

AN ABSTRACT OF THE THESIS OF

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Title: SEX ROLE PATTERNS OF SCHOOL AGE CHILDREN IN TIME USED

FOR HOUSEHOLD WORK: AN ANALYSIS OF SINGLE PARENT/TWO-CHILD

AND TWO-PARENT/TWO-CHILD CALIFORNIA HOUSEHOLDS

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Systems theory and role theory were used in this study to develop a management model, integrating the managerial and psycho-social subsystems of the family system. The integrated theory and model were used to derive hypotheses concerning whether or not type of task and actual/relative amount of time spent on household tasks performed by school age children varied according to the sex of the child, attitude toward feminism of the homemaker, number of parents, and employment status of the homemaker. Whether parents were more sex-segregated than school age children in the performance of household tasks was also assessed.

The sample used in this study included 325 school age children from 79 single parent families and 208 two parent families interviewed for the Northeastern Regional Research Project, 113: "An Interstate Urban/Rural Comparison of Families Time Use." Families

included in this study were limited to those with at least one school age child, since time data were not collected for children less than six years of age.

Data were collected using two face-to-face interviews, and three instruments: a survey questionnaire, a time-use chart, and a 20-item attitude toward feminism scale. The data were evaluated using both univariate and multivariate analyses.

Conclusions reached on the basis of the data analyses were: (1) increased demands in the households of employed women and single parent homemakers were associated with more relative time spent on household tasks by their children, (2) boys in single parent families were more traditional in sex role behavior in the performance of household work than boys in two parent families, (3) girls in single parent families were undifferentiated in sex role behavior in the performance of household work, (4) children in both single parent and two parent families were less sex-segregated than parents in the performance of household work, and (5) the homemaker's attitude toward feminism was not directly related to children's time use in the performance of household work. The results of this study have provided baseline data for examining changing sex roles and time use for household work in the next generation of adults.

SEX ROLE PATTERNS OF SCHOOL AGE CHILDREN IN TIME USED FOR HOUSEHOLD  
WORK: AN ANALYSIS OF SINGLE PARENT/TWO-CHILD AND  
TWO-PARENT/TWO-CHILD CALIFORNIA HOUSEHOLDS

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CHAPTER I

INTRODUCTION

The number of single parents and employed mothers has greatly increased since the early 1970's (U.S. Bureau of Labor Statistics, 1983; U.S. Bureau of Census, 1983). These changes in the role of the female parent have disrupted traditional family time use patterns. The employed homemaker has assumed the demands of employment while maintaining primary responsibility for household work. As a result, employed women experience an accumulation of role responsibilities which leads to difficulty in fulfilling role obligations (Berk & Berk, 1979; Mirowsky & Ross, 1984; Ross, Mirowsky, & Huber, 1983; Yogeve, 1981). The situation is compounded for women maintaining single parent families.

The employed homemaker's role strain has generated changes in the attitudes of both the homemaker and spouse toward a more egalitarian division of household work, especially in middle class families. However, these changes in attitude have not been transformed into changes in the division of household work among adults (Walker & Woods, 1976). When adults deviate from traditional sex role expectations in the division of household work, the

definition of masculinity and femininity in our culture, and the identity of the adults are threatened. As a consequence, adults are limited in the amount of behavioral change they can tolerate in themselves (Rapoport & Rapoport, 1979). However, parents changing attitudes may be associated with socialization of their children to less traditional roles in the division of household work, because children are more responsive than adults to the process of making behavioral changes through socialization (Lauer & Handel, 1977). The purpose of this study was to determine whether or not there was evidence to support the proposition that children in families with an employed homemaker or single parent are being socialized to sex roles that are less traditional than those of their parents in the performance of household work.

#### Theoretical Base for the Study

Systems theory is the major conceptual framework used in the home management literature. Deacon and Firebaugh (1982), Gross, Crandall, and Knoll (1980), and Paolucci, Axinn, and Hall (1978), key professionals in the home management field, have all subscribed to this perspective. While systems theory has proved useful in explaining the relationships among management functions within the family system and larger environment, it has not incorporated the personal or psycho-social subsystem functions in the transformation of motivation, demands, and resources into outputs of the family system.

Concepts from management theory and role theory were integrated

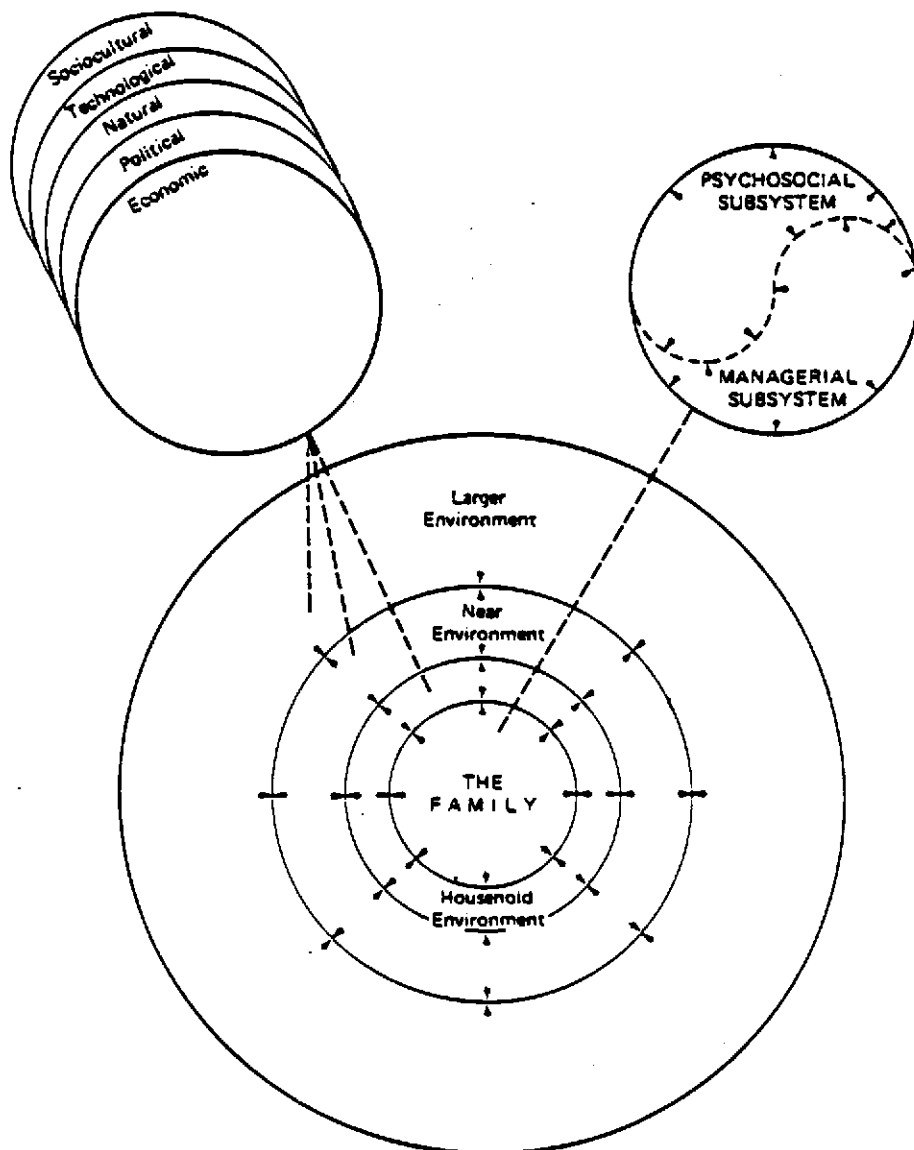
within a systems context to provide an expanded management model for this study. Gross, Crandall, & Knoll's models were used as a base for developing the adjusted model. In Gross, Crandall, and Knoll's view, the family system is composed of a psycho-social subsystem and a managerial subsystem, organized in a yin-yang configuration (figure 1 and figure 2). The yin-yang model conceptualizes the whole as composed of opposites which are inseparable, and interrelated.

Gross, Crandall, & Knoll identify inputs into the managerial subsystem as motivation (values, goals, and standards), which is an internal demand, external demands, and human and nonhuman resources. They identify outputs of the managerial subsystem as met demands, used resources, changed motivation, and satisfaction or lack of satisfaction.

The adjusted model (figure 3) uses the yin-yang configuration with roles as the center. Inputs are separated into external demands and resources, which originate in the environment, and internal demands and resources, which originate within individuals in the family. Internal demands include motivation (values, goals, and standards) as well as sex role expectations learned primarily through early socialization. External demands originate in the environment and include social sanctions used to enforce cultural standards for role performance. Internal resources are human resources of family members, while external resources include both human and nonhuman resources from the environment.

Figure 1

Gross, Crandall, and Knoll's model of the family system, its environments, and subsystems

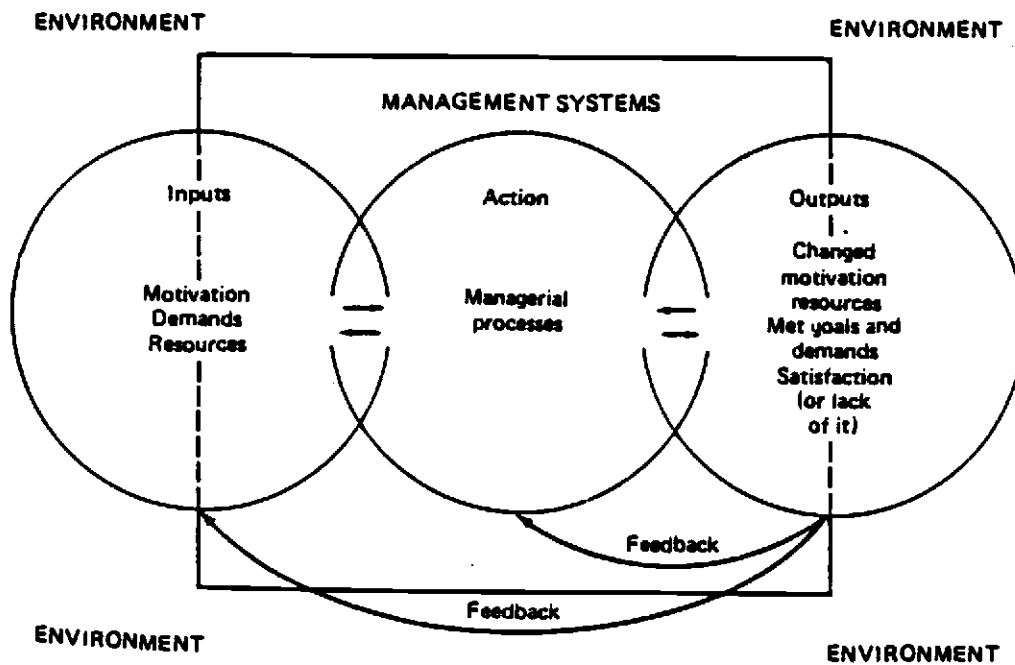


<sup>1</sup> This model is from Management for Modern Families, Gross, Crandall and Knoll, 1980.



Figure 2

Gross, Crandall, and Knoll's model of the managerial subsystem<sup>1</sup>



<sup>1</sup>This model is from Management for Modern Families, Gross, Crandall, and Knoll, 1980.

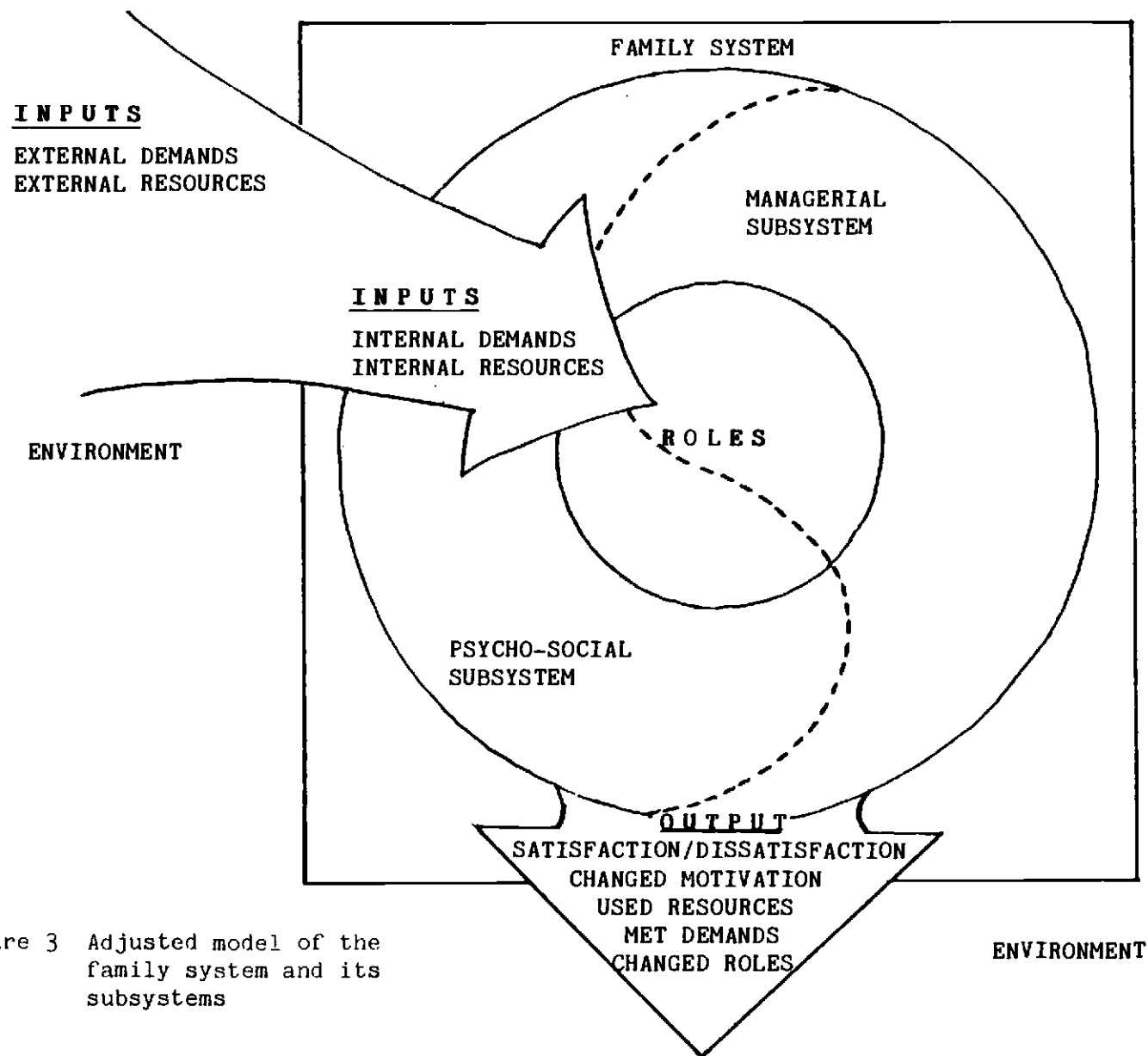


Figure 3 Adjusted model of the family system and its subsystems

External inputs enter the family system from the environment, internal inputs are added, and the inputs are then processed by the managerial and psycho-social subsystems through roles performed by family members. Outputs of the family system are met demands, used resources, changed motivation, changed roles, and satisfaction or dissatisfaction.

Because resources are limited and demands are unlimited, families must use managerial skills to match resources with demands in order to reach personal and family goals. The use of time is a resource in all families (Deacon and Firebaugh, 1975; Gross, Crandall, and Knoll, 1980). How families use this resource to meet their demands is determined, in part, by the allocation of roles. Family members use of time as a resource, in turn, affects the allocation and development of their other resources and the attainment of their goals. This is especially true in the allocation of time for household work.

A model depicting the transformation of demands and resources through the allocation of roles in the family system is presented in figure 4. Cultural standards for role performance, early socialization to sex roles, and motivation (values, goals, and standards) determine the role expectations of family members. These role expectations are modified, organized, and coordinated by family members in an effort to reach role consensus concerning family maintenance roles (provider, homemaker, child care agent). Consensus in dividing family maintenance roles along traditional lines results in clearly defined roles for family members which are in accordance

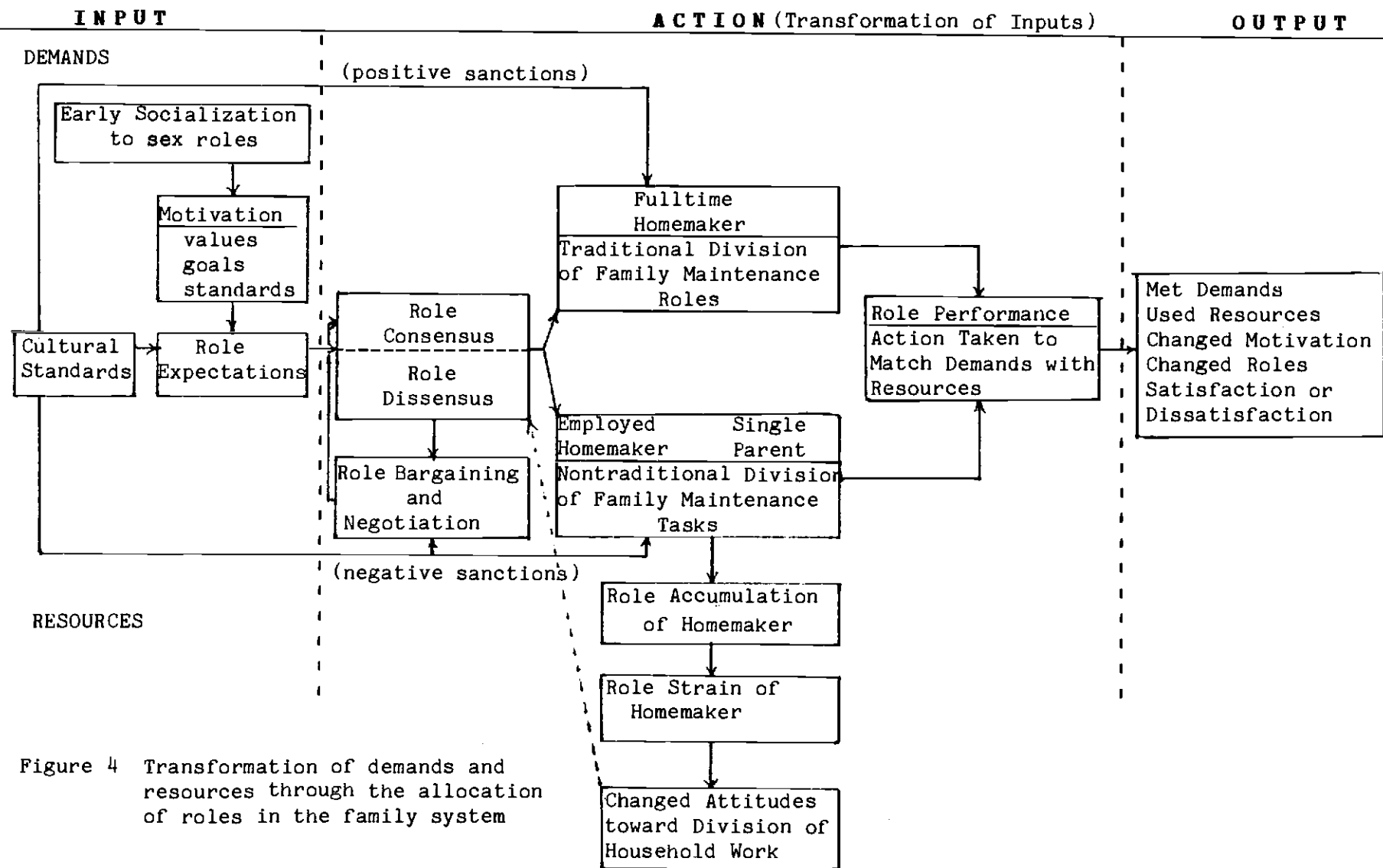


Figure 4 Transformation of demands and resources through the allocation of roles in the family system

with cultural standards. However, when the homemaker is employed or a single parent, non-traditional family maintenance roles are imposed on the family, and role consensus is disrupted. In these families, the homemaker adds the demands of employment while maintaining the primary responsibility for household work. Time-use for household work changes very little for the spouse and/or children when women are employed (Pleck, 1979; Walker & Woods, 1976; Weingarten, 1978). As a result, these women experience an accumulation of role responsibilities which leads to difficulty in fulfilling role obligations (role strain).

The employed homemaker's role strain has resulted in changes in the attitudes of both the homemaker and spouse toward a more egalitarian division of household work, especially in middle class families. However, these changes in attitude have not been expressed in behavior (Paloma & Garland, 1971; Pleck, 1979; Yogev, 1981).

Role dissensus among family members occurs when attitudes toward the division of household work change. Efforts to renegotiate traditional role expectations and reach role consensus are impeded by two factors: negative sanctions from the social network and sex role expectations determined by early socialization (Burr, Hill, Nye, & Reiss, 1979; Lein, 1979). Change in attitude is not expressed as change in sex role behavior because of these intervening variables, which limit the amount of behavioral change that adults can tolerate in themselves. However, changing attitudes of parents would be associated with socialization of their children to less traditional sex roles because children are more responsive than adults to the

process of making behavioral changes through socialization (Lauer & Handel, 1977). Therefore, children would be expected to express less traditional behavior than their parents in the performance of household work.

### Purpose of the Study

Data for an interstate urban-rural comparison of family time use have been compiled by the Northeastern Regional Research Project, NE-113, in eleven states. Researchers using this data to examine school age children's time use on household tasks have found that household tasks are sex related for children, and that the types of tasks performed by school age children are related to the age and sex of the child and the age of the child's sibling (Kennedy, 1981; Lynch, 1975a; O'Neill, 1978; Osborne, 1979). Researchers using NE-113 data have also found that the employment status of the homemaker was not related to differences in school age children's time use (Kennedy, 1981; Walker & Woods, 1976). The California component of the NE-113 data base had not been examined, therefore comparison of school age children's time use in California with that of children in other states had not been possible.

The California sample was also of interest because of the inclusion of unique data. Attitude toward feminism of the homemaker was measured and a single parent component was included in the sample.

The attitude of adults toward more equitable division of household work has not been found to result in corresponding behavior

in adults (Paloma & Garland, 1971, Pleck, 1979; Yogev, 1981). However, the relationships between children's time use and the homemaker's attitude toward feminism have not been studied. The California data were used to investigate these relationships.

The California sample also included a single parent component. Time use for household tasks by school age children in single parent families had not been studied using time diary methodology, however several authors had made assumptions and statements about children's time contributions to household work in single parent families (Buehler & Hogan, 1980; Glasser & Navarre, 1965; Weiss, 1979). In addition, the time use of school age children in single parent and two parent families had not been compared using time diary methodology. Since the single parent segment of the population had grown rapidly (U.S. Bureau of the Census, 1983), and little was known about children's time use in these families, comparisons of time use were made between children from single parent families and children from two parent families.

One question not addressed in any of the NE-113 related studies was whether household tasks are less sex related for school age children than for parents. When children engage in the performance of tasks which are sex related for the opposite sex, there is some evidence that they are being socialized to express more androgynous behaviors in the division of household work as adults (Haas, 1980; 1982).

The purpose of this study was to determine whether or not there was evidence to support the proposition that children were being

socialized to sex roles that were less traditional than those of their parents in the performance of household work. A supportive objective to the purpose of the study was to analyze the time-use data of school age children from California in order to make it available for comparison with the time-use data of school age children from other states participating in the Northeastern Regional Research Project, NE-113: "An Interstate Urban/Rural Comparison of Families Time Use." Specific objectives of this study were to assess whether or not:

1. Type of task and actual or relative amount of time on task were related to sex of child and/or attitude of homemaker toward feminism.
2. The actual or relative amount of time school age children spent on household tasks varied according to the number of parents in the household, and employment status of the homemaker.
3. Parents were more sex segregated than school age children in the performance of household tasks.

### Hypotheses

The following research hypotheses were developed for this study:

1. The type of household tasks school age children engage in is dependent on the sex of the child.



2. The type of household tasks that school age boys perform is dependent on the homemaker's attitude toward feminism.
3. The type of household tasks that school age girls perform is dependent on the homemaker's attitude toward feminism.
4. School age girls spend significantly more time than school age boys on the performance of household tasks.
5. There is a significant difference in the actual amount of time spent on household tasks performed by school age children from single parent families with the parent employed, two parent families with one parent employed, and two parent families with both parents employed.
6. There is a significant difference in the actual amount of time spent on household tasks performed by school age children from single parent families and school age children from two parent families.
7. There is a significant difference in the actual amount of time spent on household tasks performed by school age children from families with a fulltime homemaker and school age children from families with an employed homemaker.
8. There is a significant difference in the mean relative amount of time spent on household tasks performed by school age boys and girls.
9. There is a significant difference in the mean relative amount of time spent on household tasks performed by

school age children from single parent families with the parent employed, two parent families with one parent employed, and two parent families with both parents employed.

10. There is a significant difference in the mean relative amount of time spent on household tasks performed by school age children from single parent families and school age children from two parent families.
11. There is a significant difference in the mean relative amount of time spent on household tasks performed by school age children from families with a fulltime homemaker and school age children from families with an employed homemaker.
12. There is a positive linear relationship between homemaker's attitude toward feminism and the actual amount of time school age children spend on household tasks.
13. There is a positive linear relationship between homemaker's attitude toward feminism and the relative amount of time school age children spend on household tasks.
14. Sex of school age children in single parent families can be predicted by the amount of time these children spend on household tasks.
15. Sex of school age children in two parent families can be predicted by the amount of time these children spend on household tasks.
16. Sex of parents of school age children can be

predicted by the amount of time these parents spend on household tasks.

