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A STUDY OF MATERNAL SEPARATION ANXIETY IN WORKING MOTHERS OF SECOND-BORN INFANTS

The Ohio State University

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A STUDY OF MATERNAL SEPARATION ANXIETY IN WORKING MOTHERS
OF SECOND-BORN INFANTS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

Martha Ann Seares Pitzer, R.N., M.S.

****

The Ohio State University
1984

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Dedicated to my mother, Doris Dunton Seares, 1906–1984, my original teacher.
ACKNOWLEDGMENTS

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CHAPTER I

INTRODUCTION

Rationale

The growth in the number of women who both have young children and are working outside the home has been dramatic. In September of 1980 approximately one half of all children between the ages of 3 to 5 years had mothers in the work force. United States Government projections indicate that by 1990 two thirds of all mothers with children under 6 years of age will be working and that three fourths of all two-parent families will have both parents working (Maymi, 1982; Presser, 1982).

Many of these working mothers will have more than one child, as the Census Bureau predicts that the current generation of young women will bear 1.8 children (National Center for Health Statistics, 1982, cited in Bianchi & Spain, 1984). Consequently, it would seem useful to study the effects of a second child on these dual roles, the degree to which mothers are invested in these roles, and their disorganization under the stress associated with expanding the maternal role to include a second child.
Today, as more and more women choose to combine mothering and career, or are compelled to work for economic reasons, it seems particularly important to look at the psychological effects of working on the well-being of mothers. We know that increasingly women are returning to work following the birth of their first child, yet we do not know how many will continue working soon after the birth of their second child.

Most mothers studied by Hock, Gnezda, and McBride (1983a) reported ambivalence about returning to work after their first child. Presently, we do not know if mothers' level of anxiety associated with separation from the second child remains the same, decreases, or increases from the level demonstrated with the first child.

Maternal concerns about separating from each child, or the children together, may continue to influence a mother's anxiety about returning to work.

Substantial research has been devoted to the study of working mothers with first-born infants (Hock, 1976, 1980; Hock, Morgan, & Hock, in press) and to the study of dual career vs. traditional families with first-born infants (Lamb, Chase-Lansdale, & Owen, 1979; Lamb, Owen, & Chase-Lansdale, 1980; Owen, Easterbrooks, Chase-Lansdale, & Goldberg, 1983; Pedersen, Cain, Zaslow, & Anderson, 1982; Zaslow, Pedersen, Suwalsky, & Rabinovich, 1983).
In addition, considerable research on the relationship between fertility and maternal employment has been reported (Fox & Gutek, 1982; Rollings & Nye, 1979; Shade, Koester, Watson, & Robinson, 1983; Thomson, 1980). However, the exact nature of the relationship between maternal employment and parity (the number of children a woman has) remains unresolved. According to Smith-Lovin and Tickamyer (1978), parity may influence a mother's work decision, but her labor force involvement does not alter her fertility behavior. Recently, Shade et al. (1983) found no significant differences between family work types (dual-career, dual-earner, and traditional) and desired family size, intention to have another child, or number of additional children. In contrast, other authors (Lamb, 1982; Presser, 1982) contend that the increased rate of maternal employment is related to the declining fertility rate in this country; as more women enter the labor force the fertility rate goes down.

Thorton and Camburn (1979) found, in their analysis of the 1970 National Fertility Study, "...that to some extent, sex-role attitudes operate through work to influence fertility." (p. 79). Thus it would seem prudent to consider the effect of traditional sex-role attitudes toward women in general and mothering in particular when considering the influence of parity on maternal employment.
Although maternal attitudes and behaviors toward second and succeeding children have been studied (Dunn & Kendrick, 1982; Jacobs & Moss, 1976; Knox & Wilson, 1978; Lasko, 1954; Lewis & Kreitzberg, 1979; Ward, Malone, & DeAngelo, 1983; Westbrook, 1978), previous research on the effects of maternal employment on infants has primarily focused on families with one child (Hock, 1980; Hock, Gnezda, & McBride, 1983b; Owen et al., 1983; Pedersen et al., 1982; Zaslow et al., 1983). Stuckey, McGhee, and Bell (1982) did consider the influence of birth order of a target child in regards to maternal employment and parent-child interaction. However, no birth order effects were reported in this study, which considered only one child from each family.

Hock et al. (in press), in a study of vocational decisions made by mothers of infants, found that mothers who originally planned to remain at home and did so, and mothers who planned to work but ultimately remained at home, were more likely to have another child at home. In contrast, mothers who stated they planned to work and did so, plus those mothers who originally said they would stay home but then chose to return to work, were less likely to have another child at home. These results support a negative relationship between maternal employment and parity.

How a mother perceives her employment needs, her beliefs about the mothering role, and her view of her infants' needs have been identified as influencing her
vocational decisions (Hock et al., in press). Other factors which may influence a mother's attitudes toward returning to work are her level of separation anxiety, her experience of having worked after the birth of her first child, and her proneness to disorganization under stresses associated with addition of a second child to her family.

The research data on the effects of maternal employment on young infants are accumulating (Hoffman, 1983). Recent findings suggest that for those infants provided with adequate alternative care, brief separations from mother are not detrimental and may even be beneficial for their development (Hock, 1980; Hoffman, 1979; Lamb et al., 1979). Although infant response to separation from mother has been studied extensively (Ainsworth, Blehar, Waters, & Wall, 1978; Hock, 1976; Hock, 1980; Hock & Clinger, 1981; Weinraub & Lewis, 1977), maternal response to such separations has only recently been examined (Hock et al., 1983a, 1984). There is considerable evidence that the way in which an infant responds to separation is related to characteristics of his/her mother (Hock, 1978; Hock & Clinger, 1981; Vaughn, Gove, & Egeland, 1980; Weinraub & Lewis, 1977). We might extend this evidence to include the way in which the mother separated from other children. If the mother was anxious about leaving the first child, will she be more, equally, or less anxious about leaving the second child? Will the birth of a second child influence her investment in either her
career/work role or in mothering? How will a mother's proneness to disorganization under stresses associated with mothering relate to her level of separation anxiety with a second child?

**Purpose**

The purpose of this particular study is to explore the nature of maternal separation anxiety associated with a second child as mothers return to work after a brief maternity leave. By interviewing mothers previously assessed on Maternal Separation Anxiety associated with their first child (Hock et al., 1983a), the issues of continuity of maternal separation anxiety from first to second child as well as the influence of an additional child on both maternal role and career investment will be assessed. Maternal separation anxiety will be considered within the context of mothers' proneness to disorganization under stresses associated with addition of a second child to the family.

**Assumptions**

Assumptions of this study are: (1) maternal separation anxiety associated with leaving the second child will most likely differ from that of leaving the first child, (2) maternal experience of having left the first child will influence management of and feelings about separation from the second child, and (3) maternal role investment, career
investment, and proneness to disorganization under stresses of having a second child will be related to maternal separation anxiety.

Statement of the Problem

Previous empirical research provides evidence that working mothers of first-born infants experience ambivalent feelings about returning to work following a brief maternity leave. In view of the increasing numbers of working mothers who may have more than one young child, knowledge of maternal separation anxiety experienced with a second child should be valuable information for mothers and for society in general. Therefore, this research will explore the nature of maternal separation anxiety experienced by working mothers following the birth of a second child. Maternal role and career investment, as well as proneness to disorganization under stresses of the expanded maternal experience will also be explored in relation to maternal separation anxiety.

Objectives

1) To explore the differences in maternal separation anxiety previously measured for working mothers and their first-born infants with maternal separation anxiety currently experienced with their second-born infants.

2) To investigate the relationship between maternal role and career investment, proneness to disorganization under stresses of the expanded maternal experience, and maternal separation anxiety in mothers of second children who have returned to work or plan to do so in the very near future.
3) To compare maternal separation anxiety with respect to a first child in both working mothers of one and two children.

Research Hypotheses

Using multiple measures of maternal separation anxiety [a factor analyzed questionnaire, the Maternal Separation Anxiety Scale (MSAS); interview-based rating scales (IBRS) with factors parallel to the MSAS; and maternal self-ratings of separation stress (MRSS)], the following hypotheses will be considered in a population of working mothers with two children:

1. There will be a strong positive correlation between mothers' Factor 1 (guilt, sadness, and worry associated with leaving the infant) scores on the Maternal Separation Anxiety Scale (MSAS) and their Factor 1 interview-based rating scale (IBRS) scores.

2. There will be a strong positive correlation between mothers' Factor 2 (beliefs that separation promotes independence and sociability in the infant) scores on the MSAS and their Factor 2 IBRS scores.

3. There will be a strong positive correlation between mothers' scores on Factor 3 (employment-related separation concerns) of the MSAS and their Factor 3 IBRS scores.

4. There will be a strong positive correlation between mothers' Total (Factor 1 + Factor 2 + Factor 3)/3, MSAS scores and their Total IBRS scores.

5. Maternal separation anxiety, as measured by the MSAS and the IBRS, will be negatively related to the demographic variables of maternal education, income, and SES.

6. Mothers will be significantly less anxious about separation from their second infants than they were with respect to their first infants, as measured by the MSAS and the IBRS at approximately the same infant age.

7. Maternal separation anxiety will be positively related to Maternal Role Investment as measured by the MSAS and the IBRS.
8. Maternal separation anxiety will be negatively related to career investment as measured by the MSAS and the IBRS.

9. Maternal separation anxiety will be positively related to disorganization under stresses of the expanded maternal experiences as measured by the MSAS and the IBRS.

10. Maternal separation anxiety will be positively related to mothers' choice to remain at home as measured by the MSAS and the IBRS.

11. Maternal Separation Anxiety will be higher in mothers of sons than in mothers of daughters as measured by the MSAS and the IBRS.

12. There will be no significant difference in maternal separation anxiety between mothers of one and mothers of two children, with respect to a 2-2.5 year old (first) child as measured by mothers' self-rating of separation stress (MRSS).
CHAPTER II

LITERATURE REVIEW

Introduction

The purpose of this chapter is twofold. The first is to present theoretical background for the study of maternal separation anxiety by drawing on Bowlby's (1969) ethological attachment theory, Spielberger's (1972) State-Trait theory of anxiety, and the recent empirical research findings of Hock et al. (1983a, 1983b, 1984).

