather Information Time Available	.04 .06	.14* -.03	.12* .03	.02 .01	.14* -.07	.02 -.16*	-.00 .01	.02 -.01	.06 .02	467

* $p \leq .05$ ¹These are multivariate multiple regressions using the MANOVA program in SPSS.

Table 11. R^2 and Wilks' Approximate F for the Regressions of the Information-Seeking Measures on Information Needs and Time Available¹

	Bks.	Mags.	Nps.	Radio	TV	Cowkrs.	Family/ Friends	Profs.	Others	Wilks λ	N
Comprehensive News Info. Time Available	.05*	.11*	.18*	.04*	.04*	.18*	.14*	.04*	.04*	8.38*	258
Family and Household Activ. Time Available	.07*	.06*	.07*	.03	.13*	.16*	.08*	.10*	.07*	3.37*	129
Exclusive Women's Issues Time Available	.03*	.08*	.04*	.05*	.12*	.10*	.05	.07*	.07*	4.14*	209
Job-Related Information Time Available	.05*	.12*	.06*	.03	.08*	.07*	.03	.03*	.05*	2.52*	143
Specialized Issues in Educ. Time Available	.29*	.14*	.03*	.08*	.13*	.11*	.04	.07*	.05	3.73*	113
Legal Concerns Time Available	.06	.04	.02	.02	.06	.12*	.05	.11*	.09	1.75*	60
Consumer and Health Affairs Time Available	.08*	.08*	.05*	.03*	.07*	.10*	.03*	.03*	.02*	6.84*	412
Culture/Science/New Tech. Time Available	.02*	.03*	.02*	.03*	.01	.09*	.03*	.03*	.01	3.39*	301
Popular Entertainment Time Available	.04*	.06*	.08*	.02*	.02*	.14*	.03*	.02*	.00	7.87*	421
Controversial Issues on Women Time Available	.05	.18*	.07*	.20*	.13*	.02	.18*	.11*	.14*	2.96*	92
Advertising or Marketing Time Available	.02	.01	.06*	.00	.04*	.06*	.02	.02	.01	2.91*	237
Family Planning or Birth Con. Time Available	.01	.04	.05*	.12*	.01	.08*	.03	.01	.04	1.93*	139
Money Mgmt./Time Available	.03*	.05*	.08*	.03*	.05*	.10*	.02*	.03*	.02	4.83*	341
Time Mgmt./Time Available	.09*	.04*	.02	.02	.04*	.10*	.02	.04*	.00	3.13*	202
Travel Info./Time Available	.04*	.01	.01	.00	.02*	.07*	.00	.04*	.02*	4.37*	406
Weather Info./Time Available	.01	.02*	.01*	.00	.03*	.03*	.00	.00	.00	3.23*	467

* Indicates that the two independent variables under consideration contribute significantly ($p \leq .05$) to the particular dependent measure.

+ Indicates a significant relationship ($p \leq .05$) between the set of predictors and the set of criterion variables taken as a linear combination.

¹ These are multivariate multiple regressions using the MANOVA program in SPSS.

Table 12

Regression of Time Available on Work Roles and Demographics

	Beta weights excluding demographics	Beta weights after including demographics
<u>Work Roles</u>		
Professionals	-.35*	-.43*
Managers	-.28*	-.31*
Clerical	-.29*	-.34*
Sales	-.27*	-.31*
Operatives	-.31*	-.34*
Service	-.14*	-.18*
Students	.29*	.21*
Retired	.17*	.13*
<u>Demographics</u>		
Education		.07*
Marital Status		-.14*
Number of children		-.11*
Age		.07
Household Income		-.03*

* $p \leq .05$

Table 13

Descriptive Statistics of Time Available by Work Roles^a

	Mean	Standard Deviation	N
Professionals	118.0049	15.2875	102
Managers	116.6223	11.8817	53
Clerical	122.0290	11.0576	112
Sales	118.5101	12.9117	58
Operatives	113.0598	17.1438	46
Service	127.3006	17.2663	56
Students	159.9493	9.6872	48
Retired	151.5177	13.5552	47
Homemakers	137.8851	22.1254	74

^a Time Available = 168 hours in a week - amount of
fixed time

Note: The means and standard deviations are in terms
of hours per 7-day week.

The results presented thus far indicate that the segment of the model of the Women's Information-Seeking Process that motivated this investigation (first three steps of Figure 1) agree with women's information reality. However, the inclusion of time available in Figure 2 as a possible contemporary variable did not hold. Therefore, possible contemporary variable did not hold. Therefore, Figure 2 ought to be modified as follows:

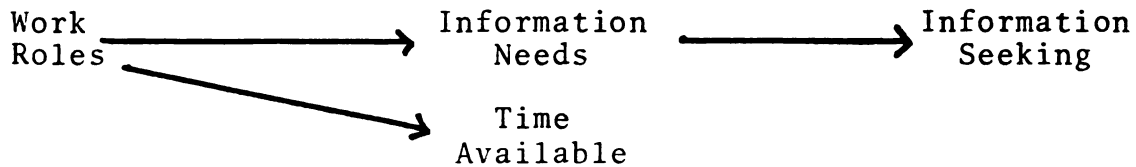
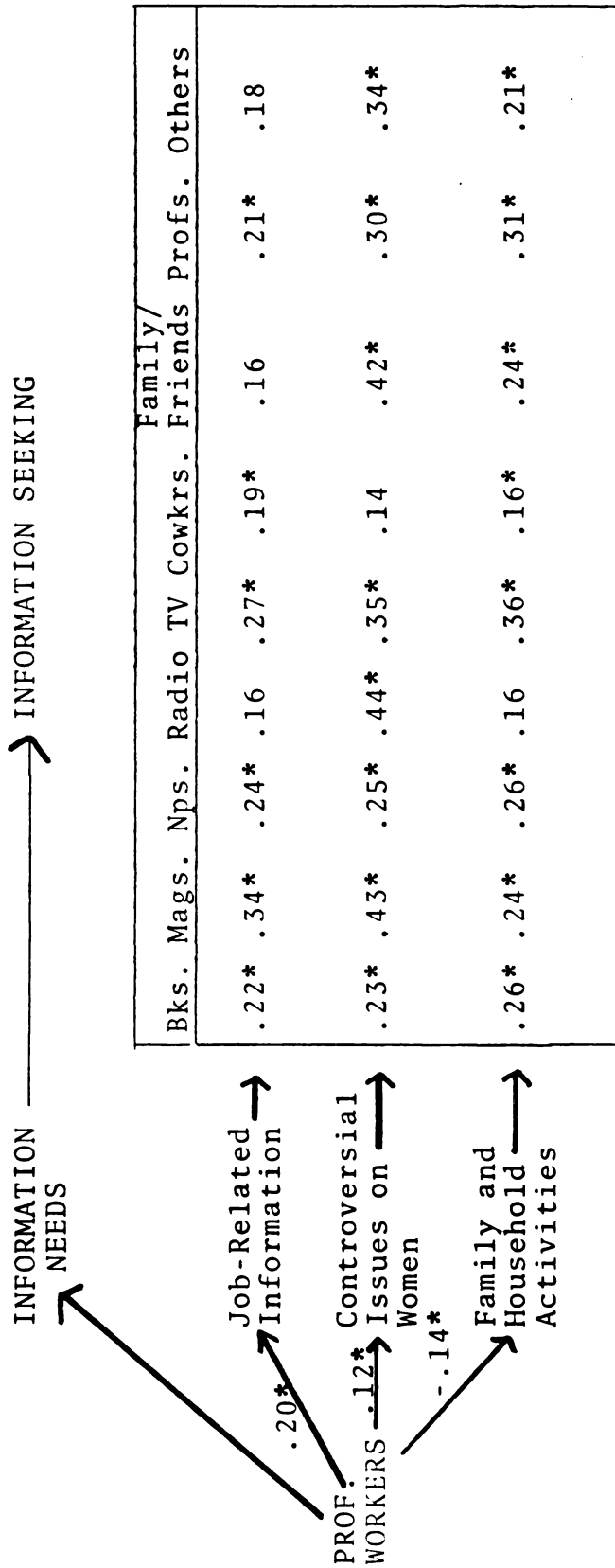


Figure 3. Modified Path Model of Women's Work Roles and Their Information-Seeking Activity

Furthermore, the main hypothesis could be more accurately stated as: the higher the frequency of an expressed information need, the higher the woman's information-seeking activity depending on her work role.

Quantitative Path Models

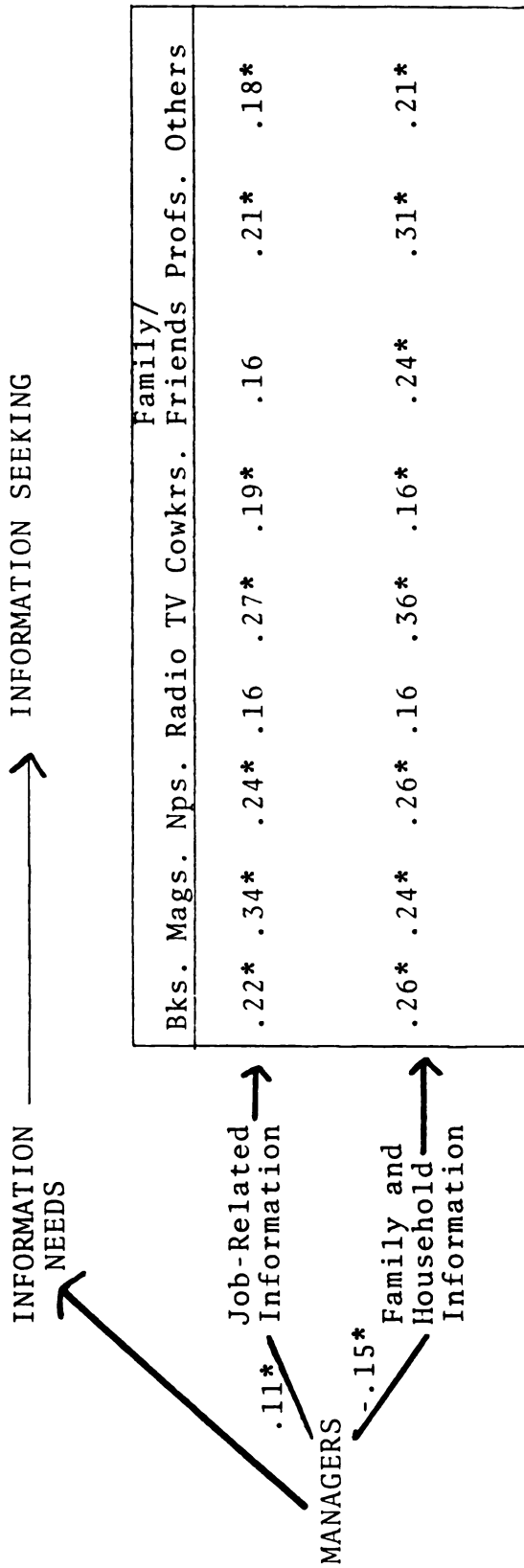
To further support this segment of the model, a series of quantitative path diagrams are presented (see Figures 4 through 11). The purpose of these diagrams is to clarify the relationship between the particular work roles, and the sources of information needs relevant to the work roles, and the sources of information used to seek the types of information. It should be noted that these work roles are always compared against the reference category of homemakers. The paths are quantified by beta weights generated by the regression analysis.



* $p \leq .05$

Figure 4. Quantitative Path Model of Professional Workers and Their Information-Seeking Activity.

