

AN ABSTRACT OF THE THESIS OF

Margaret Ann Fjelstad for the degree of Doctor

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Sixty-one male firefighters and 44 dyad partners were questioned about their dyadic relationships, perceived job stress, identification with the fire service, self-concept, moonlighting and wife employment, and decisionmaking.

Spanier's Dyadic Adjustment Scale, the Tennessee Self-Concept Scale (TSCS) and a Background Questionnaire designed by the researcher were given to the subjects.

The results showed that the firefighters had significantly higher divorce rates, directly increasing with rank, than the general male population, and the sample scored significantly below the norm on total dyadic adjustment, satisfaction and consensus. Scores on the TSCS were generally within the normal range, however, the women scored below normal on physical self and above normal on moral-ethical self, while the total sample scored above normal on

self-satisfaction and personal self.

Perceived job stress increased significantly with age, length of service, lower firefighter identity, lower dyadic adjustment, lower self-concept, and increased wife employment.

Off-duty moonlighting decreased the women's marital satisfaction, feeling of cohesion and dyadic adjustment, while it increased the firefighters' marital satisfaction, affection and dyadic adjustment.

It was concluded that the firefighter occupational role had a significantly negative effect on dyadic satisfaction, and being a firefighter influenced family roles and decisions along traditional lines. Support strategies for firefighter families were discussed.

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A Study of the Relationship Between  
The Firefighter Occupational Role and  
Dyadic Adjustment

by

Margaret Ann Fjelstad

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in charge of major

Redacted for privacy

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Head of Department of Family Life

Redacted for privacy

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Dean of Graduate School

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Typed by Margaret Fjelstad for Margaret A. Fjelstad

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A STUDY OF THE RELATIONSHIP BETWEEN  
THE FIREFIGHTER OCCUPATIONAL ROLE AND  
DYADIC ADJUSTMENT

INTRODUCTION

Firefighting is a dangerous and stressful occupation. More firefighters die in the line of duty than any other occupation, including police and mine workers (IAFF, 1977). As a comparison:

"Over the last ten years firefighters have suffered an average of 88 deaths per 100,000 compared to 58 deaths for every 100,000 policemen." (IAFF, 1977, p. 3).

The occupation of the firefighter is unique in that most firefighters work 24-hour shifts which keep them away from home and unavailable to their families for extended periods of time on a regular basis. This can put an extra burden on the family by requiring a constant adjustment of roles (Hill, 1949). It can also be difficult for the firefighter to regularly alternate between the private, expressive, interpersonal world of the family and the semi-militaristic, almost totally male environment of the fire station (Roetter, 1962; Wilson, 1973).

On the job, firefighters face two extremely different demands. Theirs is a job of constant readiness whether they receive numerous calls during the day or none at all. Between calls and training drills, the firefighters are isolated within the station and must cope with the boredom

of waiting and of often non-productive, repetitive tasks (McCarty, 1975). But at the sound of an alarm, the firefighters are literally shocked into action, many times "...under conditions that may be considered similar to the combat situation of war" (Tremittedi, 1974, p. 27). Firefighters are trained to instantly react so that they can be out of the station responding to a call in less than 60 seconds, whether this be during the day or in the dead of night. As a result, firefighters often find it difficult to fully relax, and they suffer extremely high rates of cardiovascular disease (IAFF, 1977; Tremittedi, 1974). At the end of the shift, generally 8:00 a.m., the firefighter may go home to face his family either exhausted, if the station has been quite busy, or feeling frustrated and guilty, if he has not been busy, because of boredom and lack of productive work (Anonymous, 1974; Tremittedi, 1974).

Within recent years, firefighting has switched from a predominantly part-time, voluntary organization to a highly technical, full-time occupation (Roetter, 1962). As the education and expertise demanded on the job have increased, and as the dangers of fighting fires in large cities have increased, so, too, have the stresses on the firefighters and their families.

Many of the younger firefighters have or are working on Associate or Bachelor degrees, primarily in fire science. In some fire departments tensions arise between the views

and goals of the more educated firefighters who are looking toward advancement and professionalization of the occupation and the more military-oriented firefighters who "came up the hard way" and who view experience and the time on the job as superior to technical education.

The fire service is patterned after the military with the firefighters being told what to wear, how to wear it, how to cut their hair, where to go, what to do, and often what to say (Wilson, 1973). Instant response to orders and automatic reactions developed through drills and training are part of a highly structured hierarchy of command. At the same time, the fire service is in transition from this militaristic command into a profession where education and technical expertise may make each firefighter an expert in his particular area. It appears inevitable that the hierarchy separating officers and firefighters will continue to evolve into a more equalitarian group. This change of role and challenge of power brings additional stress and tension to the occupation (Hansen and Hill, 1964).

#### Rationale for the Study

The high danger of death or injury on the job, the long hours away from their families, the tension of constant readiness, the frustration of waiting for calls, and the conflicts and changes within the fire service itself all add

up to an occupation which is highly stressful for the firefighter. The firefighter, in turn, brings these stresses and tensions home to his family and his marriage relationship.

The marriage dyad is not a closed relationship. It is affected by many outside factors including socioeconomic status, stresses and crises imposed by the environment and the society, and the resources available to cope with these experiences (Aguilera & Messick, 1974; Hill, 1949; Hansen & Hill, 1964; Waller & Hill, 1951).

Past studies on the relationship of occupation and marriage have tended to look at the effect of the marriage on the work role (Gadourek, 1963; Guest & Williams, 1973; Pahl & Pahl, 1971; Wilensky, 1964). The effect of work roles on marriage has not been studied as much (Banks, 1956; Comitas & Lowenthal, 1973; O'Toole, 1974).

To date there has been no study which has attempted to look at the relationship between the firefighter role and the dyad relationship most commonly institutionalized through marriage. In fact, there have been very few studies done on stress and personality of the firefighter himself.

It would seem that stress on firefighters' marriages and families resulting from the stress of their jobs could affect the firefighters' ability to carry out their occupational roles at optimum levels. Research in this area could

add to an understanding of coping with stress by individuals and families, and could lead to intervention measures and support strategies to help families cope with occupational stress.

#### Purpose of the Study

The purpose of this study was to look at the relationship between the stress of the firefighter's occupational role and the dyadic relationship. In particular, this study focused on dyadic adjustment, self-concept, perceived stress, decisionmaking, firefighter identity and moonlighting.

## REVIEW OF LITERATURE

The review of literature is divided into several sections. The first section is a brief summary of the theoretical bases used in this study. The second section looks at the studies which have already been done on firefighter personality, identity and reaction to stress. Section three looks at the areas of marital adjustment and the relationship between marital interaction and the economic system. Self-concept is the focus of section four, in particular as it is measured by the Tennessee Self Concept Scale.

### Theoretical Orientation

The tenets of the symbolic interaction and exchange theories were used as a conceptual framework for this study of the relationship between occupational stress of firefighters and family stress and crises (Hansen & Hill, 1964; Hill, 1949; Waller & Hill, 1951).

### Symbolic Interaction and Stress

Interactions between human beings are based primarily on a set of commonly shared symbolic meanings which are developed through consensus of use (Mead, 1934). These symbolic meanings include such things as language, values, beliefs, social patterns, roles and all aspects of the culture and society (Meltzer, 1966).

The meaning given to a particular behavior or experience often determines its impact and effect. This was shown by Hill's study of families separated during World War II (Hill, 1949). Hill found that three variables were important in determining how well a family faced crises: 1) The actual hardship of the stressor event; 2) The definition of the event by the family; and 3) The resources of the family (Hansen & Hill, 1964; Hill, 1949). Of these three, the definition of the situation was the most important in determining how the family handled it. Family resources important in overcoming the crises included: adaptability, integration, marital adjustment, family council control, participation of wife in activities outside the home, and previous successful experience with crises (Waller & Hill, 1951). It is not just the actual stress or hardship of the event itself, but the way it is symbolized within the society or family that is the most important.

### Social Exchange and Stress

Social exchange theory, combining aspects of behavior theory and economic theory, assumes that people are goal oriented and will try to maximize their rewards and minimize their costs in interpersonal interactions (Homans, 1974). Often costs and rewards from many different sources

must be considered and compared simultaneously (Thibaut & Kelley, 1959; Webster, 1975). Two commonly experienced sources of costs and rewards are the occupational and marriage-familial situations.

### Research on Firefighters

There are very few studies on firefighting as an occupation, whereas there are volumes of material on the technical aspects of firefighting. The following studies can be grouped into three categories: studies using personality tests given at the time of employment; one study on firefighters' self-image; and studies on occupational emotional stress.

### Personality Tests on Firefighters

Matarazzo et al. (1964) reported on several of the psychological tests given to 253 Portland, Oregon, police and firefighter applicants after they had passed the preliminary employment interviews. Of particular interest were the results of the Edwards Personal Preference Scale (EPPS), the Minnesota Multiphasic Personality Inventory (MMPI), and the Strong Vocational Inventory Blank (SVIB).

The results of the EPPS showed that the applicants had higher needs than the average male in the areas of achievement, exhibition, intraception, dominance, endurance and heterosexuality. The sample was lower in the needs of

autonomy, succorance, nurturance and aggression. Firefighters, in particular, had higher affiliation needs than the police applicants and a slightly higher need for change.

The MMPI scores showed that, again, police and firefighter applicants were very similar with neither group having any scores indicating pathology. Matarazzo et al. (1964) stated that the scores for the sample were very much like scores found among male college students. The researchers concluded that the applicants were generally better adjusted than the average person.

Results from the SVBI showed that police applicants were more oriented to working with people, while firefighter applicants were oriented to working with their hands or in the business world. When each person was asked why he had chosen the job, the police applicants indicated a desire to work with juveniles and men on probation, and the firefighter applicants said they particularly liked the 24-hour on duty and 48-hour off duty schedule so they could farm, hunt, fish, and do building construction and renovation or work in real estate on their days off. The researchers indicated that the police applicants seemed from their scores and personal appearance to be quite like "white-collar probation officers" and the firefighter applicants seemed to be more "rugged outdoorsmen".

Scores on the Wechsler Adult Intelligence Scale (WAIS)

showed the sample to score in the 80th percentile, approximately the same as United States college graduates. However, only three percent had graduated from college.

The researchers concluded that the police and fire services were recruiting intelligent and well-adjusted persons into their ranks and noted that this continued trend was highly important for the occupations to become true professional fields.