A second purpose is to review studies related to maternal parity, transition to parenting the second time, maternal employment as related to pregnancy, the relationship of maternal separation anxiety to several other maternal characteristics, and the effects of maternal employment on infants. These areas are considered relevant to the study of maternal separation anxiety in mothers of second-born infants for the following reasons.

The classic studies on maternal parity will be reviewed as the difference between mothering first- and second-born children may be important to how mothers feel about separating from a second-born infant. The transition from a one-child to a two-child family may be stressful and this
stress may influence a mother's concerns about separation.

Research related to employment and pregnancy will be included since subjects in this study continued to work throughout most of their second pregnancies. There is empirical evidence to suggest that work during the last months may be related to certain pregnancy complications, and these complications may contribute to a mother's work-related separation anxiety.

Literature pertinent to maternal role investment and career/work investment will be reviewed as these topics have been found to be meaningfully related to maternal separation anxiety in mothers of first-born infants (Bunge, 1983; Gnezda, 1983/1984; Hock et al., 1983b) and it is likely that they are also related to how mothers feel about separating from a second-born infant.

Finally, current research on the effects of maternal employment on infants will be reviewed because maternal separation anxiety evolved from the study of separation effects on infants. It is believed that additional knowledge about this subject can be gained by considering how a mother's employment status affects her infant.

**Anxiety**

Anxiety has been defined by psychoanalytic theorists from Freud to May as "...a vague fear stemming from a source that is unknown to the stricken individual" (Levitt, 1980, p. 6). Fear and anxiety are often confused; fear is a
reaction to a specific stimulus, while anxiety is diffuse and less related to a particular situation. According to Freudian theory, early anxiety is related first to the trauma of birth, and then to fear of the loss of the loved object--mother. This threat to the survival of the organism is basic to all later anxiety reactions (Levitt, 1980).

Bowlby (1969) proposed that when an infant's primary attachment figure is unavailable, either physically or emotionally, he perceives his source of protection and security as unavailable and he becomes anxious. Extending his theory, a mother, too, may become anxious if she perceives a separation as interfering with her ability to provide her infant with security and protection by virtue of her close contact.

Bowlby (1969) theorizes that the ties between mother and child are "...species specific behavioral systems activated by stimuli from the other..." (Ainsworth, 1969, p. 979). Stimuli from a single attachment object (person) promote proximity and interaction. These attachment behaviors are intrinsic to human nature regardless of age; the complimentary, protective functions of parenting behaviors "...have been taken for granted; they are easily elicited in both mothers and fathers by the close proximity and interaction with the newborn" (Bowlby, 1980, p. 25). It would seem that maternal separation anxiety could arise as a consequence of the brief interruption of the maternal-child
relationship. The severity of the anxiety appears to be an individual characteristic of each mother and is intertwined with other feelings related to her mothering.

**A Theoretical Approach to Studying Anxiety**

Spielberger (1972) has developed a useful paradigm for understanding the differences in individual responses to anxiety. He describes proneness to anxiety as a stable personality trait (A-Trait) as distinguishable from anxiety as a transitory emotional state (A-State) which fluctuates in duration and intensity. Whereas trait anxiety is a generalized, stable personality characteristic where many situations are interpreted as threatening, state anxiety occurs only when the individual perceives a given situation as threatening, particularly to his/her self-esteem. Threats to self-esteem are perceived as more anxiety producing than are threats of a physical nature. The anxiety process is triggered by thought and may involve real or imagined threats. The cognitive trigger is followed rapidly by physical symptoms of nervousness and tension. The amount of anxiety is related to the degree the individual perceives threat encompassed in the given situation. The unique anxiety state is also related to the duration of the situation and the history of any similar situations that individual has previously experienced.

Personality traits, internal (feelings, attitudes, needs, etc.) and external (specific situations) factors, and
past experience all influence an individual's appraisal of events. Those individuals with high levels of A-Trait anxiety are more likely to view many events as threatening, so they are frequently in high A-States; the amount of time they are anxious is longer and the degree of anxiety is more severe than for those individuals with lower levels of trait anxiety. The process of anxiety proposed by Spielberger (1972) involves two phases. A potentially threatening situation occurs, then, based on that person's tendency toward anxiety (A-Trait), emotions associated with the situation, and past history with similar events, he/she will appraise the present situation. Previous experience with similar events may have provided the person with adequate coping which influences his/her interpretation of this event. If coping has not already evolved, or if the situation is entirely foreign to the individual, it may be perceived as threatening and ultimately trigger an A-State anxiety reaction. When coping skills are available, a threatening event may stimulate a learned behavioral response rather than A-State anxiety.

A major assumption of this study is that mothers of two children will have developed numerous coping behaviors with their first children which will influence their separation from the second child. The uniqueness of the second child, as well as aspects of the mother's current situation, will also determine her level of separation anxiety with this
Maternal Separation Anxiety

Although maternal anxiety as related to number of children has been measured (Grossman, Eicher, & Winikoff, 1980; Walker & Walker, 1980), no previous study has been found in the literature that considers maternal separation anxiety as related to more than one child.

Maternal separation anxiety has only recently appeared in the literature and has just been measured by Hock et al. (1983a) in the past two years. Prior to Hock's (1980) discussion of behaviors of mothers in response to separation from their infants during a laboratory observation using the Ainsworth Strange Situation paradigm, only two other studies have included discussion of maternal responses to separation (Corter & Bow, 1976; Weinraub & Frankel, 1977).

Corter and Bow (1977) observed maternal reaction to leaving ten-month-old infants alone in a playpen for up to five minutes. One half of the youngsters were left with toys. Mothers watched their infants' reaction to the separation on a video screen in an adjoining room. Mothers of infants who had been left with toys watched their infants more than did mothers whose infants had no toys. The authors recorded infant vocal behaviors as well as the latency and duration of distress during both the separation and reunion periods. Mothers' vigilance was affected by their infants' vocal distress. And, although there were no
significantly different effects in the reunion behaviors of the groups, there was a significant main effect for sex of child; mothers of boys were more likely to retrieve them before the observation concluded, although the boys did not fuss significantly more than the girls. Presence of toys appeared to delay fussing. Boys, in this study, appeared to be more sensitive to separation than did girls. Mothers of boys watched and smiled more as they observed their infants' play on the video screen. The maternal response to infant distress may be indicative of their own level of separation anxiety, and mothers may be more anxious about separating from sons than from daughters.

These questions were investigated by McBride (1983/1984) in her laboratory observation of maternal separation and reunion behaviors. She found, in contrast to Corter and Bow, that mothers of female infants asked their babies significantly more questions at the time of reunion. However, the sex of the 3-4 month old infants in the McBride study did not influence maternal nonverbal behaviors. Bunge (1983) found no significant differences for sex of infant in her study of working- and middle-class employed mothers.

Weinraub and Frankel (1977) report that during a free play situation, infants were more distressed by separation from their same-sexed parent. During departure, fathers talked more to the infants than mothers. Also, parents talked more to, sat on the floor more with, and seemed to
share more in the play of their same-sexed infants. Following the observation, parents were asked how they felt about the departure. Forty percent of the mothers reported feeling worried about their infants' response to their absence. In contrast, no fathers reported feeling worried about their infants' response. Mothers, by their self report, evidenced significantly greater separation anxiety.

Hock (1978, 1980) and Hock & Clinger (1981), after considerable research on the effects of separation on the child, concluded that maternal anxiety may be reflected in the separation episodes and is closely related to maternal attitudes toward nonmaternal care.

Characteristics of working and nonworking mothers and their infants were assessed using a multitrait, multimethod design which included naturalistic home observations of mother-infant interactions as well as structured laboratory observations. Assessments were made soon after delivery, and when the infants were 3, 8, and 12 months old. Besides comparing the attitudes and caregiving behaviors of working and nonworking mothers, this study also compared the behavior of infants of the two groups and described the relationships between mother-and-infant characteristics of the respective groups. Factor analysis of the maternal interview and observation data resulted in eight factors. One factor, exclusive maternal care, seems to express the belief that a mother is the most appropriate person to care
for her child. Mothers high on this factor reported anxiety and distrust regarding the idea of leaving their infants with other people. They reported little interest in leaving their infants with other caregivers to return to work.

Mother-infant pairs were observed in the Ainsworth Strange Situation Paradigm when the infants were 12 months old. There were no group differences in the social behaviors infants directed towards their mothers. Nonworking mothers who scored high on exclusive maternal care had infants who desired more maternal closeness. In contrast, working mothers who scored high on exclusive maternal care had infants who showed less effort in maintaining maternal closeness. Hock suggested that a possible role conflict may exist for the working mother who believes in exclusive maternal care. Mothers whose beliefs about exclusive maternal care conflicted with their work status had infants who demonstrated more negative reunion behavior; this may indicate disturbances in the mother-child relationship. Maternal anxiety about separation may be a major contributor to disturbances between mother and child.

**Measurement of Maternal Separation Anxiety**

Maternal separation anxiety involves apprehension, fear, guilt, and nervousness on the part of the mother when separation from her child is considered. This maternal characteristic has recently been described and measured by Hock et al. (1983a, 1984). They questioned a large sample
(n = 620) of first-time mothers soon after delivery about their employment plans for the following year. Eighty-one percent (n = 502) stated that they would worry during separations from their infant; 44% (n = 272) anticipated feeling guilty about leaving the infant. Almost half of these mothers (n = 304,) stated that their jobs or careers were personally satisfying, yet 88% (n = 545) agreed that they would not regret delaying their careers to be home with their infants. Ambivalence about leaving their infants in order to return to work is apparent from this data, particularly since 65% (n = 403) of these mothers reported plans to return to work within the year.

A subsequent study of employed (n = 47) and unemployed (n = 36) mothers and their first-born infants was designed to assess work-related maternal separation anxiety (Hock et al., 1983b). Using multiple measures of separation anxiety (self-report, interview-based ratings, and the above described standardized questionnaire), working and nonworking mothers were compared during their infants' first four months of life. Stability of separation anxiety was assessed over time as was the relationship between maternal separation anxiety and observed behavior in both mothers and infants in a laboratory separation sequence (McBride, 1983/1984). Analysis indicated that employed mothers were significantly less anxious in regards to separation related to employment. The laboratory measurement related
meaningfully to the MSAS results. When asked what they would do if they were completely free to choose, 51% (n = 24) of the working mothers indicated they would prefer to stay home, while 48% (n = 23) expressed the desire to work. Working mothers who preferred to stay home were more anxious about separation on all measures. In addition, they were less work-oriented, they reported working for financial reasons, they were more invested in the maternal role, they missed their babies more while at work, and they expressed more feelings of guilt associated with leaving their babies (Gnezda, 1983/1984).