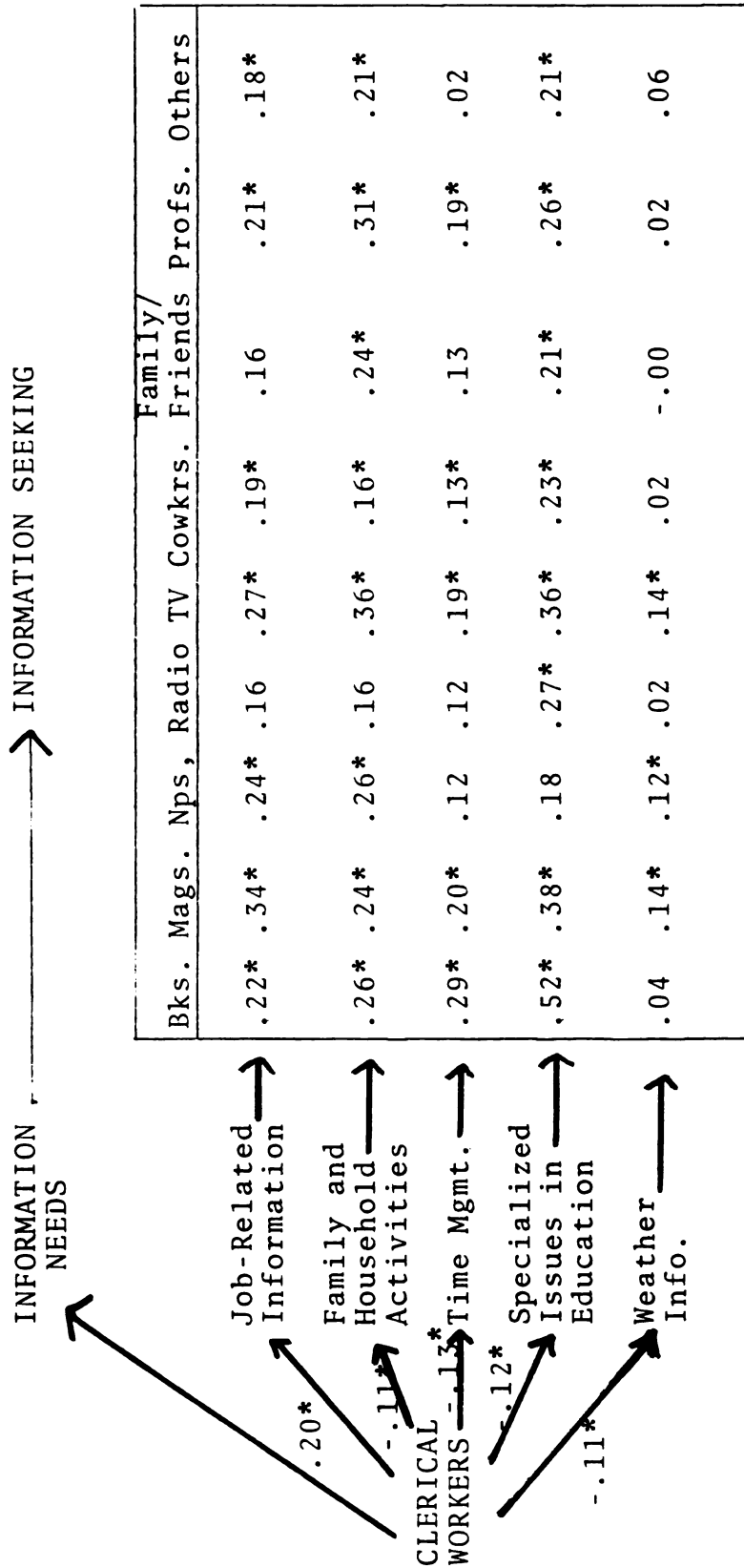
Note: Arrows denote the causal paths. The quantities represent beta weights, controlling for demographics, as compared to the reference category, homemakers.



* $p \leq .05$

Figure 5. Quantitative Path Model of Managers and Their Information-Seeking Activity

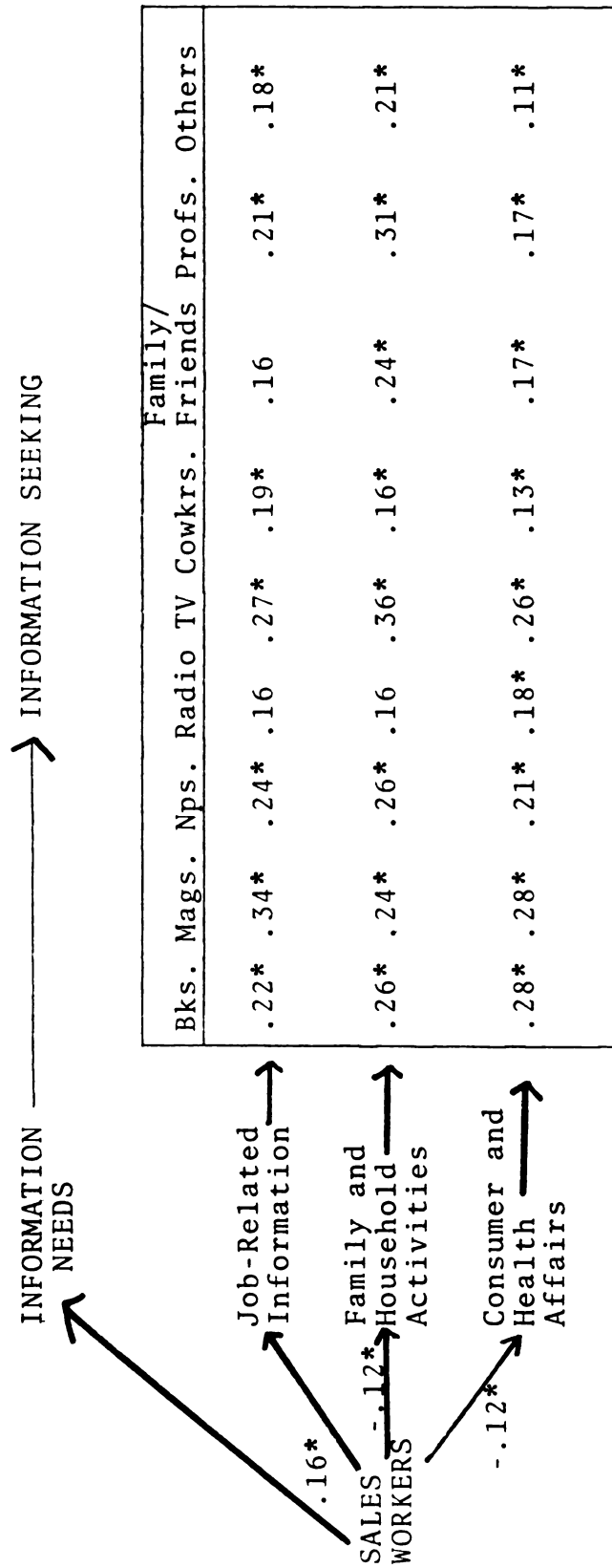
Note: See Note for Figure 4.



* $p \leq .05$

Figure 6. Quantitative Path Model of Clerical Workers and Their Information-Seeking Activity

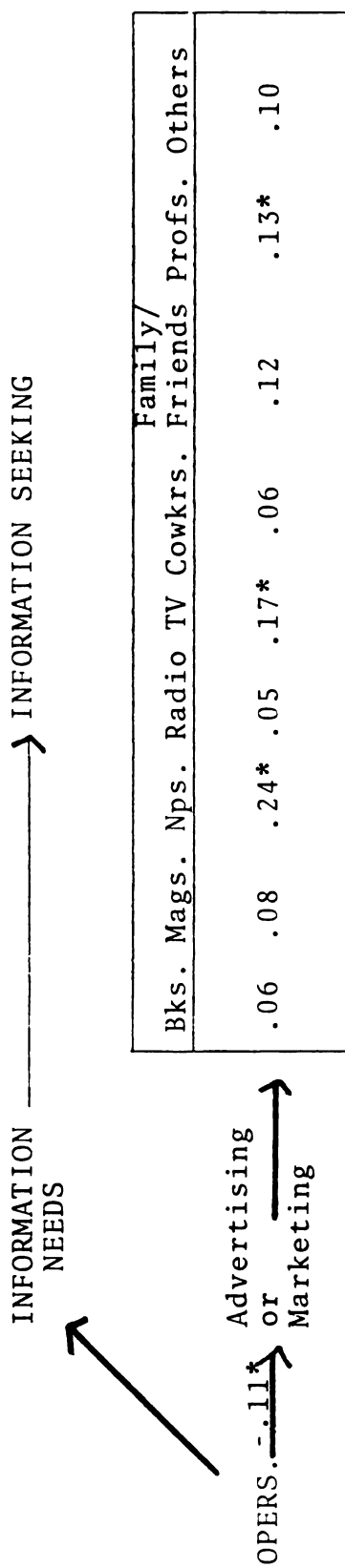
Note: See Note for Figure 4.



* $p \leq .05$

Figure 7. Quantitative Path Model of Sales Workers and Their Information-Seeking Activity

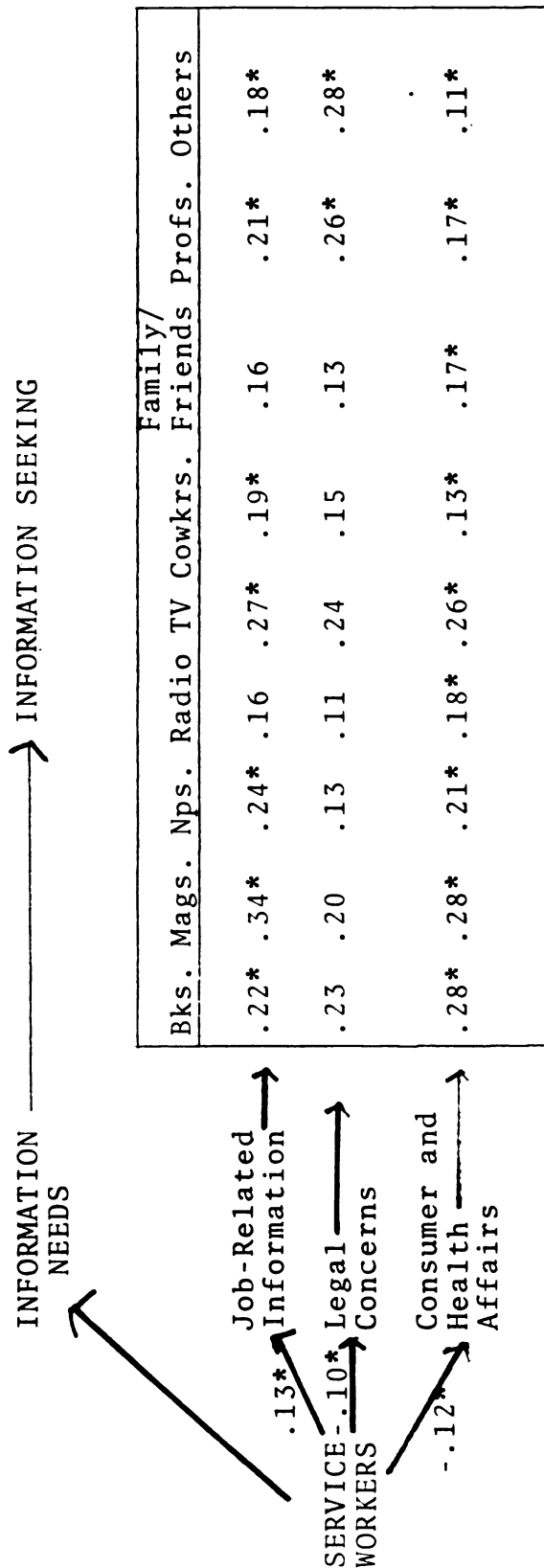
Note: See Note for Figure 4.