### Operational Definitions

Actual time: Time measured in number of minutes per day.

Anticipatory socialization: The process of learning the dimensions of a role before being in a social situation where it is appropriate to actually enact the role (Burr, Hill, Nye, & Reiss, 1979).

Attitude: Regularities of an individual's feelings, thoughts, and predispositions to act toward some aspect of his environment (Lauer & Handel, 1977).

Attitude toward feminism: Beliefs about traditional sex-role norms and anti-feminine stereotypes; attitude toward feminism as measured by the FEM scale (Appendix E) (Singleton & Christiansen, 1977).

Family maintenance: Work required for the family to function at the most basic level. Family maintenance tasks are allocated to three roles in the family: provider, homemaker, and child care agent (Kalish, 1982).

Homemaker: The family member with primary responsibility for care and management of the household. Employed homemaker is a homemaker who is gainfully employed for 15 or more hours per week. Fulltime homemaker is a homemaker who is gainfully employed for less than 15 hours per week.

Householder: The first adult household member listed on the census

questionnaire. "The person in whose name the home is owned or rented. If a home is owned jointly by a married couple, either the husband or the wife may be listed first . . ." (U.S. Bureau of the Census, 1983b). Beginning with the 1980 census, the Census Bureau replaced the terms "head-of-household" and "head-of-family" with the term "householder".

Household tasks: Ten household work activities as recorded on the time-use chart (Appendices D and F). The ten tasks are: food preparation, dishwashing, shopping, housecleaning, maintenance (of home, yard, car, and care of pets), care of clothing and household linens, construction of clothing and household linens, physical care of household members, non-physical care of household members, and management.

Household work: "Purposeful activities performed in individual households to create services that make it possible for a family to function as a family" (Walker & Woods, 1976).

Reference group: A social group that is used by the individual as a basis for comparison of himself with others (Lauer & Handel, 1977).

Relative Time: Time measured as a percentage of total time per day spent on all household tasks by all family members.

Role(s): "More or less integrated sets of social norms that are distinguishable from other sets of norms that constitute other roles" (Lauer & Handel, 1977).

Role Accumulation: The total number of roles in a person's role set (Burr, Hill, Nye, & Reiss, 1979).

Role-bargaining: The process of negotiating to reach consensus about role expectations (Lauer & Handel, 1977).

Role dissensus: Disagreement by two or more individuals in their expectations for a role (Burr, Hill, Nye, & Reiss, 1979).

Role diversity: A wide variety of complementary roles in the individual's role set (Burr, Hill, Nye, & Reiss, 1979).

Role enactment/role performance: How well a person performs a role relative to the expectations for that role (Burr, Hill, Nye, & Reiss, 1979).

Role exchange/role-sharing: The process of engaging in role behavior usually assigned to another individual.

Role expectations: Expectations that the person occupying a role will have a particular set of characteristics and/or will behave in a predictable manner (Burr, Hill, Nye, & Reiss, 1979).

Role strain: "The felt difficulty in fulfilling role obligations. The stress generated within a person when he or she either cannot comply, or has difficulty complying, with the expectations of a role or set of roles (Burr, Hill, Nye, & Reiss, 1979).

Sanction: "A mechanism of social control for enforcing society's standards" (Webster's New Collegiate Dictionary, 1974).

School age child: A child between six and eighteen years of age.

Sex related tasks: Household tasks which are usually performed by one sex or the other.

Single parent family: A household unit consisting of one parent and two children.

Social network: The social group to which the individual responds in his or her behavior. The social network is composed of reference groups and significant others.

Spouse: The adult family member who is not the homemaker.

Two-parent family: A household unit consisting of one spouse, one homemaker, and two children.

Urban/rural residence: Urban was defined, in the interstate project, as "cities of 100,000 or more population and the areas surrounding them with populations of 2500 or more" and rural was defined as "areas with a population less than 2500" (Sanik, 1979, p.50).

#### Assumptions of the study

1. The reported time was accurately recorded by the homemaker
2. There were no differences between urban and rural children in time spent on household tasks and type of tasks performed in single parent and two-parent households.

#### Limitations of the Study

1. The dual earner component of the sample could not be studied as separate dual-worker and dual-career groups because work orientation was not measured. Since these groups differ in regard to the demands of work and home, it is possible that the effects of these differences on the division of household labor are distorted or eliminated by combining the groups.

2. The large number of variables in the time-use data and the limited observations per family member are associated with high variance and increased likelihood of type-two errors. Variables which approach statistical significance at the .05 level need to be re-examined in future studies.
3. The sample in this study was restricted to families in one geographic area of California, therefore the findings may not be generalized to other family compositions in other geographic locations.
4. Time use was recorded for children of school age only.

## CHAPTER II

### REVIEW OF LITERATURE

The review of literature is presented in two sections:

Theoretical Aspects of the Use of Time in Household Work, and Research Related to the Use of Time for Household Work. The theoretical framework used in this study will be presented in the first section. Descriptive patterns and related findings of other researchers will be reported in section two.

#### Theoretical Aspects of Use of Time in Household Work

The models used to examine the theoretical aspects of use of time in household work were presented in figures 3 and 4 on pages 6 and 8. These models were developed using Gross, Crandall, and Knoll's (1980) application of systems theory to home management, and role theory.

Using the model in figure 3, the family system is conceptualized as being situated within the larger environment. Inputs into the family system, with its psycho-social and managerial subsystems, originate both in the environment and within individual family members. These external and internal inputs are demands and resources which are processed in the psycho-social and managerial subsystems through roles that family members enact. These family roles are reinforced by early socialization to sex roles (internal demand) and by sanctions from the social network (external demand)



which impose cultural standards for role enactment on family members. Inputs into the family system are transformed in the psycho-social and managerial subsystems and return to the environment as output (met demands, used resources, changed motivation, changed roles, and satisfaction or dissatisfaction). Systems theory and role theory have been integrated in this management model which will be used to examine the allocation of time for household work among family members.

#### The Allocation of Time for Household Work

Families use managerial skills to match resources with demands in order to reach personal and family goals. One of the resources used by all families is time (Deacon & Firebaugh, 1975; Gross, Crandall, & Knoll, 1980). Families' use of this resource to meet the demands of family maintenance has traditionally been determined by the sex roles of family members. The husband has primarily used his time to produce the economic resources needed by the family while the wife has primarily used her time to meet household demands and to develop human resources within the family system (Parsons & Bales, 1955; Slocum & Nye, 1976). Children have modelled their parents role behaviors in the use of time for household work. Girls have performed "female" type household tasks, and they have spent more time on household tasks than boys. Boys have performed fewer household tasks than girls, and these tasks were sex related maintenance tasks, usually performed by adult males (Cogle & Tasker, 1982; Lein, 1979; Lynch, 1975a; O'Neill, 1979; Osborne, 1979; Vanek,

1980).

There is, however, some evidence of erosion of these traditional role models in the use of time for family maintenance. One contributing factor is that the proportion of employed women in the labor force has increased dramatically over the last two decades. In general, the number of all women aged 16 and older employed in the labor force increased from 37.8% in 1960, to 52.2% in 1982. However, most of the increase in the labor force participation of women can be attributed to changes in the employment patterns of women with children. Mothers with school age children increased their rate of employment from 45.7% in 1965, to 65.5% in 1981, but mothers of pre-school children experienced the most dramatic rise in the rate of employment. Their labor force participation rates rose from 25.3% in 1965 to 48.9% in 1981 (U.S. Bureau of Labor Statistics, 1983).

According to systems theory, the increased use of the homemaker's time for paid employment should introduce disequilibrium into the family's time use patterns, especially in families with children. When the homemaker participates in the labor force, some of her time is channeled into the economic system. In return, economic resources are returned to the family system in the form of the homemaker's wages or salary. The family could respond to these changes in resources in a number of ways. Each family member could adjust his or her time use to maintain the previous standards for household work by equitably dividing the total family maintenance work load among family members. Another alternative would be for the homemaker to decrease her time spent on household work and increase

the use of economic resources to buy products and services that would maintain the previous standards for household work. A third possibility would be that the family would adjust its standards and goals so that less time would be allocated to household work.

It appears that none of these propositions fully accounts for what is actually happening in two parent families where the homemaker is employed. Employed homemakers continue to do most of the household work, even when they share the provider role with their husbands. Other family members do not adjust their time use. Husbands devote the same amount of time to household work whether or not their wives work (Walker & Woods, 1976), and while children do respond to the homemaker's employment by increasing their time spent on household work, the absolute number of hours that they contribute remains relatively small (Cogle & Tasker, 1982; Kennedy, 1981; Lynch, 1975a; O'Neill, 1978; Osborne, 1979; Walker & Woods, 1976). Secondly, some employed homemakers do use part of their incomes in exchange for outside help, but economic resources are not used to the degree that they relieve the homemaker from maintaining the primary responsibility for household work (Walker & Woods, 1976; Yogeve, 1981). One reason for this is that economic resources have limited utility in meeting the demands of the household. Human resources are still required to manage economic resources so that purchased goods and services will meet the standards and goals of the family system. Finally, while employed homemakers do allocate less time to household work than fulltime homemakers, their total allocation of time to paid work and household work is considerably greater than that of other

family members (Walker & Woods, 1976; Yogev, 1981).

The family system probably adjusts its standards in response to the employed homemaker's decreased use of time for household work, but studies were not found comparing changes in standards for household work when the homemaker enters the labor force. What is known is that demands (goals and standards) must be matched with resources. When available resources are limited, goals and standards have to be prioritized. Some goals and standards will remain unfulfilled, but this does not necessarily mean that they have changed (Gross, Crandall, & Knoll, 1980; Lauer & Handel, 1977).

In order to understand why the demand for reallocation of time use is not transformed into decreased participation in household work by employed homemakers with a significant increase in participation in household work by other family members, it is necessary to examine roles within the family system (see figure 4, page 8). If a homemaker uses some of her time to meet the obligations of a role (the provider role) usually assigned to another (the spouse), role bargaining for a redefinition of roles with other family members should be the outcome. Because the homemaker adds, rather than substitutes, roles, and there is very little redefinition of the household work roles of other family members, the expected output is not being produced. Apparently there are intervening variables which account for this deviation in the expected outcome.

When a homemaker adds rather than substitutes roles, by entering the labor force, she experiences an accumulation of roles with conflicting cultural demands and incompatible role obligations. The

demands on the homemaker are further intensified because employed women with families deviate from the traditional sex role pattern in the division of family labor. Therefore, cultural expectations for how the various roles of the homemaker should be performed and coordinated are not well defined (Burr, Hill, Nye, & Reiss, 1979).

An example of this is the "double bind" that homemakers experience in trying to fulfill the roles of provider and homemaker simultaneously. If employed homemakers fulfill the normative requirements of caring for the family when an unexpected situation arises (eg. illness of a child), they cause disruption in their place of employment. On the other hand, if they fulfill the normative requirements of the role of employee, they cause disruption to their families (Coser, 1974; Lauer & Handel, 1977).

This difficulty in fulfilling role obligations is defined as role strain (Lauer & Handel, 1977). The homemaker's role strain is compounded when husbands and wives in two parent families disagree about role expectations. The contradictory expectations of multiple roles for women create interpersonal distress as couples struggle to negotiate a role bargain for the division of household work. Efforts to renegotiate traditional role expectations are also impeded by two factors: social sanctions and early socialization to sex roles (Burr, Hill, Nye, & Reiss, 1979).

Even when a role bargain is acceptable to the couple and doesn't cause inconvenience to third parties (reference groups and significant others), these third parties may exert pressure against the bargain, as the couple takes into consideration the perceived

needs of each spouse's social network (Burr, Hill, Nye, & Reiss, 1979). Lein (1979) used intensive interview and observation techniques to study 25 Boston area families with pre-school children. She discovered that men, especially, are subjected to negative sanctions from their social networks when they deviate from traditional expectations concerning the division of household work.

Socialization to sex roles is another factor which contributes to role dissensus between husbands and wives. Researchers have pointed out that socialization into sex roles occurs very early in childhood and several consider socialization to be the main determinant of whether husbands do or do not share household work (Bryson, Bryson, & Johnson, 1978; Perrucci, Potter, & Rhoads, 1978). This childhood socialization differs from adult socialization in that the adult enters the socializing situation with a background of numerous and diverse prior experiences. The child is much more responsive to socialization than the adult is, and early socializing experiences create a sense of self and a sexual identity that constrains later adult interaction and role learning. Furthermore, children's play reinforces sex role learning through anticipatory socialization to future adult sex role behaviors (Burr, Hill, & Nye, & Reiss, 1979).

Adult sex roles must be renegotiated when institutional arrangements are disrupted. "In the division of household labor, what is at stake is the definition of masculinity and femininity in our culture, and the identities of those who do the chores" (Lauer and Handel, 1977). Early socialization and social sanctions both

operate to inhibit changes in the sex role behaviors of adults and as a result, most employed women experience role strain and role accumulation without making the expected demands for re-allocation of family members time-use.

Employed women should respond to role strain through changes in attitude and changes in behavior. Burr, Hill, Nye, and Reiss (1979) maintain that "even a moderate increase in role strain leads to an increase in behavior directed toward a resolution of the condition." Since humans are cognitive beings who strive to make sense out of what they experience (Festinger, 1957), any change in roles would also effect attitudinal change (Lauer & Handel, 1977)

However, researchers who have studied the relationship of attitudes and behaviors have consistently concluded that the former are poor predictors of the latter. There is an apparent disparity between attitudes and overt behavior, with affective and cognitive components always present but behavioral components sometimes lacking or different than anticipated (Ajzin & Fishbein, 1980; Crane & Martin, 1978; Sample & Warland, 1973; Weinstein, 1972). One reason for this discrepancy is that an attitude change is the precursor of behavioral change. Another is that an attitude toward a specific action is not necessarily the same as an attitude toward an issue to which that action is related (eg. a wife may approve of role-sharing yet resist tasks in the home which require mechanical ability). Still another reason for the discrepancy is that the preferred behaviors may be inhibited by other factors, such as limited resources, negative sanctions by the social network, the specific

situation, or other attitudes also related to the situation, which are determined by early socialization, and which take priority (Lauer & Handel, 1977).

There are two ways that the effects of early socialization and social sanctions can be modified, allowing the family system to negotiate and enact more equitable role expectations for family members. One is that role strain in the homemaker might become so severe that it would overcome the inhibiting effects of early socialization and negative sanctions. Either she wouldn't or couldn't perform necessary household tasks, and demand would be created for other family members to participate in household work. The other possibility is that children may respond more directly than adults to their parents changing attitude towards sex roles, since children are more responsive than adults to socialization (Lauer & Handel, 1977). As a result, children's performance of household tasks may be less sex related than their parents. Also, when children engage in the performance of tasks which are sex related for the opposite sex, there is some evidence that they are being socialized to express more androgynous behaviors in the division of household work as adults (Haas, 1980; 1982).

#### The Allocation of Time for Household work in Single Parent Families

While all employed women experience increased demands on their resources by being committed to two activity systems (the economic and family systems), the situation is more extreme for those women



who maintain single-parent families. The characteristics of single parent families are unique in several respects. In the first place, 91% of single parent families with children under the age of 18 are maintained by women. Single parent families also account for half of all families living in poverty, and most important of all, this segment of the population is growing at a phenomenal rate. The number of families maintained by women in the 25-34 age group increased by 170% from 1970 to 1980 (U.S. Bureau of the Census, 1983).

Employed women in two-parent families experience a decrease in time available for household work, but they are rewarded with greater economic resources (Foster, 1981). In the single parent family, the employed homemaker experiences a decrease in both economic resources and her available time for household work, with the loss of the spouse through desertion, death, or divorce. With separation of the spouse from the household, the loss of human resources creates more demand on the single parent's human resources. However, if divorce relieves the stress caused by a dysfunctional marital relationship, the single parent homemaker may experience an increased ability to deal with demands on her time (Weiss, 1979).

In single parent families, resources decrease and demands on the homemaker for family maintenance increase. Demands on the family system need to be prioritized, and many demands may not be met. In addition, available resources from the environment and within the family must be assessed and reallocated to meet the prioritized demands. It is expected therefore that children in single parent

families would use more of their time resource to perform household work than children in two parent families. Only one empirical study was found, related to this proposition. Kalish (1981) interviewed 128 married employed mothers and 102 single employed mothers in Lansing, Michigan using mostly close-ended questions. He found that both married and single employed mothers received considerable help with household work from their children, but that single mothers received no more help than married mothers.

#### Previous Research in the Use of Time for Household Work

Research related to the use of time for household work was initiated in the 1920's. Time diary methodology was introduced by home economists in the 1920's through studies sponsored by the Home Economics' Bureau of the U.S. Department of Agriculture in numerous agricultural experiment stations (Walker & Woods, 1976). The most frequently cited of these studies is Maude Wilson's 1929 study of the time use of 513 Oregon homemakers, which included 288 farm families, 71 country-nonfarm families, and 154 noncountry-nonfarm families. Time-use was recorded for a one-week period by each homemaker (Wilson, 1929). This methodology was revived in the 1960's and 1970's, with time use recorded by the day, rather than the week.

In 1967-68, an extensive household time use survey of 1296 Syracuse, New York households was conducted under the direction of Kathryn E. Walker (Walker & Woods, 1976). Two parent households with children, and two person, husband-wife households were studied, with complete records of time use collected for all family members over

age six. The primary purpose of Walker and Woods research was to test the effect of family composition variables such as the number of children, and age of the oldest and youngest child, on the level of participation in household tasks, and the time contribution to individual tasks by family members. Family size, the age of the youngest child, and employment of wives were found to be significant variables in determining family members time use.

The number of children in the family was the variable most closely related to the total time spent by family members on household work. As the number of children increased, total family household work time increased. Age of youngest child was also associated with total household work time. The greatest amount of average time used for all household work was in families in which the youngest child was a baby. Employment of wives was negatively correlated with total family household work time. This effect was produced by changes in the wife's time spent on household work rather than changes in husbands' or childrens' time use or pattern of activities. Husbands' time for all household work did not vary consistently by number of children, age of youngest child, or employment of wives.

In 1974, Vanek compared time studies conducted over a 50 year period. She reported that factors such as size of household, number of children, and age of youngest child influenced the time spent on household work. Vanek also found that rural homemakers spent about the same amount of time in household work as urban homemakers, but employed homemakers spent less time than fulltime homemakers.

Another approach to the study of time use in household work was taken by Blood and Wolfe (1960) in their classic study of role patterns of husbands and wives. They reported that husbands with employed wives spent relatively more time on household tasks than husbands of non-employed wives. However, evidence from other studies (Pleck, 1979; Walker and Woods, 1976) contradicts Blood and Wolfe's findings. The apparent discrepancy between the findings in these time diary studies and Blood and Wolfe's study can be accounted for by differences in methodology. Blood and Wolfe used relative time (percent) as a measure while the time studies used actual time (number of minutes). Pleck (1979) notes that these differences in methodology created confusion among his colleagues who initially believed that there must have been some error in the interpretation of the time diary data. Both approaches to the measurement of time yield valuable information, but care needs to be exercised so that results of time studies using different methodology are not inappropriately compared.

#### Time Used for Family Maintenance in Two-Parent Families

Dual roles of homemaker and provider have become the dominant pattern for women in two-parent families (U.S. Bureau of Labor Statistics, 1983). In these families, employed wife's contributions through participation in the provider role have made a significant contribution to family economic well-being. Their incomes have generally allowed their families to experience a higher level of living and greater net worth than would be possible with the earnings

of their husbands (Foster, 1981). In 1978 for example, families with both spouses employed in the labor force earned a median income of \$22,109 as compared to a median income of \$15,796 for families where the money income was earned solely by the husband (Bureau of the Census, 1980).

However, it appears that, for intact families, concomitant role shifts in the division of household labor have not taken place. A number of researchers (Pleck, 1979; Slocum and Nye, 1976; Walker and Woods, 1976; Weingarten, 1978) have concluded that there continues to be a rigid traditional division of labor in working class families. Although there appears to be some evidence of role-sharing in young, middle-class families (Haas, 1981, 1982), there is also evidence that the general pattern is for both cohabiting and married young couples to divide household tasks along traditional lines with the women bearing the "brunt of the labor" (Stafford, Backman, & Dibona, 1976, p.54).

Several researchers who have conducted time diary studies (Hall & Schroeder, 1970; Sanik, 1979; Walker & Woods, 1976) have found consistent evidence of three outstanding facts concerning men's household work roles. First, husbands devote very little time to household tasks and childcare compared to their wives. In Walker and Woods 1976 time use study of 1,296 two-parent households in upper New York state, men contributed 1.6 hours per day to these tasks, while employed wives contributed 4.8 hours per day, and housewives contributed 8.1 hours per day.

A second important finding was that husbands of employed wives

did not contribute more time to household work than husbands of fulltime homemakers. Men maintained precisely the same average levels of time (1.6 hours per day) whether or not their wives were employed.

The third finding was that the total number of hours of work (household and other) performed by employed wives was considerably greater than that performed by their husbands. In Walker and Woods (1976) study, wives who were employed 30 or more hours per week spent an average of 10.1 hours per day in total work, while husbands spent an average of 7.9 hours per day.

#### Household Work of Children in Two-Parent Families

When wives work, children, rather than husbands, were found to assume added responsibility for household tasks, although the absolute number of hours that children contributed still remained relatively small (Bhadra, 1981; Cogle & Tasker, 1982; Kennedy, 1981; Walker & Woods, 1976). Overworked parents were also likely to give extrinsic value to the work children did, placing emphasis on getting the job done rather than what the process had to offer the child (White & Brinkerhoff, 1981). Children of working women worked longer hours than other children and were more likely to have been paid for their efforts than children of fulltime homemakers (Tognoli, 1979; White & Brinkerhoff, 1981).

Tasks identified as sex related for children were dishwashing, care of clothing, and meal preparation for girls, and maintenance of home, yard, and car, and care of pets, for boys. The sex typing of

these tasks was found to be consistent with the sex typing of household tasks in adults. Women were responsible for routine home and family care while men did yardwork and repairs, and emptied the trash (Haas, 1980; 1982; Lein, 1979; Tognoli, 1979; Vanek, 1980).

Kennedy (1981), using Northeastern Regional Research Project: NE-113 data from Oregon (N=219 school age children) found that the types of household tasks performed by school age children in two-parent families were related to the age and sex of the child, and the age of the child's sibling. She also reported that "children ages twelve through seventeen and those with younger brothers and sisters over the age of six were more likely to perform household tasks than other children. Older children and girls averaged significantly more time than other children on performance of household tasks" (p.74).

Cogle and Tasker (1982), in a similar study of 115 school age children from urban Louisiana, found that older children participated more often in household work than younger children, girls participated more than boys, and girls rate of participation was greater than boys for all household tasks except maintenance of home, yard care, and care of pets. Girls' rate of participation was considerably higher than boys' for two tasks: dishwashing (49% compared with 25%), and care of clothing (21% compared with 5%). These findings were consistent with earlier research in showing that sex typing was evident in children's participation in household work (Lynch, 1975a, 1975b; O'Neill, 1978, 1979; Walker & Woods, 1976; White & Brinkerhoff, 1981).

### Time Used for Family Maintenance in Single Parent Families

The single parent is usually required to perform both the provider role and the homemaker role. Child support and alimony from the divorced spouse contribute little to the financial well-being of single Parent families (Bureau of the Census, 1980). The financial situation for single parent families maintained by women is further complicated by the differences in earnings distributions of men and women. There are more low earners and fewer high earners among women than men (Henle & Ryscavage, 1980). Female-householder families number only 15.4% of the population, yet they account for 50.2% of all families in poverty (Bureau of the Census, 1982a). Both lack of financial support by the spouse, and the earnings differential between women and men contribute to the high poverty rate for single parent families maintained by women. This restriction in the financial resources of the single parent family increases the demands made on human resources of family members, including the use of time.

Only two studies were found related to time use in single parent families. Liu (1982, used face to face interviews and a time chart to collect time use data from 51 low income, female, single parents from rural, suburban, and urban Michigan. Liu found that most of the homemaker's household work time was spent on food related activities and family care. Very little time was spent by family members on traditionally masculine tasks such as maintenance, outdoor work, and care of the car. However, Liu's sample consisted of low income single women, therefore there may have been little demand for



performance of such tasks (eg. these families may not have owned their own homes or cars). Children's time use was not recorded in this study.

Kalish (1982) compared employed mothers in single parent and two-parent Lansing Michigan families, using a face-to-face structured interview with closed-ended questions. He found that single parent mothers spent more time in employment and less time in household work than mothers in two-parent families, and that mothers in two-parent families, who were employed full time, spent the most total time on overall family maintenance. He also found that children of single parent mothers spent no more time doing household tasks than children of employed women in two-parent families, which contradicts findings from other studies (Buehler & Hogan, 1980; Glasser & Navarre, 1965; Weiss, 1979).

#### Household Work of Children in Single Parent Families

In single-parent families maintained by women, where role strain is likely to be the most extreme, children were found to help more with household tasks than children in two-parent families (Glasser and Navarre, 1965; Buehler and Hogan, 1980). Weiss (1979) studied more than 200 single parents using the interview technique. His results were presented in book form, but data were not reported. Weiss found that in single parent families, even very young children were expected to do household work. They learned to put away their toys, make their own beds, help with the dishes, and prepare their own snacks. These children learned to help because it was essential

to the functioning of the family. Weiss maintains that most single parent families have difficulty in managing a normal routine and that unexpected events force these parents to make demands on their children. He also found that male single parents are much more likely to hire help than female single parents. He believed that males found it easier to hire outside help because their role relationships remained similar to what they had been in marriage and that females were more reluctant to hire outside assistance because part of their accustomed roles had to be relinquished. However, he did not take into consideration the lower economic resources of female single parents.