Bunge (1983) used multimethods of assessment to establish the construct validity of the Maternal Separation Anxiety Scale with a group of 35 working- and 35 middle-class employed mothers who participated in the first phase of the Hock et al. study. She found that lower SES mothers experienced higher levels of maternal separation anxiety both in the maternity ward and one year later when the MSAS was readministered. They were also interviewed extensively about their concerns related to mothering, employment, childcare, and their perceptions of their infant's reaction to separation. Maternal separation anxiety was also higher among those mothers lower in education and in intelligence. A lessened ability to cope with anxiety may have been influenced by their lower cognitive abilities. The relationship of SES to maternal separation anxiety suggests
that for these mothers education and IQ may have influenced their ability to determine whether or not a given situation was threatening. Younger mothers became increasingly anxious about separations over time. They also did not perceive mother-child separations as essential to promoting their child's independence. Employed mothers of low SES had less education, lower IQ scores, less earning power, and were younger. They were worried about their ability to handle their dual roles.

Other Research Related to Maternal Anxiety and Parity

Westbrook (1978) interviewed 200 mothers one year following delivery and reported that increased parity correlated with increased mutilation anxiety. She found that mothers were more likely to reject second and fourth pregnancies but not their first and third. Increased parity, in this population, resulted in lowered adjustment and increased depression as measured by the MMPI Scales. Mothers' relationship with father of the infant did not correlate with parity but it did with their reaction to birth of the infant.

Westbrook concluded that childbearing is an event with both strong negative and positive emotions and that no lessening of arousal occurs with successive births. Compared to primiparous women, multiparous women have similar, but more numerous feelings associated with pregnancy and childbirth.
Grossman et al. (1980), in the study mentioned earlier, used Spielberger's State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1968) to measure maternal anxiety. The average score for their sample was considerably lower than the sample means described by Spielberger et al. (1968). Mean scores between first-time and experienced mothers were not significantly different, but the authors commented that first-time mothers tended to be more anxious and that their anxiety was more predictive of later infant behaviors, whereas anxiety in experienced mothers was not predictive of later infant behaviors.

Walker and Walker (1980) also used Spielberger's State-Trait Anxiety Inventory (Spielberger et al., 1968) in a study of 345 mothers to see if there were relationships between employment status, number and ages of children, and maternal anxiety. They found that unemployed women were slightly more anxious. Trait-anxiety was highest in women with children between 2 and 5 years and lowest in women with children beyond 5 years old. Those women employed full-time were significantly lower on Trait-anxiety than those working part-time or not working. Work status did not interact with ages of children for trait anxiety, possibly because of the quality daycare used by these women. However, there was a clear relationship between age of children and Trait-anxiety with highest levels for mothers with children between 2 and 5 years. Having children under 2 or over 5 years of age
seemed to be less stressful for these mothers. These findings replicate other studies showing maternal distress associated with having preschool age children (Moss & Plewis, 1977; Richman, 1976).

**Pregnancy and Employment**

The issue of health of working mothers, particularly mothers who work throughout a second pregnancy, might be relevant to maternal separation anxiety associated with a second child. Health can be related to the benefits a woman may, or may not, have associated with her work, i.e., paid maternity leave, rest breaks, occupational safety, and insurance coverage.

Data from the U.S. Collaborative Perinatal Project \(n = 7,722\) in the late 1950s to mid-1960s indicated that women who work during the last trimester of pregnancy had infants weighing 150-400 grams less at birth than women who remained at home. This was especially true if the woman was underweight at conception, had high blood pressure, or engaged in work requiring long periods of standing. This difference remained after stratification by race, SES, and other maternal factors commonly influencing fetal growth. The incidence of placental infarcts (lack of blood supply to organ that nourishes the fetus) increased when women continued to stand late in pregnancy. Low uteroplacental blood flow possibly accounted for the decreased fetal growth and increased placental problems. For white women, having
other children at home was also a factor in decreased birth weight (Naeye & Peters, 1982).

Studies in Britain (Chamberlain & Garcia, 1983) have revealed similar findings. In 1981, 48% of pregnant women continued to work past the 28th week of pregnancy, and 54% of mothers with dependent children were employed ($n = 6000$). Benefits for working mothers in England are more liberal than those in the U.S. (paid time off to attend prenatal clinic, travel assistance, increased rest time, and 6 weeks paid maternity leave). Several British studies have reported increases in low birth weights and stillbirths when women work during last half of pregnancy.

French women, in two national representative studies, had better pregnancy outcomes if they were working, but were also more likely to have subsidized health care if working. These women were younger (than the British sample), had smaller families with children more widely spaced, had husbands in more skilled occupations, and worked more hours/week than did British sample (Chamberlain & Garcia, 1983).

James (1984) reports that 62% of married British women with dependent children are working. Using the British General Household Survey data, James reported the following effects of pregnancy on employment: (1) nausea and vomiting enough to decrease job efficiency was reported by 47% ($n = 500$)—27% had to take time off from work; (2) increased
backache, broad ligament strain, changes in balance, and swelling; and (3) most discomfort was experienced during the last three months of pregnancy. These effects could cause considerable discomfort and ill time for pregnant women.

Transition to Parenting—The Second Experience

Classic studies on this topic have focused on first-time parenting. Within these studies there is disagreement as to how much "crisis" is associated with birth of the first child. The degree of disruption seems dependent on (1) when the data were collected relative to the onset of parenting, (2) SES of parents, (3) which parent is being interviewed, and (4) the type of scale used.

The most widely known studies of first-time parenting will be mentioned before reviewing the two studies which included parents with more than two children.

LeMasters' (1957) study of 46 urban, middle-class white couples with first-born children 5 years and under was the first to describe the transition to parenting as a potential "crisis". The degree of crisis was mutually agreed upon by the couple and interviewer. Extensive or severe crisis was reported by 83% of this population.

Hobbs and Cole (1976), using a checklist with a random sample of urban lower- and middle-class white couples whose first child was 3-18 found no severe crisis. They analyzed husbands' and wives' responses separately; the majority reported "slight" crisis with wives reporting slightly
higher mean scores than husbands. In this study 70% of husbands and wives felt their marriage was happier and more satisfying after the first child was born; only 2% of wives and no husbands reported less marital satisfaction.

Entwisle and Doering (1980) interviewed 160 lower- and middle-class white women and 60 of their husbands on three occasions (7th and 9th months of pregnancy, 3 weeks following birth of first child, and 6 months later). They found the time immediately around birth was stressful; there were no class differences. Roles became more traditional following birth. By 6 months 7% of mothers in this study were working full-time, 19% were working part-time, 8% had tried working and quit, and the remainder were at home (66%). Mothers had more difficulty with role integration, especially working mothers who were still responsible for childcare.

Miller and Sollie (1980) followed 109 middle-class couples from mid-pregnancy to 6 weeks post-partum. Wives had higher personal stress scores than husbands, and higher stress scores over time while husbands' scores remained the same.

Meyerowitz and Feldman (1966) and Feldman (1974) have considered the effects of transition to parenting the second time. They followed 400 first-time parents matched with 100 parents with more than one child; they also included matched couples without children in their research design. They
found that, except in more differentiated couples who had increased satisfaction, transition to second-time parenting increased perceptions of negative personality changes in partners, decreased marital satisfaction, decreased satisfaction with home, increased instrumental conversation, increased child-centered concerns, decreased satisfaction with sexual intercourse, and increased warmth toward the child(ren). These findings confirmed many of LeMasters' earlier findings.

LaRossa and LaRossa (1981) studied four couples (traditional couple with one child, dual-working couple with one child, and both traditional and dual working couples with two children). In the dual worker couple with two children the father shared in the childcare; both parents were academics and thus were able to adjust their work schedules. However, after six months the father became increasingly dissatisfied and outside childcare was arranged.

The last two studies are unique in that they address transition to parenting the second time; the paucity of literature on this subject is interesting because so many couples have more than one child. There is, fortunately, considerably more information on how parents interact with first and succeeding children.
Parity and Maternal-Child Relationships

Previous research indicates that mothers interact differently with first and succeeding children (Lasko, 1954; Jacobs & Moss, 1976; Walker & Walker, 1980; Westbrook, 1978). However, patterns of interactions between parents and their first and succeeding children may be quite similar (Jacobs & Moss, 1976; Ward et al., 1983). A child’s position within the family (birth order) may have less impact on parent-child relations and subsequent personality development than previous research has reputed. In a survey of birth order literature from 1946-1980, Ernst & Angst (1983), found that the effects of position in the family decreased as the control of social background variables increased. More important effects seem to be related to the sex of each child and the age interval between between them.

Jacobs and Moss (1976) studied 32 first-borns and their second-born siblings when each was 3 months old. In every case where second-born data were collected, similar data had been obtained for the first-born sibling approximately 25 months earlier. The 32 children were equally divided by sex and birth order. Methodology included a six hour home observation of both mother and infant behavior. Results indicated that mothers of second-borns spent less time in both social and caregiving (except feeding) interactions. This decrease in interactions was greatest for the second-born of two girls, and least for second-born boys.
with older sisters. Girls and boys used different methods to obtain maternal attention; girls demanded attention through close, physical contact, boys instigated more distal maternal caretaking and social interactions. These authors suggest several explanations for the change in maternal behavior toward first- and second-borns, including: (1) less time and more work associated with two children, (2) less novelty and excitement the second time, (3) competition from the first-born for the mother's attention, and (4) greater experience on the part of the mother resulting in more efficient caretaking. Possible reasons for the differential treatment of the various sibling gender pairs include: (1) novelty of second child of a different sex, (2) caring for a male child for any mother may be novel enough to promote higher frequency of behaviors toward a second-born boy regardless of the first-born's sex, and (3) cultural bias toward males may influence mothers' behaviors.