* $p \leq .05$

Figure 8. Quantitative Path Model of Operatives and Their Information-Seeking Activity

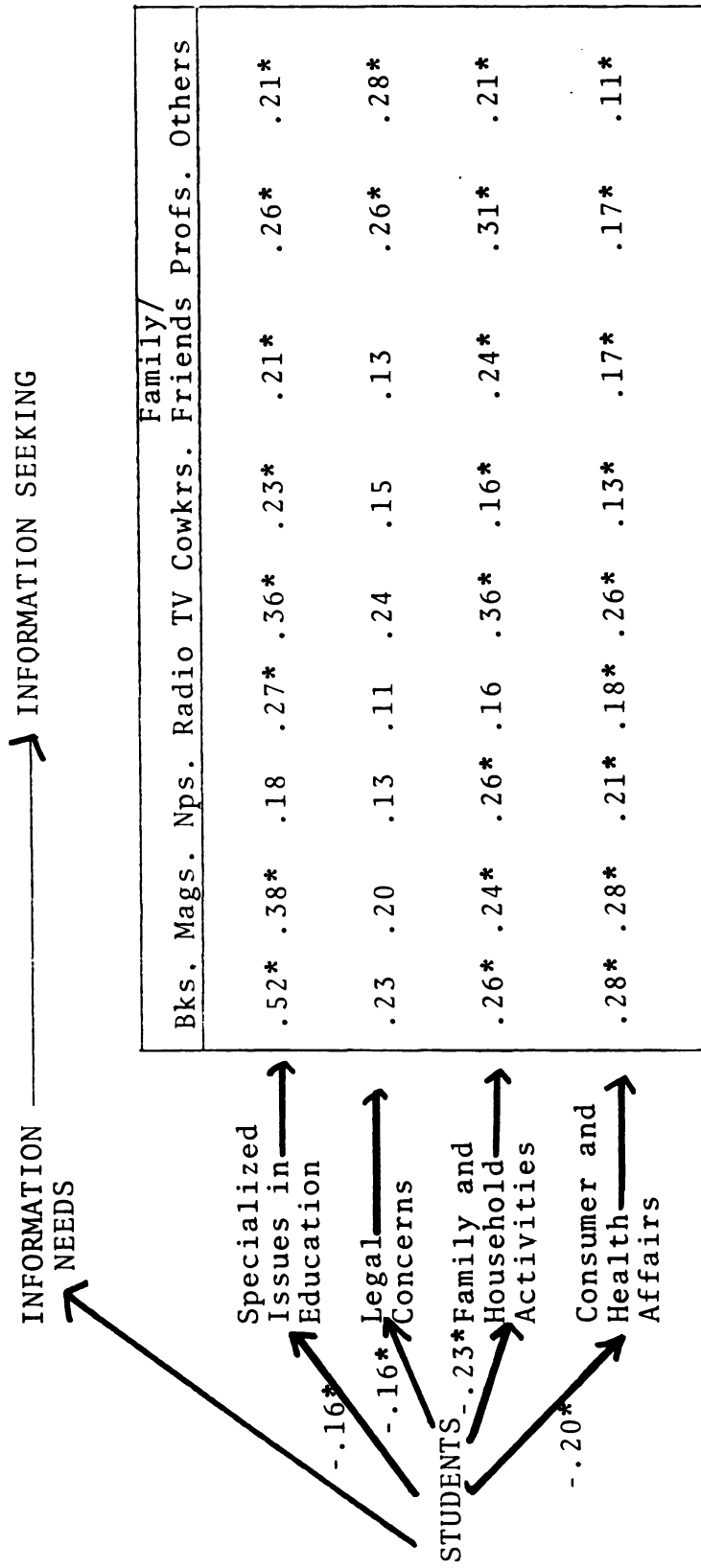
Note: See Note for Figure 4.



* $p \leq .05$

Figure 9. Quantitative Path Model of Service Workers and Their Information-Seeking Activity

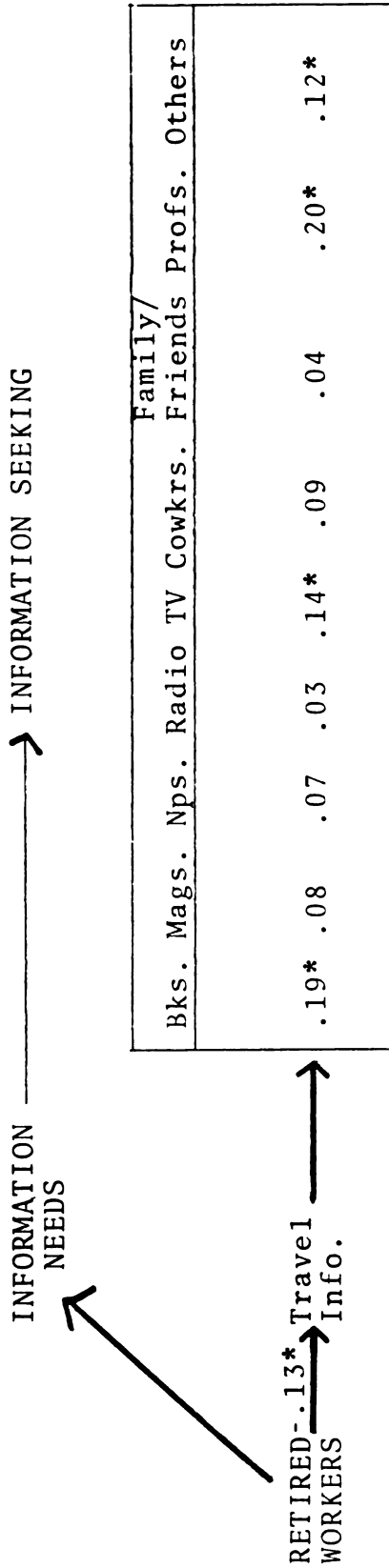
Note: See Note for Figure 4.



* $p \leq .05$

Figure 10. Quantitative Path Model of Students and Their Information-Seeking Activity

Note: See Note for Figure 4.



* $p \leq .05$

Figure 11. Quantitative Path Model of Retired Workers and Their Information-Seeking Activity

Note: See Note for Figure 4.

General Profiles

Two general trends emerged. First, a general profile of women's work roles based on their information needs and the information sources used. Work roles were found to influence the need for certain types of information after controlling for demographic variables (see Figures 4 through 11). It ought to be stressed that these profiles are compared to the reference category of homemakers. Thus, only those information needs that were significantly different ($p \leq .05$) will be reported. Otherwise, it should be understood that the particular work role under consideration did not differ significantly from homemakers with respect to the remaining information needs. Second, a general profile of information needs will be presented based on the work roles as well as on the sources of information. The results on the use of information sources reflect the control for available time. Once again, only those work roles significantly different from homemakers as well as information sources significantly used will be contrasted ($p \leq .05$).

Profiles by Work Roles

Professional Workers (see Figure 4) needed more Job-Related Information and information on Controversial Issues on Women (.20 and .12, respectively, $p \leq .05$). They needed less information on Family and Household Activities (-.14, $p \leq .05$). Their need for Exclusive Women's Issues became nonsignificant (.10) when demographics entered the equation.

Their higher level of education (.13, $p \leq .05$) and their youth (-.12, $p \leq .05$) accounted for this need. Likewise, with information on Popular Cultural Issues (.02). In this case, the higher education (.31, $p \leq .05$) and their lesser household income (-.11, $p \leq .05$) vanished the effect.

These workers sought significantly ($p \leq .05$) Job-Related Information from magazines (.34) followed by television (.27), newspapers (.24), books (.22), professionals (.21), coworkers (.19), and others (.18). They sought information on Controversial Issues on Women (all, $p \leq .05$) from radio (.44), magazines (.43), family/friends (.42), television (.35), others (.34), professionals (.30), newspapers (.25), and books (.23). Even though they needed Family and Household Activities information less frequently (-.14, $p \leq .05$) than homemakers, when needed they preferred (all, $p \leq .05$) television (.36). TV was followed by professionals (.31), books (.26), newspapers (.26), magazines (.24), family/friends (.24), and others (.21).

Managers (see Figure 5) expressed more need for Job-Related Information, and they had a lesser need for Family and Household Activities Information (-.11 and -.15, respectively, $p \leq .05$). Their need for Comprehensive News Information became nonsignificant (-.05) as a function of their age, education, and marital status (.33, .24, and .11, respectively, $p \leq .05$).

They sought Job-Related Information (all, $p \leq .05$) from magazines (.34), television (.27), newspapers (.24),

books (.22), professionals (.21), coworkers (.19), and others (.18). Although information on Family and Household Activities was needed less frequently ($-.15$, $p \leq .05$) than homemakers, when needed it was sought (all, $p \leq .05$) from television (.36), professionals (.31), books (.26), newspapers (.26), magazines (.24), family/friends (.24), and others (.21).

Clerical Workers (see Figure 6) felt a need for Job-Related Information (.20, $p \leq .05$). They had less need for Family and Household Activities, Time Management, Specialized Issues in Education, and Weather Information ($-.11$, $-.13$, $-.12$, and $-.11$, respectively, $p \leq .05$). When education (.14, $p \leq .05$) and age ($-.16$, $p \leq .05$) entered the equation, the relation disappeared for Controversial Issues on Women. After controlling for demographic variables, Weather Information became significant indicating that education (.13, $p \leq .05$) was suppressing the relationship.

Job-Related Information was significantly ($p \leq .05$) sought from magazines (.34), television (.27), newspapers (.24), books (.22), professionals (.21), coworkers (.19), and others (.18).

Even though the following four information needs were less needed by clerical workers than by homemakers, when needed particular sources of information were used. Family and Household Activities (all, $p \leq .05$) was sought from television (.36), professionals (.31), books (.26), newspapers (.26), magazines (.24), family/friends (.24), and

others (.21). Time Management information (all, $p \leq .05$) was sought from books (.29), magazines (.20), television (.19), professionals (.19), and coworkers (.13). Information on Specialized Issues in Education was looked for (all, $p \leq .05$) in books (.52), magazines (.38), television (.36), radio (.27), professionals (.26), family/friends (.21), and others (.21). Finally, Weather Information was principally sought (all, $p \leq .05$) from television (.14), magazines (.14), and newspapers (.12).

Sales Workers (see Figure 7) needed Job-Related Information (.16, $p \leq .05$). They needed less information on Family and Household Activities and on Consumer and Health Affairs (-.12 each, $p \leq .05$). The need for Exclusive Women's Issues information vanished (.08) when education (.13, $p \leq .05$) and age (-.12, $p \leq .05$) entered the equation.

Yet Job-Related Information was significantly ($p \leq .05$) sought from magazines (.34), television (.27), newspapers (.24), books (.22), professionals (.21), coworkers (.19), and others (.18). When needed Family and Household Activities information was sought (all, $p \leq .05$) from television (.36), professionals (.31), books (.26), newspapers (.26), magazines (.24), family/friends (.24), and others (.21). Consumer and Health Affairs was sought (all, $p \leq .05$) through books (.28), magazines (.28), television (.26), newspapers (.21), radio, (.18), family/friends (.17), professionals (.17), coworkers (.13), and others (.11).

Operatives (see Figure 8) expressed a lesser need for information on Advertising or Marketing ($-.11$, $p \leq .05$). This need became significant after controls were entered. The needs for information on Family and Household Activities, on Family Planning or Birth Control, and on Specialized Issues in Education ($-.11$, $-.12$, and $-.15$, respectively, $p \leq .05$) disappeared when demographics entered the equation. These relations were mainly a function of their marital status and their youth. For Specialized Issues in Education ($-.09$), marital status ($.21$, $p \leq .05$) and age ($-.33$, $p \leq .05$) explained the need. Likewise, the need for Family Planning or Birth Control was explained by marital status ($.11$, $p \leq .05$) and age ($-.38$, $p \leq .05$).

When information on Advertising or Marketing was needed, it was sought (all, $p \leq .05$) from newspapers ($.24$), television ($.17$), and professionals ($.13$).

Service Workers (see Figure 9) had a need for Job-Related Information ($.13$, $p \leq .05$). This relation held after entering the demographic variables. The sources used (all, $p \leq .05$) were magazines ($.34$), television ($.27$), newspapers ($.24$), books ($.22$), professionals ($.21$), coworkers ($.19$), and others ($.18$).

These workers need less frequently than homemakers information on Legal Concerns and on Consumer and Health Affairs ($-.10$ and $-.12$, respectively, $p \leq .05$). The relation vanished for Comprehensive News Information ($-.07$) as a function of their age, education, and marital status

(.33, .24, and .11, respectively, $p \leq .05$). Travel Information (-.09) was influenced by their age (.16, $p \leq .05$) and their education (.10, $p \leq .05$).

When needed the sources of information used for Legal Concerns were professionals and others (.26 and .28, respectively, $p \leq .05$). Consumer and Health Affairs was sought (all, $p \leq .05$) from books (.28), magazines (.28), television (.26), newspapers (.21), radio (.18), family/friends (.17), professionals (.17), coworkers (.13), and others (.11).

Students (see Figure 10) needed less frequently than homemakers ($p \leq .05$) information on Specialized Issues in Education (-.19), Legal Concerns (-.19), Family and Household Activities (-.26), and Consumer and Health Affairs (-.29). The relation disappeared for Comprehensive News Information (.06) when age, education, and marital status entered the regression equation (.33, .24, and .11, respectively, $p \leq .05$). The vanishing relations for Time Management (-.09), Travel (-.10) and Weather Information (-.07) were mainly due to their level of education (.15, .10, and .13, respectively, $p \leq .05$). In addition, age (.16, $p \leq .05$) influenced the need for Travel Information. The need for Job-Related Information (.08) also vanished as a function of their education (.10, $p \leq .05$) and their youth (-.36, $p \leq .05$).