Weiss reported that almost all single parents replace partnerships with the spouse with partnerships with their children, to some extent. He found that even very young children were able to contribute to household work. Except for families with only one child, parents urged children to participate in household work in all single parent families. In most single parent families, older children were encouraged to contribute to household income, as well as household work.

No information was found in any of these studies concerning the types of tasks performed by children, nor the time spent on specific tasks by children. Neither were there studies of children's time use in single parent families which used the time diary approach.

#### The Attitude-Behavior Gap in the Division of Household Work

The rising population of employed mothers and female single

parents provide some evidence of the erosion of traditional roles in the division of family labor. Even though attitudes about sex roles are changing, the literature related to dual career couples provides evidence that behavior changes in the allocation of time to household work according to sex, have not followed changes in attitude (Paloma & Garland, 1971; Pleck, 1978; Rapoport & Rapoport, 1975; Weingarten, 1978; Yogev, 1981).

Yogev (1981) used questionnaires with closed and open-ended questions to study 106 faculty women in dual career marriages from Northwestern University. She found that these couples were developing changed perceptions and more egalitarian attitudes toward each other, but were not able to translate these impressions into actual behavior. Paloma and Garland (1971), in another study of dual career couples, found that in 38% of the marriages, the husband actually did no household work at all. Other researchers found that the husband's time in household work was not related to changes in the wife's time spent on household work or to her paid employment (Pleck, 1978; Weingarten, 1978). Yogev (1981) used the Rapoport's (1975) concept of "identity tension line" to explain this discrepancy. Apparently, dual-career couples are only able to go so far in acting out their concepts of ideal new sex roles in the division of household work before each reaches a point of feeling a threat to his or her self-esteem and identity.

Another study (Slocum and Nye, 1976), clearly illustrates the attitude-behavior gap. These researchers studied the attitudes of men and women toward the provider and housekeeper roles and found

discrepancies between attitudes and behaviors related to household work. In their sample, 44% of the men and 63% of the women felt that the provider role should be shared, while 70% of the men and 55% of the women agreed that household work should be shared. The researchers noted that attitudes towards household work were not reflected in behaviors and that less than 5% of both sexes believed in, or practiced, equal role sharing. Seventy percent of both sexes indicated that a neat, clean, and orderly house was important and yet neither sex placed a high value on the housekeeper role. Role identification was low for women (only a quarter would be reluctant to hire someone else to do it), as well as men. Also, neither sex seemed to take pride in performing the role, in that only 6% of wives and 5% of husbands rated their performance as extremely good.

Yogev (1981), in her survey of the marital relationships of professional women from Northwestern University, found that the couples in her study were developing ideal new definitions of sex roles but that they felt anxiety about "going too far or achieving too much" in the sharing of housework and childcare responsibilities. The husbands in this study displayed very traditional sex role behaviors, in contrast to their professed egalitarian attitudes. In the 61 families with children, fathers devoted only 1.7 more hours per week to household work than did childless husbands. These men also spent a total of 78.5 hours per week on career, household work, and child care, while their wives spent a total of 108.2 hours per week on these tasks. The women expanded and added new roles but did not relinquish old roles, which served to legitimize their

achievement. These women were socialized to traditional sex roles and had no clear cultural rules for how to combine the traditional role with that of career woman. Yogev believed that these women were undergoing a role expansion process which was taking place in an internal, psychological manner, and that this process might be the first stage leading to changes in sex role behaviors that are beyond the capabilities of the current generation of professional women but within the capabilities of the next generation.

#### Action Which Leads to Changes in the Division of Household Work

A number of other studies have provided evidence that employed women who experience role strain can overcome the inhibiting effects of early socialization and negative social sanctions, and take action which leads to changes in the division of family labor. Rice (1979), in his book about marital psychotherapy with dual career couples, observed that men did not change in terms of sharing more of the load around the house until they were forced to by demands in the household. When the homemaker was unable or unwilling to perform tasks, the need for performance of these tasks resulted in other family members assuming a greater share of household work. In another study, researchers who interviewed more than 200 black families in Northern and Southern regions of the United States (Willie, 1976; Willie, 1981; Willie & Greenblatt, 1978), found that there was a tendency for spouses to have assigned roles in working class black families, but in times of crisis, which were often, household work had to be shared, and all family members engaged in

role exchange. Other studies of black families have yielded similar findings (Mack, 1978; Middleton & Putney, 1960; Ten-Houten, 1970).

A recent study based on a nationwide survey of 680 married couples, was reported at the annual meeting of the American Association for the Advancement of Science, by researchers John Mirowsky and Catherine E. Ross (1984). They concluded that husbands and wives were most satisfied and least depressed when they both had full time employment and they also shared routine household tasks and child care. Mirowsky and Ross found that, at first, these homemakers tried to adjust to the added responsibilities of employment by shifting some of their household responsibilities onto older children and changing their standards for household work. In time, however, they pressured their husbands to help with household tasks. At first, the husbands resisted, but when the homemakers forced the issue, the husbands conceded to their wives demands.

#### Role-Sharing. . .the Ideal

Haas (1980, 1982) studied couples whose attitudes and behaviors actually were expressed in role-sharing. She selected 31 qualifying couples from a sample of 154 Madison, Wisconsin couples who were thought to share roles. Haas conducted three, one-and-one-half hour interviews with each spouse in addition to providing each couple with a time diary instrument, and a mail-in attitude questionnaire. She found that over two-thirds of the husbands had had early socializing experiences that included performing traditionally feminine household tasks and that over one-half indicated that they had engaged in at

least as many "feminine" household tasks as "masculine" household tasks. These couples also had unconventional friends who were attempting role-sharing lifestyles and who served as a source of social support for their non-traditional sex role behaviors. In effect, this select group may project attitudes and behaviors that are predictive of what we may expect from a future generation of adults.

Almost all of the couples in the sample reported that they did not adopt role-sharing in response to an ideological commitment toward sexual equality, but rather as a practical way of dealing with issues related to role strain in the working wife (p. 291). These couples reported that the greatest difficulties that they experienced in sharing roles were: disinclination to do non-traditional household tasks, discrepancies in housekeeping standards, the wife's reluctance to delegate domestic responsibility, and lack of non-traditional domestic skills. The resolution of the problems experienced by role-sharing couples in this study demanded their wholehearted commitment to the lifestyle.

#### Summary

According to home management theory, the outcome of a homemaker's employment in the labor force should be a re-allocation of time spent on household work among all family members. However, when this reallocation is not observed, role theory is useful in explaining why the expected outcome is resisted by family members. Even when adults accept the need to redefine roles, they have

difficulty in translating their attitudes into appropriate behaviors. This occurs because they have been socialized to believe that household work is "woman's work." When adults deviate from traditional sex role expectations, their self-esteem and identity are threatened, and they experience negative sanctions from their social networks. Severe role strain in the homemaker would probably be necessary before the inhibiting effects of early socialization and peer pressure could be overcome, allowing adults to re-define their role expectations so that demands in the household would be met with a more balanced use of family resources.

While all employed women experience role strain, the situation is compounded for women maintaining single parent families. The female single parent is more likely than the homemaker in a two parent family to experience severe role strain due to her increased demands and decreased resources. Therefore, theory would lead home management specialists to predict that time spent on household work would be more evenly divided among family members in single parent families than in two parent families.

Adults seem to be limited in the amount of behavioral change they can tolerate in themselves. However, changing attitudes of parents may be associated with socialization of their children to engage in androgynous behavior in the performance of household work. Therefore, children may express less traditional sex role behavior than their parents in the performance of household tasks.



## CHAPTER III

### METHODOLOGY

This study was designed to examine the sex roles of school age children, as expressed through the performance of household work in different family structures. In addition, the time use of school age children in California was analyzed and compared with time use of school age children in other states participating in the Northeastern Regional Research Project, NE-113. The California component of the NE-113 project was of particular interest because it contained unique data: a single parent sample, and an attitude toward feminism scale which was administered to the homemaker in each household in both the single parent and two parent samples.

#### Description of the Sample

The data used for this study were collected in California as a component of the Northeastern Regional Research Project NE-113: "An Interstate Urban-Rural Comparison of Families' Time Use." This eleven state project was coordinated by Kathryn E. Walker, the project's principle investigator, through Cornell University in New York. Collection of the California data was supported by the California Agricultural Experiment Station at the University of California at Davis. The objectives of the study were to establish a data bank on the use of time by urban and rural families, and to compare time use by urban and rural families in different geographic

areas of the United States.

In a previous time study of New York families, by Walker and Woods (1976), the number of children and age of youngest child were found to significantly affect families' time use. These variables were controlled, in the NE-113 regional project, so that other variables in families time use could be examined more effectively.

Family size was controlled, in the interstate project, by limiting the sample to two-parent, two-child households. Urban and rural samples were then stratified into five groups according to the age of the youngest child in years: under one, one, two-five, six-eleven, and twelve-eighteen. Random selection was then used to assign 21 families to each of the ten cells (urban/rural residence by age of the youngest child):

<u>Age of youngest child</u>	<u>Number of urban families</u>	<u>Number of rural families</u>
<1	21	21
1	21	21
2-5	21	21
6-11	21	21
12-17	21	21

The geographical area selected for data collection for the California sample of households included the Sacramento metropolitan area for the urban sample and Sacramento, Yolo, and parts of Sutter and Solano counties for the rural sample. United States Census Bureau guidelines were used to define and select these sites.

In the urban area, a list of two-parent, two-child households

was assembled from names and addresses drawn randomly from city directories. A letter was sent to each address with a return postcard enclosed and the respondent was asked to identify the size and composition of the household. Follow-up mailings were sent to each household that failed to respond to the first letter and the general mailing was repeated several times in order to find eligible households. Eligible families, based on number and ages of children, were then selected using the data supplied by the respondents and an interview was attempted with each household that appeared to be eligible.

Since the response rate was low for families with children one year of age or younger, even after follow-up mailings, birth records of Sacramento County were used to identify potential households with children in the two age groups. A supplemental mailing with a return postcard was made to these households, and the returned postcards were then used to select eligible families to participate in the study.

The rural sample was selected in much the same way as the urban sample except that city street directories were not available for rural areas and rural telephone directories were used instead. All names listed in the telephone directories were used in the general mailings. When additional eligible households were required for the rural sample, they were obtained by expanding the geographic area included in the mailings.

There were few single parent, two-child families with children one year of age or under, and very few single parent, two-child

families in rural areas, therefore the single parent sample was drawn primarily from the population of urban households with children over one year of age. Word of mouth, advertising, and other general methods of solicitation were used to recruit participants. The number of families in each of the five cells for this sample (urban residence by age of youngest child) were:

<u>Age of youngest child</u>	<u>Number of families</u>
<1	8
1	7
2-5	17
6-11	28
12-17	20

The total number of families in the single parent sample was 80.

Deviation from the established procedural guidelines for selecting the samples for the NE-113 project, and the less than totally random method of sample selection, both limit the extent to which the single parent data can be generalized. Despite this limitation, the data are useful for the purposes of this study which are exploratory in nature.

Completion rates for the interstate study were determined by using the proportion of those households that were eligible and comparing them to those households that completed the interviews. Completion rates for the subsamples in the California portion of the study were: 66% for two-parent urban families, 62% for two-parent rural families, and 79% for single parent families.

The final California sample consisted of 210 two-parent, two child families equally divided by area of residence (105 urban and 105 rural) and 80 single-parent, two-child families from predominantly urban households. For this research project, a subsample of households with at least one child of school age (6-17 years of age) was selected from the final California sample of the Northeastern Regional Research Project NE-113. The rationale for selecting this subsample was that no time-use data had been collected for children under the age of six.

The single-parent component of the subsample for this study included 64 households with school age children from the total sample of 80 single-parent households. There were 16 households with one school age child and 48 households with two school age children. The 78 two-parent households, and 15 single parent households with two children under the age of six were excluded from the subsample selected for this study.

Urban and rural components of the subsample were combined for the analysis of data as no significant relationship between location of residence and family time use was found in at least two studies using time use data. Kennedy (1981) studied the Oregon portion of the NE-113 project and found that there were no significant differences ( $N=219$ ;  $P>.05$ ) in either the mean amount of time spent on household tasks or in the types of household tasks performed by school-age children according to urban or rural residence. In addition, Walker and Woods (1976), in their study, found that urban or rural residence had no measurable effect on household production

time (p. 253).

### Description of the Instruments

Three instruments were used for collection of data: (1) a nine-page survey questionnaire, (2) a time-use chart, and (3) a twenty-item attitude toward feminism scale (FEM Scale). The questionnaire was used to collect information about each household's demographic characteristics, housing environment, use of household help other than family members, and other variables that might have affected the family's time use while data were being collected. The survey questionnaire was developed and pre-tested at Cornell University (Sanik, 1979) and was designed so that it could be coded by hand or by computer scanning equipment (McCullough, 1980). The questionnaire for the NE-113 project was similar to the one used in the 1967-68 time study conducted in New York State (Walker & Woods, 1976). The time-use charts provided space for recording household activities in 18 predefined categories, in intervals of five minutes or longer, during 24 hour periods. The attitude toward feminism (FEM) scale, developed by Smith, Feree, and Miller (1975), contained 20 items which respondents answered using a Likert-type scale (highest score was 5 and lowest score was 1 for each item). Copies of the three instruments used in this study have been placed in Appendix B (questionnaire), Appendix D (time-use chart), and Appendix E (FEM Scale).

The reliability and validity of time diary data have been studied by John Robinson (1977a, 1977b). As evidence for

reliability, he found that similar results came from different studies and that a high level of congruence in results was obtained from both national and cross-national samples (.95 correlation, using Yule's  $y$ ). Robinson also reported that three methods of assessing the validity of time diary data have been used: (1) wearing a beeper to remind the respondent to stop and record activities at random intervals during the measurement day, (2) intensive recording of time use during a random hour during the measurement day, and (3) using television cameras to record activity during the measurement day. He noted that there were discrepancies in recording time at the individual level but that recorded activity patterns were very similar to videotaped behaviors at the aggregate level.

The reliability and validity of the FEM Scale were tested by its developers, Smith, Feree, and Miller (1975) based upon the responses of 100 Harvard Summer School students. The reliability of the mean of the items on the FEM Scale was .90. The validity of the FEM Scale was tested by correlating it with involvement in the Women's Movement ( $r=.629$ ;  $p<.01$ ), and an eleven item inventory of feminist activities ( $r=.392$ ;  $p<.01$ ), the Rotter I-E Scale ( $r=.048$ ; n.s.), and the Rubin-Peplau Just World Scale ( $r=.238$ ;  $p<.05$ ).

Other researchers (Singleton and Christiansen, 1977) noted that the construct validation of the FEM Scale was based on a sample that was too small and too homogeneous for adequate testing. They determined the construct validity by factor analysis and scores on measures of anti-black prejudice, dogmatism, and identification with the Women's Movement. In addition, they compared scores obtained

from the National Organization of Women with scores of a sample of anti-feminist teachers and scores of members of Fascinating Womanhood study groups. Singleton and Christiansen concluded from these findings that the 20 item version of the FEM Scale was the shortest, most reliable measure of "sexist" or "feminist" attitudes currently available.

#### Procedure for Collection of Data

In order to ensure consistency in data collection techniques, interviewers were trained with a manual of procedures and a video cassette training program developed by Cornell researchers. Other efforts to control uniformity of results included defining and categorizing the activities to be recorded on the time charts before the data were collected (see Appendix F). Scheduling of interviews was controlled so that each day of the week and three segments of the year (January-April, May-August, September-December) were equally represented in each family stratum, in both the urban and rural areas. Because time use was recorded for children of school age only, families having no school age children were deleted from the sample used for this study. As a result, day of week and season of year were not equally represented for each category of school age children. There is no reason to believe, however, that any one day or season of the year was overrepresented in the sample of school age children.

The data were collected using two personal interviews with the homemaker (person primarily responsible for care and management of



the home, regardless of sex) in each household. During the first interview, instruments and procedures were explained to the homemaker, a section of the survey questionnaire was administered, and one time chart was completed by the homemaker with assistance from the interviewer. The homemaker was asked to recall and record the previous day's activities for all family members age six years or older. A second time chart was then left with the homemaker with instructions to record the next day's activities for all family members six years of age or older, and a second interview was scheduled for two days later. The interviewer returned at that time to collect the previous day's time chart, to administer the rest of the survey questionnaire and the FEM Scale, and to review the time chart for errors or omissions. The collected data were then edited, coded, and recorded on a computer tape.

#### Identification of Variables Used in the Study

The following variables were used for the analysis of the household tasks children engage in, and the time children spend doing those tasks:

1. Age of child
2. Homemaker's score on the FEM Scale
3. Employment status of homemaker
4. Number of adults in the household
5. Number of adult earners in the household
6. Sex of child performing tasks
7. Time spent on household tasks by adults

8. Time spent on household tasks by children
9. Type of household tasks performed by children and adults.

#### Analysis of the Data

The time recorded for each person in the NE-113 project included primary, secondary, and travel time. Primary time was time spent on the principle activity being engaged in when time-use was recorded. Secondary time was time used to complete activities performed simultaneously with the principle activity. Primary and secondary time were differentiated in order to avoid having recorded time for one day exceed 24 hours (1440 minutes). Secondary time was omitted from this study, so that results could be interpreted within the context of a 24 hour (1440 minute) day. Travel time was defined as the time required to travel to and/or from a time-use activity. Time data used in this study were the average (mean) of primary plus travel time for the two days of recorded time-use.

In this study, only one time-use score was used for the children in any one family for the Pearson product-moment correlation, analysis of variance, and multivariate analysis of variance, in order to avoid overrepresentation of families with two school age children vs. families with one school age child. The mean children's score was used for families with two school age children of the same sex and the single score was used in families with one school age child. In families with two children of opposite sex, the scores of the female child and male child were used alternately (the other child's

score was disregarded). Scores of all children in families with either one or two school age children were used for chi-square analyses, and scores of children and parents from families with two school age children were used for the discriminant function analyses. A flow chart outlining the organization of samples and subsamples used for the various analyses in this study is presented in figure 5.

Several analyses use both actual and relative time spent on household tasks as dependent variables. Actual time spent on household tasks was determined to be the mean number of minutes per day spent on each task over the two day measurement period. Relative time was calculated by dividing the time spent on household tasks by children by the total time per day spent on all household tasks by all family members.

In this study, those persons working 15 or more hours per week for pay were considered to be employed. Those working less than 15 hours per week were categorized as fulltime homemakers or nonemployed spouses. These categories are based on research conducted by Walker and Woods (1976), in which they analyzed the distribution of time spent on household work by hours of employment of the homemaker. In their study, Walker and Woods determined that homemakers employed less than 14 hours per week had time patterns similar to those of homemakers who did not work for pay at all, and that 15 hours of paid employment per week was the most appropriate cutoff point for determining employment status.

The California sample of the NE-113 project included the administration of a 20-item attitude toward feminism scale

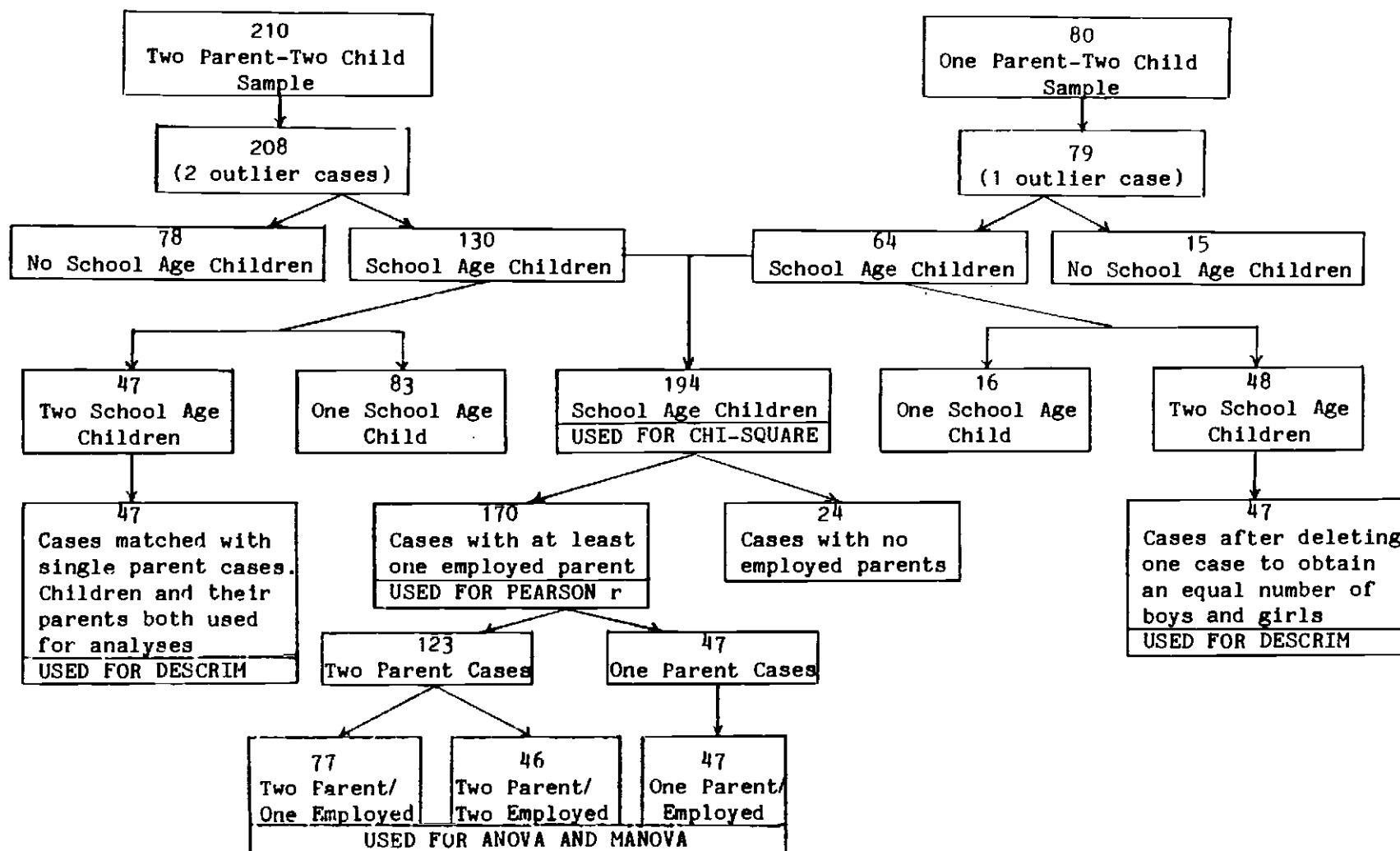


figure 5 Organization of the Northeastern Regional Research Project, NE-113, California samples into subsamples used for this study

(FEM Scale) as supplementary data, with responses recorded on a Likert-type scale (highest score was 5 and lowest score was 1). The overall mean for the 20 items was first calculated for each respondent in the sample. Mean scores equal to, or greater than, 3.75 were categorized as "high" attitude toward feminism, those equal to or less than 3.25 were categorized as "low" attitude toward feminism, and all other scores were categorized as "neutral" attitude toward feminism. This division was based on using the top 25% of the scores for the high category, the lowest 25% of the scores for the low category, and the middle 50% of the scores for the neutral category. If an individual question on the 20-item scale was not answered, the response was coded as "undecided" and given a value of 3. Overall mean scores and categorized scores were both used in the statistical analyses.

The chi-square test of independence, multivariate analysis of variance (MANOVA), analysis of variance (ANOVA), Pearson's product moment correlation, and stepwise discriminant function analysis were used in the statistical analysis of the data. The probability level for all statistical tests was set at  $p < .05$ .

### Statistical Procedure

Chi-square test of independence. The chi-square test of independence was used to determine whether or not performance of ten household tasks by school age children was independent of (1) the sex of the child, and (2) the categorized FEM Score of the homemaker. The chi-square analysis uses contingency tables to compare

frequencies actually observed in a sample with expected frequencies generated by a mathematical formula. A standard statistical table with critical values of the chi-square distribution is used to compare observed with expected frequencies for statistical significance. When the observed frequencies are significantly different from the expected frequencies, the null hypothesis is rejected (Joseph & Joseph, 1979).

Analysis of variance. Separate 3x2 analyses of variance (ANOVAS) were conducted for each of the ten household tasks by sex of child and family composition. These ANOVAS were used to determine significant differences in the mean relative time spent by school age children on household tasks when categorized by sex of child, number of adults, and number of adult earners in the family. Two planned comparisons were also conducted to examine differences between groups with one and two parents and groups with fulltime and employed homemakers.

The analysis of variance uses an F value for the main effect of each independent variable, for the interaction effects between the independent variables, and for group comparisons. The F value is calculated using the ratio of the mean square between groups to the mean square within groups. A standard statistical table with critical values of the F distribution is used to evaluate the significance of the F values. When the F statistic exceeds the critical value at a specific probability level, the null hypothesis is rejected. Proportion of variance accounted for is calculated using  $\text{Eta}^2$ .