A study by Arvey et al. (1972) compared MMPI scores of 73 firefighter job applicants with their later job performance. The MMPI score which correlated most often with job performance ratings was "masculinity". Flexibility in job roles was correlated with low hypochondriasis, low hysteria, high masculinity and low paranoia. The general conclusion was that the MMPI did not correlate highly enough with job performance to recommend its use. Arvey's research did, however, corroborate the findings of Matarazzo et al. (1964) above that firefighters seem to be psychologically in very good health.

#### Firefighters' Self-Image

Shields (1974) studied "Fire Fighters' Self-Image, Projected Image and Public Image." Using 180 subjects, half of whom were firefighters and half of whom were citizens, Q-sorts of 56 statements, which represented attributes

of firefighters' personality or character, were performed.

The firefighters indicated a self-image of themselves as:

"...speedy, efficient, dependable, compassionate, courteous and dedicated to helping, professionals in a hazardous occupation, put in a full day's work, work as a team, appreciate and often receive public recognition" (Shields, 1974, p. 26).

The firefighters believed, however, that others saw them as:

"...having a soft job, being careless and incompetent, undependable, unskilled, having a safer job than police and mineworkers, inefficient, using outdated techniques..." (Shields, 1974, p. 26).

The citizens, on the other hand, depicted the firefighters as:

"...courteous, speedy, efficient, providing equal service, putting in a full day, training to improve techniques, engaged in a difficult and hazardous job, compassionate, nice guys helping out, team members" (Shields, 1974, p. 26).

Overall, it appeared that the firefighters had a positive and accurate self-image but felt that most people viewed them negatively.

### Firefighter Occupational Stress

The stress of the firefighter occupation was studied by McCarty (1975) using 100 Ft. Worth, Texas, firefighters. Comparing firefighters with the general male population, he found several indicators of stress. In his sample, 55 percent of firefighters smoked versus 43 percent of the general male population, with 47.5 percent of the firefighters

smoking two or more packs a day compared to 15.4 percent of the general male population. Ninety-six percent of the firefighters felt that they were "frequently subjected to stress" (McCarty, 1975, p. 39).

Divorce was higher among the firefighters than the general population with 5.3 percent of the firefighters being divorced compared to 2.9 percent of the general population. Also, 11.8 percent of the firefighters were remarried after a divorce. Forty-five percent of the firefighters felt that their job adversely affected their family life. Areas of stress indicated were:

- 1) Wife worrying about the hazards of the job;
- 2) Long shifts interfering with sex life;
- 3) Wives being alone at night;
- 4) Not being available to help the family when needed.

Lastly, McCarty (1975) found that the more emergency calls that a firefighter went on, the less appreciated he felt by his superiors.

In Fire Command (April, 1974) an anonymous article was written on this same topic and appeared to be a preliminary report of the above study. In this article, several other areas of stress or conflict in the firefighter role were specified. These included: boredom, restraints of a military-like atmosphere, overreaction to threat of fire by pushing beyond the safe physical limit, overindulgence

in alcohol, problems of conflicting images of the firefighter, frustration and guilt at lack of productive work. No specific data were reported; however, many of these problem areas have been mentioned in published interviews and articles by other firefighters (Kiamie, 1973; Ottoson, Washburn and Flora, 1974; Roetter, 1962; Wilson, 1973).

Captain Richard Tremitedi of the Hoboken, New Jersey, Fire Department (1974) did a participant observation study on the emotional stress of the firefighter occupation. He described the firefighter's working hours as being filled with fear, frustration and anxiety leaving him in a constant state of tension and unable to relax. He noted that ulcers, kidney disorders, hypertension and especially cardiovascular disease were prevalent among firefighters. Statistics from the International Association of Fire Fighters (1977) supported that firefighters have one of the highest rates of heart disease of any occupation.

### Summary

In summary, firefighters have been described as being better mentally adjusted than the average person, more intelligent than the norm, achievement oriented, dominant, highly masculine, flexible and with a need to be around people and understand their feelings. Firefighters also seemed to prefer to work with their hands in outdoor activities and many chose the fire service as an occupation that

would allow them time to follow their outside interests whether recreational or on a second job. It appeared that firefighters had a positive image of themselves in their occupation, but felt that other people generally had a low opinion of their profession. Being achievement oriented and highly aware of their masculinity, may have contributed to many firefighters pushing themselves beyond safe physical limits and getting injured on the job. Firefighting was seen as a hazardous and stressful job by the men and one which adversely affected their family life. Psychological effects of stress showed up in higher rates of cigarette smoking and perhaps higher rates of alcohol use, in higher rates of divorce, and in feelings of being unappreciated by fire service management. Physical stress was evidenced by high rates of job related injuries and illnesses and high death rates.

The research showed that men in the fire service were superior in a number of areas to the average male population and that they believed they were faced with a highly dangerous and stressful job which had a significant impact on them and their families.

#### Literature on Marital Dyadic Adjustment

Excellent reviews of the research done through the 1960's on marital happiness, adjustment and stability have been reported by Bernard (1964) and Hicks and Platt (1970). Of particular note was the finding that marriages tended to

more satisfying and longer lasting when the couple had a higher education, higher income and higher age at first marriage. Hicks and Platt (1970) also observed that: "The critical importance of the male instrumental role in marital happiness finds support in study after study" (p. 556). That is, the couple's satisfaction with the husband's job role and income were of prime importance to marital happiness. Numerous studies found that it was the wife who made the most adjustments in the marriage (Bernard, 1964), and it could be assumed that many of the adjustments were related to the husband's occupational role.

Marital interaction patterns and their relationship to the economic opportunity structure have been investigated by Scanzoni (1970). He found that husbands who had low paying and low status jobs, more frequently played dominating roles with their wives (Scanzoni, 1970, 1972). Secondly, he noted that the greater economic rewards that the husband brought to the family, the more satisfied the couple was in the areas of affiliativeness, physical affect and empathy, and the more highly they evaluated the relationship. Also, he found a positive correlation between high self-esteem, high economic opportunity and low marital hostility. Thus, it seemed in his studies that the husband's occupation had a significant influence on the marriage.

#### Measurement of Dyadic Adjustment

Hicks and Platt (1970) and Spanier (1976) have reviewed

the literature on measuring marital dyadic adjustment and/or satisfaction. Spanier (1976) has presented an improved instrument for evaluating "dyadic adjustment" which is applicable for use with married and unmarried heterosexual cohabiting couples. He used some items which proved reliable and valid in previous studies and added a few new ones. This composite instrument was used to measure couple consensus, satisfaction, cohesion and affectional expression. Research on the instrument showed that it was more valid and reliable than previous marital adjustment scales (Spanier, 1976).

### The Self-Concept

The concept of the self is an essential part of most writing and theorizing about personality and behavior (Adler, 1930; Mead, 1934; Fitts, 1965; Rogers, 1959). There appears to be universal agreement that the image a person has of himself or herself influences life goals and behaviors.

### Measurement of the Self-Concept

Most personality tests include measures of self-concept. Self-concept can also be measured through observation of the person and by self-report. Rogers (1959) feels that only the individual can reveal exactly his or her self-image and personal viewpoint. Self-report measures of the self-concept seem to be the most efficient and widely used.

### Tennessee Self-Concept Scale

W. H. Fitts (1965, 1972) documented a wide range of research on the self-concept with the use of the Tennessee Self-Concept Scale (TSCS). In developing the TSCS, Fitts used a sample of 626 people from ages 12 through 68, including both sexes, all social economic and intellectual levels (Fitts, 1965). Thus, norms have been established using the TSCS which can indicate a variety of personality variables.

The TSCS has been correlated to various perception, anxiety and personality measures. Correlations between the TSCS and the FIRO-B (Schutz, 1970) showed that persons with higher self-concepts preferred more interaction with other people and engaged in more interactions. They also had less need to control or be controlled by others; they were more assertive in expressing their feelings and needs to others; and, in general, they got more involved with other people (Thompson, 1972).

Correlations between the TSCS and the Laing Interpersonal Perception Method were done with 20 married couples (Thompson, 1972). It was found that couples with the highest self-concepts had the highest agreement scores. Couples with poorer self-concepts tended to both disagree and misunderstand each other more.

Tennessee Self-Concept Scale scores have also been

correlated with several anxiety scales. It was found that positive self-concepts correlated with low anxiety (Thompson, 1972). Studies have been done which showed that the self-concept could be changed by altering the environment and the interpersonal exchanges over time (Fitts, 1972). From the many studies done, Fitts concluded:

"(1) The self-concept is a valid predictor of many aspects of behavior; and (2) It is correlated with many other variables (feelings, attitudes, interpersonal behavior, mental health)..." (Fitts, 1972, p. 9).

#### Summary

The research done on firefighters showed that they face considerable danger on the job resulting in high rates of injury, illness and death. The firefighters also perceived their job as highly dangerous and stressful. Higher rates of divorce and smoking among firefighters have been used as indicators of high stress. Research also showed that firefighters were more intelligent than the norm, more masculine and had highly stable personalities. Firefighters had positive occupational images of themselves but often felt unappreciated and misunderstood by the community and their administration. Finally, it appeared that quite a few firefighters worked at a second job or profession on their days off.

Studies on marital adjustment pointed out the critical importance of the husband's occupational role on the satisfaction in the marriage. When the husband had a higher

paying job with higher status, the couple more often rated the marriage as positive, and the husband was less often dominating over the wife.

The self-concept was related to a variety of behaviors, attitudes and feelings. Of particular note was that a high self-concept correlated positively with a greater interaction with other people, low need to control or be controlled, low anxiety, more assertive expression, and more positive marital agreement and understanding.

## RESEARCH DESIGN AND PROCEDURES

This chapter describes the design of the study, including the operational definitions, assumptions, hypotheses, the sample, instruments used, methods of data collection and analysis, and the limitations of the study.

### Operational Definitions

#### Dyad

A dyad is a primary, two-person group. For the purposes of this study, dyads of interest were both married and cohabiting, heterosexual couples.

#### Dyadic Adjustment

Dyadic adjustment was seen as a process which "consists of those events, circumstances and interactions which move a couple back and forth along a continuum" of positive and negative functioning (Spanier, 1976, p. 18). As used in this study, dyadic adjustment refers to the scores of the subjects on the Spanier "Dyadic Adjustment Scale" (Spanier, 1976).

#### Self-Concept

The self-concept was defined as the person's view of himself or herself as an object as measured by the Tennessee Self-Concept Scale (TSCS) (Fitts, 1965). When referred to in this study, self-concept was defined in terms of scores on the TSCS.

### Perceived Stress

It has been established that the firefighter job is highly dangerous and stressful. This study was particularly interested in the subjects' perceptions of the job stress as it affected their daily lives. Perceived stress refers to a score comprised of the sum of the responses from questions 15 through 24 on the Background Questionnaire.