Notwithstanding, their information needs were sought as follows (all, $p \leq .05$): Specialized Issues in Education

from books (.52), magazines (.38), television (.36), radio (.27), professionals (.26), family/friends (.21), and others (.21); Legal Concerns from professionals (.26) and others (.28); Family and Household Activities from television (.36), professionals (.31), books (.26), newspapers (.26), magazines (.24), family/friends (.24), and others (.21); finally, Consumer and Health Affairs from books (.28), magazines (.28), television (.26), newspapers (.21), radio (.18), family/friends (.17), professionals (.17), coworkers (.13), and others (.11).

Retired Workers (see Figure 11) needed less frequently than homemakers information on Travel ($-.13, p \leq .05$). Information on Consumer and Health Affairs, Specialized Issues in Education, Job-Related Information, and Family Planning or Birth Control ($-.10, .00, .07$, and $.10$) vanished when demographic variables entered the regression equations. Marital status and education ($.17$ and $.11$, respectively, $p \leq .05$) principally influenced the need for Consumer and Health Affairs ($-.10, p \leq .05$). Job-Related Information ($.07$) was a function of their education ($.10, p \leq .05$), and their age ($-.36, p \leq .05$). Family Planning or Birth Control was affected by their marital status ($.11, p \leq .05$) and their age ($-.38, p \leq .05$). Information on Specialized Issues in Education was mainly a function of their marital status, the number of children, and their age ($.21, .16$, and $-.33$, respectively, $p \leq .05$).

When needed Travel Information was sought (all, $p \leq .05$) from professionals (.20), books (.19), television (.14), and others (.12).

Profiles by Information Needs

The following profiles reflect which work roles needed the different types of information after controlling for demographic variables (all, $p \leq .05$).

Comprehensive News Information was not significantly different for any of the work roles. Yet, when needed, newspapers were used more often (.43), followed by family/friends (.37), magazines (.33), coworkers (.23), books (.21), television (.20), professionals (.20), and radio (.17).

Family and Household Activities were less needed by clerical workers (-.11), saleswomen (-.12), professional workers (-.14), managers (-.15), and students (-.23) than by homemakers. However, they sought this type of information from television (.36), professionals (.31), books (.26), newspapers (.26), magazines (.24), family/friends (.24), and coworkers (.16).

Exclusive Women's Issues was a kind of information not significantly different for any of the work roles. Nevertheless, the source of information most frequently used was television (.35), followed by magazines (.28), professionals (.26), coworkers (.25), family/friends (.21), radio (.21), newspapers (.18), and books (.17).

Job-Related Information was needed more by professional workers (.20), clerical workers (.20), saleswomen (.16), service workers (.13), and managers (.11). This information was sought from magazines (.34), television (.27), newspapers (.24), books (.22), professionals (.21), and coworkers (.19).

Specialized Issues in Education was needed less by clerical workers (-.12) and by students (-.16). When needed they were sought from books (.52), magazines (.38), television (.36), radio (.27), professionals (.26), coworkers (.23), and family/friends (.23).

The Specialized Issues in Education factor focused on child care, coping with multiple roles, and sex education. It is understandable, then, why professional, managers, sales, and service workers were not significantly different from homemakers. On the other hand, clerical, operatives, students, and retired workers needed this type of information less frequently than homemakers (-.16, -.15, -.19, and -.20, respectively, $p \leq .05$). After demographics were entered in the equation, this negative relation still held for clerical workers and for students (-.12 and -.16, respectively, $p \leq .05$).

Legal Concerns was less needed by service workers (-.10) and by students (-.16). The preferred sources of information were the others category (.28) and professionals (.26).

Consumer and Health Affairs was less needed by saleswomen (-.12), service workers (-.12), and students (-.20). All media and interpersonal channels were used: books (.28), magazines (.28), television (.26), newspapers (.21), radio (.18), family/friends (.17), professionals (.17), and coworkers (.13).

Culture/Science/New Technology was not significantly different for any work role. Yet this kind of information was sought from radio (.16), family/friends (.15), professionals (.15), books (.14), newspapers (.13), magazines (.12), and coworkers (.09).

Popular Entertainment was not significantly different for any of the work roles. However, this type of information was sought from newspapers (.28), magazines (.24), coworkers (.22), books (.20), family/friends (.18), television (.15), radio (.12), and professionals (.12).

Controversial Issues on Women was not significantly different for any of the work roles after controls were introduced. However, this information was sought from radio (.44), magazines (.43), family/friends (.42), television (.35), professionals (.30), newspapers (.25), and books (.23).

Advertising or Marketing was needed less by operatives (-.11) than by homemakers. Newspapers were most frequently used (.24) followed by television (.17) and professionals (.13).

Family Planning or Birth Control was not significantly different for any of the work roles. Yet, this type of information was sought from radio (.34), coworkers (.25), newspapers (.22), and magazines (.19).

Money Management was not significantly different for any of the work roles. However, this information was sought from newspapers (.28), television (.23), magazines (.22), books (.18), coworkers (.18), professionals (.18), radio (.17), and family/friends (.11).

Time Management information was less frequently used by clerical workers (-.13). It was mainly sought from books (.29) followed by magazines (.20), television (.19), professionals (.19), and coworkers (.13).

Travel Information was needed less frequently by retired workers (-.13). This type of information was principally sought from professionals (.20), books (.19), and television (.14).

Weather Information was less needed by managers (-.11). The sources of information used were television (.14), magazines (.14), and newspapers (.12).

CHAPTER IV

DISCUSSION

The present study was designed to test a segment of the proposed information-seeking model. This segment related women's work roles and their information-seeking behavior given a felt need for information and the amount of time available. Information seeking was the endogenous variable composed of five mass media, three interpersonal sources of information, and an others category. Information needs and amount of time available were postulated as consequents of women's work roles and as antecedents to their information-seeking activity. The exogenous variables were women's work roles, education, household income, age, marital status, and number of children.

Conclusions

Women in their particular work roles were inclined to have different, although at times overlapping, information needs. In general, demographic variables acted as producers of spurious relationships. The general tendency was for relations to disappear when demographics were entered into the regression equations. Nevertheless, to a certain extent the work roles of women did influence the type and frequency

of information needs considering the fact that the work roles women enact are inseparable from their education and age. Likewise, work roles strongly influenced the amount of time women had available. However, time available did not seem to be a determinant factor in the selection of sources of information. It was expected that due to the multiple roles women perform in their complex lifestyles, they would have a lesser amount of time available. Yet their information-seeking activity was not really influenced by time. In other words, regardless of the time available, women would seek the type of information they needed through differential channels. This is consistent with findings of another study (Korzenny & Del Toro, 1984).

The general profiles according to women's work roles and according to their information needs seem valuable. General trends indicated that women in paid work roles were more oriented towards information related to their jobs and to women's issues than women in unpaid work roles. Unpaid workers were more concerned with family-related topics. Notwithstanding the specific information needs, women actively sought information from the media and from interpersonal channels. The mass media sources were usually preferred over interpersonal sources. This may be due to two reasons. First, women may consider mass media channels to be more credible and, thus, believable and trustworthy. This speculation should be further investigated. Second, the high percentage of working women indicate a lesser

amount of time to engage in interpersonal networking, leading to a higher reliance on mass media. A very interesting and consistent pattern emerged of the use of coworkers as a source of information (see Table 10). The pattern indicates that coworkers seemed to be a source positively sought for almost every type of information. However, when the amount of time available was entered in the regression equations, all the relations were reversed; that is, the more time available women have, the less they seek coworkers as a source of information. This further supports the fact that interpersonal channels were less used than mass media as information.

The results suggest that when women have an information need, they scan through all the sources available to them. Most likely, she may not be satisfied with the information obtained from any one source; thus, she has to use different sources to compensate for the incompleteness of others. Nevertheless, women do have information needs, and they use the mass media most often to satisfy them. These information needs are related to their work roles and the lifestyles associated with them. For example, paid workers and students need more job-related information. Paid workers need this type of information to maintain their present jobs and perhaps advance in their careers. Based on the employment trends (U.S. Department of Labor, 1982) and the emphasis on women's rights, their independence, and assertiveness in today's U.S. society, it is understandable

why students also need this type of information. There is a high probability that they will also join the labor force. By contrast, homemakers need more family-related information. This information need is highly related to their work roles and the associated lifestyle. One of their main responsibilities is to administer their homes and care for the needs of their members. To accomplish this, they need to seek information that will facilitate their goals.

Moreover, the results suggest that the media may not be providing their audience (as described by their work roles) with adequate information. Hence, programming could be restructured for these target groups. For example, job-related information was most sought from magazines. Yet the second source most highly sought was television. However, these paid workers tend to watch television during prime-time due to their schedule constraints. Now prime-time programming does not usually address this issue. Thus, they could increase their audience if they could provide these target groups with the information they need. Radio programming could also be improved for news information; radio was the least used as compared to both media and interpersonal sources. It was not even significantly used for weather information. Perhaps, radio programmers may need to take special care of their audiences' perception of their programming and of the information they are trying to provide.

In addition, current media behaviors could be reinforced in order to maintain their audience. The profiles could be used to identify differences in information-seeking behavior (use of mass media and interpersonal channels) based on the felt information needs of women in their work roles. The work performed by women discriminates their information needs, and this information was sought through different sources. However, women elicited an indiscriminate use of media as sources of information.

The results indicated the degree to which work roles influenced specific information needs, and the sources of information which are sought to satisfy these needs. Rather than encountering a preference for one or two specific communication channels to seek information that would satisfy their information needs, the findings suggest a merge of mass media and interpersonal sources. This may imply two things: first, that there is no communication channel strong enough in content to solely satisfy women's information needs, or second, that when an information need is felt, information about it is sought in multiple channels but with differing strength.

Implications

Those interested in reaching the target audience of women should carefully consider the information needs unique to their work roles. The profiles of women could prove important when informational messages are to be disseminated

by any institutional source. Knowledge of these profiles could facilitate the restructuring of messages. It should be noted, however, that these profiles were constructed using the information needs and the information sources that made each work role significantly different from homemakers. Therefore, knowing in which dimensions each work role does not differ from homemakers is also important in message construction. Message acceptance could be enhanced by considering these differences and similarities. Basically, messages will be more effective if channeled through the appropriate sources and directed towards the segments of the audience that are in search for information to satisfy their information needs. Thus, audience segmentation strategies could benefit from the results of this investigation. Moreover, assessment of needs as purposive behavior should also be considered, because it may improve the effectiveness of message dissemination to the appropriate audiences.

As more women enter the labor force, men and women are engaged in more similar types of work. Their work roles will continue to change in order to cope with the environmental and technological innovations. Due to their multiple roles and their invasion of male-dominated occupations, women have been becoming more and more androgynous (Frieze, Parsons, Johnson, Ruble, & Zellman, 1978). It would be interesting to pursue research comparing the information needs of men and women performing similar work roles.

Surprisingly enough, they may result more similar than what stereotypical preconceptions of "men" and "women" work roles assert. The influence on gender should be checked to verify if gender differences hold or if they merely disappear regarding information needs.

Most of all, given that a segment of the model of Women's Information-Seeking Process has been supported, a logical sequel of this investigation would be to study the next segment of the model: What happens when women obtain their information? Is this information capable of satisfying her information needs? If not, what alternative channels might she select? If yes, how does she use the information? How do women who may seek the same type of information perceive it and use it differently? This sequel would empirically link information-seeking to the expectancy value theory of uses and gratifications (Palmgreen & Rayburn, 1982). This relationship was the basis for the construction of the model, yet only the first segment was investigated.

Palmgreen and Rayburn's theory considers the relation between expectancy, valence, and instrumentality in the motivation of media use for obtaining gratifications. The three motivational factors were incorporated in this study through the likelihood of selecting a particular medium depending on women's expectations that a message of interest would follow her choice, and on how important that message was in satisfying her information needs. These

factors were embedded in the first and second questions of the survey addressing the frequency of their information needs and their media choice to seek this information. Therefore, only the portion of gratifications sought (Palmgreen & Rayburn, 1982) was pursued. In order to discover how satisfying is the information obtained from the mass media and interpersonal sources, the sequel study ought to follow focusing on gratifications obtained. The findings of this next study will then provide further support for the expectancy value theory of uses and gratifications as well as support for the model of Women's Information-Seeking Process.