Multivariate analysis of variance. The multivariate analysis of variance (MANOVA) is generalization of analysis of variance to research questions which involve several dependent variables. In a sense, a new dependent variable is formed using the best linear combination of all dependent variables. The advantage of MANOVA over a series of ANOVAS is that the MANOVA may reveal differences not shown in separate ANOVAS (Tabachnick & Fidell, 1983). As in ANOVA, MANOVA uses an F value to test the main effects, interaction effects, and group comparisons. However, in MANOVA, Wilks' lambda is calculated to determine proportion of variance not accounted for, and then the formula,  $\eta^2 = 1 - \text{lambda}$ , is used to calculate the proportion of variance accounted for by the linear combination of dependent variables.

Pearson's product moment correlation. Pearson's r was used to determine the magnitude, direction, and significance level of the relationship between the relative time spent on household tasks by school age children and the homemaker's attitude toward feminism score. The correlation coefficient is compared with criterion values for Pearson's r in a standard table to determine statistical significance. If the correlation coefficient exceeds the criterion value in magnitude for the predetermined significance level, the null hypothesis is rejected.

Stepwise discriminant function analysis. Three stepwise discriminant function analyses were used to determine the best combinations of household tasks which could be used to predict the sex of: (1) children from two-parent families, (2) parents of these

children, and (3) children from single parent families.

The sample for this study was reorganized for the stepwise discriminant function analysis. The single parent sample consisted of 16 families with one school age child and 48 families with two school age children. Only those families with two school age children were used in this analysis. Of those single parent families with two school age children, there were 29 with same-sex children (14 sets of females and 15 sets of males), and 19 with opposite sex children. Analysis of group overlap in discriminant function analysis is most efficient when the N's for the groups are equal, or nearly equal. For the purposes of this analysis, one family with two male children was eliminated from the sample by random selection. The resulting single parent sample then consisted of 47 families with 47 male children and 47 female children. The single parent sample was then matched with 47 two-parent families with two-children to form the two-parent component of the overall sample for the discriminant function analysis (figure 5, page 56).

The primary uses of discriminant function analysis are to find the "dimension or dimensions along which groups are maximally different and to predict group membership on the basis of those predictor variables used to create the dimensions" (Tabachnick & Fidell, 1983). In this study, the predictor variables were actual time spent on household tasks, and group membership was sex of child or parent. The variables (household tasks) which were the best predictors of sex were considered to be sex related tasks.

Another unique feature of discriminant function analysis is that



it can be used to determine "group overlap." In this study, predicted sex can be compared with actual sex. Errors in prediction are termed "group overlap". The main objective of using discriminant function analysis in this study was to use group overlap to determine differences among children in two-parent families, parents of these children, and children in single parent families in terms of which group was the least, and which was the most, sex segregated in the amount of actual time spent on sex related tasks.

Stepwise discriminant function analysis is used to enter the predictor variable that accounts for the most variance into the prediction equation first. Variables are then added, in the same manner, a step at a time, until no further useful information can be obtained by the entry of another variable. The stepwise technique, whether in multiple regression or discriminant function analysis, is usually used to develop a subset of independent variables that is useful in predicting the dependent variables, and to eliminate those independent variables that do not add prediction to the basic subset of independent variables (Tabachnick & Fidell, 1983).

Univariate  $F$  ratios are used in discriminant function analysis to determine whether or not a predictor variable should enter the discriminant function. In this study, the Statistical Package for the Social Sciences default value of 1 was used for  $F$  to enter the discriminant function, rather than the critical value of  $F$  at the .05 level. Using the  $F$  value of 1 allowed a broader interpretation of the predictor variables but did not change the basic results of the three analyses. The analyses were also run using the critical value

of F at the .05 level, in order to check differences in running the analyses both ways. Fewer predictor variables entered the discriminant function and accuracy of classification was lower when the value of F-to-enter was set at the .05 level. A summary of results of the discriminant function analyses with the F-to-enter set at the .05 level is included in Appendix G. Chi-square values are used in discriminant function analysis to evaluate statistical significance, and the square of the canonical correlation is used to determine the variance accounted for by the discriminant function.

Use of weights. The data for the NE-113 project were collected using the stratified random sampling method. Since the data were stratified into equal numbers of respondents, according to several categories, the random sample is representative of the composition and area of residence of the population from which it was drawn, and not necessarily the larger population. In order to generalize from the sample to a larger population, the sample data needed to be weighted in order to balance the actual representation of each household category in the sample with its relative representation of such households in the population. In effect, the sampling weights adjusted the relative proportions of sample families in the different categories so that they were the same as the relative proportion in the populations.

The weights for the California sample were obtained from the 1976 Annual Housing Survey of the Sacramento SMSA as compiled by the U.S. Bureau of the Census. The Standard Metropolitan Statistical Area (SMSA) included Sacramento, Placer, and Yolo counties. The

values for the weights were:

<u>Age of Youngest Child</u>	<u>Urban</u>	<u>Rural</u>
Under 1	1.1348	0.4263
1	0.4136	0.4206
2-5	0.9796	1.2986
6-11	1.3376	1.4649
12-17	1.1343	1.3196

## CHAPTER IV

### FINDINGS

The results of this research will be presented in five sections in this chapter. Each section will include research hypotheses restated in null form, a brief description of analyses used to test the null hypotheses, the results, and a comparison of the results with previous research.

#### Type of Household Tasks performed by School Age Children

The chi-square test of independence was used to test the first three null hypotheses to determine whether or not ten household tasks performed by school age children were independent of the sex of the child and the attitude toward feminism of the homemaker. The sample for hypothesis testing, using chi-square analyses, was drawn from the 194 families with school age children (figure 5, page 56). Each analysis was run using the Statistical Package for the Social Sciences program for chi-square. Separate chi-square analyses were run for each of the ten tasks, using 2x2 contingency tables for the task by sex of child and 3x2 contingency tables for the task by attitude toward feminism of the homemaker. The results for each task by the sex of child are given in Table 1, and results of each task by attitude of homemaker, by sex of child, are given in Tables 2 and 3 (pages 69, 70, and 71). A summary table of the results of all chi-square analyses is presented in Table 4 on page 72. Chi-square

values are reported using the  $X^2$  symbol, followed by degrees of freedom enclosed in parentheses.

$H_0^1$ : Type of household task school age children engage in is independent of the sex of the child. (Hypothesis rejected)

The chi-square analysis was performed for each of the ten household tasks. Statistically significant values were found between the sex of the child and:

Food preparation,  $X^2(1)=18.442$ ,  $p=.001$

Dishwashing,  $X^2(1)=23.539$ ,  $p=.000$

Shopping,  $X^2(1)=4.649$ ,  $p=.035$

Housecleaning,  $X^2(1)=14.505$ ,  $p=.001$

Care of clothing and linens,  $X^2(1)=5.023$ ,  $p=.025$

Nonphysical care,  $X^2(1)=9.010$ ,  $p=.003$

When observed frequencies were compared with statistically generated expected frequencies, girls were observed to participate more frequently than would be expected in all six tasks having statistically significant chi-square values. Boys participated less frequently than expected in each of these tasks. A chi-square value could not be calculated for one of the ten tasks, construction of clothing and household linens, due to the infrequency of task performance by both sexes (Table 1).

These data were compared with NE-113 data from Oregon (Kennedy, 1980), New York (O'Neill, 1978), and Utah (Osborne, 1979) and similarities in the findings were evident among the studies. Generally, there was agreement among all four states that children are most likely to participate in five household tasks: food

preparation, shopping, housecleaning, maintenance tasks, and dishwashing (Table 35, page 133). There was also agreement that girls participate more than boys in most household tasks.

Lynch (1975), O'Neill (1978), and Osborne (1979) found that food preparation, dishwashing, and housecleaning were sex related tasks for girls (sex related tasks are those tasks primarily performed by one sex or the other). In Kennedy's study, however, only dishwashing and clothing care and construction were sex related tasks for girls, and no tasks were found to be sex related for boys. The results for the four tasks found to be sex related for girls in the previous studies were replicated in this study. In this study, however, two additional tasks were found to be sex related for girls: shopping and nonphysical care of household members. No tasks were found to be sex related for boys in this study, as was true for the boys in Kennedy's Oregon study.

$H_0^2$ : The type of household tasks that school age boys perform is not dependent on the homemaker's attitude toward feminism.  
(Hypothesis rejected)

Children were grouped according to their mothers' FEM Score for the chi-square analyses used to test hypotheses two and three. The "high" group had mothers with scores which ranged in the top 25% of all FEM scores, the "low" group had mothers with scores in the bottom 25%, and the "neutral" group had mothers who scored between the "high" and "low" groups. Boys participation in two tasks, food preparation and maintenance was significantly related to the homemaker's attitude toward feminism at the .05 level. Chi-square values for the two tasks were:

Food preparation,  $\chi^2(2)=6.535$ ,  $p=.041$

Maintenance,  $\chi^2(2)=9.007$ ,  $p=.012$

For food preparation, boys were observed to participate less frequently than expected when the homemaker was in either the high or low FEM score group, and more frequently than expected when the homemaker was in the neutral group. In contrast, boys participated in maintenance tasks more frequently than expected when the homemaker was in either the high or low FEM score groups, and less frequently than expected when the homemaker was in the neutral group. In this study, whether or not boys participated in food preparation and maintenance depended on the homemaker's attitude toward feminism, but there were no consistent patterns of relationship between boys performance of these two tasks and the homemaker's FEM score (Table 2).

$H_0^3$ : The type of household tasks that school age girls perform is not dependent on the homemaker's attitude toward feminism. (Hypothesis rejected)

Girls participation in two tasks, maintenance and care of clothing and household linens was significantly related to the homemaker's attitude toward feminism. Chi-square values for these tasks were:

Maintenance,  $\chi^2(2)=12.148$ ,  $p=.001$

Care of clothing and linens,  $\chi^2(2)=10.551$ ,  $p=.002$

The relationship was curvilinear for the maintenance task, with girl's observed frequency of participation higher than would be expected when the homemaker was in the highest and lowest FEM score groups and lower than would be expected when the homemaker was in the

neutral group. A different relationship was found for girls participation in care of clothing and household linens. Girls participated more frequently than expected when the homemaker's FEM score was in the highest group and less frequently than expected when the homemaker's FEM score was in the neutral range. Observed and expected frequencies were equal when the homemaker's FEM score was in the lowest group.

Chi-square values could not be calculated for two tasks, construction of clothing and household linens, and physical care of household members, because the level of participation in these tasks for both boys and girls produced expected values that were inappropriate for analysis (Tables 2 and 3).

The results of these analyses (Table 4) provide evidence to support the hypotheses that the type of household task that school age children engage in depends both on the sex of the child and the attitude toward feminism of the homemaker. There was more support for the relationship between sex of child and type of task than for the relationship between attitude toward feminism of the homemaker and type of task performed by school age children. In addition, a consistent pattern of greater frequency of participation by girls was evident in the relationship between sex of child and type of task, while no consistent patterns were found in the relationships between attitude toward feminism of the homemaker and type of task performed by school age children.



TABLE 1 PARTICIPATION OF SCHOOL AGE CHILDREN IN TEN HOUSEHOLD TASKS AND THEORETICAL EXPECTED FREQUENCIES BY SEX OF THE CHILD<sup>a</sup>

Tasks	Boys (N=169)		Girls (N=156)		Total Children (N=325)	$\chi^2$	df	Statistical Significance
	O	(E) <sup>b</sup>	O	(E) <sup>b</sup>	O			
Food preparation	74	(95)	110	(88)	184	18.442*	1	p=.001
Dishwashing	38	(78)	78	(56)	116	23.539*	1	p=.000
Shopping	71	(79)	87	(77)	158	4.649*	1	p=.035
Housecleaning	59	(76)	91	(73)	150	14.505*	1	p=.001
Maintenance	69	(68)	65	(66)	134	.030	1	p=.977
Care of clothing and household linens	16	(23)	29	(22)	45	5.023*	1	p=.025
Construction of clothing and household linens	1	(6)	9	(6)	10	Expected frequencies too low to calculate chi-square		
Physical care of family members	13	(10)	5	(9)	18	3.202	1	p=.084
Nonphysical care of family members	16	(25)	33	(24)	49	9.010*	1	p=.003
Management	14	(16)	18	(15)	32	0.921	1	p=.485
Mean number of tasks	2.2		3.4		2.8			
TOTAL	371		525		896			

<sup>a</sup>Weighted data

<sup>b</sup>E=theoretical expected frequency

\*significant  $\chi^2$  value

TABLE 2 PARTICIPATION OF SCHOOL AGE BOYS IN TEN HOUSEHOLD TASKS AND THEORETICAL EXPECTED FREQUENCIES BY THE FEM SCORE OF THE HOMEMAKER<sup>a</sup>

Tasks	Homemaker's FEM Score						Boys Total (N=169)	x <sup>2</sup>	df	Statistical Significance
	Low (N=28)		Middle (N=89)		High (N=52)					
	0	(E) <sup>b</sup>	0	(E) <sup>b</sup>	0	(E) <sup>b</sup>	0			
Food preparation	7	(11)	47	(38)	19	(23)	73	6.535*	2	p=.041
Dishwashing	7	(6)	17	(21)	15	(12)	39	1.785	2	p=.521
Shopping	9	(12)	41	(39)	22	(23)	72	1.177	2	p=.697
Housecleaning	10	(9)	31	(31)	18	(18)	59	0.142	2	p=.954
Maintenance	16	(11)	27	(36)	26	(21)	69	9.007*	2	p=.012
Care of clothing and household linens	3	(3)	9	(8)	4	(5)	16	0.355	2	p=.907
Construction of clothing and household linens	0	(0)	1	(1)	0	(1)	1	Expected frequencies too low to calculate chi-square		
Physical care of family members	3	(2)	4	(7)	7	(4)	14	Expected frequencies too low to calculate chi-square		
Nonphysical care of family members	1	(2)	9	(8)	6	(5)	16	1.218	2	p=.672
Management	5	(2)	6	(7)	3	(4)	14	5.086	2	p=.082
Mean number of tasks	2.7		2.2		2.3		2.4			
TOTAL	61		192		120		373			

<sup>a</sup>Weighted data

<sup>b</sup>E=theoretical expected frequency

\*Significant  $\chi^2$  value

TABLE 3 PARTICIPATION OF SCHOOL AGE GIRLS IN TEN HOUSEHOLD TASKS AND THEORETICAL EXPECTED FREQUENCIES BY THE FEM SCORE OF THE HOMEMAKER<sup>a</sup>

Tasks	Homemaker's FEM Score						Girls Total (N=156) 0	X <sup>2</sup>	df	Statistical Significance
	Low		Middle		High					
	(N=29)		(N=80)		(N=47)					
	0	(E) <sup>b</sup>	0	(E) <sup>b</sup>	0	(E) <sup>b</sup>				
Food preparation	20	(20)	56	(58)	33	(31)	109	0.200	2	P= .956
Dishwashing	12	(14)	40	(41)	26	(27)	78	1.333	2	P= .626
Shopping	18	(16)	43	(46)	27	(25)	88	1.074	2	P= .718
Housecleaning	11	(16)	51	(48)	29	(26)	91	4.064	2	P= .146
Maintenance	15	(11)	23	(35)	27	(20)	65	12.148*	2	P= .001
Care of clothing and household linens	5	(5)	8	(14)	15	(8)	28	10.551*	2	P= .002
Construction of clothing and household linens	5	(2)	3	(5)	2	(3)	10	Expected frequencies too low to calculate chi-square		
Physical care of family members	2	(1)	3	(3)	0	(2)	5	Expected frequencies too low to calculate chi-square		
Nonphysical care of family members	6	(6)	22	(17)	4	(9)	32	5.807	2	p= .055
Management	1	(3)	11	(10)	6	(5)	18	2.006	2	p= .436
Mean number of tasks	3.3		3.3		3.6		3.4			
TOTAL	95		260		169		524			

<sup>a</sup>Weighted data

<sup>b</sup>E=theoretical expected frequency

\*significant X<sup>2</sup> value

TABLE 4 SUMMARY OF STATISTICALLY SIGNIFICANT CHI-SQUARE VALUES FOR FREQUENCY OF PARTICIPATION IN TEN HOUSEHOLD TASKS BY SCHOOL AGE BOYS AND GIRLS

Task	Significant chi-square values for frequency of participation		
	by	by	
	<u>Sex of Child</u>	<u>FEM Score of Homemaker</u>	
		Boys	Girls
Food preparation	18.442 (p= .001)	6.535 (p=.041)	n.s.
Dishwashing	23.539 (p= .000)	n.s.	n.s.
Shopping	4.649 (p= .035)	n.s.	n.s.
Housecleaning	14.505 (p= .001)	n.s.	n.s.
Maintenance	n.s.	9.007 (p=.012)	12.148 (p=.001)
Care of clothing and household linens	5.023 (p= .025)	n.s.	10.551 (P=.002)
Construction of clothing and household linens	*	*	*
Physical care of family members	n.s.	*	*
Nonphysical care of family members	9.010 (p=.003)	n.s.	n.s.
Managemant	n.s.	n.s.	n.s.

\* Theoretical expected values were too low to calculate chi-square.

### Actual Time Spent on Household Tasks by School Age Children

The multivariate analysis of variance was used to test hypotheses four through seven to determine whether or not the actual amount of time spent on household tasks by school age children differed by the sex of the child or family composition. A two-way, between subjects, multivariate analysis of variance was performed on the ten tasks (dependent variables): food preparation, dishwashing, shopping, housecleaning, maintenance, care of clothing and household linens, construction of clothing and household linens, physical or nonphysical care of household members, and management. Independent variables were sex of child and family composition (single parent/employed, two parents/one employed, and two parents/both employed).

The Statistical Package for the Social Sciences MANOVA program was used to run the analyses. The total number of cases with school age children (N=194) was reduced to 170 with the deletion of 24 cases having unemployed parents (figure 5, page 56). There were no missing data or outliers. Results of evaluation of assumptions of normality, homogeneity of variance-covariance matrices, linearity, and multicollinearity were satisfactory.

$H_0^4$ : There is no significant difference in the actual amount of time school age children spend on household tasks by sex of the child. (Hypothesis rejected)

Using the Wilk's criterion, the combined dependent variables were significantly affected by the sex of the child,  $F(10, 180) = 2.369$ ,  $p = .012$ . The results reflected a relatively weak association

between sex of the child and the dependent variables, with variance accounted for,  $\eta^2 = .11$ . A summary of the MANOVA analyses is presented in Table 5 on page 78.

Multivariate analyses of sex of child with the dependent variables produced three univariate F values that would have been significant if separate analyses of variance had been conducted:

Dishwashing,  $F(1, 189) = 5.915$ ,  $p = .016$

Maintenance,  $F(1, 189) = 10.511$ ,  $p = .001$

Construction of clothing and household linens,

$F(1, 189) = 4.758$ ,  $p = .030$

Since the dependent variables are correlated, the univariate F values are not independent. Consequently, the type I error rate is inflated, and no straightforward adjustment of the error rate is possible. Nevertheless, Cooley and Lohnes (1971) recommend reporting univariate F's, accompanied by a table of pooled within groups correlations among the dependent variables (Table 6, page 79), following a significant multivariate F, as an aid to the reader in assessing the dependent variables.

Unadjusted means for all household tasks are presented in Table 7, page 80. Girls spent more actual time in dishwashing (mean number of minutes per day = 5.24) and construction of clothing and household linens (mean number of minutes per day = 3.60) than boys (mean number of minutes per day = 3.48 and 1.55, respectively). However, boys spent more actual time in maintenance (mean number of minutes per day = 13.07) than girls (mean number of minutes per day = 10.29).

While these findings are not conclusive, they nevertheless are

consistent with previous research by Cogle, Tasker, and Morton (1982). These researchers found that female adolescents spent significantly more time on household tasks than male adolescents, and that sex of the adolescent was a significant factor in time spent on specific types of tasks. The girls in their study spent significantly more time than boys in the study on dishwashing and shopping, while boys spent more time than girls on maintenance tasks.

$H_0^5$ : There is no significant difference in the actual amount of time school age children spend on household tasks by family composition. (Hypothesis not rejected)

The results of the multivariate tests for differences in actual amounts of time spent by school age children by family composition,  $F(20, 360) = 1.315$ ,  $p = .165$ , and the sex by family composition interaction,  $F(20, 360) = 1.398$ ,  $p = .119$ , were not statistically significant.

#### Planned Comparisons

Planned comparisons were conducted contrasting groups with one and two parents, and groups with employed and fulltime homemakers. Hypotheses six and seven were tested using these comparisons.

$H_0^6$ : There is no significant difference between school age children from single parent families and school age children from two parent families in the actual amount of time spent on household tasks. (Hypothesis not rejected)

No difference was found between children in single parent families and children in two parent families in the actual amount of time spent on household tasks,  $F(10, 180) = 1.209$ ,  $p = .288$ .

$H_0^7$ : There is no significant difference between school age children from families with a fulltime homemaker and school age children from families with an employed homemaker in the actual amount of time spent on household tasks. (Hypothesis not rejected)

Children in families with a fulltime homemaker were not found to differ significantly from children from families with an employed homemaker in the actual amount of time spent on household tasks,  $F(10, 180) = 1.457, p = .159$ .

In the group of null hypotheses tested with multivariate analysis of variance, only one was rejected, providing evidence that school age boys and girls differed in the actual amount of time spent on household tasks. No significant differences in actual amount of time spent on household tasks were found between school age children from families that varied by the number of parents and employment of the homemaker.

While no other studies were found comparing actual amount of time spent on household tasks from single parent families, one study was found comparing actual amount of time spent on household tasks by adolescents whose mothers were either employed or fulltime homemakers (Cogle, Tasker, and Morton, 1982). These researchers found that adolescents whose mothers worked full time spent the most amount of time on household tasks, and adolescents whose mothers worked part-time spent the least amount of time on household tasks. Adolescents with mothers who were fulltime homemakers ranked in the middle. In the present study, no distinction was made between homemakers who were employed part-time and full time. Cogle, Tasker, and Morton's study provides evidence that combining these groups may



have resulted in a cancelling of the effects of part-time vs. full time employment.

TABLE 5 SUMMARY MANOVA TABLE: ACTUAL TIME SCHOOL AGE CHILDREN SPEND ON HOUSEHOLD TASKS BY SEX OF CHILD AND FAMILY COMPOSITION (N=170)

Source	Wilk's Lambda	Multivariate F	Hypothesis df	Error df	Significance of F
Sex of Child	.892	2.179	10	180	.021
Family Composition	.866	1.342	20	360	.149
Sex by Family Composition	.861	1.398	20	360	.119
Constant	.488	18.879	10	180	

TABLE 6 POOLED WITHIN CELL CORRELATION FOR TEN HOUSEHOLD TASKS WITH STANDARD DEVIATIONS ON THE DIAGONAL

Ten Household Tasks	Ten Household Tasks									
	1	2	3	4	5	6	7	8	9	10
1. Food preparation	22.658									
2. Dishwashing	.251	9.899								
3. Shopping	-.039	-.238	8.450							
4. Housecleaning	.566	-.130	.062	35.027						
5. Maintenance	.012	.071	-.107	-.343	19.574					
6. Care of clothing and household linens	.090	-.012	.013	-.236	-.098	20.630				
7. Construction of clothing and household linens	-.485	-.107	.111	-.414	.010	-.075	12.513			
8. Physical care of family members	-.240	-.188	.248	-.313	-.040	-.042	.262	18.595		
9. Nonphysical care of family members	-.892	-.256	.045	-.611	.086	.017	.435	.210	8.238	
10. Management	-.036	-.071	.096	-.266	.053	.121	.124	.079	.219	18.610

TABLE 7 ACTUAL TIME SCHOOL AGE CHILDREN SPEND ON TEN HOUSEHOLD TASKS BY SEX OF CHILD AND FAMILY COMPOSITION: MEAN NUMBER OF MINUTES PER DAY (N=170)

	Sex		Family Composition		
	Boys (N=83) Mean Number of Minutes per Day	Girls (N=87) Mean Number of Minutes per Day	One Parent/ One Worker (N=47)	Two Parent/ One Worker (N=77)	Two Parent/ Two Workers (N=46)
Food preparation	6.093	9.727	9.595	7.036	7.877
Dishwashing*	3.484	5.244	4.174	4.314	4.631
Shopping	23.292	24.341	31.023	21.787	20.778
Housecleaning	5.555	17.019	12.905	12.766	7.651
Maintenance*	13.070	10.289	10.634	10.039	8.791
Care of clothing and household linens	3.651	1.742	3.037	1.931	3.600
Construction of clothing* and household linens	1.547	3.601	3.646	3.506	.176
Physical care of family members	.470	.623	.081	1.144	0.000
Nonphysical care of family members	5.263	4.637	6.104	2.702	7.525
Management	2.433	1.190	1.975	.626	3.547
Total	64.858	78.413	83.174	65.851	64.576

\*Multivariate analysis of variance for sex of child with the dependent variables produced a univariate F ratio for this task that would have been significant if a separate analysis of variance had been conducted.

### Relative Time Spent on Household Tasks by School Age Children

Analysis of variance was used to test hypotheses eight through eleven, to assess differences in relative amount of time spent on household tasks by school age children according to the sex of the child and family composition. A separate 3x2 analysis was conducted for each of the ten tasks, because the number of missing cases varied widely across the tasks (missing cases resulted when children's time for a task was zero). The total number of cases with school age children from families with employed parents was 170 (figure 5, page 56). The Statistical Package for the Social Sciences program for analysis of variance was used to run the analyses. Results of evaluation for outliers and assumption of normality, homogeneity of variance-covariance, and independence of the individual error components were satisfactory. The results for each task are summarized in Table 22 on page 103. Readers who wish to compare mean relative time spent on household tasks with mean actual time spent on household tasks will find a table of means for actual time spent by sex of child and family composition in Table 7 on page 80.