### Firefighter

A firefighter was defined as an employee of a fire department who worked on 24-hour shifts, including dispatchers and safety personnel of all ranks directly involved in fire suppression.

### Firefighter Identity

Firefighter identity refers to a score obtained by summing the responses to questions 11 through 13 on the Background Questionnaire concerning behaviors and values related to being in the firefighter role or having one's partner in that role.

### Moonlighting

Moonlighting was defined as employment outside the firefighter job for which the firefighter received remuneration.

### Assumptions

It was assumed for the purposes of this study that the firefighter occupation was, indeed, highly dangerous and stressful. It was also assumed that the variables of dyadic adjustment, self-concept, perceived stress, decisionmaking, firefighter identity, and moonlighting could be measured numerically. Finally, it was assumed that the subjects were able and willing to accurately identify their feelings, attitudes and behaviors on objective questions.

### Hypotheses

Hypothesis 1: Firefighters will have a higher divorce rate than the general population. The high emotional and physical stress of the firefighter occupational role will put greater stress on the marriage (Hansen & Hill, 1964; Hicks & Platt, 1970; McCarty, 1975).

Hypothesis 2: Firefighters will have lower dyadic adjustment scores than the norm. It is logical to assume that if firefighters have a higher divorce rate, they will also have more marriages which show dissatisfaction and poorer adjustment than the norm.

Hypothesis 3: Perceived occupational stress will be negatively related to dyadic adjustment scores. Since perceived stress is so influential in determining a crisis situation, then those firefighters and their dyad partners who perceive the occupational role as most stressful will tend to have lower dyadic adjustment scores (Hill, 1949).

Hypothesis 4: Self-concepts of the subjects will be positively related to dyadic adjustment scores. It has been reported that married couples with higher self-concepts understand their partners better and agree with them more often (Thompson, 1972). It also appears that persons with higher self-concepts interact more often with others in a positive, non-controlling manner, which relates to better marital adjustment (Hicks & Platt, 1970).

Hypothesis 5: Outside employment of "moonlighting" by firefighters will be negatively related to male dominated decisionmaking within the dyadic relationship. A considerable proportion of firefighters work at a second job on their days off. There are probably several reasons for this extra employment. Until recently the salaries for firefighters were quite low, and still are, in many parts of the country. Firefighters are intelligent and achievement oriented (Matarazzo, et. al., 1964), and they work in oftentimes boring routine which produces no concrete productive results (McCarty, 1975; Tremittedi, 1974). Outside jobs can provide the firefighter with a sense of accomplishment and productivity that he may find missing from the firefighter role.

The more integrated a husband is into the economic system, the less dominant with his wife he is likely to be (Scanzoni, 1970; 1972). Scanzoni reasons that the

higher income husbands feel more secure with the resources they bring to the marriage, so they have less need to coerce, demand or exploit their wives. They feel more secure in their bargaining position, so they are more willing to compromise.

Hypothesis 6: Dyadic adjustment scores and amount of outside employment by firefighters will have a curvilinear relationship, with dyadic adjustment scores being higher for firefighters who moonlight the most and the least. It would seem that firefighters who moonlight a great deal and those who moonlight very little or not at all will perceive their economic positions as more secure than firefighters who moonlight only occasionally when money is tight. Regular moonlighters will have the security of a higher income and a second occupation, while those who rarely moonlight will have adjusted their lifestyle and needs to fit their fire department income. Occasional moonlighters may have a less steady economic base, sometimes living within their means and sometimes not.

Hypothesis 7: Self-concept scores and amount of outside employment by firefighters will have a curvilinear relationship, with self-concept scores being higher for firefighters who moonlight the most and the least. It would seem that firefighters who moonlight on a regular basis or who moonlight very little or not at all will have better

feelings about their ability to provide for their families. Sporadic moonlighters might have a greater inconsistency of self-concept and might have a greater conflict of identity (Rogers, 1959).

Hypothesis 8: Perceptions of stress and amount of outside employment by firefighters will have a curvilinear relationship, with lower levels of stress being reported by firefighters who moonlight the most and the least. Firefighters who are satisfied with the firefighter role alone will quite likely perceive that role as positively rewarding. It is predicted that they will perceive the stress as low and the rewards as high because they have found ways of offsetting the amount of stress which the job generates.

Firefighters who moonlight a great deal quite likely are balancing the stress of the firefighter role with the rewards of that role and, additionally, with the rewards of the second occupation.

Firefighters who moonlight occasionally will likely perceive the highest stress because they feel less economically secure. They and their families will probably make the greatest number of role, time and economic adjustments which might greatly increase their perceptions of stress.

Hypothesis 9: Firefighter identity will be negatively related to amount of outside employment of firefighters. It would seem that firefighters who do not have any other employment will identify most strongly with the firefighter role.

Those firefighters who have regular outside employment will have two occupational identities which would probably decrease their firefighter identity.

### Sample

The sample for this study consisted of 105 subjects. Sixty-one male firefighters and 44 dyad partners responded to the questionnaires. The sample came from two fire districts in Sacramento County, California, which were chosen because of their similarity to modal fire departments on location, size, types of alarms and also because of the willingness of the Chiefs to have their districts included in this study.

### Instruments

Four instruments were used in this study: The Dyadic Adjustment Scale (Spanier, 1976), the Tennessee Self-Concept Scale (Fitts, 1965), a Background Questionnaire and a Dyadic Decisionmaking Questionnaire.

#### Dyadic Adjustment Scale

The Dyadic Adjustment Scale (Spanier, 1976) is a recent compilation and revision of six previous marital adjustment scales. The scale consists of 32 questions with Lickert-type answers. Five scores are obtained from this instrument: Dyadic Consensus Subscale, Dyadic Satisfaction Subscale,

Dyadic Cohesion Subscale, Affectional Expression Subscale, and a total Dyadic Adjustment Scale.

Content validity for the scale was obtained through evaluation by three judges of the items for relevance, consistency with the definitions of the study, and careful wording. The scale was considered to have concurrent validity in that it accurately differentiated married samples from divorced samples at the .001 level of significance.

The total scale reliability of .96 and subscale reliability ranging from .73 to .94 was considered sufficient to justify use of the instrument.

#### Tennessee Self-Concept Scale

The Tennessee Self-Concept Scale (Fitts, 1965) was developed as a short, paper and pencil test that could be scored objectively for use in mental health research. The following ten scores from the Counseling Form were used in this study:

- A. Self-Criticism Score (SC). These ten items are negative statements which most people admit as being true. Persons who deny them are rated as defensive and trying to present an overly favorable picture of themselves.
- B. Positive Scores.
  1. Total Positive (P). This is the overall self-concept score. High scores indicate self-liking and low scores indicate negative feelings of self-worth.

2. Identity. This score describes how the person sees his or her basic identity.
3. Self-Satisfaction. This score gives a measure of how acceptant the person is of the identity that is perceived.
4. Behavior. This score measures how the person perceives his or her behavior. It is based on questions about actions.
5. Physical Self. This is the person's feeling about his or her body, health appearance, skills and sexuality.
6. Moral-Ethical Self. Feelings of being "good" or "bad", relationship to God, and religion are reflected in this score.
7. Personal Self. This score reflects the person's perception of personal worth separate from the physical or social image.
8. Family Self. This score indicates how the person feels about being a family member.
9. Social Self. This score indicates the person's feeling of social adequacy and worth in interactions with other people.

The TSCS was normed using a sample of 626 persons from a variety of socio-economic backgrounds, races, both sexes and all educational levels. It was found that the effects of demographic variables on the TSCS scores were negligible. Fitts (1965) indicated that samples larger than 75 would not differ appreciably from the norms set up for the TSCS.

Content validity was established originally by unanimous agreement on each item by a seven-member panel of psychologists. Concurrent validity was demonstrated by the

ability of the TSCS to discriminate between patient and non-patient groups.

Test-retest reliability for all scores on the TSCS were high, with the self scores ranging from .85 to .92 and the Total Positive Score (P) showing the highest reliability. Profile patterns for individuals on the various scales have also shown strong similarity over time.

#### Background Questionnaire

A questionnaire was specifically designed for this study in order to collect background data and to assess attitudes, feelings and behaviors on the variables of stress, fire-fighter identity, amount of moonlighting by the men and out-of-home employment by the women. Male and female versions of the questionnaire were designed, but essentially the two forms were identical except for the differences in gender wording.

#### Dyadic Decisionmaking Questionnaire

This questionnaire was composed of the first fifteen items from the Dyadic Adjustment Scale and was used to assess the ways the couple viewed how they made decisions. The subjects were asked how disagreements on the fifteen items were settled most of the time.

#### Data Collection

The four instruments were compiled into a packet including a letter of introduction stating the purpose of the

study, and a consent form assuring anonymity of the subjects and indicating the voluntary nature of the answers given. This packet of materials was enclosed in a manila envelope that was pre-addressed and pre-stamped to facilitate the subject mailing the completed questionnaires back to the researcher.

The packets were distributed to each firefighter at his duty station during one of his 24-hour shifts. The firefighters were asked to fill out the questionnaires during the next couple of days and mail the packet to the researcher.

Lists of names and addresses of the marriage or cohabitation partners of the firefighters were obtained, and the test packets were mailed to the women. They were given instructions to fill out the materials and return them, also, by mail to the researcher.

As the materials were returned, they were numbered for statistical analysis purposes. After two weeks, a follow-up telephone call was made to the subjects thanking them for returning the questionnaires and reminding those who had not returned them to please do so as quickly as possible.

#### Data Analysis

Because of the size of the sample, it was assumed to be normally distributed for statistical purposes. Although the two fire departments were not chosen at random, they

were considered similar to most suburban fire districts in the United States. A variety of statistical techniques were used to analyze the data. The  $t$ -test and the Pearson  $r$  were the two primary statistics. Since both are robust tests, they were considered appropriate for the size of sample used. The chi-square test was used for categorical data. Although a probability of .05 was used as the determining significance level for the data, relationships at the .10 level were also considered when interpreting trends in the data.

#### Limitations

The generalizability of the findings in this study may be limited by the following factors:

1) The subjects of this study were all suburban firefighters and their dyad partners. This was a specific occupational group, and generalizations to other groups would not be advisable without further research.

2) The sample for this study was not selected at random; however, the sample was large enough to assume a normal distribution of variation among the subjects, comparable to other suburban firefighting districts. However, generalization to inner city, rural or forestry firefighters should be done carefully and with consideration of the differing occupational demands.

3) The instruments used in this study were self-report

measures and carried with them certain limitations. Subjects may have been able to hide or misrepresent their feelings and behaviors. Also, the subjects may not have been able to accurately identify their actual feelings and behaviors. However, because wide variations showed up and the answers approximated a normal distribution, this was not seen as a serious limitation.