Lasko (1954) also compared mothers' behavior toward first- and second-born children when the siblings were the same age. Using a population of 46 sibling pairs whose mothers had been rated on the Fels Parent Behavior Rating Scale in a longitudinal study started before the birth of the first child, Lasko was able to compare mother-first born and mother-second born behaviors at 3, 6, and 9 years of age. Although few statistically significant differences were found, trends in the predicted direction for warmth,
vocalization, and control and discipline policies were noted. Contrary to prediction, parents did tend to baby, protect, and be more solicitous of the second child than of the first.

Lasko also found that parent behaviors changed with age of the child. The first child experienced an extremely warm, child-centered early environment. This was not so for the second child who started with less warmth but managed to maintain an affectional position longer than did the first child. The most notable difference occurred during preschool years; less difference was evident during school age years.

Other findings include: greater early verbal stimulation of first-child (second child misses this early stimulation but does receive verbal stimulation before school entry); greater discipline of first child; and more parental anxiety with the first child. Parents treated the siblings similarly on warmth and emotionality, and siblings close together in age received more rational and understanding treatment from parents.

Lewis and Kreitzberg (1979) also found that first-borns generally receive and emit more behaviors. Based on home observations of 193 mother-infant dyads they reported that spacing of siblings influenced maternal behaviors; mothers responded more to closely and widely spaced infants; and mothers responded less with each succeeding child, while siblings responded more to their younger brothers and
sisters. Major differences for maternal behavior occurred between first- and later-borns. Whether a woman has one or more children may or may not indicate her degree of investment in the maternal role as many factors have been found to influence family size (Boverman, Vogel, Boverman, Clarkson, & Rosenkrantz, 1975; Hoffman, 1974; Hofferth, 1983; Shade et al., 1983; Thornton & Camburn, 1979).

Of particular interest to this study is whether maternal role investment influences how mothers respond to separation from second-born children. Much has been written on maternal role; the following section is a brief overview.

**Maternal Role Investment**

The role of mother has been universally prescribed in our culture. Motherhood has been called the first imperative for women and there are impressive social and cultural beliefs and traditions to support this imperative (Bernard, 1974). A large aspect of female socialization is related to the mother role. "Everything in a girl's socialization explicitly or implicitly, is designed with the expectation she will become a mother." (Bernard, 1981, p. 166). She further asserts that almost all women want to have at least one or two children.

Why women want to be mothers has been variously explained as an instinctive, innate, physiological disposition (Rossi, 1980); as the result of psychoanalytical responses to early relationships (Deutsch, 1945); and as the
result of socialization by their own mothers (Chodorow, 1978).

Russo (1976) has labeled the social-cultural dictum that every adult female should have at least two children and raise them well, as the "Motherhood Mandate". This mandate does not have to prevent women from pursuing other interests as long as they still attend to their homes, husbands, and children (Poloma, 1972).

Improved contraception, and widening educational and career opportunities for women have not, as yet, diminished the influence of the Motherhood Mandate (Bernard, 1974). Most women want at least two children (Moore & Hofferth, 1979), as children reaffirm their sense of femininity which may be threatened by employment and success (Hoffman, 1974).

Many women and men believe that when mothers work outside the home the results are detrimental for young children (Hare-Mustin & Broderick, 1979). In a study of 177 college students and their parents, these authors found that men were more negative toward working mothers (58%) than were women (32%). A similar response was obtained by Thomson (1980) when she interviewed 378 mothers of young children. A negative response was particularly true in the case of full-time employment of mothers with two or more children.

A recent New York Times poll of 1309 adult men and women revealed that 59% of the women and 44% of the men
think that employed mothers are as good, or better, mothers than those who do not work outside the home. Fifty percent of the working mothers stated a preference to work rather than stay home to care for their children. This poll was stratified by race, sex, age, political orientation, occupation, and income. The numbers of mothers preferring work were consistently high across these demographic variables ("Where Do," 1983).

Beliefs about child rearing and adaptation to employment have been found to vary by social class; little or no differences were noted between working and nonworking college-educated mothers whereas significant differences were noted between working and nonworking high school-educated mothers. This study also revealed that mothers who worked reluctantly had the most difficulties with mothering (Yarrow, Scott, de Leeuw, & Heinig, 1962).

Not all women accept this mandate, however, as it appears that maternal role investment (the degree that motherhood plays an integral part of a given woman's self-concept) varies as a rather stable personality attribute (Birnbaum, 1975; Hock & Clinger, 1981). Some women who have needs beyond mothering are able to establish role hierarchies which help them integrate the roles of motherhood and career. These women, nonetheless, often find that the mother role takes priority when their children are very young (Bernard, 1974).
Motherhood and career investment are not mutually exclusive, as Schwartz (1980) found in a recent study of 48 working mothers and their infants. Although these mothers were career oriented, they expressed preference for part-time work and motherhood over career if a choice had to be made between the two roles. Bunge (1983), in her study of 70 working-class and middle-class employed mothers, found that although they were highly invested in the maternal role, these mothers had a moderately significant negative correlation between their maternal role investment and work orientation scores.

Birnbaum (1975), in her study of gifted women homemakers and professionals, found that the homemakers were highly invested in the mother role and that being "loved and needed" by others provided them with a great sense of importance. Their self-esteem was dependent on their assessment of being "needed" by others. However, they also described the mother role as requiring self-sacrifice, self-subordination, and devotion to family.

The professional women, on the contrary, spoke more of everyone in a family making adjustments, rather than expecting the mother to do so alone. These mothers also emphasized the "mutual enrichment and companionship" rather than the self-sacrificing demands of being both married and a mother. They were less irritated by their children than the homemakers, but nonetheless, expressed guilt about how
their careers might affect the children. They were committed to their careers, and although they considered their children as bringing them pleasure, they were less invested in the maternal role than were the homemakers. A major difference between these women was their level of self-esteem. The married professional mother had considerably higher self-esteem, which was based on her sense of achievement and autonomy; the homemaker was much less content with herself.

Thornton and Camburn (1979) found that women's sex-role attitudes are related to their fertility and work-force participation. Women whose primary roles were focused on home and family were more traditional and received most of their satisfaction and happiness in expressing these roles. They were unlikely to want a career, or to be working, and were concerned that working would interfere with family responsibilities. Women may turn to those roles that give them greater self-esteem. In her study of working and nonworking mothers of infants, Hock (1980) found that attitudes toward nonmaternal care related to how mothers felt about mothering (whether they saw themselves as the exclusive caregiver of their children or whether they believed others were equally competent in caring for their children).

Mothers who are comfortable with nonmaternal care have different attitudes toward work and separation for their
children. Hock (1980) made the important distinction between a woman's work status and career investment or salience. She found that work status was not as important with respect to maternal satisfaction (the positive orientation a woman expresses toward her role as a mother) as was career salience. These findings suggest that it is the desire for and enjoyment of working that are in conflict with the mothering role. Consequently, maternal role investment is intricately related to maternal career investment and the two must be considered simultaneously.

**Maternal Career/Work Investment**

This variable has also been found to be a rather stable personality attribute (Birnbaum, 1975; Hock, 1980). As defined earlier, maternal career investment is the amount of interest a woman expresses toward an occupation, job, or career, and it is related to the satisfaction she derives from working. It is similar to Greenhaus' (1971) career salience which assesses the degree of importance an individual attributes to work as an integral part of his/her self-concept. As the importance of work increases for a particular individual, the higher his/her degree of career salience and interest in pursuing a particular career.

Morgan (1981) found a high positive correlation between career salience and work orientation in her study of working and nonworking mothers. Labor force participation during the first 6 years of motherhood was the most predictive
variable and accounted for the largest degree of variance in this study of vocational decisions by mothers. A similar finding has been reported by Nieva and Gutek (1981).

Birnbaum (1975) found that the professional mothers in her study had always considered career investment and mothering as compatible and expected roles. This attitude had been apparent early in their lives, and was associated with high self-esteem, independence, and competitive behaviors.

Whether a woman works or pursues a career, is related to her educational level and to her expected family size. As the number of children increases, the degree of career investment goes down, although this relationship is not always clear and seems dependent also on SES (Hoffman, 1974). As a woman's educational level goes up so does her likelihood of participating in the labor force, and the chance that her career commitment will be fairly high. Bunge (1983) found that preference to work full time was higher in her middle SES mothers, although over half of both SES groups said, that if given a choice they would prefer to stay home with their infants.

Faver (1980), in a survey of 1,120 women ages 22-64 found "...that level of achievement orientation does not vary with age, but is positively related to indicators of achievement goals during youth." (p. 111). The value given to career or family achievement varies with age, marital
status, and parenthood. Career values are highest for the young, single, childless woman or those women whose children are beyond preschool. Faver also found that life satisfaction was low in those young mothers who had high career values. She suggests that the low employment of women in this age group is due to childrearing constraints rather than to low career values. She sees women's career activity being inhibited "structurally" rather than psychologically (p. 113). These constraints are primarily the result of their continuing greater family responsibilities compared to their male colleagues (Faver, 1980; Holahan & Gilbert, 1979).

Analyzing a woman's distribution of interests, time, energy, and emotional investments is another way of measuring her career investment (Poloma, Pendleton, & Garland, 1982).

Finally, the effects of maternal employment on infant should be considered. Although not directly related to Maternal Separation Anxiety, this issue has already been mentioned in relation to development of the construct of maternal separation anxiety. The following studies are included because they may continue to provide insights as to the nature of maternal separation anxiety associated with second-born children.
The study of maternal employment as it affects infants is itself quite young. The first empirically sound research on the influences on infants was published 5 years ago by Ellen Hock (Hoffman, 1983). These studies have been briefly reviewed in the previous section on maternal separation anxiety.

In addition to Hock, two other groups have contributed major research on this topic: the Michigan group of Owen, Easterbrooks, Chase-Lansdale, and Goldberg on maternal/paternal infant attachment, and the National Institute of Child Health and Development group of Zaslow, Pedersen, Suwalsky, and Rabinovich on parent-infant interactions.

Pedersen, Anderson, and Cain (1980) began studying parent-infant interaction in relation to parental specialization in child care and work roles. In an initial study of 41 middle-income, Caucasian families with a first-born, five-month old infant, they found a decrease in interaction with the baby when all three family members were together.

Pedersen et al. (1982) then compared mother-infant, father-infant interactions for 15 traditional and 10 dual wage earner families (where mother worked at least 20 hours a week outside the home). Infants in this study were also first-borns; they were three months old at the time of the
observation. Findings indicated that those infants whose mothers worked outside the home received less attention and caregiving from their fathers at the time of the observations, which occurred during weekday evenings.