H<sup>8</sup><sub>0</sub>: There is no significant difference in the relative amount of time school age children spend on household tasks by sex of child. (Hypothesis rejected)

Analysis of variance was conducted for each of the ten household tasks and a significant main effect for sex of child was found for three tasks:

Food Preparation,  $F(1, 164) = 5.214$ ,  $p = .024$

Dishwashing,  $F(1, 151) = 16.812$ ,  $p = .001$

Housecleaning,  $F(1, 141) = 7.467$ ,  $p = .007$

Group means for these three tasks were examined to determine time use patterns for each sex, in the three family types (single parent/employed, two parents/one employed, two parents/both employed). In all three tasks, and for all three family groupings, mean relative time for girls exceeded the mean relative time for boys (Tables 8, 9, and 10). These results provide evidence that there is a significant difference between school age boys and girls in the relative amount of time spent on food preparation, dishwashing, and housecleaning, but not other tasks.

$H_0^9$ : There is no significant difference in the relative amount of time school age children spend on household tasks by family composition. (Hypothesis rejected)

A significant main effect for family composition was found for six of the ten household tasks:

Food preparation,  $F(2, 164) = 8.811$ ,  $p = .001$

Shopping,  $F(2, 135) = 5.493$ ,  $p = .005$

Housecleaning,  $F(2, 141) = 3.497$ ,  $p = .033$

Maintenance,  $F(2, 129) = 3.766$ ,  $p = .025$

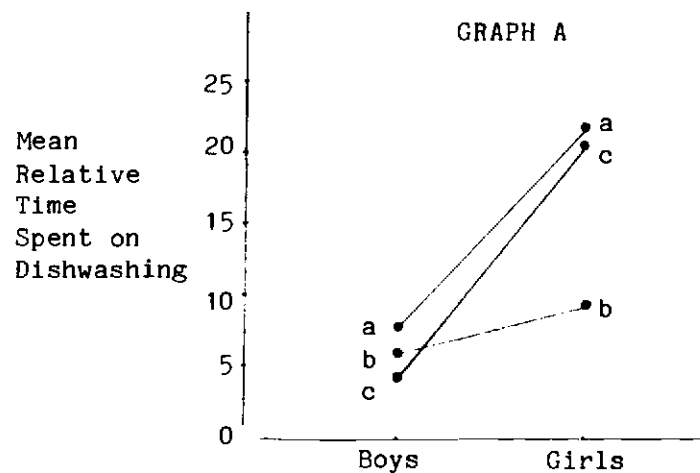
Care of clothing and linens,  $F(2, 131) = 5.495$ ,  $p = .005$

Nonphysical care,  $F(2, 113) = 5.965$ ,  $p = .003$

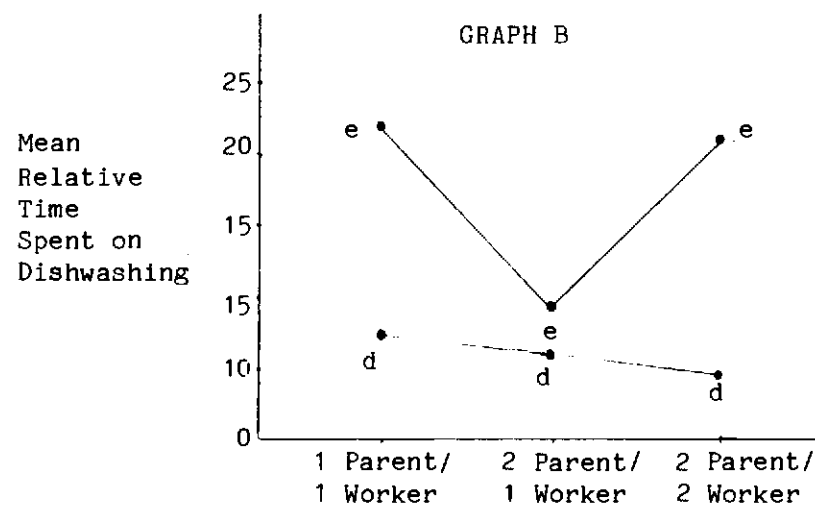
Means and ANOVA tables for these tasks are found in Tables 8, 10, 11, 12, 13, and 16. An interaction effect was also found between sex of child and family composition for dishwashing,  $F(2, 151) = 3.086$ ,  $p = .048$  (Table 9)

The mean relative time spent on household tasks by school age children in the three family types has been summarized in Table 22 on page 103. Mean relative time was compared for the three family types in order to assess the main effect of family composition on time spent by school age children on household tasks. Children in single parent families spent more mean relative time than children in two parent families on all tasks except construction of clothing and household linens. Some of the differences among the family types were especially noteworthy. School age children in single parent families contributed 21.3% of the total time spent on nonphysical care in their families, while school age children in two parent/one worker families and two parent/two worker families contributed 6.1% and 4.7%, respectively. Children from single parent families were also found to contribute a great deal more relative time than children from two parent families to two other tasks: shopping and maintenance. In general, the relative time patterns of children from two parent families (having either one or two employed parents) were similar to each other but different from the relative time patterns of children from single parent families.

The interaction effect between sex and family composition for the task of dishwashing was plotted to determine the source of the interaction (figure 6, page 84). Several patterns were observed when the interaction was assessed. Girls consistently spent more mean relative time on dishwashing than boys, across the three family types (figure 6, graph B), and children in single parent families consistently spent more mean relative time on dishwashing than



a= 1 parent/1 worker  
b= 2 parent/1 worker  
c= 2 parent/2 worker



d= boys  
e= girls

		Group Means	
		Boys	Girls
Mean Relative Time Spent on Dishwashing	1 Parent/ 1 Worker	7.48	22.23
	2 Parent/ 1 Worker	5.78	8.33
	2 Parent/ 2 Worker	4.18	20.85

Figure 6 Plot of mean relative time spent by school age children on dishwashing: interaction of sex by family composition.



children in two parent families (figure 6, graph A). Also, the greatest difference between boys and girls in mean relative time spent on dishwashing was in single parent and two parent/two worker families. Boys and girls in two parent/one worker families both contributed a small relative amount of time to dishwashing, while girls in single parent and two parent/two worker families contributed much more relative time than boys in those families (figure 6, graph B). The interaction occurred between sex and family composition in two parent families. For boys in two parent families, the greatest mean relative time was spent on dishwashing in one worker families, but for girls in two parent families, the greatest mean relative time was spent on dishwashing in two worker families (figure 6, graph A).

#### Planned Comparisons

Planned comparisons were used to test hypothesis eight, contrasting children's time use in single parent families and two parent families, and hypothesis nine contrasting children's time use in families with fulltime and employed homemakers.

$H_0^{10}$ : There is no significant difference between school age children from single parent families and school age children from two parent families in the relative amount of time spent on household tasks. (Hypothesis rejected)

A significant difference was found when a comparison was made between school age children from single parent families and school age children from two parent families in the relative amount of time spent on six household tasks:

Food preparation,  $F(1, 164) = 16.656, p = .000$

Shopping,  $F(1, 135) = 11.898, p = .001$

Housecleaning,  $F(1, 141) = 7.816, p = .008$

Maintenance,  $F(1, 129) = 8.735, p = .005$

Care of clothing and linens,  $F(1, 131) = 9.111, p = .004$

Nonphysical care,  $F(1, 113) = 18.279, p = .000$

Group means (summarized in Table 22) provide evidence that children in single parent families spent more relative time than children in two parent families on all six household tasks for which statistical significance was established. Summary ANOVA tables for these comparisons are presented in Tables 15, 17, 18, 19, 20, and 21.

$H_0^{11}$  : There is no significant difference between school age children from families with a fulltime homemaker and school age children from families with an employed homemaker in the relative amount of time spent on household tasks. (Hypothesis rejected)

A comparison of school age children from families with a fulltime homemaker and school age children from families with an employed homemaker produced significant results for three tasks:

Food preparation,  $F(1, 164) = 5.828, p = .022$

Dishwashing,  $F(1, 151) = 4.829, p = .031$

Care of clothing and linens,  $F(1, 131) = 4.177, p = .046$

For all three tasks, children from families with an employed homemaker spent more relative time on task than children from families with a fulltime homemaker (Tables 8, 9, and 13).

All of the hypotheses related to differences in relative amount of time spent on household tasks by school age children from families

with various compositions were supported. Furthermore, a consistent pattern emerged among the family types. Children's time accounted for a greater percentage of total family time on tasks when children were from families with a single parent or employed homemaker. Results for the group of school age children from single parent families were noteworthy in three additional respects. First, statistical significance was established for a greater number of tasks for children from single parent families than for children for other family compositions. Six tasks were statistically significant for children from single parent families while only three tasks were statistically significant for children with an employed homemaker. In addition, when statistical significance was established, explained variance was greater for tasks performed by children from single parent families than for tasks performed by children with an employed homemaker (see Tables 15 through 21). Finally, time of school age children in single parent families accounted for a higher percentage of total family work time than did the time of school age children in two parent families, for all tasks except construction of clothing and household linens.

Only one study was found that included an analysis of the relative time spent on household tasks by school age children. Walker (1970b) reported that 30% of total household work was done by teenagers with employed mothers and that 20% of total household work was contributed by teenagers if mothers were not employed. Walker's findings are consistent with the findings from hypothesis eleven in this study, that children of employed homemakers spend more relative

time on three household tasks than school age children from families with fulltime homemakers. In this study, 17% of total work was done by school age children in single parent families, and 8% of total work was done by school age children in two parent families with either one or two employed parents.

TABLE 8      RELATIVE TIME<sup>a</sup> SCHOOL AGE CHILDREN SPEND ON FOOD  
PREPARATION BY SEX OF CHILD AND FAMILY COMPOSITION:  
MEAN RELATIVE TIME PER DAY AND ANOVA TABLE

Variable	N	Mean Relative Time
<u>Sex of child</u>		
Male	85	6.699
Female	85	10.794
<u>Family composition</u>		
One parent, employed	47	13.744
Two parents, one employed	77	5.789
Two parents, both employed	46	6.705
TOTAL	170	8.747

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u> <u>Ratio</u>	<u>F</u> <u>Probability</u>	<u>Eta</u> <sup>2</sup>
Sex	1	628.328	628.328	5.214*	.024	.025
Family	2	2123.654	1061.827	8.811*	.001	.083
Sex by Family	2	254.673	127.337	1.057	.350	-
Residual	188	22656.191	120.512			
TOTAL	193	25595.170				

<sup>a</sup>Relative time calculated as follows:  $\frac{\text{Total time spent on task by child}}{\text{Total time spent on task by all family members}}$

\*Significant F ratio

TABLE 9      RELATIVE TIME<sup>a</sup> SCHOOL AGE CHILDREN SPEND ON DISHWASHING  
BY SEX OF CHILD AND FAMILY COMPOSITION: MEAN RELATIVE  
TIME PER DAY AND ANOVA TABLE

Variable	N	Mean Relative Time
<u>Sex of child</u>		
Male	78	5.813
Female	79	17.134
<u>Family composition</u>		
One parent, employed	41	14.855
Two parents, one employed	74	7.054
Two parents, both employed	42	12.512
TOTAL	157	11.474

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u> <u>Ratio</u>	<u>F</u> <u>Probability</u>	<u>Eta</u> <sup>2</sup>
Sex	1	4954.440	4954.440	16.812*	.001	.084
Family	2	1661.299	830.649	2.819	.062	-
Sex by Family	2	1818.805	909.402	3.086*	.048	.031
Residual	175	51572.166	294.698			
TOTAL	180	59034.938				

<sup>a</sup>Relative time calculated as follows: 
$$\frac{\text{Total time spent on task by child}}{\text{Total time spent on task by all family members}}$$

\*Significant F ratio

TABLE 10      RELATIVE TIME<sup>a</sup> SCHOOL AGE CHILDREN SPEND ON SHOPPING  
BY SEX OF CHILD AND FAMILY COMPOSITION: MEAN RELATIVE  
TIME PER DAY AND ANOVA TABLE

Variable	N	Mean Relative Time
<u>Sex of child</u>		
Male	74	16.151
Female	67	20.859
<u>Family composition</u>		
One parent, employed	38	27.038
Two parents, one employed	65	15.908
Two parents, both employed	38	12.569
TOTAL	141	18.505

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u> <u>Ratio</u>	<u>F</u> <u>Probability</u>	<u>Eta</u> <sup>2</sup>
Sex	1	513.665	513.665	1.283	.259	-
Family	2	4397.377	2198.688	5.493*	.005	.064
Sex by Family	2	70.426	35.213	.088	.916	-
Residual	158	63237.815	400.239			
TOTAL	163	68228.842				

<sup>a</sup>Relative time calculated as follows: 
$$\frac{\text{Total time spent on task by child}}{\text{Total time spent on task by all family members}}$$

\*Significant F ratio

TABLE 11 RELATIVE TIME<sup>a</sup> SCHOOL AGE CHILDREN SPEND ON HOUSECLEANING  
BY SEX OF CHILD AND FAMILY COMPOSITION: MEAN RELATIVE  
TIME PER DAY AND ANOVA TABLE

Variable	N	Mean Relative Time
<u>Sex of child</u>		
Male	73	10.993
Female	74	21.682
<u>Family composition</u>		
One parent, employed	37	23.498
Two parents, one employed	73	14.951
Two parents, both employed	37	10.564
TOTAL	147	16.338

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u> <u>Ratio</u>	<u>F</u> <u>Probability</u>	<u>Eta</u> <sup>2</sup>
Sex	1	3244.359	3244.359	7.467*	.007	.042
Family	2	3038.395	1519.197	3.497*	.033	.039
Sex by Family	2	12.883	6.442	.015	.985	-
Residual	161	69951.876	434.484			
TOTAL	166	76943.235				

<sup>a</sup>Relative time calculated as follows: 
$$\frac{\text{Total time spent on task by child}}{\text{Total time spent on task by all family members}}$$

\*Significant F ratio



TABLE 12      RELATIVE TIME<sup>a</sup> SCHOOL AGE CHILDREN SPEND ON MAINTENANCE  
OF HOME, YARD, CAR, AND PETS BY SEX OF CHILD AND FAMILY  
COMPOSITION: MEAN RELATIVE TIME PER DAY AND ANOVA TABLE

Variable	N	Mean Relative Time
<u>Sex of child</u>		
Male	71	19.649
Female	64	14.323
<u>Family composition</u>		
One parent, employed	31	25.404
Two parents, one employed	67	11.600
Two parents, both employed	37	13.953
TOTAL	135	16.986

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u> <u>Ratio</u>	<u>F</u> <u>Probability</u>	<u>Eta</u> <sup>2</sup>
Sex	1	1056.637	1056.637	2.062	.153	-
Family	2	3860.023	1930.012	3.766*	.025	.047
Sex by Family	2	175.269	87.634	.171	.843	-
Residual	152	77900.023	512.500			
TOTAL	157	82870.419				

<sup>a</sup>Relative time calculated as follows: 
$$\frac{\text{Total time spent on task by child}}{\text{Total time spent on task by all family members}}$$

\*Significant F ratio

TABLE 13 RELATIVE TIME<sup>a</sup> SCHOOL AGE CHILDREN SPEND ON CARE OF CLOTHING AND HOUSEHOLD LINENS BY SEX OF CHILD AND FAMILY COMPOSITION: MEAN RELATIVE TIME PER DAY AND ANOVA TABLE

Variable	N	Mean Relative Time
<u>Sex of child</u>		
Male	73	8.675
Female	64	8.372
<u>Family composition</u>		
One parent, employed	34	15.538
Two parents, one employed	67	3.776
Two parents, both employed	36	6.257
TOTAL	137	8.524

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u> <u>Ratio</u>	<u>F</u> <u>Probability</u>	<u>Eta</u> <sup>2</sup>
Sex	1	41.519	41.519	.124	.725	-
Family	2	3679.121	1839.560	5.495*	.005	.067
Sex by Family	2	475.736	237.868	.711	.493	-
Residual	152	50885.008	334.770			
TOTAL	157	55057.987				

<sup>a</sup>Relative time calculated as follows: 
$$\frac{\text{Total time spent on task by child}}{\text{Total time spent on task by all family members}}$$

\*Significant F ratio

TABLE 14      RELATIVE TIME<sup>a</sup> SCHOOL AGE CHILDREN SPEND ON NONPHYSICAL CARE  
OF HOUSEHOLD MEMBERS OTHER THAN SELF BY SEX OF CHILD AND  
FAMILY COMPOSITION: MEAN RELATIVE TIME PER DAY AND ANOVA  
TABLE

Variable	N	Mean Relative Time
<u>Sex of child</u>		
Male	62	8.226
Female	57	13.170
<u>Family composition</u>		
One parent, employed	30	21.288
Two parents, one employed	54	6.140
Two parents, both employed	35	4.667
TOTAL	119	10.698

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u> <u>Ratio</u>	<u>F</u> <u>Probability</u>	<u>Eta</u> <sup>2</sup>
Sex	1	460.633	460.663	1.345	.248	-
Family	2	4085.293	2042.646	5.965*	.003	.084
Sex by Family	2	802.214	401.107	1.171	.313	-
Residual	127	43489.947	342.441			
TOTAL	132	48505.028				

<sup>a</sup>Relative time calculated as follows:  $\frac{\text{Total time spent on task by child}}{\text{Total time spent on task by all family members}}$

\*Significant F ratio

TABLE 15 SUMMARY ANOVA TABLE OF GROUP COMPARISONS WITHIN FAMILY COMPOSITION FOR  
RELATIVE TIME SPENT ON FOOD PREPARATION BY SCHOOL AGE CHILDREN

Source	df	SS	MS	F Ratio	F Probability	Eta <sup>2</sup>
Family composition	(2)	(2123.65)				
Comparison 1 <sup>a</sup>	1	2007.16	2007.16	16.656*	p= .000	.078
Comparison 2 <sup>b</sup>	1	702.32	702.32	5.828*	p= .022	.027
Residual	188	22656.19	120.51			
TOTAL	193	25595.17				
N= 170						

<sup>a</sup>Single parent group compared with two parent groups

<sup>b</sup>Full time homemaker group compared with employed homemaker groups

\*Significant F ratio

TABLE 16 SUMMARY ANOVA TABLE OF GROUP COMPARISONS WITHIN FAMILY COMPOSITION FOR  
RELATIVE TIME SPENT ON DISHWASHING BY SCHOOL AGE CHILDREN

Source	df	SS	MS	F Ratio	F Probability	Eta <sup>2</sup>
Family composition	(2)	(1661.30)				
Comparison 1 <sup>a</sup>	1	832.15	832.15	2.824	p=.093	-
Comparison 2 <sup>b</sup>	1	1423.03	1423.03	4.829*	p=.031	.024
Residual	175	51572.17	294.70			
TOTAL	180	59034.94				
N= 157						

<sup>a</sup>Single parent group compared with two parent groups

<sup>b</sup>Full time homemaker group compared with employed homemaker groups

\* Significant F ratio

TABLE 17 SUMMARY ANOVA TABLE OF GROUP COMPARISONS WITHIN FAMILY COMPOSITION FOR  
RELATIVE TIME SPENT ON SHOPPING BY SCHOOL AGE CHILDREN

Source	df	SS	MS	F Ratio	F Probability	Eta <sup>2</sup>
Family composition	(2)	4397.38				
Comparison 1 <sup>a</sup>	1	4762.28	4762.28	11.899*	p= .001	.070
Comparison 2 <sup>b</sup>	1	440.97	440.97	1.102	P= .273	-
Residual	158	63237.82	400.24			
TOTAL	163	68228.84				
N= 141						

<sup>a</sup>Single parent group compared with two parent groups

<sup>b</sup>Full time homemaker group compared with employed homemaker groups

\* Significant F ratio

TABLE 18 SUMMARY ANOVA TABLE OF GROUP COMPARISONS WITHIN FAMILY COMPOSITION FOR  
RELATIVE TIME SPENT ON HOUSECLEANING BY SCHOOL AGE CHILDREN

Source	df	SS	MS	F Ratio	F Probability	Eta <sup>2</sup>
Family composition	(2)	(3038.40)				
Comparison 1 <sup>a</sup>	1	3395.88	3395.88	7.816*	p=.008	.044
Comparison 2 <sup>b</sup>	1	127.62	127.62	.294	p=.678	-
Residual	161	69951.88	434.48			
TOTAL	166	76943.24				
N=147						

<sup>a</sup>Single parent group compared with two parent groups

<sup>b</sup>Full time homemaker group compared with employed homemaker groups

\* Significant F ratio

TABLE 19 SUMMARY ANOVA TABLE OF GROUP COMPARISONS WITHIN FAMILY COMPOSITION FOR  
RELATIVE TIME SPENT ON MAINTENANCE OF HOME, YARD, CAR, AND PETS BY SCHOOL  
AGE CHILDREN

Source	df	SS	MS	F Ratio	F Probability	Eta <sup>2</sup>
Family composition	(2)	(3860.02)				
Comparison 1 <sup>a</sup>	1	4292.07	4292.07	8.375*	p=.005	.052
Comparison 2 <sup>b</sup>	1	1755.55	1755.55	3.425	p=.069	-
Residual	152	77900.02	512.50			
TOTAL	157	82870.42				
N=135						

<sup>a</sup>Single parent group compared with two parent groups

<sup>b</sup>Full time homemaker group compared with employed homemaker groups

\* Significant F ratio



TABLE 20 SUMMARY ANOVA TABLE OF GROUP COMPARISONS WITHIN FAMILY COMPOSITION FOR  
RELATIVE TIME SPENT ON CARE OF CLOTHING AND HOUSEHOLD LINENS BY SCHOOL  
AGE CHILDREN

Source	df	SS	MS	F Ratio	F Probability	Eta <sup>2</sup>
Family composition	(2)	(3679.12)				
Comparison 1 <sup>a</sup>	1	3050.05	3050.05	9.111*	p=.004	.055
Comparison 2 <sup>b</sup>	1	1398.42	1398.42	4.177*	p=.046	.025
Residual	152	50885.01	334.77			
TOTAL	157	55057.99				
N= 137						

<sup>a</sup>Single parent group compared with two parent groups

<sup>b</sup>Full time homemaker group compared with employed homemaker groups

\* Significant F ratio

TABLE 21 SUMMARY TABLE OF GROUP COMPARISONS WITHIN FAMILY COMPOSITION FOR  
RELATIVE TIME SPENT ON NONPHYSICAL CARE OF HOUSEHOLD MEMBERS OTHER  
THAN SELF BY SCHOOL AGE CHILDREN

Source	df	SS	MS	F Ratio	F Probability	Eta <sup>2</sup>
Family composition	(2)	(4085.29)				
Comparison 1 <sup>a</sup>	1	6260.65	6260.65	18.282*	p= .000	.129
Comparison 2 <sup>b</sup>	1	1160.68	1160.68	3.389	p= .070	-
Residual	127	43489.95	342.44			
TOTAL	132	48505.03				
N=119						

<sup>a</sup>Single parent group compared with two parent groups

<sup>b</sup>Full time homemaker group compared with employed homemaker groups

\* Significant F ratio

TABLE 22 SUMMARY TABLE OF RELATIVE TIME SCHOOL AGE CHILDREN SPEND ON ALL TASKS: MEAN RELATIVE TIME PER DAY BY FAMILY COMPOSITION, WITH SIGNIFICANCE OF F FOR FAMILY COMPOSITION AND GROUP COMPARISONS WITHIN FAMILY COMPOSITION

	Family Composition						Group Comparisons			
	Time Spent by School Age Children as a % of Total Time on Task by all Family Members						Single Parent vs Two Parent		Fulltime vs. Employed Home-maker	
	F Ratio	F Prob.	1 Parent 1 Worker	2 Parent 1 Worker	2 Parent 2 Worker	Overall Mean	F Ratio	F Prob.	F Ratio	F Prob.
Food preparation	8.811	.001	13.744	5.789	6.705	8.747	16.656	.000	5.828	.022
Dishwashing	2.819	n.s.	14.855	7.054	12.512	11.474	2.824	n.s.	4.829	.031
Shopping	5.493	.005	27.038	15.908	12.569	18.505	11.899	.001	1.102	n.s.
Housecleaning	3.497	.033	23.498	14.951	10.564	16.338	7.816	.008	.294	n.s.
Maintenance	3.766	.025	25.404	11.600	13.953	16.986	8.375	.005	3.425	n.s.
Care of clothing and household linens	5.495	.005	15.538	3.776	6.257	8.524	9.111	.004	4.177	.046
Construction of clothing and household linens	.446	n.s.	12.500	13.268	4.167	9.978	.148	n.s.	.253	n.s.
Physical care of family members	2.073	n.s.	5.556	3.056	0.000	2.871	2.438	n.s.	.012	n.s.
Nonphysical care of family members	5.965	.003	21.288	6.140	4.667	10.698	18.282	.000	3.389	n.s.
Management	2.168	n.s.	6.470	1.850	6.222	4.847	1.012	n.s.	3.360	n.s.
All tasks			16.589	8.339	7.762	10.897				

Homemaker's Attitude Toward Feminism and Time Spent on Household  
Tasks by School Age Children

The Pearson product-moment correlation was used to test the relationship between homemaker's attitude toward feminism and the actual and relative amount of time school age children spent on household tasks, in hypotheses twelve and thirteen. The samples for hypothesis twelve (actual time) and hypothesis thirteen (relative time) consisted of 148 cases having school age children with employed parents, and an attitude toward feminism (FEM) score for the homemaker. Attitude toward feminism was measured using a 20 item Likert-type scale (highest score was 5 and lowest score was 1 for each item). The homemaker's FEM scores were divided into three categories (low, neutral, and high scores) and children were grouped according to their mother's categorized FEM score. Relative time was determined by dividing the total time spent by a child on all ten household tasks by the total time spent by all family members on all ten household tasks. The Statistical Package for the Social Sciences program, PEARSON CORR, was used to run the analyses.