4) The findings of mailed questionnaires can be limited by the number of questionnaires which are returned. This study had a return rate of 61 percent, which was considered "good" (Babbie, 1973). Uncontrolled variables that might have affected the return or non-return of questionnaires were unknown.

5) Other uncontrolled variables such as various background differences, the physical health of the subjects, the time of day that the questionnaires were filled out, emotional upsets and collaboration on answers were factors that may have, in some way, biased the results of this study and limited its generalizability.

#### Summary

A sample of 105 firefighters and their dyad partners were given four self-report instruments designed to measure dyadic adjustment, self-concept, perceived stress, firefighter identity, decisionmaking, amount of moonlighting,

and specific background factors. The questionnaires were given to the firefighters while on duty and mailed to their dyad partners, with all subjects returning the instruments through the mail. Appropriate statistical tests were used to determine significant correlations between variables and between the sample and the instrument norms.

## RESULTS AND ANALYSIS OF RESEARCH

Six variables were of particular interest in this study: Dyadic adjustment, self-concept, perceived stress, decisionmaking, firefighter identity, and moonlighting. Measurement of each of these variables provided a number of subscores as well as total scores which were analyzed by sex and in comparison to norms when available. The background questionnaire also provided information on age, marital status, education, length of marriage, length of service, rank and wife employment.

### Analysis of Demographic Data

There were 105 subjects in the sample, of which 61 were male firefighters and 44 were their dyad partners.

The mean age for the sample was 33.7 years, with a range of ages from 22 years to 52 years. For men the average educational level was junior college, and for women it was high school with some junior college.

The average number of years couples had been together was 10.6 years, ranging from just married or living together to a maximum of 30 years. The average number of children in each household was two, with a maximum of six children.

It was hypothesized that the divorce rate for the firefighters would be higher than the general male population.

As can be seen from Table 1, the divorce rate among these firefighters was significantly higher than the general male population.

Table 1  
MARITAL STATUS MEN

	Sample%	National %*	$\chi^2$	p
Single	11.5			
First Marriage	72.0			
Divorced	9.5	3.7	6.348	.02
Remarried	7.0			

\*Statistical Abstracts of the U.S., 1975

The years of service with a fire department ranged from one year up to 21 years, with a mean of 9.1 years. The percentage of the sample in each of the ranks as shown in Table 2 compared closely with the actual breakdown of these ranks in the two fire districts.

Table 2  
RANK

	Sample%	n	Total%	n
Fireman	37.7	23	42.5	40
Engineer	27.8	17	25.5	24
Captains	27.8	17	25.5	24
Dispatcher	6.5	4	6.0	6

Moonlighting during "Kelly" days ranged from none at all to 20 days per month, the maximum number of days any firefighter had off duty, with the distribution as follows:

Table 3  
MOONLIGHTING

Days of Moonlighting	Sample%	n
0	43	26
1 - 8	20	12
10 - 14	23	14
15 - 20	14	9

As can be seen from this information, well over half of the firefighters worked at some kind of paid job or business in addition to their fire department job.

Information on the employment of the wives is shown on Table 4.

Table 4  
WIVES EMPLOYED

	Sample%	National %*	$\chi^2$	p
Full-time	11	30	13.337	.001
Part-time	23	15	4.994	.05
Not employed	63	55	2.838	.10

\*U.S. Department of Labor, 1975.

Comparing the sample with the national figures, using a chi-square test for goodness of fit, it was found that significantly fewer of the firefighter wives worked

full-time and significantly more worked part-time than the national figures reported. Also, it can be seen that fewer of the wives worked at all than was expected.

#### Analysis of Questionnaire Scores

Scores for firefighter identity were taken from questions 11 through 13 on the Background Questionnaire; and scores for perceived stress were compiled from questions 14 through 23. Table 5 shows the results.

Table 5  
STRESS AND IDENTITY SCORES

	Sample Mean	Sample Range	Possible Range
Perceived Stress	26.4	14, 46	10, 50
Firefighter Identity	15.37	7, 20	4, 20

There were no norms set for these scores; however, it can be seen that the mean for perceived stress is somewhat below the median point, and the firefighter identity is above the median point. There was a wide variation in scores, which correlated significantly with some of the other measures used in this study.

It was hypothesized that the subjects would score below the norms for dyadic adjustment. Scores on the Spanier Dyadic Adjustment Scale were significantly lower

for the firefighter sample in three of the five measures, including the Total Dyadic Adjustment Score (Table 6).

Table 6  
DYADIC ADJUSTMENT SCORES

	Sample		Norm		t	p
	Mean	SD	Mean	SD		
Satisfaction	30.56	10.48	40.5	7.2	8.47	.001
Cohesion	14.49	5.66	13.4	4.2	.62	NS
Consensus	45.03	15.59	57.9	8.5	8.05	.001
Affection	8.56	3.69	9.0	2.3	1.12	NS
TOTAL	98.64	33.78	114.8	17.8	4.60	.001

Of the ten scores on the Tennessee Self-Concept Scale, the following scores showed significant differences from the norms (Table 7).

Table 7  
TENNESSEE SELF-CONCEPT

	Sample		Norm		t	p
	Mean	SD	Mean	SD		
Self-Satisfaction	110.8	11.91	103.67	13.79	9.44	.000
Personal Self	67.59	7.55	64.55	7.41	5.28	.001
Moral-Ethical Self (Women)	75.46	5.13	70.33	8.70	6.05	.001
Physical Self (Women)	66.97	9.11	71.78	7.67	3.42	.001

The whole sample showed a significantly greater feeling of satisfaction with themselves and a sense of personal worth than the norm. For the women, a greater feeling

of "goodness" and belief in God and moral behavior was expressed. The women also indicated more negative feelings about body image and physical well being than the norm.

Results from a chi-square analysis of the Decisionmaking Questionnaire showed that the sample reported making decisions and settling disagreements most frequently "together", with "decides for self" running second. It had been hypothesized that male dominated decisionmaking would be negatively correlated to moonlighting, however, decisionmaking did not correlate with any of the variables.

Although husbands were reported making decisions alone about friends, philosophy of life, ways of dealing with inlaws/parents, life goals, time spent together, major decisions, and career decisions, not one wife was reported as making these decisions alone. Women alone made decisions only in the areas of finances, religion and household tasks.

#### Analysis of Relationships Between Variables

Using the Pearson  $r$  formula, Table 8 shows correlations between length of marriage, density of children, moonlighting and wife employment with dyadic adjustment and TSCS, and also correlations between stress and dyadic adjustment, TSCS, firefighter identity, age, length of service, moonlighting and wife employment.

Table 8  
SIGNIFICANT CORRELATIONS

Variable 1	Variable 2	r	p
Length of Marriage/	Satisfaction	.4797	.001
	Cohesion	.3069	.001
	Affection	.3367	.001
	Dyadic Adjust.	.4441	.001
Density of Children/	Satisfaction	-.2735	.002
	Consensus	-.2051	.018
	Dyadic Adjust.	-.2363	.008
Perceived Stress/ Women	Satisfaction	-.2581	.045
	Consensus	-.3180	.018
Men	Satisfaction	-.1445	.133
	Consensus	-.1412	.139
Together	Dyadic Adjust.	-.1759	.036
	TSCS - P	-.2482	.007
	F.F. Identity	-.2050	.018
	Increased Age	.2137	.015
	Length of Service	.1907	.027
	Moonlighting	.1430	.074
	Wife Employed	.1570	.057
Moonlighting/ Women	Satisfaction	-.1696	.135
	Cohesion	-.3843	.005
	Dyadic Adjust.	-.1886	.110
Men	Satisfaction	.1792	.085
	Affection	.1556	.118
	Dyadic Adjust.	.1408	.142
Wife Employed/ Women	Satisfaction	-.2069	.089
Men	Affection	.1488	.130
Together	Stress	.1570	.057
Dyadic Adjustment/ Women	TSCS:		
	Moral-Ethical Self	.4686	.001
	Identity	.3803	.008
	Family Self	.4258	.003
	Social Self	.2843	.040
Together	TSCS - P	.0912	.185

Length of marriage was positively correlated to dyadic adjustment, while higher density of children was related to lower dyadic adjustment.

It had been hypothesized that perceived stress would be negatively related to dyadic adjustment, and this was supported by the statistics. Stress was also negatively related to total positive (P) self-concept and firefighter identity. Stress was positively correlated to increased age, length of service and wife employment. Stress directly increased as moonlighting increased, rather than curvilinearly as had been hypothesized.

There was a negative relationship between husband moonlighting and wife satisfaction, cohesion and dyadic adjustment; however, for men there was a positive correlation between moonlighting and increased satisfaction, affection and dyadic adjustment. Contrary to the hypothesis, this relationship was not curvilinear.

The more days the wives worked outside the home, the lower was their satisfaction and the higher were their husbands' scores on affection. Both men and women felt increased stress.

Firefighter identity was related negatively to increased stress, but it was not related to moonlighting as had been hypothesized.

Self-concept scores were not related to moonlighting, as had been predicted. TSCS scores, however, did correlate

positively to dyadic adjustment. For the women higher dyadic adjustment correlated with high scores on moral-ethical self, identity, family self and social self.

As reported in Table 9, significant differences between men and women were found on several of the variables using the t-test.

Table 9  
DIFFERENCES BETWEEN MEN AND WOMEN

Higher Score	Variable	t	p
Women	Satisfaction	3.14	.003
	Consensus	3.67	.000
	Cohesion	2.27	.026
	Affection	2.49	.014
	Dyadic Adjust.	3.39	.001
	TSCS:		
	Moral-Ethical Self	3.15	.002
	Identity	1.81	.073
	Family Self	2.42	.017
	Social Self	2.20	.030
	Danger of F.F. Job	2.48	.015
Men	Stress	1.47	.145
	Wife Alone at Night	2.17	.032
	Conflict with		
	Administration	1.69	.094

The women had significantly higher scores than the men on all of the dyadic adjustment scales. They also had higher scores on moral-ethical self, identity, family self, and social self. In addition, the women felt that the firefighter job was more dangerous than the men felt it was.

The men reported higher levels of stress than the women; they worried more about their wives being home alone at night; and they worried more about conflict with the fire service administration.

There was a significant relationship found between marital status and rank as shown in Table 10.