In addition, the stages of this model should be confirmed through process research considering different points in time. The principal reason why the present study was conducted in a snapshot, survey-type of research was to establish the grounds for future research in this area. Women play a very important role in our information society. Hence, her needs ought to be established. Now that there is some empirical evidence as to which they may be, a process-type of research should follow. Of course, future research could capitalize on the results of this investigation. For instance, instead of using a battery of information needs, new composite measures could be used and improved using a more accurate confirmatory factor analysis technique as the one provided by the PATH program (Hunter, Cohen, & Nicol, 1982). Instead of creating the new

composite measures only through the researcher's perception of content homogeneity and an arbitrary criterion for the strength of the factor loading (e.g., .30 or above; .35 or above; .40 or above; or whatever the researcher decides), the PATH program would provide a more systematic approach to the selection and creation of need factors. Each new factor would have to satisfy three criteria. First, through content analysis the researcher would judge a priori if there is a reasonable similarity among the items in a cluster of information needs. Then the researcher would subject these a priori judged factors into a confirmatory factor analysis provided in the PATH program. The clusters would then have to satisfy the two additional criteria: internal and external consistency. The internal consistency theorem would examine the intercorrelations among the items in a factor and check the unidimensionality of the cluster. On the other hand, the external consistency or parallelism theorem would check that items within a cluster exhibit similar patterns of correlation with variables external to the cluster under scrutiny. It is suggested that the new or improved clusters of information needs be factor analyzed using the PATH program during the pretesting stage rather than after data collection. This would greatly simplify and reduce the number of statistical analyses required as well as the costs incurred in the study.

Furthermore, future research should take advantage of the more advanced multivariate statistical tools that

are applicable to test causal models. This approach would imply a modification of the nonrecursive Women's Information-Seeking Process Model to a recursive model. As it is presently diagrammed, the model shows two arrows recycling to the information-seeking step. Gathering data at least at two points in time would lead to a plausible strategy for using longitudinal correlational data to draw inferences about causality. This approach would involve checking (1) the static correlations, $r_{x_1y_1}$ and $r_{x_2y_2}$; (2) the dynamic correlations, $r_{\Delta x \Delta y}$; and (3) the cross-lag correlations: is $r_{x_1y_2} > r_{y_1x_2}$, or is $r_{y_1x_2} > r_{x_1y_2}$? The end result of of this analysis would be an effects diagram. Therefore, the model would have to be modified to suit the effects diagram of the information-seeking process.

Limitations

The main limitations of this study revolve around the issue of measurement. After completing the study, it is believed that the principal variables could have been measured more efficiently.

Considering the types of information needs, responses may not be accurate. Hence, validity checks ought to be established. It should be pointed out that this cross-sectional data reflect only a cumulative effect. Measurement at least at another point in time may provide a

stronger basis from drawing causal inferences. As previously indicated, a better way to approach these needs would have been to reduce the battery of 43 information needs during the pretesting stage. Consequently, the measurement of information needs clusters could be accompanied by validity checks without extending the length of the interviewing schedule for the main survey.

A similar validity problem applies to the information-seeking measures. Some validity checks needed to be established. However, the main limitation of these measures was the inherent correlation with the information needs. Even though this problem was resolved using "Do loops" in the SPSS routines, this problem could have perhaps been avoided through the use of a different measure. Asking respondents to rank order the media used to seek each type of information need would present the same problem, although logically it would answer the question as to what media is first sought for a particular information need. There is a catch as to what is conceptually consistent versus what is statistically sound. So far, it is thought that the unpredicted problem at hand was adequately resolved. However, there ought to be a better way to measure the particular sources of information used for particular information needs without inducing an artificial correlation between both measures.

An additional factor should be taken into consideration in future research regarding the interpersonal

information-seeking measures. The interpersonal dimension of family/friends should be separated. At the operationalization stage of this study, they were considered as part of women's interpersonal networks as opposed to noninterpersonal networks such as those composed of coworkers or professionals. Now, this is thought to be a misconception that ought to be avoided in the future.

Another limitation of this study was the measurement of time available. Time available was conceptualized as a variable parallel to the information needs and not as a mediating variable. Most likely the unexpected results of a lack of contribution of time available on women's information-seeking activity was due to systematic error produced by measurement error. Future research examining the relationship of information needs with information seeking considering amount of time available ought to pay special attention to what women consider as time available. To some extent, this is a perceptual issue closely related to the type of work role. Work implies an expenditure of energy, and contemporary women perform many simultaneous roles.

In this study, time available was designated as the amount of time per week that is left over after subtracting the amount of fixed time due to working outside and inside their home as well as time devoted to housework. Housework was intended to define cleaning as well as child care, grocery shopping, etc. Yet it was suspected that respondents

may have interpreted it only as referring to housecleaning. It was assumed that the time left over was "time available" in the sense that women had more control on how to dispose of it. However, it may be the case that some women may have additional commitments for which they also devote a fixed amount of time, decreasing the amount of time available. Unfortunately, these additional external or internal commitments failed to be measured. In spite of this, it was found that women's work roles do affect negatively the amount of time women had available. This study revealed that it is not the time available, but it is the type of information need, which influences the sources of information used. Nevertheless, it is still believed that the amount of time available ought to affect the selection of information sources, and its inadequate measurement may be the reason for the disappearance of its influence. Therefore, future research is encouraged along these lines, emphasizing what is time available for each type of woman. Furthermore, time available should be investigated as a mediating variable instead of a contemporary variable within the conceptual framework established in this study.

Unfortunately, income was measured based on the household income. Future women studies must assess her personal income, her spouse's, and any additional sources of income. It is impossible to make comparisons and generalizations based on the overall household income. Knowledge of women's

income based on their work roles would provide a more accurate description of them.

Notwithstanding the limitations of this study, two facts are encouraging for future investigations. One is the establishment of an existing relationship between the expectancy theory of motivation and the uses and gratifications approach with respect to the informational needs of women in the present information era. The other is the establishment of the influence that women's work roles may have on their information-seeking behavior based on their felt information needs. However, future research should also address the fact that human beings are not necessarily rational, and that some needs are not first felt, but they are induced by information sources.

FOOTNOTE

FOOTNOTE

¹With this sample size if there is maximum variance in a measurement (50/50 split in respondents' answers), the level of confidence for that measurement is above 95 percent with less than five percent margin of error. According to Cohen and Cohen's (1975) Power of Significance Test of r at $\alpha = .05$ (two-tailed) Table, with a sample size of 623, one can detect effect sizes of .10 to .20 with a power of .69 and above .995, respectively.

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APPENDICES

Appendix A
Pilot Instrument

WOMEN'S INFORMATION SEEKING PROJECT; PILOT INTERVIEWS

Summer 1983

Hello/Good Morning/Afternoon/Evening. My name is _____ . I am an interviewer for a research project being conducted in the Department of Communication at Michigan State University. We are interviewing women/housewives/unemployed women seeking a job/women that work for pay outside their home, regarding their information needs and their sources of information. Is there such a lady in this household? IF YES, "May I speak to her?" -- REPEAT PROTOCOL IF DIFFERENT PERSON.) (IF NONE OR WOMAN IS NOT IN, "Thank you very much for your time.")

Your household was selected at random within the Lansing area. Your answers are very important to this survey, because they represent the responses of hundreds of others which are not in our sample. EVERYTHING YOU TELL US WILL BE STRICTLY CONFIDENTIAL. YOUR NAME WILL BE IN NO WAY CONNECTED TO THE FINDINGS OF THIS STUDY.

Some people argue that women have different information needs according to their occupations, lifestyles, and their different roles in life. By information we mean things you need or want to know about.

Q.1 How do you think different information needs would correspond to different occupations?

(INTERVIEWER: COMPLETE TABLE A FOR Q.2 and Q.3)

- Q.2 Could you tell me the types of information that you most frequently need?
 (PROBES: Are there any other information needs you have? What about information needs related to your (work, occupation, job-seeking activity)
- Q.3 What are the reasons why you frequently want or need to know about these topics?

TABLE A

(Q.2) INFORMATION NEEDS	(Q.3) REASONS
1.	
2.	
3.	
4.	
5.	
6.	

(Continue on next page)

Continuation of Table A

(Q.2) INFORMATION NEEDS	(Q.3) REASONS
7.	
8.	
9.	
10.	

(INTERVIEWER: COMPLETE TABLE B FOR Q.4, Q.5, Q.6, AND Q.7)

- Q.4 I will read to you each of the information needs you mention. For each of these information needs, please tell me how frequently you actually seek information. Indicate the frequency in a scale from zero to ten, where 0=Never, 5=Sometimes, and 10=Very Frequently.
- Q.5 Where do you look for each type of information?
(LIST SOURCES)
- Q.6 (INTERVIEWER: FOR EACH INFORMATION NEED, ASK, "Why do you use these particular sources of information?")
- Q.7 Of the sources you mention, which is the source most often used for each type of information?
(CIRCLE)

TABLE B

INFORMATION NEEDS	(Q.4) RATING	(Q.5)	(Q.6) REASONS FOR
	SCALE: 0-10 0=N, 10=VF	SOURCES OF INFO.	USING THE SOURCES MENTIONED

1.

2.

3.

4.

5.

6.

7.

8.

Continuation of Table B

INFORMATION NEEDS	(Q.4) RATING SCALE: 0-10 Q=N, 10=VF	(Q.5) SOURCES OF INFO.	(Q.6) REASONS FOR USING THE SOURCES MENTIONED
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9.

10.

(INTERVIEWER: IF NONE OF THE INFORMATION NEEDS WERE RATED BETWEEN 0 AND 4, GO TO Q.12; OTHERWISE, COMPLETE TABLE C FOR Q.8, Q.9, Q.10, AND Q.11)

Q.8 In the question which asked you to rate all your information needs, you rated the following from zero to four. Could you please tell me why you seek these types of information less frequently?

Q.9 Do you come across information about any of these topics without actually seeking it?

1. Yes

2. No

(IF ANSWER 2 or 3, THEN
GO TO Q.12)

3. No response or refused

Q.10 IF YES, ASK, "For which areas?" (INTERVIEWER: MAKE A CHECK MARK UNDER COLUMN LABELED 'ACCIDENTAL INFORMATION.')

Q.11 From which sources do you receive this accidental information?

TABLE C

INFO. NEEDS (Ratings: 0-4)	(Q.8) REASONS LESS INFO. SEEKING	(Q.10) ACCIDENTAL INFO.	(Q.11) SOURCES OF ACC. INFO.
1.			
2.			
3.			
4.			
5.			

Q.12 In a scale from zero to ten, please tell me how active you consider yourself in terms of seeking information about your information needs?

Not Very
Active

Very
Active

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

Q.13 In a regular week, how do you typically spend your time each day of the week?

MORNING (5am-12N)	AFTERNOON (12N-6pm)	EVENINGS (6pm-12M)	EARLY MORNING HOURS (1-5am)
----------------------	------------------------	-----------------------	--------------------------------------

MON.

TUES.

WED.

THURS.

FRI.

SAT.

SUN.

Q.14 What is your main occupation? _____

(INTERVIEWER: NOTE THAT HOUSEWIFE IS A TYPE OF OCCUPATION. IF HOUSEWIFE, ASK, "Are you presently seeking a job?" IF YES, THIS WILL BE YOUR UNEMPLOYED INTERVIEWEE. IF UNEMPLOYED, ASK Q.15. OTHERWISE, GO TO Q.15a)

Q.15 What responsibilities does seeking a job entail?

Q.15a What responsibilities do you have as

_____?
 occupation

Just a few more questions:

Q.16 What is your age? _____

Q.17 What is the highest level of education you have completed?

Q.18 Are you presently, (CIRCLE)

1. Single, never married
2. Married
3. Divorced
4. Widowed
5. Other
6. Refused or no response

Q.19 How many children do you have? _____

Q.20 What is the approximate annual income of your household? I will read some ranges, and you stop me when I've mentioned yours. (CIRCLE)

1. Under \$5,000
2. \$5,000 to \$10,000
3. \$10,000 to \$15,000
4. \$15,000 to \$20,000
5. \$20,000 to \$25,000
6. \$25,000 to \$30,000
7. \$30,000 to \$40,000
8. Over \$40,000
9. Refused or no response

Now that you have a better idea of the type of information we want to obtain from this study, are there any additional questions or areas that you think should be included in this study? We will appreciate any ideas or suggestions that you may have in relation to the study in general, wording of questions, etc.

My supervisor would like your name and phone number in case there is a need to clarify some items of this interview. (INTERVIEWER: WRITE THIS INFORMATION IN THE FACE SHEET OF THE QUESTIONNAIRE.)