H<sub>0</sub><sup>12</sup>: There is no linear relationship between homemaker's  
attitude toward feminism and the actual amount of time  
school age children spend on household tasks.  
(Hypothesis not rejected)

The correlation coefficient for the relationship between homemaker's attitude toward feminism and the actual amount of time school age children spent on household tasks was  $r = -.049$ ,  $p = .276$ . In this study, statistical significance could not be established for

a linear relationship between the homemaker's attitude toward feminism and the actual amount of time school age children spent on household tasks.

$H_0^{13}$  : There is no linear relationship between the homemaker's attitude toward feminism and the relative amount of time school age children spend on household tasks.  
(Hypothesis not rejected)

Statistical significance could not be established for the relationship between homemaker's attitude toward feminism and the relative amount of time school age children spent on household tasks. The correlation coefficient for the relationship was  $r = -.021$ ,  $p = .434$ .

There was no evidence to support a linear relationship between homemaker's attitude toward feminism and the actual or relative amount of time school age children spent on household tasks. However, relationships were found between homemaker's attitude toward feminism and the type of task performed by school age children, and most of these relationships were curvilinear. The low correlation coefficient may reflect a curvilinear relationship between homemaker's attitude toward feminism and time spent by school age children on household tasks.

Comparison of Time Spent on Household Tasks by School Age Children  
and Parents

Stepwise discriminant function analysis was used to test hypotheses fourteen through sixteen. Two functions are calculated in discriminant function analysis: the discriminant function and the classification function. The discriminant function was used to assess the relative contribution of each predictor variable (household task) to the prediction of the sex of the child in one parent and two parent families. The variables which were the best predictors were considered to be sex related tasks.

The classification function was used to assess "group overlap": the degree to which the distributions for males and females converged. When males and females are accurately classified into their respective sex groups by the amount of time spent on household tasks (eg. the groups are maximally separated), their behavior related to these household tasks can be said to be sex segregated. When individuals are incorrectly classified into the opposite sex group, they have exhibited cross-sex behavior in household task performance.

Three stepwise discriminant function analyses were performed using the ten household task variables as predictors of membership into groups. Predictor variables were time spent on food preparation, dishwashing, shopping, housecleaning, maintenance, care of clothing and household linens, construction of clothing and household linens, physical and nonphysical care of family members,

and management. Groups were male and female school age children from single parent families, male and female school age children from two parent families, and parents of the children from two parent families.

The Statistical Package for the Social Sciences DISCRIMINANT program was used to run the analyses. Subsamples for the three analyses were selected from 131 cases with two school age children. One case with two male children was deleted from the 48 cases in the single parent portion of the sample, leaving 47 single parent cases with 47 male and 47 female children for the first analysis. Children in the two parent portion of the sample were matched with the 47 cases in the single parent subsample for the second analysis, and the parents of the children used in the second analysis were used for the third analysis (figure 5, page 56). There were no missing data or outliers.

The cases used in the stepwise discriminant function analysis were evaluated for assumptions of linearity, normality, multicollinearity, singularity, and homogeneity of variance-covariance matrices. No violation of the assumptions was found.

H<sup>14</sup><sub>0</sub>: Sex of school age children from single parent families cannot be predicted by the amount of time these children use to perform household tasks. (Hypothesis rejected)

Mahalanobis distance was used to direct the stepping progression in a stepwise discriminant function analysis, and one discriminant function was calculated with a combined  $\chi^2(4)=12.47$ ,  $p=.0142$ . The

discriminant function maximally separates male school age children from female school age children in single parent families with two school age children.

A loading matrix of correlations between predictor variables and the discriminant function is presented in Table 23. The primary variable in distinguishing between boys and girls was time spent on dishwashing. Girls spent more time on dishwashing (mean number of minutes per day = 7.11) than boys (mean number of minutes per day = 2.62).

Also contributing to discrimination between the two groups of children were time spent on clothing care, and physical and nonphysical care of household members other than self. Girls spent more time on care of clothing and household linens (mean number of minutes per day = 5.44) than boys (mean number of minutes per day = 1.67). In contrast, boys spent more time on physical care (mean number of minutes = .72) than girls (mean number of minutes = 0). However, girls spent more time on nonphysical care (mean number of minutes = 8.04) than boys (mean number of minutes = 2.76).

A classification function was also calculated for each group. The two classification functions were then used to predict group membership (male or female) for each child. A classification matrix for actual and predicted group membership is presented in Table 24. Accuracy in prediction was much greater for males (84.4%) than for females (46.0%). The overall accuracy for all classifications was 64.84%.



H : Sex of school age children in two parent families cannot be predicted by the amount of time these children use to perform household tasks.  
(Hypothesis rejected)

A discriminant function was calculated with a combined  $X^2$  (6)=25.05,  $p=.0003$ . Mahalanobis distance was used to direct the stepping procedure. This discriminant function maximally separates male school age children from female school age children in two parent families.

A loading matrix of correlations between predictor variables and the discriminant function is presented in Table 25. The primary variable separating male from female children is time spent on housecleaning. Girls spent more time on housecleaning (mean number of minutes per day =12.46) than boys (mean number of minutes per day = 5.06).

Other variables which contributed to discrimination between the two groups of children were food preparation, dishwashing, nonphysical care, care of clothing and household linens, and management. Girls spent more time on food preparation and dishwashing than boys, while boys spent more time on care of clothing and household linens, nonphysical care of family members, and management than girls. Group means for these tasks are summarized in Table 26.

A classification function was also calculated for each group. Actual and predicted group membership is presented in Table 27. Accuracy in prediction was somewhat greater for males (77.8%) than for females (61.9%). The overall accuracy for all classifications

was 69.83%.

$H_0^{16}$  : Sex of parents of school age children in two parent families cannot be predicted by the amount of time these parents use to perform household tasks.  
(Hypothesis rejected)

A discriminant function was calculated, using the Mahalanobis distance procedure, with a combined  $X^2(8)=140.89$ ,  $p=.0000$ . This discriminant function maximally distinguishes groups of male and female parents.

A loading matrix of correlations between the predictor variables and the discriminant function is presented in Table 28. The primary variable separating male parents from female parents was food preparation. Female parents spent much more time in food preparation (mean number of minutes per day = 80.96) than male parents (mean number of minutes per day = 7.20).

All other variables contributed to group prediction except clothing construction and physical care of family members. Female parents spent more time than male parents on all of the remaining predictors included in the discriminant function. Table 29 presents a summary of the group means.

A classification function was also calculated for each group. Actual and predicted group membership is presented in Table 30. Accuracy in prediction was very high for both males (97.8%) and females (90.1%). The overall accuracy for all classifications was 93.96%.

The expected outcome of these analyses was that parents would be the most sex segregated in their household task behaviors, that

children in two parent families would be less sex segregated than their parents, and that children in single parent families would be the least sex segregated in their household task behaviors, as measured by accuracy in classification.

This general trend was evident in the classification results for parents and children in two parent families, with accuracy in prediction slightly greater for males than females. Results for the children from single parent families, however, were surprising. Accuracy in classification was much higher than expected for boys and much lower than expected for girls. Boys in single parent families were more sex segregated in their household task behaviors than boys in two parent families, but girls in single parent families were much less sex segregated in their household task behaviors than all other adults and children in the sample.

Tasks which entered the prediction equation for all three analyses were dishwashing, care of clothing and household linens, and nonphysical care of family members. These tasks were sex related for female parents, and girls in single parent families. However, in two parent families, boys were found to spend more time than girls on two of these tasks, care of clothing and household linens and nonphysical care of family members. All eight tasks in the prediction equation for parents were sex related for the female parent. Three of the four tasks in the prediction equation for children in single parent families were sex related for girls, with physical care the only task sex related for boys. In two parent families, the six tasks in the prediction equation for children were evenly divided between the

sexes, as sex related tasks. Food preparation, dishwashing, and housecleaning were sex related for girls, while care of clothing and household linens, nonphysical care, and management were sex related tasks for boys. It can be concluded from these analyses that parents were highly sex segregated in their household task behavior, that household tasks were sex related for the female parent, and that children were less sex segregated in their household task behavior than parents. Boys in two parent families were the least sex segregated of the males in the sample. More time was spent on a greater number of tasks by boys in two parent families than boys in single parent families. Girls in single parent families were less sex segregated in their household task behaviors than all other adults and children in the analysis. Also, more tasks were sex related for girls in single parent families than for girls in two parent families (Table 31).

A summary of tasks found to be sex related for school age children, in this and other studies, is presented in Table 35. Both frequency of performance and actual time spent on tasks were used in these studies to determine which tasks were sex related for school age children.

When frequency of performance was used to determine whether or not tasks performed by school age children were sex related, more tasks were found to be significant in this study than in studies by Kennedy (1980), Lynch (1975), O'Neill (1975), and Osborne (1979). Tasks which were sex related for school age children in other studies were replicated in this study, with the exception of maintenance

tasks.

Only one study was found where researchers used time on task to determine which household tasks were sex related for school age children (Cogle, Tasker, & Morton, 1982). These researchers found that dishwashing and shopping tasks were sex related for adolescent girls, while maintenance tasks were sex related for adolescent boys. The prediction equations for school age children from single parent and two parent families in this study were developed using the children's time on task. These equations produced three sex related tasks, when the F value was set at the .05 level (Appendix G ). These tasks were dishwashing, housecleaning, and food preparation. A comparison of these tasks with tasks found to be sex related by Cogle, Tasker, and Morton reveals that dishwashing was the only task that was sex related in both studies. Differences in sampling in the two studies could account for these discrepancies.

Maintenance tasks were found to be sex related for school age boys in several studies using either frequency of task performance, or time on task, to determine which tasks were sex related (Cogle, Tasker, & Morton, 1982; Lynch, 1975; O'Neill, 1978; and Osborne, 1979). In this study, however, when both frequency of task performance and time on task were used to determine sex related tasks, maintenance tasks were not found to be sex related for school age children. Kennedy (1981) also found no evidence that maintenance tasks were sex related for school age children in her Oregon sample.

No other studies were found in which researchers assessed the degree to which children and parents are sex segregated in their

household task performance. Also, no time diary studies were found in which researchers compared the time use of school age children in single parent families with the time use of school age children in two parent families.

TABLE 23 RESULTS OF DISCRIMINANT FUNCTION ANALYSIS OF HOUSEHOLD TASK VARIABLES AS PREDICTORS OF SEX OF SCHOOL AGE CHILDREN FROM SINGLE PARENT FAMILIES

(Task) Predictor Variable	Correlation of predictor variables with discriminant function	Univariate F(1, 105)	Pooled within group correlations among predictors									
			Task									
			2	3	4	5	6	7	8	9	10	
1. Food preparation	.58	3.922	.36	-.01	.11	.05	.60	-.03	-.06	.11	.23	
2. Dishwashing	.61	5.055		-.13	.06	.02	.11	-.07	-.02	.22	.23	
3. Shopping	-.04	.304			.08	-.01	-.05	.01	-.10	.00	.05	
4. Housecleaning	.10	.253				.06	.07	-.07	-.08	-.03	-.02	
5. Maintenance	.02	.224					-.09	-.04	-.01	.19	.10	
6. Care of clothing and household linens	.60	4.825						.11	.10	.01	.15	
7. Construction of clothing and household linens	.02	1.112							.00	-.05	-.06	
8. Physical care of family members	-.45	2.681								.02	-.03	
9. Nonphysical care of family members	.42	2.430									.12	
10. management	.24	3.470										

Canonical R = .34  
Eigenvalue = .129

TABLE 24     ACTUAL AND PREDICTED GROUP MEMBERSHIP FOR SEX OF SCHOOL AGE CHILDREN  
FROM SINGLE PARENT FAMILIES

Actual Group Membership	Number of Cases	Predicted Group Membership	
		Males	Females
Males	52	44 (84.4%)	8 (15.6%)
Females	54	29 (54.0%)	25 (46.0%)

Percent of grouped cases correctly classified = 64.84



TABLE 25 RESULTS OF DISCRIMINANT FUNCTION ANALYSIS OF HOUSEHOLD TASK VARIABLES AS PREDICTORS OF SEX OF SCHOOL AGE CHILDREN FROM TWO PARENT FAMILIES

(Task) Predictor Variable	Correlation of predictor variables with discriminant function	Univariate F(1, 120)	Pooled within group correlations among predictors									
			Task									
			2	3	4	5	6	7	8	9	10	
1. Food preparation	.53	8.075	.15	-.01	.03	-.08	-.03	.00	-.03	.06	-.08	
2. Dishwashing	.44	5.534		-.01	.00	-.02	.07	.80	-.10	.60	-.04	
3. Shopping	.11	.380			.21	-.04	.08	-.08	-.13	-.10	.04	
4. Housecleaning	.58	9.562				.04	.08	-.12	.23	-.04	-.09	
5. Maintenance	-.14	.040					.36	-.04	.50	-.01	.00	
6. Care of clothing and household linens	-.24	1.607						-.02	.49	-.06	.01	
7. Construction of clothing and household linens	.14	.478							-.04	.74	-.03	
8. Physical care of family members	.01	.225								.01	.04	
9. Nonphysical care of family members	-.02	.012									-.05	
10. Management	-.31	2.725										
Canonical R = .44												
Eigenvalue = .238												

TABLE 26 SUMMARY OF GROUP MEANS FOR PREDICTOR VARIABLES INCLUDED IN THE DISCRIMINANT FUNCTION FOR SCHOOL AGE CHILDREN FROM TWO PARENT FAMILIES

Predictor Variables	<u>Mean Minutes Per Day</u>	
	Boys (N=61)	Girls (N=61)
Food preparation	6.43	13.38
Dishwashing	3.78	8.80
Housecleaning	5.06	12.46
Care of clothing and household linens	3.59	1.43
Nonphysical care of family members	1.37	1.25
Management	3.42	.71

TABLE 27     ACTUAL AND PREDICTED GROUP MEMBERSHIP FOR SEX OF SCHOOL AGE CHILDREN  
FROM TWO PARENT FAMILIES

Actual Group Membership	Number of Cases	Predicted Group Membership	
		Males	Females
Males	61	48 (77.8%)	14 (22.2%)
Females	61	23 (38.1%)	38 (61.9%)

Percent of grouped cases correctly classified = 69.83

TABLE 28 RESULTS OF DISCRIMINANT FUNCTION ANALYSIS OF HOUSEHOLD TASK VARIABLES AS PREDICTORS OF SEX OF PARENTS OF SCHOOL AGE CHILDREN FROM TWO PARENT FAMILIES

(Task) Predictor Variable	Correlation of predictor variables with discriminant function	Univariate F(1, 120)	2	3	4	5	6	7	8	9	10
1. Food preparation	.67	128.675	.19	.05	.01	-.02	.07	-.04	.11	-.03	.04
2. Dishwashing	.50	71.548		-.09	.09	-.21	.08	.01	.10	.04	.18
3. Shopping	.30	26.207			.05	.08	.08	.24	-.21	.03	-.08
4. Housecleaning	.38	41.925				-.08	.24	-.11	.23	-.01	-.11
5. Maintenance	.03	.450					.01	-.13	.14	-.03	.00
6. Care of clothing and household linens	.50	71.985						.03	-.11	.24	.07
7. Construction of clothing and household linens	.10	9.433							-.12	.18	.38
8. Physical care of family members	.09	3.980								-.10	.07
9. Nonphysical care of family members	.28	21.479									-.08
10. Management	.20	10.787									

Canonical R = .84  
Eigenvalue = 2.355

TABLE 29      SUMMARY OF GROUP MEANS FOR PREDICTOR VARIABLES INCLUDED IN  
THE DISCRIMINANT FUNCTION FOR PARENTS OF SCHOOL AGE CHILDREN  
FROM TWO PARENT FAMILIES

Predictor Variables	<u>Mean Minutes Per Day</u>	
	Males (N=61)	Females (N=61)
Food preparation	7.20	80.96
Care of clothing and household linens	.11	26.42
Dishwashing	1.60	26.09
Shopping	21.07	65.50
Housecleaning	3.27	58.99
Nonphysical care of family members	2.05	17.04
Management	5.21	19.46
Maintenance of home, yard, car, pets	34.19	41.15

TABLE 30      ACTUAL AND PREDICTED GROUP MEMBERSHIP FOR SEX OF PARENTS OF SCHOOL  
AGE CHILDREN FROM TWO PARENT FAMILIES

Actual Group Membership	Number of Cases	<u>Predicted Group Membership</u>	
		Males	Females
Males	61	60 (97.8%)	1 (2.2%)
Females	61	6 (9.9%)	55 (90.1%)

Percent of grouped cases correctly classified = 93.96

TABLE 31 ORDER OF ENTRY OF PREDICTOR VARIABLES INTO PREDICTION EQUATION AND SEX ASSOCIATED WITH THE GREATEST AMOUNT OF TIME SPENT ON TASK FOR TEN HOUSEHOLD TASKS

Predictor Variables	<u>Children</u>		<u>Children</u>		<u>Parents</u>	
	<u>Single Parent Family</u>	<u>Sex</u>	<u>Two Parent Family</u>	<u>Sex</u>	<u>Two Parent Family</u>	<u>Sex</u>
	Order of Entry	Associated with Task	Order of Entry	Associated with Task	Order of Entry	Associated with Task
Food preparation			(2)	female	(1)	female
Dishwashing	(1)	female	(3)	female	(3)	female
Shopping					(4)	female
Housecleaning			(1)	female	(5)	female
Maintenance of home, yard, car, pets					(8)	female
Care of clothing and household linens	(2)	female	(5)	male	(2)	female
Construction of clothing and household linens						
Physical care of family members	(3)	male				
Nonphysical care of family members	(4)	female	(4)	male	(6)	female
Management			(6)	male	(7)	female

### Summary

Significant findings for the univariate and multivariate analyses used in this study are summarized in Tables 32 and 33. Sixteen hypotheses were tested using chi-square, multivariate analysis of variance, analysis of variance, Pearson's product-moment correlation, and discriminant function analysis. Eleven of the sixteen hypotheses were rejected and five were not rejected. The hypotheses that were not rejected fell into two categories, those testing differences in actual amount of time school age children in different family compositions spent on household tasks (hypotheses 5, 6, and 7) and those testing the relationship between the homemaker's attitude toward feminism and the actual and relative time school age children spent on household tasks (hypotheses 12 and 13). There was no significant difference in actual number of minutes spent on household tasks by school age children in different family compositions, and homemaker's attitude toward feminism was unrelated to school age children's time spent on household tasks.

However, family composition variables were significant when children's time was measured relative to the amount of time that was spent on household tasks by all family members. The actual number of minutes spent on a task by a school age child in a single parent family may be similar to the number of minutes spent on the same task by a school age child from a two parent family, but when time on task was examined from the perspective of the total amount of time spent on all tasks in each family type, differences emerged.



Similarly, while the homemaker's attitude toward feminism was not related to school age children's time spent on tasks, it was found to be related to two household tasks performed by boys and two household tasks performed by girls. These relationships formed no consistent pattern, however, making them difficult to interpret.

One of the major findings of this study was that both type of task and time spent on task by school age children were related to the sex of the child performing the task. Six tasks were sex related for frequency in performing the task: food preparation, dishwashing, shopping, housecleaning, care of clothing and household linens, and nonphysical care of family members. Girls were found to participate more frequently than boys in all six tasks. When the ten tasks were rank ordered by the number of children performing each task (Table 34), the five most frequently performed tasks were food preparation, shopping, housecleaning, maintenance, and dishwashing. These results supported the findings of other researchers that children are most likely to engage in these five tasks (Kennedy, 1981; Lynch, 1975; O'Neill, 1978; Osborne, 1979; Walker, 1970b; and Wilson, 1929). A comparison was also made between the ranked tasks in this study with the ranked tasks in Kennedy's study of school age children in Oregon. The rankings were identical for both studies, for all tasks. Table 35 provides an outline of the findings from six studies for time spent by school age children on household tasks.

While actual amount of time spent on household tasks by school age boys and girls was significantly different for the two groups, these differences were difficult to assess using multivariate

analysis. On the other hand, a clear pattern emerged in the analysis of relative time spent on three household tasks performed by school age children (food preparation, dishwashing, and housecleaning). Mean relative time spent on these tasks by girls exceeded the mean relative time spent on these tasks by boys, across all family compositions.

When the ten household tasks were ranked by mean number of minutes per day spent on task, children were found to spend the most time on: shopping, housecleaning, maintenance, food preparation, and nonphysical care of family members (Table 36). The rankings for children from single parent families were identical to the rankings of children from two parent families except for 2 tasks: care of clothing and household linens and construction of clothing and household linens. The rankings for all children were compared with rankings of children in Kennedy's (1980) study and similarities were found. Shopping, housecleaning, maintenance, and food preparation were ranked highest, with the most time spent on shopping in both studies.

Another major finding was that school age children from single parent families differ from school age children from two parent families in the performance of household tasks. School age children in single parent families spent more relative time on food preparation, shopping, housecleaning, maintenance, care of clothing and household linens, and nonphysical care of family members than do school age children from two parent families. In single parent families, girls were found to be less sex segregated in the

performance of household tasks than children or parents in two parent families. Also, the types of tasks which were sex related were different for girls from single parent families and two parent families. Sex related tasks for girls in single parent families were dishwashing, care of clothing and household linens, and nonphysical care of family members, but for girls in two parent families, these tasks were dishwashing, shopping, and housecleaning.

Boys in two parent families, on the other hand, were found to be less sex segregated in the performance of household tasks than boys in single parent families. Tasks which were sex related for boys in two parent families were care of clothing and household linens, nonphysical care of family members, and management, while the only sex related task for boys in single parent families was physical care of family members. In other words, boys in two parent families were more likely to share the performance of tasks with girls in the family, and to spend more time than these girls on a greater number of tasks, than boys from single parent families.

A third finding was that parents in two parent families were much more sex segregated in the performance of household tasks than their school age children. In this study, eight of the ten tasks were sex related, and for all eight sex related tasks, including maintenance, women spent more mean time on task than men. It is interesting to note that this study did not support the findings of other studies (Lynch, 1975; O'Neill, 1978; Osborne, 1979; and Walker & Woods, 1976) that maintenance is a sex related task for men and boys.

A fourth finding was that family composition was associated with differences in the relative amount of time school age children spent on six household tasks. For the task of dishwashing, there was also an interaction effect between sex of the child and family composition. School age children in single parent/one worker, two parent/one worker, and two parent/two worker families differed from each other in the relative amount of time spent on household tasks. Examining these family types more closely revealed that both the number of parents and the employment status of the homemaker were related to the relative time spent on household tasks by school age children. Children of single parents and employed homemakers spent more relative time on household tasks than children of two parents and fulltime homemakers, but overall, children of single parents were notably different from children in two parent families in the relative time spent on household tasks. Children in single parent families spent more relative time than children from two parent families on all tasks except construction of clothing and household linens. Furthermore, for several of the tasks (shopping, maintenance, and nonphysical care), children from single parent families contributed 21% to 27% of total family time spent on task, while children in two parent families contributed 5% to 16% of total family time spent on these tasks.

An examination of the interaction effect between sex of child and family composition revealed that girls with either a single parent or employed homemaker spent much more relative time on dishwashing than did boys in their families, but that girls and boys

in two parent families with a fulltime homemaker spent about the same amount of relative time on dishwashing. The interaction occurred between girls and boys in two parent families. Boys in two parent/one worker families spent more relative time than boys in two parent/two worker families on dishwashing, while girls in two parent/two worker families spent more relative time than girls in two parent/one worker families on dishwashing.

Finally, an examination of the attitude toward feminism of the homemaker produced no clear results. The homemaker's attitude toward feminism was related to two tasks that boys perform and two tasks that girls perform, but these relationships formed no consistent pattern. High and low frequency of task performance by the children seemed to be associated with two groups of homemakers: those with either the strongest or weakest attitudes formed one group while those with mid-range attitude toward feminism formed the other group. High or low frequency of performance, however was not consistently associated with one group or the other.

TABLE 32 SUMMARY OF SIGNIFICANT RESULTS OF UNIVARIATE ANALYSES OF TYPE OF TASKS AND RELATIVE TIME SPENT ON TASKS PERFORMED BY SCHOOL AGE CHILDREN

Hypothesis	Variables	Statistical test	Food preparation	Dishwashing	Shopping	Housecleaning	Maintenance	Clothing care	Clothing construction	Physical care	Nonphysical care	Management
	<u>Type of task by...</u>											
1	Sex of child	Chi-square	x	x	x	x		x			x	
2	Homemaker's attitude toward feminism-boys	Chi-square	x				x					
3	Homemaker's attitude toward feminism-girls	Chi-square					x	x				
	<u>Relative time on task by...</u>											
8	Sex of child	ANOVA	x	x		x						
9	Family composition	ANOVA	x	x	x	x	x	x			x	
10	One vs. two parents	Comparison 1	x		x	x	x	x			x	
11	Fulltime vs. employed homemaker	Comparison 2	x	x				x				

TABLE 33 SUMMARY OF SIGNIFICANT RESULTS OF MULTIVARIATE ANALYSES OF TIME SPENT BY FAMILY MEMBERS ON TEN HOUSEHOLD TASKS

Variables Tested	Related Null Hypothesis	Statistical Test	F and $\chi^2$ Values	Probability	Wilks' Lambda	Eta <sup>2</sup> and R <sup>2</sup>
<u>Actual time on task by...</u>						<u>Eta<sup>2</sup></u>
Sex of child	4	MANOVA	F(10,180)=2.179	.021	.892	.11
for dishwashing		Univariate F	F(1,189)=5.915	n.a.*		
for maintenance		Univariate F	F(1,189)=10.511	n.a.*		
for clothing construction		Univariate F	F(1,189)=4.758	n.a.*		
<u>Sex predicted by time on task by...</u>						<u>R<sup>2</sup></u>
Children in one parent families	14	Discriminant analysis	$\chi^2(4)=12.47$	.014	.886	.12
Children in two parent families	15	Discriminant analysis	$\chi^2(6)=25.05$	.001	.808	.19
Parents of children in two parent families	16	Discriminant analysis	$\chi^2(8)=140.89$	.000	.298	.71

\* F values for this task would have been significant at the .05 level if a univariate analysis had been conducted.