Table 10  
RANK BY MARITAL STATUS

	Divorced	Married	Remarried	
Fireman	(1.8) 0	(27.1) 30	(4.03) 3	33
Engineer	(1.6) 4	(23.0) 23	(3.42) 1	28
Captain	(1.6) 1	(23.8) 21	(3.54) 7	29
	5	74	11	90

$$p = .018, \chi^2 = 11.897, 4 \text{ d.f.}$$

Engineers were more likely than expected to be divorced and less likely than expected to be remarried. Captains were much more likely to be remarried. No man in the Fireman rank was divorced.

When the number of men in each rank who had ever been divorced was tabulated, the following results were obtained (Table 11).

Table 11  
EVER DIVORCED BY RANK

Rank	Percent	n
<sup>1</sup> Chief and Assistant Chief	100	4
<sup>1</sup> Battalion Chief	40	2
Captain and Sr. Captain	25	4
Engineer	13	2
Fireman	0	0

There was a clear linear relationship between increasing rank and increasing likelihood of divorce.

Rank was significantly related to amount of moonlighting as shown in Table 12.

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<sup>1</sup>Since these ranks were not included in the study sample, information on marital status was secured from district records.

Table 12  
MOONLIGHTING BY RANK

Days	Fireman	Engineer	Captain	Dispatcher	
0	(17.08) 12	(11.96) 10	(11.96) 16	(2.99) 6	44
1- 8	(8.15) 14	(5.71) 6	(5.71) 1	(1.42) 0	21
10-13	(8.93) 10	(6.25) 6	(6.25) 7	(1.56) 0	23
15-20	(5.92) 4	(4.08) 6	(4.08) 4	(1.02) 1	15
	40	28	28	7	103

$$p = .0251, \chi^2 = 19.014, 9 \text{ d.f.}$$

Engineers were the most likely to be moonlighting 15 to 20 of their days off. More Firemen and Captains were not moonlighting at all than was expected. Firemen were more apt to moonlight one to eight days than expected and Captains less likely. Dispatchers were far less likely to moonlight in any of the categories than expected.

The chi-square between hours wife worked and days that husband moonlighted was close to significance and is shown on Table 13.

Table 13  
WIFE WORK BY MOONLIGHTING

		Days Moonlighting				
		0	1-8	10-13	15-20	
Hours Wife Work	0	(28.0) 29	(12.1) 14	(15.3) 11	(9.55) 11	65
	2-16	(4.3) 3	(1.86) 3	(2.35) 2	(1.47) 2	10
	20-40	(11.6) 12	(5.02) 2	(6.35) 11	(3.97) 2	27
		44	19	24	15	102

$$p = .15, \chi^2 = 9.30, 6 \text{ d.f.}$$

When the firefighter worked few (1-8) days or a large number (15-20) of his days off, his partner was less likely than expected to work outside the home. Men who worked an intermediary (10-13) number of days off had partners who were more likely than expected to work full-time.

#### Summary of Data Analysis

There was a significantly greater number of firefighters who were divorced than the general population. Therefore, the first hypothesis that firefighters will have a higher divorce rate than the general population was supported.

The second hypothesis that the subjects would have lower dyadic adjustment scores than the norm was also supported since the firefighters' and their wives' scores were significantly lower on the Dyadic Adjustment Scale than the norm in total adjustment, satisfaction with the dyadic relationship, and consensus between the dyadic partners. Cohesion and affection were reported within the norms.

It had been hypothesized that perceived occupational stress would be negatively related to dyadic adjustment, and the data supported this hypothesis. As stress increased, total dyadic adjustment decreased--especially in the areas of satisfaction and consensus. This correlation was slightly stronger for the women than the men.

As had been hypothesized, dyadic adjustment scores were positively related to self-concept scores. Four of the TSCS scores correlated significantly with dyadic adjustment scores. These were moral-ethical self, identity, family self and social self. These correlations were significant only for the wives. Total positive (P) self-concept for the entire sample was positively related to total dyadic adjustment, but this did not reach a significant level.

Moonlighting was not related to patterns of decisionmaking as had been hypothesized. Decisionmaking was

reported as being done primarily together. At the same time, looking at male and female decisions, the husbands seemed to have primary control over a wide area of decisions, while the wives controlled the more traditional areas of housework, religion and writing out the bills.

Moonlighting was not curvilinearly related to dyadic adjustment as had been hypothesized. Rather, there was a negative relationship for the women and a positive relationship for the men. Women reported lower satisfaction, cohesion and total adjustment the more the husband worked on his off-duty days. The men, on the other hand, reported increasing satisfaction, affection and total adjustment the more days they spent moonlighting.

Self-concept scores and amount of moonlighting by the firefighters in the sample were not related as had been hypothesized.

Stress was directly and positively related to amount of moonlighting rather than curvilinearly as had been hypothesized. The more moonlighting the firefighter did, the more stress both he and his partner perceived. In addition, stress was positively related to increased hours of employment of the woman outside the home.

It had been hypothesized that firefighter identity would be negatively related to amount of moonlighting, however, the data did not support this relationship. The

only significant relationship found for the firefighter identity score was with decreasing stress. That is, the higher the firefighter identity, the lower was the perceived stress.

A number of significant relationships were found for which no hypotheses had been proposed.

Stress was negatively related not only to total dyadic adjustment, but also to total positive (P) self-concept and to identity with the fire department. On the other hand, stress increased as the age of the firefighter increased and his years of service with the fire department increased. Lastly, men reported higher levels of stress than the women did.

Dyadic adjustment increased significantly in relation to the length of the marriage. Dyadic adjustment also improved as the number of children per year of marriage decreased. The women in the sample reported significantly higher scores on dyadic adjustment than the men.

Several scores on the Tennessee Self-Concept Scale were higher for the women than the men. These were in the areas of religion and morals, family and social interaction. The entire sample had significantly higher scores on self-satisfaction and personal self-worth than the norm. Women scored lower than the norm on physical well-being.

Wife employment had an unexpected impact on these dyad relationships. When the women went to work, their

satisfaction scores decreased, while the partner's affection score increased. This decrease in the women's satisfaction was the reverse of other research findings (Gysbert et al., 1965; Hall & Gordon, 1973; Holmstrom, 1972; Weis, 1969). Also, as mentioned above, the perceived stress from the firefighter's job increased when the women went to work.

In looking at specific stress areas in the firefighter occupation, it was found that the women were most concerned about the danger of the husband's job, while the men were more concerned about their wives being home alone, and about problems with the fire department administration.

In summary, it appeared that the firefighter occupational role had a significantly negative impact on the dyad relationships of this sample. The occupational role also seemed related to marital roles, and to the options and effects of extra employment for the men and outside employment for the women.

## DISCUSSION

Conclusions and InterpretationsDyadic Adjustment

It can be concluded from the foregoing analysis that the firefighter occupational role is significantly related to poorer marital adjustment and satisfaction, and to higher divorce rates. Lower adjustment seems more typical of the men, of newer marriages and for couples with more children.

The women were more satisfied, felt a greater oneness and agreement, and perceived more affection between the partners than the men did. Their dyad scores were highly correlated to moral-ethical self, identity, family self and social self on the TSCS. It appeared that the women viewed themselves as good wives and mothers with their identities closely tied to their families. Responses on questions about decisionmaking also tended to show these couples in traditional roles with the wives having more complete control over the household than any other area. Thus, the investment of these women in a "good" marriage seemed to be high, which might have influenced them to view the relationship more positively as a reflection on their abilities to fill the wife role.

Newer marriages seemed to exhibit more difficulties than older marriages. Comparing data on length of marriage

and length of service, it appeared that the average couple was married about a year before the husband joined the fire department. While the marriage was in its early adjustment period, the stress of odd hours and work days, 24-hour shifts, and high danger on the job were added to the adjustments that the couple was required to make.

Engineers were more likely to be currently divorced and Captains more likely to be remarried. It would seem then, that it took several years for the stresses and dissatisfactions to lead to divorce, during which time the husband advanced in his career from Fireman to Engineer. The divorce seemed most likely to occur at the Engineer level with increased likelihood at higher command levels. Advancement in the firefighter occupation seemed to bring increasing pressure on the marriage. The nature of the pressures at higher ranks was not investigated in this study, but it may be hypothesized that increasing competition for advancement to a few high-level positions was involved.

Other studies have shown that marital satisfaction tends to decrease over the years (Blood & Wolfe, 1960). This sample showed a significant increase in satisfaction the longer they had been married. Since the divorce rate was so high in this group, a self-selection process may have been at work. Highly unsatisfactory marriages had

probably already been terminated in divorce, whereas the more satisfactory marriages tended to be maintained over the years. It is probable, too, that couples in older marriages had learned successful coping mechanisms, while the younger couples were still searching for them.

Higher child density was related to lower dyadic adjustment. This finding was not surprising since other studies have made similar reports (Blood, 1972). Of particular note in relation to firefighters is that the wives have many hours of unrelieved responsibility for child-rearing. Help while the husband is on duty, particularly in the evenings, at night, and during emergencies is not available. Thus, the women have to learn to function as part-time, single parents. This, in turn, is likely to lead to greater dissatisfaction.

Overall, young couples who had several small children were the least satisfied, least adjusted and had the least agreement. It was also these families where the firefighter would have fewer years on the job, less money, and the couple would be less likely to have adjusted to the hours and demands of the job--both occupational and parental. At the same time, these families would make the greatest demands on the available resources.

#### Self-Concept

Analysis of the Tennessee Self-Concept scores indicated that the sample as a whole had quite positive

self-concepts. They were particularly satisfied with their views of themselves and showed high feelings of self worth. Other studies have indicated the same results about firefighters (Arvey, 1972; Matarazzo et al., 1964; Shields, 1974).

The women saw themselves as good and moral, to be valued members of their families and to have positive social interactions. These are typical functions of the traditional wife role and seem to indicate a traditional division of labor. The women seemed to feel rather negative about their physical appearance and well-being. This has been reported as typical of married women who are primarily housewives (Chessler, 1972; Hall & Gordon, 1973; Holmstrom, 1972).

### Stress and Identity

The firefighters and their partners did not, as a group, view the occupation as highly stressful. However, the men reported more stress than the women. The variations in this score were quite wide, and comparisons with other variables showed that stress was higher when the firefighter was older, had been on the job longer and when both partners had heavy work schedules. On the other hand, stress was lower for those persons who felt really good about themselves, had good marriages and who liked being with the fire service.

It appears from this analysis that the greatest stress, then, may be felt by families in which the firefighter is older, either partner does not like the fire service, there is a need for increased income and the marriage is unhappy or there has been a recent divorce. However, a happier dyad relationship and increased self-concept seem to mitigate against feeling increased stress from the job over the years.