Zaslow et al. (1983) reported two differences between traditional \( n = 15 \) and dual-wage earner families \( n = 20 \) in a follow-up study of the first (Pedersen et al. 1980) population when the infants were 12 months old. Parents in dual-wage earner families showed a decrease in social play as well as a decrease in encouragement of attention to objects during interactions with their infants. No other significant differences between family types were noted.

All families were observed at home two times for one hour, during a weekday evening. Parental attention to children varied by sex of child and family work type. Boys of dual-wage earner families received the least amount of attention; girls in dual-wage earner families received more stimulation. This effect was more noticeable if the mother had recently returned to work, and seemed to diminish with time. A similar interaction between sex of child and mother work status has been reported by Bronfenbrenner, Alvarez, and Henderson (1984). Working mothers of three-year-old children reported more negative descriptions of their sons, and more positive ones about their daughters than did a comparable group of nonworking mothers.
Zaslow et al.'s (1983) finding that dual wage earner parents provide less stimulation, particularly with respect to calling attention to objects, is new and does not fit with earlier findings from the 1980 sample studied when infants were 5 months old (Hoffman, 1983). A consistent finding, from all samples studied by this group, is that of decreased father-infant interaction during the late weekday observations. It has been suggested that when both parents work, what used to be considered Daddy's time (at the end of the day) has become Mommy's time for play with the infant. Hoffman suggests that fathers in dual wage earner families may still spend more time with their infants over the entire week than do fathers in the traditional wage earner family. One can only speculate what the differences would be in dual wage earner families with two young children.

Owen et al. (1983) and Lamb (1982) have been interested in the relationship between maternal employment and attachment, especially in regard to the stability of the attachment to both mothers and fathers.

Lamb and his group found that employed mothers with infants "...valued work more and parenthood less than did nonemployed mothers...Satisfaction with parenthood was positively correlated with the value of parenthood and was negatively correlated with the perceived value of work and resentment of the infant's intrusion. Infants securely attached at 1 year tended to have mothers who valued
parenthood highly whereas those who were insecurely attached tended to have mothers who valued work highly and parenthood less." (Lamb, 1982, p. 55).

Owen et al. evaluated the relationship between maternal employment and the quality of infants' attachments to their mothers and fathers, as well as the stability of infant-mother and infant-father attachment from infancy to toddlerhood. The proportion of securely attached infants was similar for three groups (nonemployed mother, mothers employed part time, and mothers employed full time) in a population of 53 middle-class, intact families. Attachment remained highly stable across the two age groups for both mother and father in all of the work status groups. These findings suggest that maternal employment, per se, is not related to the quality of attachment between infant and either parent. Again, we can only extrapolate to dual earner families with two small children.

Additional studies of the effects of maternal employment on infants have been reported by Schubert, Bradley-Johnson, and Nuttal (1980), Schachter (1981), and Stuckey et al. (1982).

Schubert et al. (1980) videotaped 30 mothers and their infants (ages 15-17 months) in a 12-minute free play situation. The vocal and nonvocal patterns were compared between three groups of mother-infant dyads (homemakers who preferred not to work, homemakers who preferred to work, and
working mothers). Ten behaviors, including visual contact, vocalization, touch, and responsiveness, were rated. Few differences were noted between groups in the first 8 minutes of the observation and none were noted in the last 4 minutes which these authors suggest may indicate differences in adjusting to a new situation.

Schachter (1981) examined the language, cognitive, and emotional development of toddlers of both working (n = 32) and nonworking mothers (n = 38) matched on toddler age, sex, birth order, mother age, race, religious background, family size, social class, intact status, and group care experience. There were no significant differences in language development, but Stanford-Binet classifications of IQ were significantly higher for children of nonworking mothers. Although there were no significant differences in emotional development, children of working mothers were more peer oriented whereas children of nonworking mothers were more jealous, asked more for help and protection, and daughters of nonworking mothers spoke more often to adults.

Stuckey et al. (1982) compared 20 families where mothers were employed with 20 families where mothers were unemployed. Results showed that boys of nonworking mothers received more attention whereas girls with working mothers received more attention. Similar sex of child x mother's work status findings have been reported in studies of older children (Hoffman, 1974, 1979). Possibly there are some
clues here as to how mothers cope when they are reunited with their children after being away from them for brief periods of time. Although these studies address the effects of maternal employment on infants rather than on mothers, it is important to consider how maternal attitudes both towards working and mothering may have influenced these findings.

**Summary**

A theoretical background for the study of anxiety using Spielberger's (1972) State-Trait paradigm and Bowlby's (1969) ethological attachment theory has been suggested in relation to the study of maternal separation anxiety. By extension of Bowlby's theory that an infant becomes anxious if his primary attachment figure is unavailable, it seems plausible that mothers may also become anxious if they perceive separation as interfering with their ability to provide protection and security to their infants. It was also suggested that state anxiety, as defined by Spielberger may explain maternal separation anxiety.

Empirical research dealing with the measurement of maternal separation anxiety was reviewed as were a number of studies dealing with maternal parity, transition to parenting the second child, and the effects of employment on pregnancy outcomes. Parity was included because the present study's focus is mothers of two children and because of the substantial empirical evidence that mothers interact differently with first and second children. Transition to
parenting the second time is under represented in the literature, but the limited studies available indicate that the second transition is less of a crisis. Parents appear to give more warmth to their children at this time than they give to each other.

The awareness of maternal separation anxiety evolved from the study of infant response to separation from mother. Consequently, it seemed prudent to include the most recent information on the effects on infants of maternal separation due to employment. Among these findings: (1) working parents, when together, interact less with their first-born infants; (2) husbands, when their wives work, interact less with their infants; (3) parents are less inclined to stimulate an infant when they both work; (4) first-born, year-old sons receive less stimulation than do first-born, year-old daughters, and (5) maternal employment does not appear to influence the stability of infant attachment to either parent.

By examining the interrelationships of maternal separation anxiety, maternal role and career investment, and the influence of an additional child, it is hoped that a better understanding of the nature of maternal separation anxiety will emerge. Results from this study could be particularly salient today as increasing numbers of mothers are separating from their children on a regular basis as they combine mothering and employment. Integration of her
multiple roles may significantly influence how a working mother responds to separation from her new infant.
CHAPTER III

METHODOLOGY

Methodology for this research is presented in four sections. The first section describes how the subjects were selected. The second section is a discussion of the study variables and the third section is a discussion of the measures and procedures used in the research. The fourth section describes the subjects. The final section outlines the analytic procedures used with the data.

Selection of the Population

Mothers of Second-born Infants

Mothers previously studied by Hock et al. (1983a, 1983b, 1984) and known to be pregnant with their second child and working outside the home when their first child was approximately one year old were contacted regarding their participation in an exploratory study of working mothers' responses to separation from a second child.

Subjects were drawn from an original population of 623 healthy, primiparous mothers who delivered healthy, full-term infants in one of three hospitals in Columbus, Ohio, between October, 1981, and February, 1982, (Phase I)
and from 320 healthy, primiparous mothers who delivered healthy infants in these same hospitals during the months of March through June, 1982, (Phase II). Both populations were composed of a stratified, random sample of employed and nonemployed women (Hock et al., 1983a).

Twenty-seven Phase I mothers who met the above criteria were telephoned regarding their participation (Appendix A) in the study. Nineteen agreed to participate, two declined (one because she was "not interested," the other because she was in the process of moving), and six were unavailable by telephone.

Those mothers unavailable by telephone were sent a letter (Appendix B) requesting their participation in the study; three did not respond to this letter, one was no longer working, and one who was working responded, but she had moved out of state. One mother met the criteria and was included.

Seven additional subjects were recruited through a mass mailing to all known working mothers (173) in Phase I (Appendix C). They were asked, "Are you working outside the home? How many hours/week are you working? Since our last contact with you, have you had another baby? Are you now pregnant?" In addition, they were asked to rate themselves on their current separation concerns with their first child (on a scale of 1 to 9 with 1 indicating no concerns and 9 indicating extreme concerns). This mailing also included
the *Attitudes About Childcare* (Appendix G), which mothers were asked to complete and then return along with the fact sheet in an enclosed, stamped, self-addressed envelope to this investigator.

Mothers who responded that they had had another baby and were working outside the home were telephoned; no one contacted declined participation in the study, but one mother did not qualify as her second pregnancy resulted in twins, and several respondents met the criteria but were now living out of state. Thirty-two mothers were no longer working. The response rate for Phase I was 73%.

Phase II mothers were approached in the same manner. Those women known to be pregnant when their first child was approximately 13.5 months old and who were working outside the home were telephoned or contacted by letter (n = 17). Of those mothers who met the criteria, none declined (n = 8). However, four were no longer working, two worked at home, and one had moved out of state. Two mothers did not respond to either the telephone or letter contact.

Five additional Phase II mothers were recruited by the same mass mailing (Appendix C) to all known working mothers (n = 124). Ninety-one mothers responded to this mailing; of these, two worked at home, five were no longer working, three had another child but were no longer working, two had another child but had moved out of state, and four failed to respond. The total response rate for Phase II was 95%.
Fourteen letters were returned with no forwarding address. Thus, through telephoning and writing to all known working mothers in both Phase I and Phase II, a final population of 40 working mothers with second-born infants (27 from Phase I and 13 from Phase II) was obtained. At the time of the interviews 37 of these mothers were working, 2 were still on maternity leave, and 1 was actively seeking employment.

Comparison Group

A second group composed of all those working mothers of one child who responded to the mass mailing of the brief Fact Sheet (Appendix C) and Maternal Separation Anxiety Scale/Attitudes About Childcare Questionnaire (Appendix G) (89 mothers from Phase I and 75 mothers from Phase II) was included in the research. The purpose of this group was to provide some comparison of maternal separation anxiety in working mothers of one and two children with respect to the older child (who was approximately 2-2.5 years old when data were collected).

Although more current demographics were available for the interviewed mothers, in the interest of presenting comparable data, Time 1 (maternity ward enrollment information) was selected for this analysis (Tables 6 and 7).
Variables

Variables under consideration in this research include the following:

**Maternal Separation Anxiety:** This variable refers to a mother's concern, worry, apprehension, and guilt associated with short-term, mother-child separations (Hock et al., 1983b). Maternal separation anxiety also involves feelings of apprehension, fear, and nervousness about the child's well-being during separation, as well as feelings of missing the child's physical and emotional closeness and the intimacy of the relationship when separated. It also includes the nature of the mother's beliefs in the effect of separation on her child's independence and sociability.