Those are all the questions I have for you. Thank you very much for your time and cooperation.

Appendix B

Telephone Survey Questionnaire

PROJECT:

Card #1

WOMEN'S INFORMATION-SEEKING BEHAVIOR

Summer 1983

RESPONDENT ID NUMBER _____ (1-4)

PHONE NUMBER _____

Hello, I am _____ from Michigan State University. We are conducting a survey research in the Department of Communication to find out about women's information needs, where women look for the information they need or want, and other related aspects. May I speak to the lady of the house? (REPEAT PROTOCOL IF DIFFERENT PERSON.) We would really appreciate your cooperation. Your responses are very important to this survey, because they represent the responses of hundreds of others which are not in our sample. There are no right or wrong answers. We are only interested in knowing your honest responses. Since your telephone number has been selected at random, your name will be in no way connected to the findings of this study. We do not have your name, only your number. If you have any questions about this study, you may call Wanda Del Toro at 355-1518.

Q.1 To begin, I will read to you types of information that some women say they need and some do not. By information we mean things you need or want to know about. Please tell me if you frequently, sometimes, rarely, or never need information on each of these topics. (CIRCLE ONE. REPEAT SCALE FOR THE FIRST 5 ITEMS.)

Frequently Sometimes Rarely/ Never					Books Magazines Newspapers Radio TV Coworkers Family/ Friends				
3	2	1							(5-14)
Abortion vs. right-to-life issues									
About women	3	2	1						(15-24)
Advertising or marketing	3	2	1						(25-34)
Career guidance	3	2	1						(35-44)
Children/child care	3	2	1						(45-54)
Community issues	3	2	1						(55-64)
Consumer info.	3	2	1						(65-74) Card #2
Cooking ideas	3	2	1						(1-10)
Coping with discrimination (e.g., sex, race)	3	2	1						(11-20)
Coping with child/parent (e.g., mother, housewife, worker)	3	2	1						(21-30)
Cultural info. (e.g., music arts)	3	2	1						(31-40)
Divorce	3	2	1						(41-50)
Economy	3	2	1						(51-60)
Education or schools	3	2	1						(61-70)

Q.1 (Cont.)

	Frequently Sometimes Rarely/ Never				Books Magazines Newspapers Radio TV Coworkers Family/ Friends				Profes. Others			
National news	3	2	1									(51-60)
Personal care	3	2	1									(61-70)
Politics	3	2	1									(71-80) Card #5
Relations with others	3	2	1									(1-10)
Religion	3	2	1									(11-20)
Science/New Technology	3	2	1									(21-30)
Sex education	3	2	1									(31-40)
Sexual harassment	3	2	1									(41-50)
Sports	3	2	1									(51-60)
State news	3	2	1									(61-70)
Time mgmt.	3	2	1									(71-80) Card #6
Travel info.	3	2	1									(1-10)
Weather	3	2	1									(11-20)
Women's movement	3	2	1									(21-30)
Women's rights	3	2	1									(31-40)

Q.2 For each of the types of information I have mentioned, I will read to you several sources of information. Please tell me if you frequently, sometimes, rarely, or never use these sources to look for the particular type of information. ONLY READ THOSE INFORMATION NEEDS THAT WERE RATED AS 3-FREQUENTLY OR 2-SOMETIMES. WRITE ZEROES (0) IN THOSE INFORMATION NEEDS RATED AS 1-RARELY/NEVER. (EXAMPLE: DO YOU FREQUENTLY, SOMETIMES, RARELY, OR NEVER USE (books) TO LOOK FOR (legal information)? Information need

Q.3 About how much time a day do you use to look for any type of information need? _____ hours _____ minutes (41-43)

Now I would like to know how much television you usually watch.

Q.4 In a typical weekday, about how much time do you spend
watching TV? _____ hours _____ minutes (44-46)

Q.5 In a typical Saturday, about how much time do you
spend watching TV? _____ hours _____ minutes (47-49)

Q.6 In a typical Sunday, about how much time do you
spend watching TV? _____ hours _____ minutes (50-52)

The next few questions are about radio.

Q.7 In a typical weekday, about how much time do you
listen to the radio? _____ hours _____ minutes (53-55)

Q.8 In a typical Saturday, about how much time do you
listen to the radio? _____ hours _____ minutes (56-58)

Q.9 In a typical Sunday, about how much time do you
listen to the radio? _____ hours _____ minutes (59-61)

Now I will ask you some questions about your reading habits.

Q.10 How many days during the past week did you read
the newspaper? _____ (62)

Q.11 When you read the newspaper during a weekday,
about how much time do you usually spend
reading it? _____ hours _____ minutes (63-65)

Q.12 How many days during the past week did you
read a magazine? _____ (66)

Q.13 When you read a magazine during a weekday,
about how much time do you usually spend
reading it? _____ hours _____ minutes (67-69)

Q.14 About how many books do you usually read
in a month? _____ (70)

Just a few more questions.

Q.15 How many hours a week do you spend working
in a paid job outside of your home? _____ (71,72)

Q.16 How many hours a week do you spend working
in a paid job inside of your home,
excluding housework? _____ (73,74)

Q.17 About how much time a day do you spend
in housework? _____ hours _____ minutes (75-77)

Q.18 About how much time a day do you have to do
the things you enjoy?
_____ hours _____ minutes (78-80)

Q.19 What is your main occupation? Card #7 (1,2)
(SPECIFY)

Job Title: _____

Place of Work: _____

Type of Work: _____

(IF HOMEMAKER, STUDENT, RETIRED, OR UNEMPLOYED,
ASK Q.20; OTHERWISE, GO TO Q.22)

Q.20 Are you currently looking for a job (CIRCLE ONE) (3)

1. Yes 2. No 3. Refused or
no response

(IF YES, ASK Q.21, OTHERWISE, GO TO Q.22)

Q.21 How long have you been looking for a job? (4)
(CIRCLE ONE)

1. Less than a week	5. Over a year
2. About a month	6. Refused or No Response
3. Two to six months	
4. Seven to twelve months	

Q.22 What is the highest level of education you have completed? I will read some categories. Please stop when I've mentioned yours. (CIRCLE ONE) (5)

- 0. 8th grade or less
- 1. Some high school
- 2. High school graduate
- 3. Trade/technical/vocational
- 4. Some college
- 5. 2 yr. college graduate
- 6. 4 yr. college graduate
- 7. Post college graduate work
- 8. Completed an M.A. or Ph.D.
- 9. Refused or No Response

Q.23 Are you presently, (CIRCLE ONE) (6)

- 1. Single, never married
- 2. Married
- 3. Divorced
- 4. Widowed
- 5. Other
- 6. Refused or No Response

Q.24 How many children do you have? _____ (7)

Q.25 Would you please tell me your age? _____ (8,9)

Refused _____

Q.26 What is the approximate annual income of your household? I will read some ranges. Please stop me when I've mentioned yours. (CIRCLE ONE) (10)

- 1. Under \$5,000
- 2. \$5,001 to \$10,000
- 3. \$10,001 to \$15,000
- 4. \$15,001 to \$20,000
- 5. \$20,001 to \$25,000
- 6. \$25,001 to \$30,000
- 7. \$30,001 to \$40,000
- 8. Over \$40,000
- 9. Refused or No Response

Those are all the questions I have for you. Thank you very much for your time and cooperation.

Date of interview: _____ (11,12)

Time interview ended: _____ (13,14)

Interviewer's name: _____

Interviewer's signature: _____

Student Number: _____ (15-21)

Appendix C

How to be a Good Interviewer

HOW TO BE A GOOD INTERVIEWERAsking the questions

Use the questionnaire informally. The interview should be conducted in a relaxed manner; the interviewer should avoid creating the impression that the interview is a quiz or cross-examination. Please be careful not to imply criticism, surprise, approval or disapproval of the questions asked or the respondent's answers.

But don't be sloppy in asking the questions. Know the questions so you can read each one smoothly and move on to the next without hesitancy. This means you should study the questionnaire carefully and practice asking the questions aloud, perhaps, by doing a practice interview with someone.

Ask the questions exactly as worded in the questionnaire. Since exactly the same questions must be asked of each respondent, the interviewer should make no changes in the phrasing of the questions. Also guard against trying to be conversational by inadvertently adding a few words at the end of a question or leaving a few words out. The respondents should be aware of all of the alternatives of a particular question (except for yes-no questions).

Ask the questions in the order presented in the questionnaire. The question sequence is planned for continuity and promoting a conversational atmosphere. The sequence is also arranged so that early questions will not have a harmful

effect on the respondent's answers to later questions. Furthermore, the question order needs to be standardized from respondent to respondent if the interviews are to be comparable.

Ask every question specified in the questionnaire. In answering one question, a respondent will sometimes also answer another question appearing later in the interview. Or, from time to time, the interviewer needs to ask a series of apparently similar questions. In either case, don't skip questions which are apparently answered by an earlier response.

Repeat and clarify questions which are misunderstood or misinterpreted. Questions may be repeated just as they are written in the questionnaire. If you suspect that the respondent merely needs time to think it over, simply wait and don't press for an immediate answer. If you think the respondent just needs reassuring, you may want to add to the question a neutral remark, such as: "We're just trying to get people's ideas on this," or "There are no right or wrong answers, just your ideas on it."

Appendix D

Telephone Numbers Tally Sheet

COM 300R and COM 499 -- THIS IS YOUR LIST OF NUMBERS TO CALL
IN ORDER TO COMPLETE YOUR QUOTA FOR THE WOMEN'S INFORMATION-
SEEKING PROJECT. GO DOWN THE LIST IN MAKING YOUR PHONE CALLS.
TRY EACH NUMBER AT LEAST THREE TIMES, AT DIFFERENT TIMES,
BEFORE PROCEEDING TO THE NEXT ONE AS SUBSTITUTION.

[illegible]

Appendix E

Telephone Interviewing Instructions

TELEPHONE INTERVIEWING INSTRUCTIONSDO'S

*KNOW THE QUESTIONNAIRE COLD BEFORE YOU MAKE YOUR FIRST CALL. PRACTICE -- SPEAK THROUGH IT.

*Read everything carefully but not slowly -- we don't want to put our respondents to sleep.

*The delivery should be friendly, interested and courteous. You're not a friend though -- no jokes!

*Treat the respondent with respect -- they're doing us the favor.

In the introduction, use both your names -- people won't remember them but will be suspicious if you use only one name.

Circle the number next to the answer the respondent provides. Please watch what you circle -- don't circle more than one number per answer.

If the respondent doesn't understand something about the question or choices, re-read them.

Thank the respondent at the end of the interview.

DON'TS

Don't be creative -- read all the questions in the order presented and EXACTLY as worded.

Don't assume which of our choices the respondent selected -- if one of our choices is not selected, repeat all the choices (e.g., well, is that . . .)

Don't accept multiple answers -- if more than one answer is given, ask the respondent to pick one.

Don't force responses. If a respondent doesn't know, circle No Response; if a respondent doesn't want to answer the question, circle Refused and go directly to the next item.

Don't reinforce answers (e.g., good, I see, OK, um-hum) -- just start reading the next question.

Don't provide your own attitudes or beliefs -- what counts is what the respondent has to say.

DON'Ts (cont.)

Don't let the respondent talk your ear off -- if they wander off track, gently bring them back.

Don't say this is a class project -- people will think it's trivial if you do and hang up.

QUESTIONS SOME RESPONDENTS MAY ASK AND SUGGESTED RESPONSES

How did you get my phone number? Your number was selected at random from the Lansing phone book along with about 2000 other numbers. We have no idea who you are.

How do I know you won't hold this information against me? We don't know your name and never will. This information will be combined with information from over 600 interviews like this.

Who's doing the study? The study is being conducted by an instructor in the Department of Communication at MSU. (IF THEY WANT MY NAME AND NUMBER, GIVE IT, 517-355-1518).

Why do you want to know about my age, education . . .? We're calling people of many different ages and backgrounds. When we put all the information together, we'll also want to see if there are any differences based on age, years married and things like that. Finding out about your age or number of years married helps us make those comparisons.

DIALING INSTRUCTIONS

Let the phone ring at least six times before hanging up.

Note all attempts at reaching the number on the sheet given to you which lists the numbers -- this is our way of keeping track of our completion rate.

If you encounter a disconnected number, don't use the new number -- just write "dis" next to it.

If you encounter a business, don't interview anyone there -- just write down "bus" next to it.