A man who feels poorly about himself and is not happy about being in his chosen occupation is likely to see that job as more stressful. He will find himself in more unsatisfactory situations and will have a more negative view of what happens, so he will feel greater stress. The wife who has a low self-concept, less ability to cope with daily problems and does not want her husband to be a firefighter is more likely to blame his job as the stress-producing agent.

It is interesting to note that extremely high stress scores were rare, even though there was a preponderance of evidence to show that firefighting is stressful and dangerous. The questions used to measure stress came directly from interviews with firefighters and their wives, so why weren't the stress scores higher?

To stay within a relationship, occupation, etc., it must appear to the person to be profitable (Thibaut & Kelley, 1959). If the stress of the firefighter job were

seen as extremely high, then the profit from that occupation would diminish rapidly, unless there was a significant increase in the amount of such things as status, recognition or money from the job. What appears to happen is that firefighters suppress the stressfulness of their job, particularly the day-to-day problems and strains. When they get into a big fire and the danger and physical stress of the job is evident, the status and recognition they get for saving lives and property is emphasized to balance things out.

All of these firefighter families faced similar stresses from the occupation. However, the families had different definitions of the stress and different resources available to cope with the stress (Hansen & Hill, 1964; Hill, 1949).

Those families with lower firefighter identity reported more stress; that is, their definitions of the occupation were more negative and stress producing. The job was defined as more hazardous the longer the firefighter had been on the job. This was perhaps because he had had more opportunity to see others be injured and to be injured himself. There was also more perceived stress when either the husband moonlighted or the wife was employed outside the home. This may have been because firefighting was then seen as more dangerous in relation to other jobs. It may also have been because the strains and demands of firefighting became more evident, and negatively defined,

when stresses from other sources were added.

### Moonlighting and Wife Employment

The men and women in the sample had opposite reactions to the husband moonlighting on his days off. The women felt less satisfied with the marriage, and they felt less like a cohesive unit. The men, on the other hand, felt much more satisfied with the marriage, and they were more satisfied with the affection in the relationship. Also, when the wife worked outside the home, she felt more dissatisfied with the marriage, and the husband felt more affection for the wife. Perceived stress increased for both men and women when either did this "extra" work.

It appears, then, that the more days the man moonlights, the more likely he is to appreciate his wife and to depend heavily on her to care for the home and children, handle the day-to-day problems, and, in addition, probably act as secretary and bookkeeper for his moonlighting business. The women, on the other hand, may feel they are overburdened and less important than their partners' interests and activities, and thus they are less satisfied with the relationship.

Whether the unsatisfactory marriage preceded or followed the long hours of moonlighting is not known. The men perceive the marriage as better. Perhaps the man buries his problems in his work, or he ignores how his wife is feeling, or he may be so immersed in work which

he enjoys that he sees life as good and positive and his marriage as part of that overall picture.

It is probable that working outside the home puts a great strain on the wife of a firefighter. If she has an 8:00 to 5:00 job, she may not see her spouse for nearly 36 hours; then they may have an evening together and be separated for another 36-hour period. This will go on for three shifts, and then he has four days off. If they are lucky, their days off may fall somewhat together, but it is more likely that they will not. With the reduced time together and the increased work responsibility, the wife becomes more dissatisfied. A solution for many of the firefighter families is for the woman to be employed part-time or not at all.

The increased satisfaction with affection on the part of the husband may have several possible explanations. When the wife goes to work, he may feel that she is sacrificing and contributing to the family above and beyond that required of her. Also, he may feel that now she is out of the house and meeting other people, he needs to show her more affection in order to compete with her new interests. She might actually be seeking more affection, perhaps as reassurance or just because they see each other less, and this could increase his satisfaction. When the husband increases his moonlighting hours, the wife may feel more

insecure as the stress increases and seek more affection, again competition may be a factor, or the wife may seem more responsive because the time and energy he can devote to affection and sexual relations is diminished.

There was a relationship, although not strong, between wife working and firefighter moonlighting. When the man was moonlighting very few days or a large number of days, the wife was less likely than expected to work. Men who worked an intermediary number of days had partners who were more likely to work full-time.

It may be that men who moonlight very little have lower economic goals, so their partners might be less influenced to go out and work. They may also have a greater desire to spend their free time together as a family, which would discourage either spouse from seeking outside work. Men who work nearly every off day, probably need, more than any other, someone to take care of the needs of the family and of the business, e.g. taking telephone calls, setting up jobs, etc. Men who moonlight about half of their days off could more easily share the family obligations so that both spouses could work toward a common goal of financial betterment.

#### Rank

It was reported earlier that Engineers were more likely than expected to be divorced and Captains were more

likely to be remarried. This finding may help explain why more Engineers were moonlighting long hours and Captains were not. It may be that Engineers, more of whom are currently divorced, have more available hours and feel a greater pressure to become financially solvent again after a divorce. Captains, who have remarried, may feel a greater need to spend their off-duty time with their wives.

More Firemen and Captains were not moonlighting at all and Dispatchers were least likely to moonlight in any of the categories than was expected. The Engineer rank might be equated to a middle-management position. Many Engineers seem satisfied with their level of advancement and have little desire to move up to the more demanding Captain rank. It appears they may choose a middle rank and seek further gains in money and status outside the fire department. Captains seem more involved in the hierarchy of the department so may have less time or interest in other work. The man, who is Fireman rank, is generally newer on the job and younger. He, too, may be very involved with being a firefighter; he may not have the skills to get moonlighting work; and he may have a young family that requires more of his off-duty time. The moonlighting work that most firefighters get into is in the construction field and often requires heavy physical labor. Since most of the dispatchers for these fire districts are physically handicapped, it is not surprising that few of

them were involved in moonlighting.

### Decisionmaking

Since the research pointed to a highly masculine, traditional role for firefighters, and since few of the wives worked and most were very identified with their families, it appeared that the reports of most decisions being made "together" may have been primarily socially acceptable responses rather than accurate descriptions. Therefore, it seemed more useful to look at and compare the areas in which decisions were made by either husbands or by wives alone. It was found that the men predominated over friends and inlaws, life goals, time together and major decisions, while the women predominated over religion, housework and taking care of finances.

This division reflects traditional roles. Since the firefighter job is a very regimented one which dictates rather difficult hours, it is probable that in most of these families the man and his occupation control much more of the decisionmaking than the woman and her occupation.

This traditional division of roles might help explain further the women's increased dissatisfaction with the relationship when the husband moonlights. A woman who follows a traditional role probably expects to spend more off-duty time with her husband, and does not expect to

function on her own as much as she must when her husband is a firefighter and moonlights too.

### Implications

#### Divorce and the Fire Service

The data showed a definite increase in divorce the longer the man was in the fire department and especially as he advanced to higher ranks. It appeared, however, that for many the dissatisfaction with the marriage was evident at an early point in the relationship and at an early point in the fire service. The accumulated stresses took several years to reach a breaking point, during which time the firefighter became more and more involved with his career advancement.

It would appear from the statistics that a rise to the top ranks within the fire service is almost a guarantee that one's marriage will end in divorce. This is a sobering implication.

Within recent months, the Sheriff's Department in Sacramento County has hired a person to counsel with their employees, including marriage counseling. This same action would seem highly beneficial for the fire service as well. Although it is unlikely that each fire district could afford to hire a full-time marriage counselor, it might be possible for several districts to go together and each hire a portion of the counselor's services in proportion to the size of the districts.

Another possible assistance to firefighter families might be an initial orientation for the men and their partners, when the firefighter is first hired, concerning the possible stresses on the family which the job might cause. Such an orientation might include discussions by veteran firefighters and their families about successful and unsuccessful ways they have handled these pressures. This exchange could be beneficial to those who have been with the fire service for some time as well as to the new families.

An area of particular job stress for these men is conflict with the administration (21% reported this "often" or "very frequent") and a feeling of favoritism in the competition for advancement (30% reported this "often" or "very frequent"). It appears that these areas need to be separately investigated with the goal of establishing a more equitable and acceptable system of hiring, promotion and decisionmaking.

At this time, there is no way to know if change in the duty hours of firefighters would decrease the stress on their marriages. As noted by previous studies (Matarazzo et al., 1964) and as indicated to this researcher by several subjects, many firefighters choose the job because of the hours. The days off allow the firefighter time to spend with his family if he chooses or enough time to improve his education or increase the family income through

extra work. The time off provides compensations for many of the stresses and frustrations on the job.

It would appear that many of the firefighters do not know the effect that increased moonlighting has on their marital relationships. Again, counseling to help air feelings and frustrations would be helpful. Also, information about the stresses related to moonlighting could be part of the orientation mentioned earlier. The couple could be encouraged to go into moonlighting as business partners, which might reorient the couple's goals and values and increase the awareness of each other's feelings. Increased communication between the spouses concerning the costs and benefits of moonlighting might help couples find a compatible level of extra work hours.

When the women went to work outside the home, the reported increased stress and dissatisfaction and often found the added responsibilities to be too much. Most of the wives chose part-time jobs, probably to better fit in with their husband's work hours.

However, part-time jobs are notorious for their low pay, non-existent benefits, and few chances for advancement. Two changes in the work world which might be particularly helpful to these women would be part-time jobs which have benefits and pay equal to the work done, and "flextime" jobs in which the woman could choose her own hours and/or days to work.

The demands on the firefighter by his job are also demands on the wife to be more independent than most, to handle emergencies alone, to cope with long hours together and apart from her husband. Women who are oriented to traditional roles generally tend to be more dependent. Thus, for the woman who wants a traditional housewife role, marrying a firefighter may bring her a lot of frustration. At the same time, the rather high masculine orientation of firefighters probably leads them to choose women who are more feminine and dependent. However, a more independent woman who has interests and an identity of her own, apart from wife and mother, which could fill her time alone might be better able to cope with a firefighter husband.

Actually, the firefighter occupation could give couples a chance to have a more equalitarian relationship than many other jobs. Because the firefighter is off duty approximately 20 days a month, cooperative care for the house and children could be managed and both spouses could work. This would probably work best with a small number of children. As the children became more independent and capable, they could take over more care of the house, the wife might increase her work hours, and the husband might begin or increase moonlighting. Maintenance of the economic and emotional needs of the family could be a cooperative effort of all family members.

A final alternative to ease the stress of extra work hours when the wife works full-time would be to hire a person full- or part-time to take over much of the household and child care duties. This practice is well-accepted in Europe, but has not been particularly popular in the U.S.

In summary, it appears that the results of this study point clearly to a need for counseling services for firefighters and their families, for more sharing of coping strategies among firefighter families, more communication between the spouses about their feelings and needs, more varied roles and increased cooperation of the dyad partners and an investigation into the unnecessary stresses which the organization and practices of the fire service might cause.