TABLE 34 HOUSEHOLD TASKS PERFORMED BY SCHOOL AGE CHILDREN: RANK  
ORDERED BY NUMBER OF CHILDREN WHO PERFORM THE TASK

Task	Number of Children Performing Each Task	Percent of Total
Food preparation	182	(20)
Shopping	160	(18)
Housecleaning	150	(17)
Maintenance of home, yard car, and pets	134	(15)
Dishwashing	117	(13)
Nonphysical care of family members	48	(5)
Care of clothing and household linens	44	(5)
Management	32	(4)
Physical care of family members	19	(2)
Construction of clothing and household linens	11	(1)
TOTAL	897	(100)



TABLE 35      TASKS FOUND TO BE SEX RELATED FOR SCHOOL AGE BOYS AND GIRLS BY FREQUENCY OF PARTICIPATION  
OR TIME SPENT ON TASK: A COMPARISON OF THE RESULTS OF SIX STUDIES

Task	Tasks Sex Related by Frequency of Task Performance					Tasks Sex Related by Time Spent on Task	
	Kennedy's Study	Lynch's Study	O'Neill's Study	Osborne's Study	This Study	Cogle Tasker & Morton's Study	This Study
Food preparation		Female	Female	Female	Female		Female
Dishwashing	Female	Female	Female	Female	Female	Female	Female
Shopping					Female	Female	
Housecleaning		Female	Female	Female	Female		Female
Maintenance		Male	Male	Male		Male	
Clothing care	Female <sup>a</sup>				Female		
Clothing construction							
Physical care							
Nonphysical care					Female		
Management							

<sup>a</sup>Care and construction of clothing and household linens were combined tasks in Kennedy's study.

TABLE 36 HOUSEHOLD TASKS PERFORMED BY SCHOOL AGE CHILDREN: RANK ORDERED BY MEAN NUMBER OF MINUTES PER DAY SPENT ON TASK

Children from Single Parent Families (N=47)			Children from Two Parent Families (N=123)			All Children (N=170)		
Mean number of minutes per day		Percent total	Mean number of minutes per day		Percent total	Mean number of minutes per day		Percent total
Shopping	31.023	(37)	Shopping	21.410	(32)	Shopping	24.068	(34)
Housecleaning	12.905	(16)	Housecleaning	10.853	(16)	Housecleaning	11.420	(16)
Maintenance	10.634	(13)	Maintenance	10.348	(16)	Maintenance	10.427	(15)
Food preparation	9.595	(12)	Food preparation	7.350	(11)	Food preparation	7.970	(11)
Nonphysical care of family members	6.104	(7)	Nonphysical care of family members	4.506	(7)	Nonphysical care of family members	4.948	(7)
Dishwashing	4.174	(5)	Dishwashing	4.433	(7)	Dishwashing	4.361	(6)
Construction of clothing & linens	3.646	(4)	Care of clothing & linens	2.555	(4)	Care of clothing & linens	2.688	(4)
Care of clothing & linens	3.037	(4)	Construction of clothing & linens	2.261	(3)	Construction of clothing & linens	2.644	(4)
Management	1.975	(2)	Management	1.718	(3)	Management	1.789	(3)
Physical care of family members	.081	(0)	Physical care of family members	.716	(1)	Physical care of family members	.540	(1)
Total	83.174	(100)	Total	66.150	(100)	Total	70.855	(101)*

\*Error due to rounding

## CHAPTER V

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to determine whether or not there is evidence to support the proposition that children are being socialized to sex roles that are less traditional than those of their parents in the performance of household work. A supporting objective to the purpose of the study was to analyze the time use of school age children from California in order to make it available for comparison with the time use of school age children from from other states participating in the Northeastern Regional Research Project, NE-113: "An Interstate Urban/Rural Comparison of Families Time Use."

Specific objectives of the study were:

1. To assess differences in school age children's time use for household work in families with an employed homemaker and families with a fulltime homemaker.
2. To assess differences in time use for household work by school age children from single parent families and school age children from two parent families.
3. To determine relationships between the attitude toward feminism of the homemaker and time use for household work by school age children.

4. To determine whether children are less sex segregated than parents in the performance of household work.

The sample for this study was drawn from 210 two-parent, two-child households equally divided by area of residence (105 urban and 105 rural) and 80 single parent, two-child households from predominantly urban areas. No time data was collected for children under six years of age, therefore the sample for this study was limited to families with at least one school age child. There were 130 two-parent families and 64 single parent families with school age children, making a total of 194 families with 169 boys and 156 girls in the sample. Urban and rural components of the subsample were combined for the analysis of data.

Three instruments were used for the collection of data. A nine-page questionnaire was used to collect demographic and household data, a time use chart was used to record categorized activities of family members, six years of age or older, and a 20-item scale was used to record attitude toward feminism of the homemaker. Data were collected using two personal interviews with the homemaker in each household.

Statistical analyses of the data were conducted using chi-square, analysis of variance, multivariate analysis of variance, Pearson's product-moment correlation, and discriminant function analysis. The probability level for all statistical tests was set at  $p < .05$ , which indicates that it would be possible to falsely reject the null hypothesis in five percent of the cases sampled. Independent

variables were:

1. Age of child
2. Homemaker's score on the FEM Scale
3. Employment status of the homemaker
4. Number of adults
5. Number of adult earners
6. Sex of child
7. Time spent on household tasks by adults
8. Time spent on household tasks by children
9. Type of household tasks performed by children

The chi-square test of independence was used to test whether or not the type of task performed by school age children was independent of the sex of the child and attitude toward feminism of the homemaker. There were significant relationships ( $p < .05$ ) between:

1. Sex of child and food preparation, dishwashing, housecleaning, nonphysical care of household members, shopping, and care of clothing and household linens.
2. Homemaker's attitude toward feminism and food preparation and maintenance tasks performed by boys.
3. Homemaker's attitude toward feminism and care of clothing and household linens and maintenance tasks performed by girls.

There was more support for the relationship between sex of child and type of task than for the relationship between attitude toward

feminsism of the homemaker and type of task performed by school age children. A consistent pattern of greater frequency of participation by girls was evident in the relationship between sex of child and type of task but no consistent patterns were found in the relationship between attitude toward feminism of the homemaker and type of task performed by school age children.

The multivariate analysis of variance (MANOVA) was used to test whether or not the actual amount of time spent on household tasks by school age children differed by sex of the child or family composition. Only one of the four null hypotheses tested by MANOVA was rejected. The actual amount of time spent on household tasks was significantly different for boys and girls. No differences were found between actual amount of time spent on household tasks by school age children from families with one rather than two parents or from families with an employed rather than a fulltime homemaker.

Analysis of variance was used to test whether or not the relative amount of time spent on household tasks by school age children differed by sex of the child or family composition. There were significant differences ( $p < .05$ ) between:

1. Sex of child and relative amount of time spent by school age children on food preparation, dishwashing, and housecleaning. For all three tasks, mean relative time for girls exceeded mean relative time for boys.
2. Family composition and relative time spent by school age children on food preparation,

housecleaning, maintenance tasks, care of clothing and household linens, and nonphysical care of family members.

An interaction effect was found between sex and family composition for dishwashing in two parent families. For boys in two parent families, the greatest mean relative time was spent on dishwashing when one parent was employed, but for girls in two parent families, the greatest mean relative time was spent when both parents were employed.

Planned comparisons were used to analyze the source of differences among the three family composition groups (one parent/one worker, two parents/one worker, two parents/two workers).

Significant differences ( $p < .05$ ) were found between:

3. School age children from single parent families and school age children from two parent families in the relative amount of time spent on food preparation, shopping, housecleaning, maintenance tasks, care of clothing and household linens, and nonphysical care of family members. School age children from single parent families spent more relative time on all six tasks for which statistical significance was established.
4. School age children from families with an employed homemaker and school age children with a fulltime homemaker in the relative amount of time spent on food preparation, dishwashing,

and care of clothing and household linens. For all three statistically significant tasks, children from families with an employed homemaker spent more relative time than children from families with a fulltime homemaker.

Any increase in relative time spent on household work by school age children resulted from a decrease in the actual time spent on household work by the homemaker rather than an increase in actual time spent by the children. However, relative time is a useful measure in determining the share of the total household work load assumed by children. When relative time was compared for different family compositions, striking differences among the family types became apparent. School age children in single parent families were responsible for a much greater share of the total household work load than were school age children in other families, for all tasks except construction of clothing and household linens. When relative time for school age children in single parent families was compared with the overall mean relative time for children from all three family types, school age children from single parent families were found to spend a greater percentage of total time on all tasks.

The Pearson product-moment correlation was used to test the relationship between homemaker's attitude toward feminism and actual and relative time spent on household tasks by school age children. No significant relationships were found.

Differences in time spent on household tasks by school age children and their parents were tested using discriminant function



analysis. The discriminant function was used to assess the relative contribution of each household task to the prediction of sex. The task listed first in each of the following results was the primary distinguishing variable in predicting sex.

1. Sex of boys and girls from single parent families was discriminated by time spent on dishwashing, care of clothing and household linens, and physical and nonphysical care of household members.
2. Sex of boys and girls from two parent families was discriminated by time spent on housecleaning, food preparation, dishwashing, nonphysical care of household members, care of clothing and household linens, and physical care of household members.
3. Sex of parents was discriminated by all tasks except construction of clothing and household linens, and physical care of household members. Food preparation was the primary distinguishing variable in predicting sex. Female parents spent more time than male parents on all tasks included in the discriminant function.

In the discriminant function analysis, a classification function was also calculated for each group. The classification function was used to assess the accuracy of prediction of sex for children in single parent and two parent families, and for parents in two parent

families.

Accuracy in predicting sex by time spent on household tasks was a measure of sex segregated behavior, while inaccuracy in predicting sex by time spent on household tasks was a measure of role sharing behavior. Parents were found to be very sex segregated in their household task behavior, boys in two parent families shared roles in the performance of household work more than other males in the sample, and girls in single parent families shared roles in the performance of household work more than other children or parents. Children were consistently less sex segregated than parents in the performance of household work.

A comparison of the time use of California school age children with the time use of school age children from other states in the NE-113 project was made. Tasks which were sex related for school age children in other studies were replicated in this study, with the exception of maintenance tasks, which were found to be sex related for boys in other studies but not in Kennedy's Oregon study (1980), nor in this study.

### Conclusions

This research has contributed evidence to support the proposition that school age children are being socialized to sex roles that are less traditional than those of parents in the performance of household work. As a consequence, these children may be more androgynous in the performance of household work as adults.

A number of findings provided evidence to support the

propositional statement. In the first place, the increased demands on the households of employed women and single parent homemakers were found to be associated with a more balanced division of household work in these families, than in two parent families with a fulltime homemaker. However, the more balanced division of household work was due to a decreased amount of actual time spent on household work by the employed or single parent homemaker which resulted in a corresponding increase in relative time spent on household tasks by other family members.

The results of the statistical analyses provide support for the proposed expansion of the traditional management system model to include an integration of the psycho-social subsystem. Of primary importance was the finding that family type made a difference in the degree to which household tasks were sex segregated. Boys in two parent families spent more time than girls, on more tasks, than boys in single parent families. This finding was unexpected and several interpretations are possible for explaining why boys in single parent families were more traditional in their sex role behavior in the performance of household work than boys in two parent families. First, the homemaker may have avoided stress by assigning tasks to the most compliant child, and girls are known to be more compliant than boys (Schell, 1975). Another possibility is that the single parent homemaker may have reinforced the traditional male role in order to avoid overfeminizing her male child in the absence of a resident male model. Furthermore, boys in single parent families may have been more unsure of their masculinity than boys in two parent

families, therefore they resisted performing "female tasks."

Girls in single parent families, on the other hand, were very undifferentiated in their household task behavior, which was expected but not to the extent that was found. Girls were predicted to be male according to the tasks which they performed, in 54% of the cases! This may have been due to modelling of the more androgynous role of the female single parent, or, again, to the compliance of girls to the homemaker's demands for participation. The implications of this finding are that it is possible that girls in single parent families are being socialized to fulfill a sex role pattern similar to that of the female single parent, who must assume primary responsibility for both the provider and homemaker roles. As adults, these girls may perpetuate the current transitional role of "superwoman" by overloading themselves with role responsibilities rather than adopting a role sharing marital pattern.

While differences were found between school age children in single parent and two parent families in the degree to which household tasks were sex segregated, overall, children were much less sex segregated than parents in the performance of household tasks. This finding is important because role-sharing behavior in the performance of household tasks as a child is known to be associated with role sharing behavior in adulthood (Haas, 1980; 1982).

These factors are all associated with the psycho-social subsystem. Although amount of time spent on household work is only a reflection of the psycho-social interactions between and among

individuals within the household, the fact that households with different compositions do not deal with the division of labor in the same manner is a positive illustration of the integrated interactions of the managerial and psycho-social systems. The one psycho-social attitudinal factor which was analyzed, homemaker's attitude toward feminism, provided some evidence of the integrated nature of the psycho-social and managerial subsystems.

There was no direct correlation between the homemaker's attitude toward feminism and differences in children's time use for the performance of household tasks. However, if the relationships were not linear, they would not be significant using a Pearson product-moment correlation. When chi-square analyses for the type of tasks performed by school age children by attitude toward feminism of the homemaker were significant, the nature of the relationships could not be determined. The results provide some evidence that a non-linear relationship may exist between attitude toward feminism of the homemaker and children's time use.

#### Recommendations

The expanded management model could not be adequately evaluated using Northeastern Regional Research Project 113 data. The major problem was the lack of measurements of attitudes pertaining to role adjustments that family members are faced with as the internal and external environments of the family change. For example, the relationship of employment of the homemaker to school age children's time use could not be adequately evaluated because of a lack of

sufficient data. Employed women differ greatly in their orientation to their roles of employee and homemaker, but no measure of their orientation was made. Dual career women with families are generally middle-class professionals with a strong commitment to both work and family (Coser & Coser, 1974), while dual worker women with families are more likely to live a working-class lifestyle with a strong commitment to family, low status and career expectations, and an orientation toward traditional role specialization. Most dual worker women find themselves in the labor force because of financial necessity, and it is unlikely that they would press for shared roles (Aneshensal & Rosen, 1980; Scanzoni, 1979).

In these respects, dual worker women are more similar in role orientation to fulltime homemakers than to dual career women, and yet when employment of women has been studied, dual worker and dual career women have been grouped, and then compared with fulltime homemakers. This may explain why employment of the homemaker has not been found to be significantly related to children's time use in most of the NE-113 studies. The differences between dual worker and dual career families have probably been cancelled by grouping them together. A recommendation is made that employed homemakers be evaluated for dual worker or dual career orientation and that comparisons be made among the families of dual worker, dual career, and fulltime homemakers in future studies of the relationship of employment of the homemaker to children's time use. More accurate interpretation of changes in family member's orientation to household tasks when the homemaker is employed would also be possible if data

were collected before and after the event of the homemaker entering the labor force.

Differences were found for both actual and relative time between children from single parent families and children from two parent families. However, differences in actual time were not statistically significant using MANOVA. When total time on all tasks was compared, a pattern emerged for the three groups of children. Children in two parent families spent the same actual (65-66 minutes per day) and relative (8%) amounts of time on all household work, but children in single parent families spent more actual time (83 minutes per day) and relative time (17%) than children in two parent families. Differences in time spent on all household work and the pattern of differences between children from single parent and two parent families need to be investigated further, using other statistical techniques.

Interpretation of the results of this and other studies with respect to actual and relative time need to be made with caution. For example, the frequently reported finding that there is "a more egalitarian division of household work in the home when the homemaker is employed" may be due to either an increased involvement in household work (increase in actual time) by the spouse and/or children or a decrease in actual time spent by the homemaker which produces a corresponding increase in the relative time spent on household work by the spouse and children. An evaluation of the method of time measurement is necessary before an accurate conclusion can be drawn that the more balanced division of household work in

families with and employed homemaker is due to an increase in the relative, but not actual, time spent on household work by the spouse and children. The employed homemaker's total paid and household work time exceeds that of other family members, and the division of labor, overall, is not egalitarian. In order to adequately interpret time use data, the method of measuring time must be considered.

Another facet of this study that could not be evaluated using NE-113 data was the differences in management strategies used by single parent and two parent families. How are economic resources used to substitute for time when the homemaker is employed? What adjustments are made in standards and goals? Which tasks are viewed as essential or given low priority in single parent and two parent families? Are priorities for resource use different for single parent and two parent families? What happens to the output of the family system when the homemaker enters the labor force? Such questions need to be answered in order to evaluate variations in families' time use in response to changes in the employment status of the homemaker, or the adoption of a single parent lifestyle.

The impact of variables related to the psycho-social subsystem on the managerial subsystem could not be adequately evaluated because only one measurement associated with the psycho-social subsystem, attitude toward feminism, was included in the NE-113 data base. The usefulness of time studies would be enhanced by including variables which originate in the psycho-social subsystem. Examples of the types of questions that need to be answered using such variables are: Do negotiation styles change, regarding the division of household



work, with the length of time the homemaker is employed in the labor force (eg. does the homemaker become more assertive)? Are there social class, ethnic, and/or cohort differences in attitude toward household work and commitment to the homemaker's employment? Is birth order of parents or children related to the willingness of family members to share roles? Are there differences in time use of adults who were raised in father-absent homes?

It is possible that secondary time use contributed significantly to differences in time spent on household work in the three family compositions. In families with an employed homemaker or single parent, the homemaker may have decreased her primary time spent on household work by becoming more efficient in the use of secondary time. It is recommended that secondary time use be incorporated in future studies.

Time used for activities outside of the home (work, school, recreation, etc.) was also not assessed in this study. Osborne (1979) found that children's extracurricular activity was a determining factor in the amount of time they spent on household work. Analysis of time used for all activities would provide additional insight into the way that time-use is prioritized in different family compositions.

This study was exploratory in nature, especially in regard to time use in single parent families. Other studies are needed to confirm whether or not the sex role behaviors in the time use of California children are similar to those of children in other regions of the United States, and whether or not the time use of California

children has changed since the data were collected in 1978. It is recommended that discriminant function analysis be used, in future studies, as a research tool for assessing the degree to which roles are shared in the division of household work.

Many questions about single parent families were raised in this study that will need to be addressed in future research. Why are boys in single parent families more traditional than boys in two parent families in the performance of household work? Why is there such a difference between boys and girls in single parent families in the sharing of household work? What are children in single parent families being socialized to, in terms of adult roles and the division of family labor? Single parent families account for about half of those living in poverty in the United States, and this segment of the population is growing rapidly. Answers to these and other questions will build an empirical base for family and home management professionals to use in developing management theory that includes an integration of the psycho-social and managerial subsystems.

A final recommendation is that longitudinal research would be useful for evaluating the effects of the socialization process and the changing environment on the sex role development of children, especially in single parent families. This type of data would be especially useful to futurists and public policy specialists for the purpose of anticipating and managing changes in the family from the macro perspective.

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## APPENDICES

## APPENDIX A

## INSTRUCTIONS FOR SCHEDULING INTERVIEWS

The interview schedule on the next pages has been set up for either the urban or rural sample, i.e., half of the 210 total of the sample design. If both rural and urban samples are included in plans for your state, these numbers may be doubled for one interviewer or repeated for two part-time interviewers. Scheduling appears to be easier with two part-time interviewers, one in the rural area and one in the urban area.

All seven days of the week must be represented with both Day I and Day II interviews for each of five groups designated by age of younger child; i.e., under 1 (group 1), 1 year (group 2), 2-5 years (group 3), 6-11 years (group 4) and 12-17 years (group 5). We are dividing the 12 months into three segments of four months each; these segments are January through April, May through August and September through December. This means that in each four month segment seven families are to be interviewed for each of the five groups; this is a total of 35 families during each four-month segment.

No fewer than two families (four interviews) nor more than three (six interviews) are to be surveyed during one week. To maintain balance throughout the interviewing period, a rotating five-day on and three-day off work week is suggested. There is some flexibility in scheduling a family by conducting two interviews in each of five families in each two week period.

Remember each family surveyed is interviewed twice on a pre-set schedule.

The attached calendar shows dates of one and two week periods for the winter segment (January through April), summer segment (May through August) and fall segment (September through December) and the headings direct what should be done when scheduling. Look at the attached schedule form. You must schedule one family from each age group during each two week period. The form indicates the groups to be scheduled on predetermined pattern of days during the indicated two week period. However, you as well as the respondent, have some flexibility in scheduling days of interview for a particular family. But this flexibility decreases as the weeks pass. For example, in the two weeks beginning January 9 and January 16, you can offer the family a choice of the seven days of the week; but in the next period, the choice will be only six (seven days minus one day of the week that you already scheduled an interview in the winter segment). By April 3, there will be no choice of day—it will be pre-set; however, a family that cannot schedule an interview on this day could be scheduled for next segment (May through August).

In order to keep account of the days that are open for each age group, the second chart for each segment must be filled in after an interview is scheduled and completed. You must schedule only one family for each of the five groups on each of the seven days of the week for each four-month segment. Write in each blank the sampling code of the family interviewed.

JANUARY-APRIL SEGMENT FOR RURAL OR URBAN SAMPLE

Interview one family in each group	During week of*	Schedule interview on:	Mon. & Wed.	Tues. & Thurs.	Wed. & Fri.	Thurs. & Sat.	Fri. & Sun.	Sat. & Mon.	Sun. & Tues.
		For record on:	Sun. & Tues	Mon. & Wed.	Tues. & Thurs.	Wed. & Fri.	Thurs. & Sat.	Fri. & Sun.	Sat. & Mon.
1,2,3,4,5	Jan. 9 Jan. 16								
1,2,3,4,5	Jan. 23 Jan. 30								
1,2,3,4,5	Feb. 6 Feb. 13								
1,2,3,4,5	Feb. 20 Feb. 27								
1,2,3,4,5	March 6 March 13								
1,2,3,4,5	March 20 March 27								
1,2,3,4,5	April 3 April 10								
substitute week	April 17 April 24								

\*You may interview 5 days with 3 days off in a rotating pattern of work days. You must interview in 7 - 2 week periods, but you may select these 7 - 2 week periods from the 16 weeks of the winter segment of January through April.



COMPLETED RECORDS BY DAY AND GROUP

Family Group	Schedule interview on:	Mon. & Wed.	Tues. & Thurs.	Wed. & Fri.	Thurs. & Sat.	Fri. & Sun.	Sat. & Mon.	Sun. & Tues.	Total
	For record on:	Sun. & Tues.	Mon. & Wed.	Tues. & Thurs.	Wed. & Fri.	Thurs. & Sat.	Fri. & Sun.	Sat. & Mon.	
1									7
2									7
3									7
4									7
5									7
Total		5	5	5	5	5	5	5	35*

\*1 family per pattern of days per group for a total of 35 families.

## APPENDIX B

## SURVEY QUESTIONNAIRE

This nine-page instrument was used by interviewers to record information about meals at home and away, appliance ownership and use, housing environment, food preservation, use of help or services from outside the household, demographic characteristics, transportation, major household maintenance, and unusual conditions or situations that may have affected time use in the household.

The questionnaire was designed and printed by Cooley Business Forms, Inc., 1010 James Street, Syracuse, New York 13203.

Would you give me information about the meals prepared at home yesterday, whether they were eaten at home or elsewhere. If the total time for preparing the meal or snack was less than 3 minutes, do not include it. Start with the first meal of the day.