Ask to speak to the woman of the house.

SAMPLING RESPONDENTS

Since the numbers you have been given have been scientifically selected to represent a particular population, you should not substitute another person for a number you have been given.

The sample is a systematic sample with a random start from the Lansing phone book, with the last two digits of each number randomized to account for unlisted numbers and to maximize representativeness.

Appendix F
Coding Instructions

Women's Information-Seeking Behavior Codebook

- I. Q.2 Zeroes are used only when respondent answered Rarely/Never=1 in question 1.
For items in which respondent answered Frequently=3 or Sometimes=2 (in Q.1), there should only be three's, two's or one's for its corresponding Q.2.
- II. Coding Time (Q. 3, 4, 5, 6, 7, 8, 9, 11, 13, 17, 18)
Transform all answers to minutes. Maximum three columns. Ex. 2 hrs, 30 min. = 150 min.
- III. Q. 10 Range of day reading newspapers is from 0-7;
if refused or no response use a 9 or a blank.
Q. 12 Range of days reading magazines is from 0-7;
if refused or no response use a 9 or a blank.
Q. 14 Number of books read in a month ranges from 0-9. For more than 9 books, code a 9.
Use a blank if no answer or refused.
- IV. For number of hours working in a paid job outside (Q.15) or inside (Q.16) home, the range is from 00-98.
If refused or no response, code 99.
- V. Main occupation code as follows:
 00. Professional, Technical, and Kindred Workers
 01. Managers and Administrators, except Farm

- 02. Clerical and Kindred Workers
- 03. Craftsmen and Kindred Workers
- 04. Operatives, including Transport
- 05. Laborers, including Farm
- 06. Service Workers, including Private Household Workers
- 07. Student
- 08. Homemakers
- 09. Retired
- 10. Unemployed
- 11. Sales Workers
- 99. Refused or No Response

VI. For Q.20 and Q.21, code circled item when these questions were asked. If not asked, code a blank.

VII. Q. 22, 23, 26 code the circled item.
If none was circled, code the no response category.

VIII. Q. 24 = number of children
Range is from 0-8. For more than eight children, code 8.
No response or refused, code 9.

IX. Q. 25 = Age
Range is from 18-98.
For no response or refused, code 99.

X. For date of interview, code the day of the month (use two columns). Ex. 8/2 is coded as 02; 8/15 is coded as 15.

For time interview ended, code the nearest hour out of 24. Ex. 6 p.m. is coded as 18; 6:25 p.m. is coded as 18; 6:35 p.m. is coded as 19.

Type in the student ID number of the interviewer.

Appendix G
Job Classifications

INTERMEDIATE OCCUPATIONAL CLASSIFICATION FOR
FEMALES (103 Items) WITH COMPONENT DETAILED ITEMS

Professional, Technical, and Kindred Workers

1. Accountants
2. Computer specialists
 - Computer programmers
 - Computer systems analysts
 - Computer specialists, n.e.c.
3. Engineers
 - Aeronautical and astronautical
 - Chemical
 - Civil
 - Electrical and electronic
 - Industrial
 - Mechanical
 - Metallurgical and materials
 - Mining
 - Petroleum
 - Sales
 - Engineers, n.e.c.
4. Lawyers and judges
 - Judges
 - Lawyers
5. Librarians
6. Mathematical specialists
 - Actuaries
 - Mathematicians
 - Statisticians
7. Life and physical scientists
 - Agricultural scientists
 - Atmospheric and space scientists
 - Biological scientists
 - Chemists
 - Geologists
 - Marine scientists
 - Physicists and astronomers
 - Life and physical scientists, n.e.c.
8. Physicians, dentists, and related practitioners
 - Chiropractors
 - Dentists
 - Optometrists
 - Pharmacists
 - Physicians, medical and osteopathic
 - Podiatrists
 - Veterinarians
 - Health practitioners, n.e.c.
9. Dieticians
10. Registered Nurses
11. Therapists
12. Health technologists and technicians
 - Clinical laboratory technologists and technicians
 - Dental hygienists
 - Health record technologists and technicians

12. Health technologists and technicians (cont.)
 - Radiologic technologists and technicians
 - Therapy assistants
 - Health technologists and technicians, n.e.c.
13. Religious workers
 - Clergymen
 - Religious workers, n.e.c.
14. Social scientists
 - Economists
 - Political scientists
 - Psychologists
 - Sociologists
 - Urban and regional planners
 - Social scientists, n.e.c.
15. Social and recreation workers
 - Social workers
 - Recreation workers
16. Teachers, college and university
 - Agriculture
 - Atmospheric, earth, marine, and space
 - Biology
 - Chemistry
 - Physics
 - Engineering
 - Mathematics
 - Health specialties
 - Psychology
 - Business and Commerce
 - Economics
 - History
 - Sociology
 - Social science teachers, n.e.c.
 - Art, drama, and music
 - Coaches and physical education
 - Education
 - English
 - Foreign language
 - Home economics
 - Law
 - Theology
 - Trade, industrial, and technical
 - Miscellaneous teachers, college and university
 - Teachers, college and university, subject not specified
17. Teachers, elementary and prekindergarten
 - Public
 - Private
18. Teachers, secondary
 - Public
 - Private
19. Other teachers
 - Adult education
 - Teachers, except college and university, n.e.c.

- 20. Engineering and science technicians
 - Agriculture and biological technicians, except health
 - Chemical technicians
 - Draftsmen
 - Electrical and electronic engineering technicians
 - Industrial engineering technicians
 - Mechanical engineering technicians
 - Mathematical technicians
 - Surveyors
 - Engineering and science technicians, n.e.c.
- 21. Technicians, except health, and engineering and science
 - Airplane pilots
 - Air traffic controllers
 - Embalmers
 - Flight engineers
 - Radio operators
 - Tool programmers, numerical control
 - Technicians, n.e.c.
- 22. Writers, artists, and entertainers
- 23. Actors and dancers
 - Actors
 - Dancers
- 24. Authors, editors, and reporters
 - Authors
 - Editors and reporters
- 25. Designers
 - Other writers, artists, and entertainers
 - Athletes and kindred workers
 - Musicians and composers
 - Painters and sculptors
 - Photographers
 - Public relations men and publicity writers
 - Radio and television announcers
 - Writers, artists, and entertainers, n.e.c.
- 26. Other professional, technical and kindred workers
 - Architects
 - Archivists and curators
 - Farm management advisors
 - Foresters and conservationists
 - Home management advisors
 - Operations and systems researchers and analysts
 - Personnel and labor relations workers
 - Research workers, not specified
 - Vocational and educational counselors
 - Professional, technical, and kindred workers -- allocated

Managers and Administrators, Except Farm

27. Buyers, purchasing agents, and sales managers
 - Buyers and shippers, farm products
 - Buyers, wholesale and retail trade
 - Purchasing agents and buyers, n.e.c.
 - Sales managers and department heads, retail trade
 - Sales managers, except retail trade
28. Restaurant, cafeteria, and bar managers
29. School administrators
 - School administrators, college
 - School administrators, elementary and secondary
30. Other specified managers and administrators
 - Assessors, controllers, and treasurers; local public administration
 - Bank officers and financial managers
 - Credit men
 - Funeral directors
 - Health administrators
 - Construction inspectors, public administration
 - Inspectors, except construction; public administration
 - Federal public administration
 - State public administration
 - Local public administration
 - Managers and superintendents, building
 - Officers, pilots, and pursers; ship
 - Officials and administrators; public administration, n.e.c.
 - Federal public administration
 - State public administration
 - Local public administration
 - Officials of lodges, societies, and unions
 - Postmasters and mail superintendents
 - Railroad conductors
 - Managers and administrators, except farm -- allocated
31. Manufacturing
 - Durable goods
 - Nondurable goods
32. Wholesale and retail trade
 - Wholesale trade
 - Hardware, farm equipment and building material
 - retailing
 - General merchandise stores
 - Food stores
 - Motor vehicles and accessories retailing
 - Gasoline service stations
 - Apparel and accessories stores
 - Furniture, home furnishings, and equipment stores
 - Other retail trade
33. Finance, insurance, and real estate
34. All other industries
 - Construction
 - Business and repair services
 - Personal services
 - All other industries
 - Managers and administrators, n.e.c. -- self-employed

- 35. Wholesale and retail trade
 - Wholesale trade
 - Hardware, farm equipment, and building material retailing
 - General merchandise stores
 - Food stores
 - Motor vehicles and accessories retailing
 - Gasoline service stations
 - Apparel and accessories stores
 - Furniture, home furnishings, and equipment stores
 - Other retail trade
- 36. Personal services
- 37. All other industries
 - Construction
 - Manufacturing
 - Transportation
 - Communications, and utilities and sanitary services
 - Finance, insurance, and real estate
 - Business and repair services
 - All other industries

Sales Workers

- 38. Demonstrators, hucksters, and peddlers
 - Demonstrators
 - Hucksters and peddlers
- 39. Insurance, real estate agents, and brokers
 - Insurance agents, brokers, and underwriters
 - Real estate agents and brokers
- 40. Salesclerks, retail trade
- 41. Salesmen, retail trade
- 42. Other salesworkers
 - Advertising agents and salesmen
 - Auctioneers
 - Newsboys
 - Stock and bond salesmen
 - Sales representatives, manufacturing industries
 - Sales representatives, wholesale trade
 - Salesmen of services and construction
 - Salesworkers -- allocated

Clerical and Kindred Workers

- 43. Bank tellers
- 44. Billing clerks
- 45. Bookkeepers
- 46. Cashiers
- 47. Counter clerks, except food
- 48. Enumerators and interviewers
- 49. File clerks
- 50. Library attendants and assistants

Clerical and Kindred Workers (cont.)

- 51. Mail handlers and postal clerks
 - Mail carriers, post office
 - Mail handlers, except post office
 - Postal clerks
- 52. Office machine operators
- 53. Bookkeeping and billing machine
- 54. Key punch
 - Other office machine operators
 - Calculating machine
 - Computer and peripheral equipment
 - Duplicating machine
 - Tabulating machine
 - Office machine, n.e.c.
- 55. Payroll and timekeeping clerks
- 56. Receptionists
- 57. Secretaries
 - Secretaries, legal
 - Secretaries, medical
 - Secretaries, n.e.c.
- 58. Stenographers
- 59. Stock clerks and storekeepers
- 60. Telephone operators
- 61. Typists
- 62. Other clerical and kindred workers
 - Clerical assistants, social welfare
 - Clerical supervisors, n.e.c.
 - Collectors, bill and account
 - Dispatchers and starters, vehicle
 - Estimators and investigators, n.e.c.
 - Expeditors and production controllers
 - Insurance adjusters, examiners, and investigators
 - Messengers, including telegraph, and office boys
 - Meter readers, utilities
 - Proofreaders
 - Real estate appraisers
 - Shipping and receiving clerks
 - Statistical clerks
 - Teacher aids, except school monitors
 - Telegraph operators
 - Ticket, station, and express agents
 - Weighers
 - Miscellaneous clerical workers
 - Not specified clerical workers
 - Clerical and kindred workers -- allocated

Craftsmen and Kindred Workers

- 63. Craftsmen and kindred workers
- 64. Decorators and window dressers
- 65. Foremen, n.e.c.
 - Construction
 - Metal industries
 - Machinery, except electrical
 - Electrical machinery, equipment, and supplies
 - Transportation equipment
 - Other durable goods
 - Food and kindred products
 - Textiles, textile products, and apparel
 - Other nondurable goods, including not specified manufacturing
 - Transportation
 - Communications, and utilities and sanitary services
 - Wholesale and retail trade
 - All other industries
- Other craftsmen and kindred workers
(All other occupations in this major group)

Operatives, Except Transport

- 66. Assemblers
- 67. Bottling and canning operatives
- 68. Checkers, examiners, and inspectors; manufacturing
- 69. Dressmakers and seamstresses, except factory
- 70. Laundry and drycleaning operatives; including ironers
 - Clothing ironers and pressers
 - Laundry and drycleaning operatives, n.e.c.
- 71. Graders and sorters, manufacturing
- 72. Packers and wrappers, except produce
 - Meat wrappers, retail trade
 - Packers and wrappers, except meat and produce
- 73. Sewers and stitchers
- 74. Textile operatives
 - Carding, lapping, and combing operatives
 - Knitters, loopers, and toppers
 - Spinners, twistors, and winders
 - Weavers
 - Textile operatives, n.e.c.
- 75. Other specified operatives
 - Asbestos and insulation workers
 - Blasters and powdermen
 - Chainmen, rodmen, and axmen; surveying
 - Cutting operatives, n.e.c.
 - Drillers, earth
 - Dry wall installers and lathers
 - Dyers
 - Filers, polishers, sanders and buffers
 - Furnacemen, smeltermen, and pourers
 - Garage workers and gas station attendants

Operatives, Except Transport (cont.)