**Maternal Role Investment:** This variable measures the degree of importance a woman places on motherhood as a source of personal fulfillment in life as well as her level of commitment to motherhood as her primary responsibility in life. It also measures the priority that motherhood assumes in her self-concept (Hock, 1976).

Measurement of this variable was derived from a 9-point rating of interview-based questions previously used by Hock (1976), Gnezda (1983/1984), McBride (1983/1984), and recently modified by Bunge (1983).

**Maternal Career/Work Investment:** This variable measures the degree to which a career, job, or occupation is important to
a mother's sense of fulfillment. The degree of career/work investment also demonstrates the priority a woman places on her career/work within her other life experiences (Hock, 1980).

Measurement of this variable was also based on semi-structured interview questions developed by Hock (1976), and more recently used by Gnezda (1983/1984) and Bunge (1983).

**Work Status Preference:** During the interview mothers were asked, "If given the choice, would you prefer to work or to remain at home with your infants?" The response was simply coded 2 for remaining at home and 1 for working. This variable has previously used by Hock et al. (1983b) and Bunge (1983).

**Proneness to Disorganization under Stresses of the Expanded Maternal Experience:** This variable refers to the extent a mother's functioning and well-being tend to be disrupted by stress of various kinds (including childbirth, hospitalization and motherhood). She may be the kind of person who is easily thrown off by anxieties of all sorts. For example, she may become disorganized by physical illness in herself or others (parents, husband, infant(s)), by changes in her usual schedule, by circumstances that differ from her expectations (such as the kind of baby she gets vs. what she wants), etc. Conversely, she may be highly
adaptive, maintaining equanimity and optimal functioning in all situations at all times, and is flexible enough to manage major or minor crises without impairment of her state of mind and effectiveness.

Measurement of this variable was derived from an interview-based scale originally designed by Moss for use with first-time mothers (1971) and modified by Hock (1976).

Procedures and Measures

Mothers who agreed to participate in this study were selected as outlined in the previous section. Upon agreeing to participate, the mothers were sent a letter confirming the date and time of the home interview (Appendix D) and a copy of the Attitudes About Childcare (Maternal Separation Anxiety Scale) questionnaire (Appendix G). They were asked to answer the questions in terms of their second child. The questionnaire was collected at the time of the interview. A schedule of data collection including time sequence, population involved, and instruments used are presented in Table 1.

Maternal Separation Anxiety Scale/Attitudes About Childcare Questionnaire

This instrument (Appendix G) developed by Hock et al. (1983a), is a 35-item, 3-factor, self-administered questionnaire, which was originally developed from 68 items given to all mothers in Phase I of the study. Factor and
item analysis resulted in the present 35 items which were
designed to measure 3 dimensions contributing to a mother's
corns about separation from her child. These dimensions
include her feelings about exclusive maternal care, her
perception of her child's distress during separation, and
her own feelings about being separated from the child.

Maternal feelings refer to the sadness, worry, or guilt
a mother may feel when separated from her child. Separation
may involve guilt, sadness, and other unpleasant feelings on
the part of a mother who leaves her child with someone else
to return to work.

Beliefs about exclusive maternal care refer to the
extent to which a mother feels she is best able to care for
her child. She may worry that the care provided by others
will lack the physical and emotional quality necessary to
meet the child's needs.

Perceptions of child's distress refer to how a mother
views her child's responses to being away from her. She may
worry that the child will not adjust to another person or
environment in her absence, and she thus may be apprehensive
about the child's reaction to separation.

Response categories to the above dimensions are
arranged on a 5-point Likert scale ranging from strongly
agree to strongly disagree.
Maternal Separation Anxiety Scale (MSAS)

Factor 1—Maternal Separation Anxiety: This factor represents the presence of worry, sadness, and guilt surrounding a separation event. It also includes the extent to which a mother perceives that her child needs exclusive maternal care, and refers to the mother's beliefs about her child's ability to adapt to nonmaternal care.

Factor 2—Separation Promotes Sociability and Independence: This factor represents the mother's interpretation of separation experiences as contributing to the child's sociability. It involves maternal beliefs that mother-child separations are important for a child's social development regardless of any distress or difficulty experienced by the child during the separations. It reflects the belief that a child needs experiences with other adults and children away from his/her mother in order to develop interpersonal skills and to become aware of and cope effectively with diverse values, perspectives, and experiences.

Factor 3—Employment-Related Separation Concerns: This factor reflects a mother's feelings and attitudes toward work and motherhood. It reflects her primary orientation either toward motherhood or work, and reveals personal conflicts as she considers integrating employment and mothering roles and responsibilities.
Scores of each factor and the total score for the Maternal Separation Anxiety Scale (MSAS) range from 7 to 35, with the higher the mother's score, the higher her separation anxiety. Reliability coefficient alphas reported by the authors include, "90 for Factor 1", "77 for Factor 2", "71 for Factor 3", and "89 for the total scale" (Hock et al., 1983a).

Phase I mothers (in this study) were given the 68-item questionnaire; phase II mothers were given the 35-item questionnaire as they had been given these versions consistently in the past. Phase I mothers had completed the 68-item version at the time of the first infant's birth, and at 3 and 12 months later. Phase II mothers had completed the 35-item version following the birth of their infants, at 7 weeks, and again at 8 and 13.5 months. Refer to Table 1 for the complete schedule of data collection.

Interview

Separation anxiety was also measured using a previously developed, semi-structured interview (Appendix E) based on the work of Hock (1976) and modified by Gnezda (1983/1984), Bunge (1983), and McBride (1983/1984). Mothers were asked about their employment- related separation concerns with their second child, their investment in the mothering role, their career/work investment, their attitude toward nonmaternal care, and their attitude toward whether separation promotes independence in the child. In this
TABLE 1

Schedule of Data Collection

<table>
<thead>
<tr>
<th>Time</th>
<th>Population</th>
<th>Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 1981-February 1982</td>
<td>Phase 1 mothers (birth of first-born)</td>
<td>Maternal Separation Anxiety Scale (MSAS)</td>
</tr>
<tr>
<td>March 1982-June 1982</td>
<td>Phase 2 mothers (birth of first-born)</td>
<td>MSAS</td>
</tr>
<tr>
<td>January-May 1982 3 months</td>
<td>First-borns</td>
<td>Phase 1</td>
</tr>
<tr>
<td>July-October 1982 4 months</td>
<td>First-borns</td>
<td>Phase 2</td>
</tr>
<tr>
<td>Nov. 1982-Feb. 1983 8 months</td>
<td>First-borns</td>
<td>Phase 2</td>
</tr>
<tr>
<td>Oct. 1982-Feb. 1983 12 months</td>
<td>First-borns</td>
<td>Phase 1</td>
</tr>
<tr>
<td>April 1983-Aug. 1983 13.5 months</td>
<td>First-borns</td>
<td>Phase 2</td>
</tr>
<tr>
<td>February 1984-May 1984 7 months</td>
<td>Second-borns</td>
<td>Combined Phase 1 &amp; 2 Working Mothers MSAS</td>
</tr>
<tr>
<td>First-borns (2-2.5 years)</td>
<td>(Mothers of Second-borns)</td>
<td>Interview-based Rating Scales (IBRS)</td>
</tr>
<tr>
<td>First-borns (2-2.5 years)</td>
<td>(Working Mothers of one child)</td>
<td>Maternal Rating-Separation Stress (MRSS)</td>
</tr>
</tbody>
</table>
particular study, they were not directly questioned about their concerns about the infant's response to separation although the mothers often mentioned their child's response as well as their own. Most questions were reworded to concerns primarily with the second child.

Mothers were also questioned about their "proneness to disorganization under stresses of the expanded maternal role" (Moss, 1971). Questions on this subscale of the interview deal with the concerns mothers may have experienced during their recent pregnancy, delivery, and the subsequent period since birth of the second child. Questions were modified from those used by Moss with first-time mothers.

The interview was pilot-tested on 5 working mothers. All pilot subjects had recently given birth to a second or third baby and were presently working full- \((n = 3)\) or part-time \((n = 2)\). The purpose of the pilot interview was to refine this investigator's technique as well as to determine if there were any further questions that should be included. A recurring issue in these preliminary interviews was the fact that mothers reported concerns about working and leaving two small children as being related to other issues in their lives. In particular, 2 mentioned that they felt worse about leaving two children now because their husbands were so busy with their own careers or school responsibilities and they (the husbands) had less time to
give to the family. Another issue was that of finances related to changes in the family, i.e., enormous bills resulting from a problem pregnancy or assumption of a mortgage often required that a mother continue working when she would have preferred to stay home. Consequently, 6 questions about change in the past year were added to the interview format (see Appendix E).

Protocol for Interview

On the day of the interview, the investigator phoned to reconfirm the time and ascertain whether the interview could be conveniently conducted that particular day. This procedure was quite useful as several mothers had forgotten the appointment or needed to reschedule for various reasons.

Upon arrival at the home (or place of work for 5 interviews) the researcher asked each mother where it would be most convenient to conduct the interview, and where it would be possible to plug in a small tape recorder. An attempt was made to make the recorder as unobtrusive and out of the way as possible to decrease its interest to small children (who were present at over 30 of the 40 interviews).

Confidentiality and use of the data were explained as well as the instruction that there were no "right" or "wrong" answers to the questions. Mothers were encouraged not to reply if they found the questions too personal; no one hesitated to answer any questions—although several of the mother's responses to "husband's income" were
surprisingly vague.

Most mothers seemed willing, if not eager, to discuss their concerns about separating from their children to return to work.

**Reliability of Interview Scales**

Training for rating of the interviews scales involved over 10 hours of listening to 5 of the tapes with another researcher well versed in use of the interview. After listening to a particular scale on each tape the researchers rated them individually. Ratings were then compared; if they differed by more than 1 point on the 1–9 Likert scale, reasons for both choices were given and discussion followed until consensus was reached. This process was used on all 5 tapes for Separation Stress before moving on to the next scale in order to clarify discrepancies in ratings. At the conclusion of the training period each researcher rated 10 additional tapes independently. Interrater reliability scores are reported (Table 2) for Pearson correlations for each scale as well as for Student t tests on the differences between means obtained by both raters for each scale.