HOUSEHOLD  
CODE: DO NOT WRITE IN THIS SPACE

一	二	三	四	五	六	七	八	九	十	十一	十二	十三	十四	十五	十六	十七	十八	十九	二十	二十一	二十二	二十三	二十四	二十五	二十六	二十七	二十八	二十九	三十	三十一	三十二	三十三	三十四	三十五	三十六	三十七	三十八	三十九	四十	四十一	四十二	四十三	四十四	四十五	四十六	四十七	四十八	四十九	五十	五十一	五十二	五十三	五十四	五十五	五十六	五十七	五十八	五十九	六十	六十一	六十二	六十三	六十四	六十五	六十六	六十七	六十八	六十九	七十	七十一	七十二	七十三	七十四	七十五	七十六	七十七	七十八	七十九	八十	八十一	八十二	八十三	八十四	八十五	八十六	八十七	八十八	八十九	九十	九十一	九十二	九十三	九十四	九十五	九十六	九十七	九十八	九十九	一百
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		Recording Day I		Recording Day II				4. Time preparation started
2. What meal was it?	morning	noon	evening	snack	packed lunch	other		
3. How many persons were served?	1	2	3	4	5	6	7	8 or more

5. Number of items prepared	6. What were the items prepared or eaten at this meal?	7. How much preparation was required for each item?  Extensive Moderate Simple Very limited None	8. What kind of cooking was done?  Smart Appliance Charcoal Microwave Broiler Oven Top of range No cooking done
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9. Recording Day I: \_\_\_\_\_ Recording Day II: \_\_\_\_\_ 12. Time presentation started \_\_\_\_\_

10. What meal was it? Morning \_\_\_\_\_ Noon \_\_\_\_\_ Evening \_\_\_\_\_ Snack \_\_\_\_\_ Packed lunch \_\_\_\_\_ Other \_\_\_\_\_

11. How many persons were served? 1 2 3 4 5 6 7 8 9 10

13. Number of items prepared	14. What were the items prepared or eaten at this meal?	15. How much preparation was required for each item?  None      Very limited      Simple      Moderate      Extensive	16. What kind of cooking was done?  No cooking done      Top of range      Oven      Broiler      Microwave      Charcoal      Small Appliance
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

## HOUSEHOLD CODE:

	0	1	2	3	4	5	6	7	8	9
	0	1	2	3	4	5	6	7	8	9
	0	1	2	3	4	5	6	7	8	9
	0	1	2	3	4	5	6	7	8	9
	0	1	2	3	4	5	6	7	8	9
	0	1	2	3	4	5	6	7	8	9
	0	1	2	3	4	5	6	7	8	9
	0	1	2	3	4	5	6	7	8	9

1. Yesterday did you or any household member eat a meal away from home that had NOT been prepared at home?

YES NO

2. IF YES, how many times were meals eaten away? 1 2 3 4 5 6 7 8 9 10

(USE SEPARATE COLUMNS FOR EACH MEAL EATEN, WHETHER BY ONE OR MORE THAN ONE FAMILY MEMBER)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3.	Recording Day I Recording Day II	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
4.	Starting with the first meal eaten away was it?									
	a morning meal (1)	1	1	1	1	1	1	1	1	1
	a noon meal (2)	2	2	2	2	2	2	2	2	2
	an evening meal (3)	3	3	3	3	3	3	3	3	3
	a snack (4)	4	4	4	4	4	4	4	4	4
5.	How many household members ate this meal?	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
6.	From which of the following was this food obtained?									
	fast food (1)	1	1	1	1	1	1	1	1	1
	school cafeteria (2)	2	2	2	2	2	2	2	2	2
	industrial cafeteria (3)	3	3	3	3	3	3	3	3	3
	private cafeteria (4)	4	4	4	4	4	4	4	4	4
	a restaurant (5)	5	5	5	5	5	5	5	5	5
	private club or resort (6)	6	6	6	6	6	6	6	6	6
	social gathering (7)	7	7	7	7	7	7	7	7	7
	friend's or relative's house (8)	8	8	8	8	8	8	8	8	8
	D.K. (9)	9	9	9	9	9	9	9	9	9
7.	What was the approximate cost including the tip, of this meal for all household members who ate it?									

1.	2.	3.	4.
5.	6.	7.	8.
9.			



## HOUSEHOLD CODE:

1	2	3	4	5	6	7	8	9	0
1	2	3	4	5	6	7	8	9	0
1	2	3	4	5	6	7	8	9	0
1	2	3	4	5	6	7	8	9	0
1	2	3	4	5	6	7	8	9	0
1	2	3	4	5	6	7	8	9	0
1	2	3	4	5	6	7	8	9	0
1	2	3	4	5	6	7	8	9	0
1	2	3	4	5	6	7	8	9	0
1	2	3	4	5	6	7	8	9	0

1. On how many of the last seven days were the following done by someone in your household?

canning, pickling, making jams, and jellies \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9  
 freezing food \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9  
 preparing food for another day \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9  
 shopping for food \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9

2. On how many of the last seven days have the following been consciously used to avoid some dishwashing or laundry?

disposable cooking or serving dishes \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9  
 aluminum foil or disposable baking pans \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9  
 disposable diapers \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9  
 disposable household textiles \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9

3. Do you have a

microwave oven? _____	0 1 2 3 4 5 6 7 8 9	NOT APPLICABLE
dishwasher? _____	0 1 2 3 4 5 6 7 8 9	
garbage disposer? _____	0 1 2 3 4 5 6 7 8 9	
trash compactor? _____	0 1 2 3 4 5 6 7 8 9	
washing machine--automatic? _____	0 1 2 3 4 5 6 7 8 9	
washing machine--nonautomatic? _____	0 1 2 3 4 5 6 7 8 9	
clothes dryer? _____	0 1 2 3 4 5 6 7 8 9	
sewing machine? _____	0 1 2 3 4 5 6 7 8 9	
vacuum cleaner? _____	0 1 2 3 4 5 6 7 8 9	
power garden and/or yard equipment? _____	0 1 2 3 4 5 6 7 8 9	
air-conditioner? _____	0 1 2 3 4 5 6 7 8 9	

4. IF YES, on how many of the last 7 days has it been used for your household work?

IF YES, identify: ☐ Central ☐ 1 ☐ 2 ☐ 3+ room units

5. How many loads of clothes were washed on Day I \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9  
 on Day II \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9  
 during last 7 days \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9

6. Where was washing done?

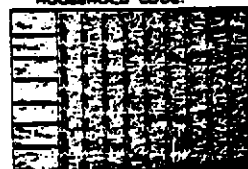
Day I ☐ home ☐ someone else's house ☐ apartment house ☐ laundromat ☐ other \_\_\_\_\_  
 Day II ☐ home ☐ someone else's house ☐ apartment house ☐ laundromat ☐ other \_\_\_\_\_

7. On how many of the last seven days did someone in your household:

take items to commercial laundry or dry cleaner? \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9  
 use coin operated laundry or dry cleaning equipment? \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9  
 do hand washing? \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9  
 iron? \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9  
 do sewing? \_\_\_\_\_ 0 1 2 3 4 5 6 7 8 9



HOUSEHOLD CODE:



1. How many of your children, 12-17 years of age, worked for pay last week? 1 2 3 4 5

If none or NA, go to next page.

	CHILD I	CHILD II	CHILD III
2. What is the age and sex of the child?	<u>1 1 1 1</u>	<u>1 1 1 1</u>	<u>1 1 1 1</u>
3. What kind of work did he/she do?			
4. How many hours did he/she work last week?	<u>      </u> hrs	<u>      </u> hrs	<u>      </u> hrs
5. Approximately how much did he/she earn last week?	\$ <u>      </u>	\$ <u>      </u>	\$ <u>      </u>

	CHILD IV	CHILD V	CHILD VI
2a. What is the age and sex of the child?	<u>1 1 1 1</u>	<u>1 1 1 1</u>	<u>1 1 1 1</u>
3a. What kind of work did he/she do?			
4a. How many hours did he/she work last week?	<u>      </u> hrs	<u>      </u> hrs	<u>      </u> hrs
5a. Approximately how much did he/she earn last week?	\$ <u>      </u>	\$ <u>      </u>	\$ <u>      </u>

DO NOT WRITE BELOW THIS LINE--FOR OFFICE USE ONLY

## WAGES

1.	
2.	
3.	
4.	

## HOURS

1.	
2.	
3.	
4.	

## WAGES

5.	
----	--

## HOURS

5.	
----	--

## WAGES

6.	
----	--

6.	
----	--





I

HOUSEHOLD CODE:											
1	2	3	4	5	6	7	8	9	0	1	2
3	4	5	6	7	8	9	0	1	2	3	4
5	6	7	8	9	0	1	2	3	4	5	6
7	8	9	0	1	2	3	4	5	6	7	8
9	0	1	2	3	4	5	6	7	8	9	0
0	1	2	3	4	5	6	7	8	9	0	1
1	2	3	4	5	6	7	8	9	0	1	2
2	3	4	5	6	7	8	9	0	1	2	3
3	4	5	6	7	8	9	0	1	2	3	4
4	5	6	7	8	9	0	1	2	3	4	5
5	6	7	8	9	0	1	2	3	4	5	6
6	7	8	9	0	1	2	3	4	5	6	7
7	8	9	0	1	2	3	4	5	6	7	8
8	9	0	1	2	3	4	5	6	7	8	9
9	0	1	2	3	4	5	6	7	8	9	0

	HOMEMAKER	ADULT II	ADULT III
1. Did you have more than one paid job last week? (IF NO, GO TO Q 9)	YES	YES	YES
2. (IF YES.) What kind of work was this?			
3. What industry or business was it in?			
4. How many hours did you work for pay last week on this job?	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12
5. What is the usual number of hours you work for pay per week on this job?	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12
6. For this second job are you:  an hourly wage earner (CODE 1) salaried? (CODE 2) on commission? (CODE 3) self-employed? (CODE 4) other? (CODE 5) GO TO Q. 7 GO TO Q. 8	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
7. What is your hourly wage for your second job?	\$ _____	\$ _____	\$ _____
8. If you were salaried, self-employed, or on commission for a second job, what amount did you earn last week? (USE INCOME BEFORE DEDUCTIONS)	\$ _____	\$ _____	\$ _____

9. If you worked without pay in family business or farm, how many hours did you work last week?	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12
10. Which category on this card represents the total income before taxes for your household in the past twelve months? This includes wages and salaries, net income from business or farm, pensions, dividends, interest, rent, Social Security payments and any other money received by members of your household. BLOCK OUT ONE LETTER ONLY 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0			

HOUSEHOLD CODE: \_\_\_\_\_

Were there unusual weather conditions that affected household members' time use?

on the 1st day \_\_\_\_\_

\_\_\_\_\_

on the 2nd day \_\_\_\_\_

\_\_\_\_\_

Were there any unusual physical conditions or situations regarding your residence that affected household members' time use?

on the 1st day \_\_\_\_\_

\_\_\_\_\_

on the 2nd day \_\_\_\_\_

\_\_\_\_\_

Were there any unusual activities of your family or household members that affected household members' time use?

on the 1st day \_\_\_\_\_

\_\_\_\_\_

on the 2nd day \_\_\_\_\_

\_\_\_\_\_

Are there any special situations in your home, for example: handicapped or chronically ill family members, that affected household members' time use?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Are there special ways your household members "save" time on household activities? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## APPENDIX C

## INSTRUCTIONS FOR HOMEMAKER FOR KEEPING TIME CHART

We need a record of how each member of your family, 6 years of age and older, used his/her time for two days. To show you how to keep the record, we will record yesterday's use of time while I am here. We would like you then to record each family member's use of time for the second day.

On the left and on the right side of the time record, household work and other activities are listed; across the top of the record, the 24 hours of the day are listed. Each hour is divided into six ten-minute periods to simplify recalling and recording time. However, time may be recorded in units of 5 minutes.

Recording Time of Family Members

A combination of colors and letters or numbers is used to record each household member's time. (See key on last page.) All females are represented by the color red and all males are represented by the color blue. The homemaker, symbol "H", is the adult with the major responsibility for operating the household. The homemaker's time use is represented by a red H if female or a blue H if male. The spouse (S) of the homemaker is also either blue or red. Children are shown on the time chart by their age written in either red for girls or blue for boys.

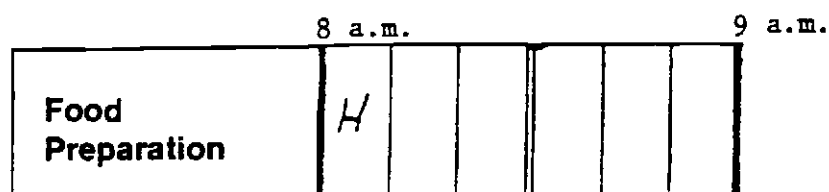
Activities will be coded by the definitions listed on the sheet entitled "Definitions of Activities of Household Members." If you are unable to determine the category for recording time for an activity, then code it under "Other" and label the activity and ask the interviewer when she returns for correct category.

Primary Time

Primary time is time when you are actively doing something that requires your main or "primary" attention: that is, time involved in getting ready for the job, working at the job, and cleaning up after the job, but it does not include the time required for a machine to function or food to cook without full attention.

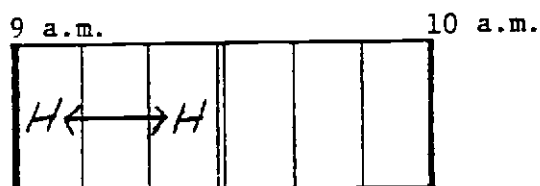
For example, if the female homemaker prepared breakfast from 8:00 to 8:10 a.m., write a red H in the first 10-minute block after 8 a.m.

Example A.



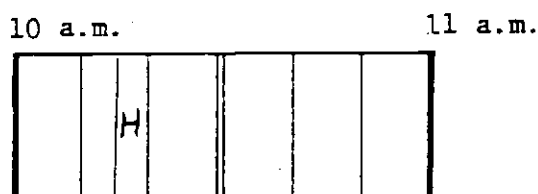
For longer, continuous activities, an arrow and line may be drawn from the time of starting the activity to the time of completing it, placing the person's symbol at each end ( $H \longleftrightarrow H$ ). For example, half-hour activity by homemaker.

Example B.



For intervals of approximately 5 minutes, draw a line to divide the 10-minute time block in half and write the person's symbol in the block. For example, five minute activity (from 10:15 a.m. to 10:20 by homemaker.

Example C.



If the activity took over 1/2 hour or if what was done is not self-evident from the heading, then write in the specific activity above the line. For example, if the spouse cleaned the garage, according to definitions this is recorded as "Maintenance of Home". If it took



approximate time used to travel. For example, the homemaker traveled for 20 minutes (from 1:00 p.m. to 1:20 p.m.) to the store, shopped for 40 minutes (from 1:20 p.m. to 2:00 p.m.), and then traveled home (from 2:00 p.m. to 2:20 p.m.).

Example F.

	1 p.m.					2 p.m.			
Shopping	HT	HT	H	FURNITURE SHOPPING	H	HT	HT		

If more than one thing was done on a trip, include the time enroute to the activity of the first stop and assign the time for return trip to the last activity. In the above example, if the worker did not return home directly from shopping, but went next door to the bank to make a deposit before returning home the additional time and travel time would be recorded under management as noted below.

Example G.

	1 p.m.					2 p.m.			
Shopping	HT	HT	H	FURNITURE SHOPPING	H				
Management						H	H	HT	HT

### Two or More Household Members Doing the Same Activity Together

To show that the same activity was done by more than one person at the same time and in the same place: place a penciled box around the symbols for any combination of individuals.

Example H.

				H	
				12	
H			H		
S			S		
10			10		

Homemaker and 12 year old did same activity.

Homemaker, spouse and 1 of the 2 children did the same activity.

### Nonhousehold or Outside Help

Household work time of workers not living in your household should be recorded in the appropriate category. This worker is identified as either a paid worker (P) or an unpaid worker (U).

For example, if you hire someone to clean the house, cut the grass, or "babysit" children, the worker is a paid worker (P). If a relative (who does not live in the household) washed the dinner dishes, he/she is an unpaid worker (U).

### Keys to Symbols

Sex of the individual will determine the color of the symbol used:

Red if female  
Blue if male

Homemaker	H
Spouse	S
Children	Age
Paid worker	P
Unpaid worker	U
Travel	T

Secondary time ○ circle around individual's symbol

Individuals doing same activity box ☐ (in either color)





## APPENDIX E

## FEM SCALE

CARD 51

FAMILY IDENT # \_\_\_\_\_

1	2	3	4	5	6	7
---	---	---	---	---	---	---

FAMILY IDENTIFICATION #

1 = SA	4 = D
2 = A	5 = SD
3 = U	9 = D.A.

Column	Item
<u>8</u>	1. Women have the right to compete with men in every sphere of activity.
<u>9</u>	2. As head of the household, the father should have final authority over his children.
<u>10</u>	3. The unmarried mother is morally a greater failure than the unmarried father.
<u>11</u>	4. A woman who refuses to give up her job to move with her husband would be to blame if the marriage broke up.
<u>12</u>	5. A woman who refuses to bear children has failed in her duty to her husband.
<u>13</u>	6. Women should not be permitted to hold political offices that involve great responsibility.
<u>14</u>	7. A woman should be expected to change her name when she marries.
<u>15</u>	8. Whether or not they realized it, most women are exploited by men.
<u>16</u>	9. Women who join the Women's Movement are typically frustrated and unattractive people who feel they lose out by the current rules of society.
<u>17</u>	10. A working woman who sends her six month old baby to a daycare center is a bad mother.
<u>18</u>	11. A woman to be truly womanly should gracefully accept chivalrous attentions from men.
<u>19</u>	12. It is absurd to regard obedience as a wifely virtue.
<u>20</u>	13. The "clinging vine" wife is justified provided she clings sweetly enough to please her husband.
<u>21</u>	14. Realistically speaking, most progress so far has been made by men and we can expect it to continue that way.
<u>22</u>	15. One should never trust a woman's account of another woman.
<u>23</u>	16. It is desirable that women should be appointed to police forces with the same duties as men.
<u>24</u>	17. Women are basically more unpredictable than men.
<u>25</u>	18. It is all right for women to work but men will always be the basic bread-winners.
<u>26</u>	19. A woman should not expect to go to the same places or have the same freedom of action as a man.
<u>27</u>	20. Profanity sounds worse generally coming from a woman.

111511  
78 78 85

## APPENDIX F

DEFINITION OF TIME-USE ACTIVITIES  
OF HOUSEHOLD MEMBERSFood Related TasksFood Preparation

All tasks relating to the preparation of food for meals, snacks, and future use. Include time spent setting the table and serving the food and other activities related to family meals such as preparation of formula and food for baby, barbecuing, canning or freezing food, jam and jelly making, outdoor cooking, making and serving refreshments.

Dishwashing

Washing and drying dishes, loading and unloading dishwasher or dish drainer, aftermeal cleanup of table, leftovers, and refuse, putting leftovers away after meal, putting away kitchen equipment.

ShoppingShopping

All activities related to shopping for food, supplies, equipment, furnishings, clothing, durables, and services, whether or not a purchase was made (by telephone, by mail, or at the store). Also include comparison shopping, putting purchases away, getting or sending of mail and packages, hiring of services (cleaning, repair, maintenance, other), picking fruits and vegetables to purchase, rewrapping, labeling food for storage, window shopping.

HouseHousecleaning

Any regular or periodic cleaning of house and appliances, including such tasks as mopping, vacuuming, sweeping, dusting, waxing, shampooing rug, washing windows or walls, cleaning the oven, defrosting and cleaning the refrigerator or freezer, making or changing beds, putting rooms in order.

Maintenance of Home, Yard, Car, and Pets

Any repair and upkeep of home, appliances, and furnishings such as painting, wallpapering, redecorating, carpentry, rearranging furniture, repairing equipment, plumbing, or furniture, caring for or putting up storm windows or screens, taking out garbage and trash, care of houseplants, flower arranging.

Daily and periodic care of outside areas such as yard, garden, tennis court, sidewalks, driveways, patios, outside porches, garage, tool shed, swimming pool.

Maintenance and care of family motor vehicles (car, truck, van, motorcycle, snowmobile, boat) such as washing, waxing, changing oil, rotating tires and other maintenance and repair work, taking motor vehicle to service station, garage, or car wash.

Feeding and care of house pets. Also include trips to kennel or veterinarian.

Also include chopping wood and picking vegetables, fruit, and flowers from garden.

### Clothing and Household Linens

#### Care

Washing by machine at home or away from home, including collecting and preparing soiled items for washing, loading and unloading washer or dryer, hanging up items and removing from the line, folding items.

Hand washing

Ironing and pressing. Also include getting out equipment, sprinkling

Putting away cleaned items and equipment

Preparing items for commercial laundry or dry cleaning

Seasonal storage of clothing and textiles

Waterproofing leather or fabrics

Dyeing fabric

Jewelry cleaning

Polishing shoes

#### Construction

Making alterations or mending.

Making clothing and household accessories (draperies, slipcovers, napkins, etc.). Include such activities as sewing by hand and machine, knitting, crocheting, macrame, embroidering, jewelry making, quilting, weaving.

If these activities are to make product for self, immediate family members, or to give as gift, include in this category.

If activity is primarily to produce product for sale, include time under paid work.

If activity is primarily as recreation rather than goal motivated, include time under "recreation".

## Household Member

### Physical Care

All activities related to physical care of household members other than self such as bathing, feeding, dressing, and other personal care, first aid or bedside care, taking household members to doctor, dentist, barber, supervising child brushing teeth or getting dressed.

### Nonphysical Care

All activities related to the social and educational development of household members such as playing with children, giving them attention, teaching, talking, helping children with homework, reading aloud to family members, chauffeuring and/or accompanying children to social and educational activities, attending functions involving your child.

## Management

### Management

Making decisions and planning such as thinking about, discussing, and investigating alternatives, looking for ideas and seeking information, assessing resources available (space, time, money, etc.), planning--family activities, vacations, menus, shopping lists, purchases and investments.

Supervising and coordinating activities

Checking plans as they are carried out

Thinking back to see how plans worked

Financial activities such as personal or financial recordkeeping, making bank deposits and checking bank statements, paying bills and recording receipts and expenses, figuring income taxes, applying to college, food stamps--applying or buying, public assistance, applications or information, applying for unemployment compensation.

Seeking or applying for job

Renewing licenses

Registering motor vehicles

## Work (Other than Household)

### School Work

Attending school

Classes related to present or future employment

Include all time spent in preparation for each of the above. For example, work or reading done at home or at the library relating to job or classes, typing a paper, writing school work.

#### Paid Work

Paid employment and work-related activities, such as work brought home, professional, business and union meetings, conventions, etc.

Paid work for family farm or business, babysitting, paper route.

Also include making items to sell, growing crops to sell, jury duty, military reserve training.

#### Unpaid Work

Work or service done either as a volunteer or as an unpaid worker for relatives, friends, family business or farm, social, civic, or community organizations. Include making donations for club sale, canvassing for political candidate, committee work for organization.

### Nonwork Activities

#### Organization Participation

Attending and participating in religious activities and services, extra-curricular school activities, civic and political organizations, fraternal groups, other clubs and organizations.

#### Social and Recreational Activities

Activities for one's personal enjoyment. Include reading (other than required for school or work), watching TV, listening to radio, stereo, etc., "going out" to movies, car shows, museums, sporting events, concerts, etc., participating in any sport, hobby or craft, jogging, exercising, taking a class or lesson for personal interest, walking, cycling, boating, "taking a ride," training animals, talking with friends or relatives, either in person or by telephone, entertaining at home or being entertained away from home, playing games, musical instruments, etc. (if adult is playing with child, include such activities under nonphysical care).

### Personal Maintenance

#### Personal Care (of Self)

Sleeping, bathing, getting dressed, other grooming and personal care, making appointments and going to doctor, dentist, beautician, and other personal services, relaxing, loafing, resting, meditation.

Eating

Eating any meal or snack, alone, with family or friends at home or away from home.

Other

Any activity not classified elsewhere.

Any block of time use which you cannot recall, do not know, or do not wish to report.

Time Unaccounted For

Any portion of 24 hours not accounted for in another category (Food Related Tasks, Shopping, House, Clothing and Household Linens, Household Member, Management, Work (Other than Household), Nonwork Activities, Personal Maintenance, Other).

## APPENDIX G

SUMMARY OF RESULTS OF DISCRIMINANT FUNCTION ANALYSES WITH THE  
F-TO-ENTER AT THE .05 LEVEL

The stepwise discriminant function analyses were run with the F-to-enter set at the SPSS default value of 1, and with the F-to-enter set at the .05 level. The default value was selected for this study because it permitted more variables to enter the prediction equation, allowing a broader interpretation of the results. The analyses were re-run with the F-to-enter set at the .05 level for two reasons: to check for any major differences in findings that might exist between the two methods, and to provide a point of reference for researchers who might wish to replicate these analyses. The results using the two methods were basically the same except that classification tended to be less accurate using the F-to-enter at the .05 level. A brief outline of the results of the analyses using the F-to-enter at the .05 level has been summarized for each group of children and parents.

School Age Children from Single Parent Families

A discriminant function was calculated with a combined  $X^2(1) = 4.91$ ,  $p < .05$ . Only one task, dishwashing, was included in the discriminant function. Girls spent more time on dishwashing (mean number of minutes per day = 7.11) than boys (mean number of minutes per day = 2.62).

The classification functions were more accurate for the



prediction of males (81.3%) than females (34.9%). The overall accuracy for all classifications was 57.68%. Accuracy in prediction was lowered for both males and females when the F-to-enter was set at the .05 level.

#### School Age Children from Two-Parent Families

The discriminant function was calculated with a combined  $X^2(2)=15.86$ ,  $p<.001$ . Two tasks were included in the discriminant function. Housecleaning was the primary variable in distinguishing the sex of school age children from two parent families. Girls spent more time on housecleaning (mean number of minutes per day = 12.46) than boys (mean number of minutes per day = 5.06). Food preparation was the other variable included in the discriminant function. Girls also spent more time on food preparation (mean number of minutes per day = 13.38) than boys (mean number of minutes per day = 6.43).

The classification functions were more accurate for males (77.8%) than females (53.2%). Overall accuracy for all classifications was 65.49%. Accuracy in prediction remained the same for males but was lowered for females when the F-to-enter was set at the .05 level.

#### Parents of School Age Children from Two Parent Families

One discriminant function was calculated with a  $X^2(5)=136.04$ ,  $p<.0000$ . Five tasks were included in the discriminant function: food preparation, care of clothing and household linens, dishwashing, shopping, and housecleaning. Female parents spent more mean number of minutes per day on these tasks than male parents. Means for these

tasks are included in Table 4.34.

The classification functions were very accurate for both male parents (97.8%) and female parents (96.3%). Overall accuracy for all classifications was 97.05%. Accuracy in prediction remained the same for males but improved for females when the F-to-enter was set at the .05 level.