- Produce graders and packers, except factory and farm
- Heaters, metal
- Meat cutters and butchers, except manufacturing
- Meat cutters and butchers, manufacturing
- Metal platers
- Milliners
- Mine operatives, n.e.c.
- Mixing operatives
- Oilers and greasers, except auto
- Painters, manufactured articles
- Photographic process workers
- Drill press operatives
- Grinding machine operatives
- Lathe and milling machine operatives
- Precision machine operatives, n.e.c.
- Punch and stamping press operatives
- Riveters and fasteners
- Sailors and deckhands
- Sawyers
- Shoemaking machine operatives
- Solderers
- Stationary firemen
- Welders and flamecutters
- Winding operatives, n.e.c.
- Operatives, except transport -- allocated
- Miscellaneous and not specific operatives by industry
- 76. Durable goods manufacturing
- 77. Metal industries
 - Blast furnaces, steelworks, rolling and finishing mills
 - Other primary iron and steel industries
 - Primary nonferrous industries
 - Cutlery, hand tools, and other hardware
 - Fabricated structural metal products
 - Screw machine products, and metal stamping
 - Miscellaneous fabricated metal products and not specified metal
- 78. Machinery, including electrical
 - Farm machinery and equipment
 - Construction and material handling machines
 - Metalworking machinery
 - Office and accounting machines, and electronic computing equipment
 - Other machinery, except electrical
 - Household appliances
 - Radio, television, and communication equipment
 - Electrical machinery, equipment, and supplies, n.e.c.
 - Not specified electrical machinery, equipment, and supplies
- Other durable goods
 - Lumber and wood products, except furniture
 - Furniture and fixtures
 - Stone, clay, and glass products

Operatives, Except Transport (cont.)

- Transportation equipment
- Professional and photographic equipment, and watches
- Ordinance
- Miscellaneous manufacturing industries
- Durable goods
- 79. Nondurable goods manufacturing
- 80. Food and kindred products
- 81. Apparel and other fabricated textile products
 - Textile mill products
 - Apparel and other fabricated textile products
- 82. Leather and leather products
 - Tanned, curried, and finished leather
 - Footwear, except rubber
 - Leather products, except footwear
- Other nondurable goods
 - Tobacco manufacturers
 - Paper and allied products
 - Printing, publishing, and allied industries
 - Chemicals and allied products
 - Petroleum and coal products
 - Rubber and miscellaneous plastic products
 - Nondurable goods -- allocated
 - Not specified manufacturing
- 83. Nonmanufacturing industries
 - Construction
 - Railroads and railway express service
 - Transportation, except railroads
 - Communications, and utilities and sanitary services
 - Wholesale trade
 - Retail trade
 - Business and repair services
 - Public administration
 - All other industries

Transport Equipment Operatives

- 84. Transport equipment operatives
- 85. Bus drivers
 - Other transport equipment operatives
 - Boatmen and canalmen
 - Conductors and motormen, urban rail transit
 - Deliverymen and routemen
 - Fork lift and tow motor operatives
 - Motormen; mine, factory, logging camp, etc.
 - Parking attendants
 - Railroad brakemen
 - Railroad switchmen
 - Taxicab drivers and chauffeurs
 - Truck drivers
 - Transport equipment operatives -- allocated

Laborers, Except Farm

86. Laborers, except farm
 (All occupations in this major group.)

Farmers and Farm Managers

87. Farmers and farm managers
 Farmers (owners and tenants)
 Farm managers
 Farmers and farm managers -- allocated

Farm Laborers and Farm Foremen

88. Paid farm laborers and farm foremen
 Farm foremen
 Farm laborers, wagedworkers
 Farm service workers, self-employed
 Farm laborers and farm foremen -- allocated (class
 of worker other than unpaid family worker)
 89. Unpaid family workers
 Unpaid family workers
 Farm laborers and farm foremen -- allocated (unpaid
 family class of worker)

Service Workers, Except Private Household

90. Service workers, except private household
 91. Cleaning service workers
 92. Chambermaids and maids, except private household
 Other cleaning service workers
 Cleaners and charwomen
 Janitors and sextons
 93. Food service workers
 94. Cooks, except private household
 95. Waiters and food counter workers
 Food counter and fountain workers
 Waiters
 Other food service workers
 Bartenders
 Busboys
 Dishwashers
 Food service workers, n.e.c., except private household
 96. Health service workers
 97. Nursing aides, orderlies, and attendants
 98. Practical nurses
 Other health service workers
 Dental assistants
 Health aides, except nursing
 Health trainees
 Lay midwives

Service Workers, Except Private Household (cont.)

- 99. Personal service workers
- 100. Housekeepers, except private household
 - Other personal service workers
 - Airline stewardesses
 - Attendants, recreation and amusement
 - Attendants, personal service, n.e.c.
 - Baggage porters and bellhops
 - Barbers
 - Boarding and lodging housekeepers
 - Bootblacks
 - Child care workers, except private household
 - Elevator operators
 - Housekeepers, except private household
 - School monitors
 - Ushers, recreation and amusement
 - Welfare service aides
 - Service workers, except private household -- allocated,
and protective service workers

Private Household Workers

- 102. Private household workers -- living in
 - Child care workers, private household
 - Cooks, private household
 - Housekeepers, private household
 - Maids and servants, private household
 - Private household workers -- allocated
- 103. Private household workers -- living out
(Detailed occupations shown above)

APPENDIX H

Descriptive Statistics for Unaggregated Information Needs

Information Needs	Mean	Standard Deviation	Skewness	N
Abortion vs. right-to-life	.220	.493	2.199	623
About women	.751	.763	.454	623
Advertising or marketing	.565	.779	.931	623
Career guidance	.762	.819	.463	623
Children/ child care	.620	.807	.797	623
Community issues	1.014	.780	-.025	623
Consumer information	1.088	.752	-.147	623
Cooking ideas	.955	.830	.084	623
Coping with discrimination (e.g., sex, race)	.461	.702	1.202	623
Coping with multiple roles (e.g., mother, house- wife, worker)	.433	.705	1.315	623
Cultural info. (e.g., music, arts)	.669	.763	.638	623
Divorce	.189	.500	2.645	623
Economy	1.022	.781	-.039	623
Education or schools	1.051	.836	-.097	623
Employment opportunities	.836	.848	.319	623
Entertainment (e.g., TV, movies)	1.008	.801	-.014	623
Family planning or birth control	.283	.565	1.881	623
Family relation- ships	.599	.739	.796	623
Fashions	1.030	.786	-.054	623
Health or nutrition	1.265	.710	-.431	623

Information Needs	Mean	Standard Deviation	Skewness	N
Housekeeping/ house care	.486	.701	1.102	623
International news	.796	.795	.381	623
Job-related info.	.849	.841	.291	623
Legal info.	.570	.698	.818	623
Local news	1.265	.734	-.460	623
Marriage issues	.377	.671	1.526	623
Medical info.	1.135	.716	-.204	623
Money mgmt. (e.g., finance, taxes)	.774	.787	.423	623
National news	1.108	.773	-.188	623
Personal care	.767	.783	.434	623
Politics	.624	.750	.739	623
Relations with others	.750	.768	.461	623
Religion	.650	.763	.685	623
Science/New Technology	.687	.754	.588	623
Sex education	.305	.567	1.709	623
Sexual harassment	.324	.609	1.706	623
Sports	.579	.743	.856	623
State news	1.002	.738	-.003	623
Time mgmt.	.441	.689	1.260	623
Travel info.	.900	.758	.168	623
Weather	1.191	.798	-.357	623
Women's move- ment	.573	.720	.845	623
Women's rights	.804	.771	.352	623

APPENDIX I

Descriptive Statistics of Information Needs by Work Roles

INFORMATION NEEDS	PROFS. (N=102)	MGRS. (N=53)	CLERICAL (N=114)	SALES (N=58)	OPERS. (N=49)	SERVICE (N=56)	STUDENTS (N=18)	HOMEKRS. (N=76)	RETIRED (N=48)	FOR ENTIRE SAMPLE (N=604)
Comprehensive News Info.	2.1078 .5702	2.11590 .5394	1.9185 .5060	2.1108 .5671	2.0350 .5030	1.6709 .5720	1.6310 .3749	1.9398 .5249	2.1101 .6253	1.9716 .5584
Family and Household Activities	1.6846 .4343	1.6038 .4376	1.7047 .4501	1.6552 .4855	1.6701 .4507	1.7351 .5447	1.3854 .3641	1.8465 .4712	1.8785 .5562	1.6940 .4775
Exclusive Women's Issues	1.6814 .5326	1.4953 .4426	1.5504 .5013	1.6250 .6146	1.4847 .6217	1.5580 .4908	1.4479 .4283	1.4079 .4896	1.5000 .6036	1.5401 .5291
Job-Related Info.	2.0294 .5280	1.9151 .4852	1.9868 .5194	1.9914 .5792	1.6378 .4480	2.0045 .5319	2.0739 .3823	1.5099 .4698	1.3906 .5332	1.8609 .5517
Specialized Issues in Education	1.7304 .5143	1.6085 .5201	1.5548 .4953	1.6293 .5605	1.4796 .4645	1.6295 .5090	1.4010 .3816	1.7599 .4957	1.3854 .4725	1.5973 .5080
Legal Concerns	1.4150 .4558	1.3459 .3457	1.4503 .4587	1.4713 .4327	1.3469 .3965	1.2738 .3429	1.1319 .2896	1.4254 .4764	1.3264 .4982	1.3742 .4337
Consumer and Health Affairs	2.2451 .4805	2.1698 .4651	2.1959 .5072	2.0920 .6175	2.2585 .4872	2.0238 .5890	1.7500 .4037	2.3246 .5249	2.1319 .6217	2.1567 .5393
Culture/Science/ New Technology	1.9216 .6553	1.7358 .5684	1.6491 .5947	1.6552 .6702	1.4796 .5492	1.6429 .6304	1.5104 .5104	1.5789 .5480	1.6458 .6355	1.6089 .6126
Popular Entertainment	1.7451 .6244	1.6981 .5127	1.9123 .5846	1.7414 .6898	1.7041 .5944	1.8393 .6474	1.8854 .4972	1.7237 .5796	1.7500 .6558	1.7864 .6019
Controversial Issues on Women	1.6765 .5153	1.5000 .5189	1.5482 .5151	1.4914 .5501	1.3469 .5124	1.4286 .4309	1.4792 .4120	1.4342 .5056	1.2813 .4602	1.4917 .5077
Advertising or Marketing	1.5392 .7267	1.7736 .8692	1.4912 .7555	1.7759 .8593	1.3265 .7184	1.4821 .6873	1.4167 .6790	1.6184 .7995	1.6250 .8411	1.5579 .7759
Family Planning or Birth Control	1.2941 .5902	1.2075 .4945	1.3158 .5847	1.3448 .6636	1.0612 .2422	1.3750 .6484	1.4583 .6174	1.2763 .5316	1.0625 .3200	1.2765 .5596
Money Management	1.7157 .7882	1.7736 .7756	1.7105 .7952	1.8621 .8046	1.7959 .7900	1.5893 .7330	1.7292 .7068	1.7895 .7539	2.0417 .8241	1.7649 .7797
Time Management	1.6078 .7197	1.6038 .7927	1.2632 .5807	1.4310 .6519	1.4694 .7665	1.4286 .6566	1.2083 .5035	1.4605 .7013	1.4167 .7096	1.4321 .6841
Travel Info.	2.0980 .7107	1.9623 .7061	1.8333 .7154	1.9655 .7715	2.0000 .7638	1.6607 .7926	1.6458 .7852	1.9474 .6908	1.7917 .8742	1.8957 .7558
Weather Info.	2.2451 .8137	2.1321 .8095	2.0965 .7867	2.1207 .7964	2.2245 .8232	2.1071 .8241	2.0417 .7707	2.3553 .7608	2.3333 .8078	2.1854 .7993

NOTE: The upper value is the mean of each information need with respect to the work roles, whereas the second value is the standard deviation.

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