The principal researcher completed the rating of the remaining 25 tapes by scoring each subscale individually. Although an effort was made to rate each subscale independently, the final scale "Proneness to disorganization under stresses of the expanded maternal role" was an exception. Because material heard throughout the tape
TABLE 2

Interrater Reliability
Pearson Correlation Coefficients & $T$ test Mean Score Differences on Interview Scales
$n = 10$

<table>
<thead>
<tr>
<th>Scale</th>
<th>$r$</th>
<th>$T$ test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separation Stress</td>
<td>.95****</td>
<td>0.43</td>
</tr>
<tr>
<td>Work-Related Separation</td>
<td>.91***</td>
<td>0.36</td>
</tr>
<tr>
<td>Career/Work Investment</td>
<td>.94****</td>
<td>-1.86</td>
</tr>
<tr>
<td>Attitudes Toward Non-maternal Care</td>
<td>.93****</td>
<td>-0.36</td>
</tr>
<tr>
<td>Maternal Role Investment</td>
<td>.84**</td>
<td>2.45*</td>
</tr>
<tr>
<td>Proneness to Disorganization/Mat.experience</td>
<td>.87***</td>
<td>0.00</td>
</tr>
</tbody>
</table>

* $p < .05$ ** $p < .01$ *** $p < .001$ **** $p < .0001$

contributed to a better understanding of the mother's response to having another child, this part of the interview was rated more globally.

Portions of 2 tapes were lost; one because of "taping over" during another interview that occurred on the same day, and one because of manipulation of the tape recorder by a small child during an interview session. A practice of jotting down both verbal and nonverbal behaviors helped to recreate the essence of these interviews.

All interviews were completed between February 8 and May 29, 1984. An effort, not altogether achieved, was made to contact mothers close to the time their first child would have been 2 years old. This was not always practical as the Phase I first-borns were already 2 years old at the beginning of February. However, mothers were contacted in
the order they had been originally enrolled in the Hock
longitudinal study (by cross-checking ID numbers and
birthdate).

Nonetheless, the first-born children of Phase I mothers
are necessarily older than those of Phase II mothers and the
space between the two siblings in both groups is fairly
wide. It is apparent that some mothers were newly pregnant
when their first child was one year old while several others
had already delivered a second child by this time. Several
additional mothers did not become pregnant until their
first-born was 15-17 months old and were recruited from the
broad mailing to all working mothers; it was believed that
the advantage of more subjects would counterbalance having
such a wide age interval between the siblings (mean = 18.95,
s.d. = 3.79, range = 11-26 months).

**Characteristics of the Sample**

This section will be further divided into the
descriptive characteristics of the mothers of second-born
infants at the time of the interview (Tables 3 to 6), and
the descriptive comparison of the demographics of mothers' of
second-borns with mothers' of first-borns as collected at
the beginning of original study (Tables 7 and 8). The
section concludes with the rationale for using another
measure of maternal separation anxiety (Maternal Rating of
Separation Stress or MRSS) to compare working mothers of one
and two children with respect to a first-born children.
Mothers of Second-born Infants

This sample of mothers was homogeneous for race and marital status; all were married Caucasians. For most other characteristics they were quite heterogeneous (Table 3). They ranged in age from 21 to 37 years (mean = 27.7 as calculated by last birthday). They were working an average of 29.50 hours/week (range = 4-45), excluding one mother who was looking for work. Fifty-two percent (n = 21) were working full-time (30 hours or more/week); 47% (n = 19) were working part-time. Two mothers sold Avon products from their home and door-to-door; they spent 4-8 hours/week delivering and selling their products out-of-home and attending work-related meetings, so they were retained within the sample. These two mothers were considering working more hours in a few months, probably at their previous jobs (cashier at Kroger Stores and office clerk for the State of Ohio). One remarked that she had given her job (cashier) up as she felt that caring for two children would be enough work for her. At the time of her interview she was reconsidering whether she could manage working 3 or 4 short shifts at Kroger's.

Economic status was determined using the Duncan Prestige Scale (Stevens & Featherman, 1981). Based on this scale, mothers had a mean score of 44.13 (range = 16.07-79.04) and fathers had a mean score of 48.00 (range = 17.16-89.57). All but three fathers were employed full-time
outside the home; one was currently laid off, but looking for work, one was a full-time student and worked part-time at a job related to his education (computing), and one was a full-time "househusband" while his wife was the sole support of their family. This father was given the Duncan Prestige Score for private childcare provider in the home for want of a better classification. The unemployed father was given the score of the occupation he had previously held, as was the mother who was looking for work at the time of the interview; this provided them both with slightly higher SES scores as they were currently receiving Aid for Dependent Children (ADC) which has no assigned score on the Duncan Scale. The wife of the unemployed father worked in a fast-food restaurant part-time; the husband of the unemployed mother worked full-time (out of state) in a

TABLE 3

Means and Standard Deviations
Characteristics of Mothers of Second-born Infants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>27.70</td>
<td>4.00</td>
</tr>
<tr>
<td>Hours work/week</td>
<td>29.50</td>
<td>12.04</td>
</tr>
<tr>
<td>SES-self</td>
<td>44.13</td>
<td>17.70</td>
</tr>
<tr>
<td>SES-husband</td>
<td>48.00</td>
<td>24.34</td>
</tr>
<tr>
<td>Income-self, $/year</td>
<td>16,444</td>
<td>13,642</td>
</tr>
<tr>
<td>Income-total $/year</td>
<td>43,602</td>
<td>23,393</td>
</tr>
<tr>
<td>Weeks worked/pregnancy</td>
<td>34.55</td>
<td>7.5</td>
</tr>
</tbody>
</table>
fast-food position. The student-father was given a code for a technical position related to his educational goal of a computer science degree.

Occupations of both mothers and fathers were quite diverse as their ranges in prestige scores indicate. However, one occupation was more heavily represented than any other; 11 of the mothers (27.5%) were registered nurses. Three mothers were secretaries. All other occupations were represented no more than twice in the total sample. Mean income for mothers was $16,444 (range = 1,500-80,000); mean income for fathers was $27,157 (range = 0-200,000).

Table 4 presents the changes mothers of second-borns reported for the past year. Six fathers (15%) had lost jobs; all but one were gainfully employed at the time of the interview. Twelve fathers (30%) (including those who had lost jobs) began a new job or were promoted in their present job. Seven mothers (17.5%) also began new jobs or were promoted in their present jobs within the past year. In a related change, four fathers (10%) returned to school in the past year; three of these fathers attended school at night and worked full-time during the day. One father was a full-time day student and worked odd hours on the weekends and during his breaks from school.

Four of the 40 families moved in the past year (10%); a primary reason given for changing residence at this time was to accommodate their growing family.
Serious health problems requiring hospitalization were reported by 16 (40%) of the mothers. These included major health changes of immediate and extended family members (husband, self, children, parents, or a sibling of husband or self). Included in this change was one death (subject was caring for her grandmother who subsequently died at home). Two fathers were hospitalized for surgeries at approximately the time of the second child's birth, three mothers were hospitalized following the birth of their second child—one with postpartum depression, one for an acute gallbladder disorder, and one for a back injury. Another mother was treated and released in one day for a postpartum hemorrhage.

TABLE 4

Description and Percentage of Changes During Past Year for Mothers of Second-Born Infants

<table>
<thead>
<tr>
<th>Type of Change</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Husband lost job</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Husband promoted/new job</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td>Wife promoted/new job</td>
<td>7</td>
<td>17.5</td>
</tr>
<tr>
<td>Husband returned to school</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Moved to new home</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Serious health change</td>
<td>16</td>
<td>40</td>
</tr>
</tbody>
</table>

Infants

The second-born children were more likely to be girls (n = 21, 52.5%) whereas the first-borns had a slightly
greater chance of being a boy (n = 22, 55%). The mean interval between the two children's births was 18.95 months (range = 11-26 months). In all 40 families the same sitter provided care for both children.

These siblings were most likely to be carried for by a member of their own family (n = 13, 32%) while their mothers were working; 11 (27%) were primarily cared for by their fathers. Seven sibling dyads (17.5%) were cared for by nonfamily sitters at home; 6 (15%) were cared for by sitters out of their own homes, and 3 (7.5%) were enrolled in daycare programs. Most mothers (n = 31, 77%) reported no change in childcare since the second child was born; in fact, many were using the same sitter as they had used with their first child. Five mothers (12.5%) reported one change in childcare since returning to work after the second child's birth. One mother (2.5%) reported two changes, one mother reported four changes, and two mothers (5%) reported changing childcare arrangements three times.

Twenty-one (52.5%) mothers reported breastfeeding the second child. They also reported a variety of worries about both children, of which the most common were; health (n = 33, 82%); safety (n = 17, 42.5%); having enough time for both children (n = 20, 50%); and concern that first child would be jealous of the second (n = 12, 30%). The majority of mothers reported worrying less about their second child (n = 28, 70%) than they had about their first.
The mothers were asked to rate themselves (using a scale of 1-9, with 1 being no concern/difficulty and 9 being extremely concerned/difficult) on four issues: the degree of concern they felt when first leaving their second child to return to work (MRSS2), the degree of work-related concern they feel now when leaving the second child (MRSSNOW2), the degree of work-related concern they feel now when leaving the first child (MRSS1), and how difficult they perceive life at this time (LIFEDIFF).

Second Pregnancy

Mothers worked a mean of 34.55 weeks during their second pregnancy (range = 12-40 weeks). Twenty-four (60%) of the pregnancies were unplanned. Mothers who said, "We were taking chances", "I got pregnant earlier than we ever thought possible", "We never used birth control", etc. were considered to have an "unplanned pregnancy". Sixteen pregnancies (40%) were reported as planned with mothers stating, "We wanted the children close in age", "I wanted the baby care over with", "There was too great a distance between my brother and me and I didn't like it", etc.

Mothers also reported a number of complications associated with their second pregnancies (Table 5). Six (15%) experienced preterm labor and five (12.5%) gave birth to their babies before term (< 37 weeks). Four (10%) had newborns who were ill with jaundice; six (15%) had severe jaundice or other more serious problems requiring prolonged
hospitalization. Two babies were transferred to Children's Hospital, one with a blood incompatibility problem and one with respiratory distress syndrome (RDS). Five (12.5%) mothers had placental complications; two had partial abruptio placentas and three had placenta previa. Two mothers developed gestational diabetes. Finally, as mentioned earlier, one mother returned to the hospital with postpartum hemorrhage, and another was hospitalized for postpartum depression.