#### Future Research

Since no research has previously been done with families of firefighters, this study could be viewed as a starting point for much further investigation. The sample used was typical of suburban fire departments; however, it might also be useful to study firefighters in large cities where fire calls are more frequent, high-rise buildings are a threat, and aggression against the firefighters is increased (e.g. snipers).

Some fire departments have their personnel on 8- and 16-hour shifts, with the highly trained firefighters on

duty during the day (8 hours) and paraprofessionals, generally single men, on duty at night. It might be very informative to compare firefighters on the 8-hour shifts with those on 24-hour shifts to see if there is any different effect on their marriages, feelings of stress, etc.

Many suggestions were made during the course of this study that comparisons might be made between firefighters and police officers. Both are dangerous occupations, both are public employees and both jobs require shift work. At the same time, there are considerable differences between the two occupations. Firefighters are considered "nice guys" who have the job of saving lives and property. Police officers are often considered the "bad guys", as evidenced by many derogatory slang terms, whose job is related to anger, aggression and hostility within the society. The stresses from the two jobs would probably be very different, but it would be very interesting to have some research in this area.

Comparisons between firefighters and other occupations would also be interesting. Long hours away from home at night and on week-ends is typical of many jobs, e.g. nurses and doctors, salespersons, factory workers, and people in business and management. The similarities and differences that various occupations have on the worker's marriage and family would be most useful information.

The questionnaires used in this study gathered a great deal of statistical information. At this point, in-depth interviews and participant observations with a number of firefighter families could fill in and perhaps better explain and clarify many of the findings. It was not clear from the statistics in this study what areas of stress were particularly important in the day-to-day lives of these couples, how much of their lives were governed by the occupation, or how decisions were actually made and disagreements solved. These areas might be better investigated through interviews and observations of family interactions and routines.

Another area which needs investigation is that of women becoming firefighters. Questions and discussions about women coming into the fire service were asked over and over as the questionnaires for this study were being distributed.

There seems to be a great deal of anxiety among the men and their wives about the effects of women firefighters. Will the women be strong enough to save the lives of fellow firefighters? How can a female be integrated into this "masculine" world of "macho" competitiveness, dirty jokes and rough language? How can men and women spend twenty-four hours together and not become sexually involved? These are significant worries for these firefighters and their wives. Also, it would be important

to find out how this occupation affects the woman firefighter's marriage and family.

Although much information was gathered in this study, many questions remain unanswered and some new questions have been formulated. Occupations do have a significant relation to the worker's marriage and family life. We are only beginning to find out the specifics of this relationship and the amount of the impact.

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APPENDICES

BACKGROUND INFORMATION

Form M

Please read the following questions carefully and circle the appropriate answer or fill in the blank.

- 1. What is your sex?  
a) Male  
b) Female
- 2. How old are you?  
\_\_\_\_\_ years
- 3. What level of education have you finished?  
a) some high school  
b) high school  
c) junior college  
d) college
- 4. What is your marital status?  
a) single  
b) divorced or separated  
c) married for the first time  
d) remarried
- 5. How many times have you been divorced?  
\_\_\_\_\_ number
- 6. If you are single or divorced, are you cohabiting with a person of the opposite sex?  
a) Yes  
b) No
- 7. Please give the date you married or moved in with your partner.  
\_\_\_\_\_ date
- 8. How many children do you have living at home with you?  
\_\_\_\_\_ number of children
- 9. What rank do you hold in the fire department?  
a) Firefighter  
b) Engineer  
c) Captain or Senior Captain  
d) Chief or Battalion Chief  
e) Dispatcher
- 10. How many years have you worked for the fire department?  
\_\_\_\_\_ years
- 11. How many items do you have in your home that relate to the firefighter occupation? (For example: Statues, pictures, wall hangings, etc.)  
\_\_\_\_\_ number of items

Please check the blank which most closely describes your feelings about these statements.

	Strongly <u>Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	Strongly <u>Disagree</u>
12. I am proud to be on the fire department	_____	_____	_____	_____	_____
13. I am glad to be working for the fire department	_____	_____	_____	_____	_____
14. When meeting new acquaintances, I tell them immediately that I am with the fire department	_____	_____	_____	_____	_____

How often do you worry about:	<u>Very Frequently</u>	<u>Often</u>	<u>Sometimes</u>	<u>Rarely</u>	<u>Not At All</u>
15. Danger of the firefighter job	_____	_____	_____	_____	_____
16. Wife or partner being alone at night	_____	_____	_____	_____	_____
17. Confinement in the station for 24 hours	_____	_____	_____	_____	_____
18. Working hours conflicting with family needs or activities	_____	_____	_____	_____	_____
19. Stress on the family	_____	_____	_____	_____	_____
20. Too little time alone	_____	_____	_____	_____	_____
21. Too little time with wife or partner	_____	_____	_____	_____	_____
22. Too much time with wife or partner	_____	_____	_____	_____	_____
23. Conflict with the administration	_____	_____	_____	_____	_____
24. Favoritism within the fire department	_____	_____	_____	_____	_____
25. Other	_____	_____	_____	_____	_____

Please fill in the information requested below.

26. On the average, you work ten (10) days out of the month for the fire department. How many of the twenty (20) days that you have off do you spend working at other jobs for which you receive compensation?

\_\_\_\_\_ days per month

27. How many hours per week does your wife or partner spend working at a job for which she receives compensation?

\_\_\_\_\_ hours per week

## BACKGROUND INFORMATION

Form F

Please read the following questions carefully and circle the appropriate answer or fill in the blank.

1. What is your sex?
  - a) Male
  - b) Female
2. How old are you?  
\_\_\_\_\_ years
3. What level of education have you finished?
  - a) some high school
  - b) high school
  - c) junior college
  - d) college
4. What is your marital status?
  - a) single
  - b) divorced or separated
  - c) married for the first time
  - d) remarried
5. How many times have you been divorced?  
\_\_\_\_\_ number
6. If you are single or divorced, are you cohabiting with a person of the opposite sex?
  - a) Yes
  - b) No
7. Please give the date you married or moved in with your partner.  
\_\_\_\_\_ date
8. How many children do you have living at home with you?  
\_\_\_\_\_ number of children
9. What rank does your husband or partner hold in the fire department?
  - a) Firefighter
  - b) Engineer
  - c) Captain or Senior Captain
  - d) Chief or Battalion Chief
  - e) Dispatcher
10. How many years has your husband or partner worked for the fire department?  
\_\_\_\_\_ years
11. How many items do you have in your home that relate to the firefighter occupation? (For example: Statues, pictures, wall hangings, etc.)  
\_\_\_\_\_ number of items

Please check the blank which most closely describes your feelings about these statements.

- |   | <u>Strongly</u><br><u>Agree</u> | <u>Agree</u> | <u>Neutral</u> | <u>Disagree</u> | <u>Strongly</u><br><u>Disagree</u> |
|---|---------------------------------|--------------|----------------|-----------------|------------------------------------|
| 12. I am proud that my husband or partner is on the fire department   | _____                           | _____        | _____          | _____           | _____                              |
| 13. I am glad that my husband or partner works for the fire department  | _____                           | _____        | _____          | _____           | _____                              |
| 14. When describing my husband or partner to new acquaintances, I tell them immediately that he is with the fire department | _____                           | _____        | _____          | _____           | _____                              |

How often do you worry about:	<u>Very Frequently</u>	<u>Often</u>	<u>Sometimes</u>	<u>Rarely</u>	<u>Not At All</u>
15. Danger of the firefighter job	_____	_____	_____	_____	_____
16. Being alone at night	_____	_____	_____	_____	_____
17. Husband or partner confined in station for 24 hours	_____	_____	_____	_____	_____
18. Working hours conflicting with family needs or activities	_____	_____	_____	_____	_____
19. Stress on the family	_____	_____	_____	_____	_____
20. Too much time alone	_____	_____	_____	_____	_____
21. Too little time with husband or partner	_____	_____	_____	_____	_____
22. Too much time with husband or partner	_____	_____	_____	_____	_____
23. Husband's or partner's conflict with the administration	_____	_____	_____	_____	_____
24. Favoritism within the fire department	_____	_____	_____	_____	_____
25. Other	_____	_____	_____	_____	_____

Please fill in the information requested below.

26. On the average, your husband or partner works ten (10) days out of the month for the fire department. How many of the twenty (20) days that he has off, does he spend working at other jobs for which he receives compensation?

\_\_\_\_\_ days per month

27. How many hours per week do you spend working at a job for which you receive compensation?

\_\_\_\_\_ hours per week

DYADIC ADJUSTMENT SCALE

Most persons have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list.

	<u>Always Agree</u>	<u>Almost Always Agree</u>	<u>Occasionally Disagree</u>	<u>Frequently Disagree</u>	<u>Almost Always Disagree</u>	<u>Always Disagree</u>
1. Handling family finances	_____	_____	_____	_____	_____	_____
2. Matters of recreation	_____	_____	_____	_____	_____	_____
3. Religious matters	_____	_____	_____	_____	_____	_____
4. Demonstrations of affection	_____	_____	_____	_____	_____	_____
5. Friends	_____	_____	_____	_____	_____	_____
6. Sex relations	_____	_____	_____	_____	_____	_____
7. Conventionality (correct or proper behavior)	_____	_____	_____	_____	_____	_____
8. Philosophy of life	_____	_____	_____	_____	_____	_____
9. Ways of dealing with parents or in-laws	_____	_____	_____	_____	_____	_____
10. Aims, goals, and things believed important	_____	_____	_____	_____	_____	_____
11. Amount of time spent together	_____	_____	_____	_____	_____	_____
12. Making major decisions	_____	_____	_____	_____	_____	_____
13. Household tasks	_____	_____	_____	_____	_____	_____
14. Leisure time interests and activities	_____	_____	_____	_____	_____	_____
15. Career decisions	_____	_____	_____	_____	_____	_____
	<u>All the time</u>	<u>Most of the time</u>	<u>More often than not</u>	<u>Occasionally</u>	<u>Rarely</u>	<u>Never</u>
16. How often do you discuss or have you considered divorce, separation, or terminating your relationship?	_____	_____	_____	_____	_____	_____
17. How often do you or your mate leave the house after a fight?	_____	_____	_____	_____	_____	_____
18. In general, how often do you think that things between you and your partner are going well?	_____	_____	_____	_____	_____	_____
19. Do you confide in your mate?	_____	_____	_____	_____	_____	_____
20. Do you ever regret that you married? (or lived together)	_____	_____	_____	_____	_____	_____
21. How often do you and your partner quarrel?	_____	_____	_____	_____	_____	_____
22. How often do you and your mate "get on each other's nerves?"	_____	_____	_____	_____	_____	_____
	<u>Every Day</u>	<u>Almost Every Day</u>	<u>Occasionally</u>	<u>Rarely</u>	<u>Never</u>	
23. Do you kiss your mate?	_____	_____	_____	_____	_____	
24. Do you and your mate engage in outside interests together?	_____	_____	_____	_____	_____	

How often would you say the following events occur between you and your mate?

	<u>Never</u> <u>Never</u>	<u>Less than</u> <u>once a</u> <u>month</u>	<u>Once or</u> <u>twice a</u> <u>month</u>	<u>Once or</u> <u>twice a</u> <u>week</u>	<u>Once a</u> <u>day</u>	<u>More</u> <u>often</u>
25. Have a stimulating exchange of ideas	_____	_____	_____	_____	_____	_____
26. Laugh together	_____	_____	_____	_____	_____	_____
27. Calmly discuss something	_____	_____	_____	_____	_____	_____
28. Work together on a project	_____	_____	_____	_____	_____	_____

These are some things about which couples sometimes agree and sometimes disagree. Indicate if either item below caused differences of opinions or were problems in your relationship during the past few weeks (Check yes or no).

- |     | <u>Yes</u> | <u>No</u> |                          |
|-----|------------|-----------|--------------------------|
| 29. | _____      | _____     | Being too tired for sex. |
| 30. | _____      | _____     | Not showing love.        |

31. The dots on the following line represent different degrees of happiness in your relationship. The middle point "happy," represents the degree of happiness of most relationships. Please circle the dot which best describes the degree of happiness, all things considered, of your relationship.

.                      .                      .                      .                      .                      .                      .  
 \_\_\_\_\_  
 Extremely    Fairly    A little    Happy    Very    Extremely    Perfect  
                   Unhappy    Unhappy    Unhappy                      Happy    Happy

32. Which of the following statements best describes how you feel about the future of your relationship?

- \_\_\_\_\_ I want desperately for my relationship to succeed, and would go to almost any length to see that it does.
- \_\_\_\_\_ I want very much for my relationship to succeed, and will do all I can to see that it does.
- \_\_\_\_\_ I want very much for my relationship to succeed, and will do my fair share to see that it does.
- \_\_\_\_\_ It would be nice if my relationship succeeded, but I can't do much more than I am doing now to help it succeed.
- \_\_\_\_\_ It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going.
- \_\_\_\_\_ My relationship can never succeed, and there is no more that I can do to keep the relationship going.

## DYADIC DECISIONMAKING

Please indicate below how disagreements on the following are settled by you and your partner.

	<u>You Decide</u>	<u>Partner Decide</u>	<u>Decide Together</u>	<u>Each Decides for Self</u>
1. Handling family finances	_____	_____	_____	_____
2. Matters of recreation	_____	_____	_____	_____
3. Religious matters	_____	_____	_____	_____
4. Demonstrations of affection	_____	_____	_____	_____
5. Friends	_____	_____	_____	_____
6. Sex relations	_____	_____	_____	_____
7. Conventionality (correct or proper behavior)	_____	_____	_____	_____
8. Philosophy of life	_____	_____	_____	_____
9. Ways of dealing with parents or in-laws	_____	_____	_____	_____
10. Aims, goals, and things believed important	_____	_____	_____	_____
11. Amount of time spent together	_____	_____	_____	_____
12. Making major decisions	_____	_____	_____	_____
13. Household tasks	_____	_____	_____	_____
14. Leisure time interests and activities	_____	_____	_____	_____
15. Career decisions	_____	_____	_____	_____

Form F

## DYADIC DECISIONMAKING

Please indicate below how disagreements on the following are settled by you and your partner.

	<u>Partner Decides</u>	<u>You Decide</u>	<u>Decide Together</u>	<u>Each Decides for Self</u>
1. Handling family finances	_____	_____	_____	_____
2. Matters of recreation	_____	_____	_____	_____
3. Religious matters	_____	_____	_____	_____
4. Demonstrations of affection	_____	_____	_____	_____
5. Friends	_____	_____	_____	_____
6. Sex relations	_____	_____	_____	_____
7. Conventionality (correct or proper behavior)	_____	_____	_____	_____
8. Philosophy of life	_____	_____	_____	_____
9. Ways of dealing with parents or in-laws	_____	_____	_____	_____
10. Aims, goals and things believed important	_____	_____	_____	_____
11. Amount of time spent together	_____	_____	_____	_____
12. Making major decisions	_____	_____	_____	_____
13. Household tasks	_____	_____	_____	_____
14. Leisure time interests and activities	_____	_____	_____	_____
15. Career decisions	_____	_____	_____	_____

**TENNESSEE  
SELF CONCEPT SCALE**

**COMPUTER SCORED EDITION**

**by**

**William H. Fitts, PhD**

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**DIRECTIONS:** The statements in this inventory are to help you describe yourself as you see yourself. Please answer them as if you were describing yourself to yourself. Read each item carefully; then select one of the five responses below and fill in the answer space on the separate answer sheet.

Don't skip any items. Answer each one. Use a soft lead pencil. Pens won't work. If you change an answer, you must erase the old answer completely and enter the new one.

**RESPONSES:**

Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
C	M		M	C
F	F	PF - PT	T	T
1	2	3	4	5

**TENNESSEE SELF CONCEPT SCALE**

- |     |   |    |
|-----|---|----|
| 1.  | I have a healthy body . . . . .   | 1  |
| 2.  | I am an attractive person . . . . .   | 2  |
| 3.  | I consider myself a sloppy person . . . . .                                   | 3  |
| 4.  | I am a decent sort of person . . . . .  | 4  |
| 5.  | I am an honest person . . . . .   | 5  |
| 6.  | I am a bad person . . . . .   | 6  |
| 7.  | I am a cheerful person . . . . .  | 7  |
| 8.  | I am a calm and easy going person . . . . .                                   | 8  |
| 9.  | I am a nobody . . . . .   | 9  |
| 10. | I have a family that would always help me in any<br>kind of trouble . . . . . | 10 |
| 11. | I am a member of a happy family . . . . .                                     | 11 |

12.	My friends have no confidence in me . . . . .	12
13.	I am a friendly person . . . . .	13
14.	I am popular with men . . . . .	14
15.	I am not interested in what other people do . . .	15
16.	I do not always tell the truth . . . . .	16
17.	I get angry sometimes . . . . .	17
18.	I like to look nice and neat all the time . . . .	18
19.	I am full of aches and pains . . . . .	19
20.	I am a sick person . . . . .	20
21.	I am a religious person . . . . .	21
22.	I am a moral failure . . . . .	22
23.	I am a morally weak person . . . . .	23
24.	I have a lot of self-control . . . . .	24
25.	I am a hateful person . . . . .	25
26.	I am losing my mind . . . . .	26
27.	I am an important person to my friends and family . . . . .	27
28.	I am not loved by my family . . . . .	28
29.	I feel that my family doesn't trust me . . . . .	29
30.	I am popular with women . . . . .	30
31.	I am mad at the whole world . . . . .	31
32.	I am hard to be friendly with . . . . .	32
33.	Once in a while I think of things too bad to talk about . . . . .	33
34.	Sometimes when I am not feeling well, I am cross.	34
35.	I am neither too fat nor too thin . . . . .	35

36.	I like my looks just the way they are . . . . .	36
37.	I would like to change some parts of my body . . .	37
38.	I am satisfied with my moral behavior . . . . .	38
39.	I am satisfied with my relationship to God . . . .	39
40.	I ought to go to church more . . . . .	40
41.	I am satisfied to be just what I am . . . . .	41
42.	I am just as nice as I should be . . . . .	42
43.	I despise myself . . . . .	43
44.	I am satisfied with my family relationships . . .	44
45.	I understand my family as well as I should . . .	45
46.	I should trust my family more . . . . .	46
47.	I am as sociable as I want to be . . . . .	47
48.	I try to please others, but I don't overdo it . .	48
49.	I am no good at all from a social standpoint . .	49
50.	I do not like everyone I know . . . . .	50
51.	Once in a while, I laugh at a dirty joke . . . .	51
52.	I am neither too tall nor too short . . . . .	52
53.	I don't feel as well as I should . . . . .	53
54.	I should have more sex appeal . . . . .	54
55.	I am as religious as I want to be . . . . .	55
56.	I wish I should be more trustworthy . . . . .	56
57.	I shouldn't tell so many lies . . . . .	57
58.	I am as smart as I want to be . . . . .	58
59.	I am not the person I would like to be . . . . .	59
60.	I wish I didn't give up as easily as I do . . . .	60
61.	I treat my parents as well as I should . . . . .	61

	88
62. I am too sensitive to things my family say . . . . .	62
63. I should love my family more . . . . .	63
64. I am satisfied with the way I treat other people . . . . .	64
65. I should be more polite to others . . . . .	65
66. I ought to get along better with other people . . . . .	66
67. I gossip a little at times . . . . .	67
68. At times I feel like swearing . . . . .	68
69. I take good care of myself physically . . . . .	69
70. I try to be careful about my appearance . . . . .	70
71. I often act like I am "all thumbs" . . . . .	71
72. I am true to my religion in my everyday life . . . . .	72
73. I try to change when I know I'm doing things that are wrong . . . . .	73
74. I sometimes do very bad things . . . . .	74
75. I can always take care of myself in any situation . . . . .	75
76. I take the blame for things without getting mad . . . . .	76
77. I do things without thinking about them first . . . . .	77
78. I try to play fair with my friends and family . . . . .	78
79. I take a real interest in my family . . . . .	79
80. I give in to my parents . . . . .	80
81. I try to understand the other fellow's point of view . . . . .	81
82. I get along well with other people . . . . .	82
83. I do not forgive others easily . . . . .	83
84. I would rather win than lose in a game . . . . .	84

	89
85. I feel good most of the time . . . . .	85
86. I do poorly in sports and games . . . . .	86
87. I am a poor sleeper . . . . .	87
88. I do what is right most of the time . . . . .	88
89. I sometimes use unfair means to get ahead . . . . .	89
90. I have trouble doing the things that are right . . . . .	90
91. I solve my problems quite easily . . . . .	91
92. I change my mind a lot . . . . .	92
93. I try to run away from my problems . . . . .	93
94. I do my share of work at home . . . . .	94
95. I quarrel with my family . . . . .	95
96. I do not act like my family thinks I should . . . . .	96
97. I see good points in all the people I meet . . . . .	97
98. I do not feel at ease with other people . . . . .	98
99. I find it hard to talk with strangers . . . . .	99
100. Once in a while I put off until tomorrow what I ought to do today . . . . .	100