Twenty-four (60%) responded that they had some "babyblues" following the birth of their second child. The duration of these blues varied from one day to several weeks. Only one woman was formally treated for postpartum depression. Fourteen (35%) delivered their babies by caesarean section; all but three had had caesarean sections with their first child.

Pregnancy complications were not unique to the second pregnancy. From the interview it was discovered that several of these women had a history of pregnancy problems. Although the original population was considered to be composed of healthy, first-time mothers, it was subsequently learned that one of the mothers had delivered a stillborn child. Three other complications (tubal pregnancy, infertility, and placental disorders) were each reported by three mothers (7.5%). Six (15%) had miscarried a pregnancy; one mother reported having two previous miscarriages. Rarer
problems included one (2.5%) woman who had cancer of the cervix, two (5%) who had previously given birth to a preterm or ill infant who required prolonged hospitalization, and one (2.5%) who had had toxemia during her first pregnancy.

TABLE 5
Percentage of Complications during Second Pregnancy and History of Previous Complications

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preterm labor</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Preterm birth/Small for gestational age baby</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>Ill baby/prolonged hospitalization</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Placental disorders</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>Gestational diabetes</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Postpartum depression</td>
<td>1</td>
<td>2.5</td>
</tr>
</tbody>
</table>

History of Previous Complications

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stillbirth</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Tubal pregnancy</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>Infertility problems</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>Placental disorders</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>Miscarriage(s)</td>
<td>6</td>
<td>15.0</td>
</tr>
<tr>
<td>Cancer of the cervix</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Preterm birth/ill newborn</td>
<td>2</td>
<td>5.0</td>
</tr>
<tr>
<td>Toxemia</td>
<td>1</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Employment

Mothers were asked the primary reason "why" they returned to work following the second child's birth (Table 6). Twenty-five (62%) responded that they were working because they needed the money. Six (15%) stated that their primary reason was "liking their work." Three (7.5%)
reported that they worked to keep up their skills; two each (5%) reported working for the "social contact", "mental health", and "because my company needs me". Mothers frequently gave more than one answer, although they were asked specifically for their primary reason and this answer was coded.

When asked whether they would prefer to work or prefer to remain at home with their infants (assuming sufficient finances), 27 (67.5%) said they would prefer to remain at home.

Mothers were also asked how their husbands felt about their returning to work; 24 (60%) said their husbands were

| TABLE 6 |
| Reasons and Preferences for Working Mothers of Second-born Infants |
| n = 40 |

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary reason</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial</td>
<td>25</td>
<td>62</td>
</tr>
<tr>
<td>Like work</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Maintain skills</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>Social contact</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Mental health</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>&quot;Company needs me&quot;</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Work/Home Preference—Mother</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would choose to stay home</td>
<td>27</td>
<td>67.5</td>
</tr>
<tr>
<td>Would choose to work</td>
<td>13</td>
<td>32.5</td>
</tr>
<tr>
<td>Husband's Preference for mother</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supportive</td>
<td>24</td>
<td>64</td>
</tr>
<tr>
<td>Neutral</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>Rather mother not work/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yet is economic necessity</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>Against mother working</td>
<td>8</td>
<td>20</td>
</tr>
</tbody>
</table>
supportive of the decision, 8 (20%) were against the idea, 3 (7.5%) were neutral, and 5 (12.5%) said their husbands would rather they not have to work, but economically it was necessary for the family.

Comparison of Mothers of One child (M1s) with Mothers of Two Children (M2s)

Mother age, education, SES, and father SES of the two groups were compared using time 1 (maternity ward information) for all (n = 204) subjects (Table 7). General linear model analyses revealed that the groups differed on two variables: mother age showed a trend (p < .06) toward a difference, with M2s having a slightly lower mean age (25.12 vs. 26.38); and mother marital status tended toward significance (p < .10) as all M2s were married and some M1s were not. There were no significant differences between mother education, income, or socioeconomic status as measured by the revised Duncan Prestige Score.

In contrast, at Time 2 (current data collection) there was significant difference in the number of hours worked per week; mothers of one child were working more hours/week (34.22 vs. 29.50).

Table 8 lists the means, standard deviations, and ranges of these variables for mothers with one and two children at the time they were enrolled in the original longitudinal study. Corresponding statistics are also included for their current hours worked/week.
TABLE 7
GLM Comparisons for M1s and M2s
Original Demographics
and Current Hours Worked/Week
N = 204

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Model</td>
<td>1</td>
<td>50.8739</td>
<td>3.45</td>
<td>.06</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>199</td>
<td>14.7462</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education (years)</td>
<td>Model</td>
<td>1</td>
<td>1.5665</td>
<td>0.36</td>
<td>nsd</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>200</td>
<td>4.3692</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SES (Duncan Prestige Score)</td>
<td>Model</td>
<td>1</td>
<td>15.5800</td>
<td>0.05</td>
<td>nsd</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>190</td>
<td>322.6394</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income (dollars)</td>
<td>Model</td>
<td>1</td>
<td>572593216</td>
<td>1.77</td>
<td>nsd</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>175</td>
<td>29641199</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Status</td>
<td>Model</td>
<td>1</td>
<td>0.1222</td>
<td>2.61</td>
<td>.10</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>200</td>
<td>0.0469</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Hours Worked/Week</td>
<td>Model</td>
<td>1</td>
<td>718.1073</td>
<td>5.72</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>202</td>
<td>125.5180</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Some missing data for M1s at time 1
TABLE 8
Means, Standard Deviations, and Ranges:
Demographic Variables at Time 1 and Time 2
(Hours Worked/Week) by Group (M1 and M2)

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1s 161</td>
<td></td>
<td>26.3850</td>
<td>3.7997</td>
<td>17.00-35.00</td>
</tr>
<tr>
<td>M2s 40</td>
<td></td>
<td>25.1250</td>
<td>4.0012</td>
<td>18.00-34.00</td>
</tr>
<tr>
<td>Education (years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1s 161</td>
<td></td>
<td>14.6211</td>
<td>2.0461</td>
<td>11.00-20.00</td>
</tr>
<tr>
<td>M2s 40</td>
<td></td>
<td>14.4000</td>
<td>2.2622</td>
<td>10.00-19.00</td>
</tr>
<tr>
<td>SES (Duncan Prestige Score)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1s 153</td>
<td></td>
<td>45.8347</td>
<td>18.0670</td>
<td>17.52-87.43</td>
</tr>
<tr>
<td>M2s 39</td>
<td></td>
<td>45.1266</td>
<td>17.5363</td>
<td>16.07-79.04</td>
</tr>
<tr>
<td>Income (dollars)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1s 141</td>
<td></td>
<td>14797.45</td>
<td>472.50</td>
<td>0.00-34000.00</td>
</tr>
<tr>
<td>M2s 36</td>
<td></td>
<td>13443.22</td>
<td>786.81</td>
<td>3120.0-26000.00</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1s 162</td>
<td></td>
<td>1.9382</td>
<td>0.2414</td>
<td>1.00-2.00</td>
</tr>
<tr>
<td>M2s 40</td>
<td></td>
<td>2.0000</td>
<td>0.0000</td>
<td>2.00-2.00</td>
</tr>
<tr>
<td>Current Hours Worked/Week</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1s 164</td>
<td></td>
<td>34.22</td>
<td>10.85</td>
<td>6-65</td>
</tr>
<tr>
<td>M2s 40</td>
<td></td>
<td>29.50</td>
<td>12.64</td>
<td>0-45</td>
</tr>
</tbody>
</table>

Note. Some missing data for M1s at Time 1.
Validity of the MRSS

An objective of this study was to compare separation anxiety in working mothers of one and two children. Mothers of one and two children both completed the MSAS at Time 2; they also rated themselves on current separation stress experienced with their first (or only) child. Mothers of one child, when contacted by mail, were asked to complete the MSAS and to rate themselves on their current work-related separation stress (MRSS). Mothers with second-born infants completed the MSAS with respect to the second child who was, on average, seven months old. They also rated their separation stress with each child using the MRSS.

The MRSS is a Likert scale from 1 to 9 with 1 denoting "no concern" and 9 denoting "extremely concerned" about leaving a child to return to work. The purpose in using the MRSS was to compare maternal separation anxieties of the two groups of mothers with respect to their first child (who was then 2-2.5 years old). The purpose of administering the MSAS to mothers of one child was to validate this self-report (MRSS) measure of separation anxiety. Asking mothers of two children to complete the MSAS twice (separately for each child) at one time was considered a complex task with potential for confusion so another shorter method of comparing their separation anxieties with those of mothers of one child was desirable.
Validation of the MRSS was demonstrated by the significant positive correlations between this measure and the MSAS for mothers of one child (Table 9). Significant relationships between the MSAS Factors and the MRSS indicated that these instruments were quite probably measuring the same maternal attribute. Consequently, it was assumed that the MRSS completed by the mothers could provide a reasonably valid measure of their current separation anxiety.

### TABLE 9

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Total MSAS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MSAS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MRSS</strong></td>
<td>.44****</td>
<td>.38****</td>
<td>.38****</td>
<td>.51****</td>
</tr>
</tbody>
</table>

* **p < .0001*  

**Analysis of the Data**

Data were coded and analyzed at the completion of the interviews. Ratings of the interviews occurred before the scoring of the MSAS. Scores for the MSAS and the IBRS were impossible to compared until all data had been entered into the computer program necessary to compute the MSAS factor scores. Descriptive statistics of group means and standard deviations for all demographic variables, the MSAS scores, and the interview-based rating scales were then computed.
Mother1 and mother2 demographics were compared using General Linear Model techniques (SAS User's Guide: Statistics, 1982) for unbalanced designs.

Scores on the two measures of maternal separation anxiety, for each factor and for total scores, were compared by hours worked/week using \( t \) tests.

Maternal separation anxiety with the first child was compared to that with the second child using \( t \) tests on the mean score differences on MSAS responses collected when first child was approximately the same age as the second child was at the current data collection (average age 7 months). MSAS factor scores for maternal response with respect to first-borns were correlated with MSAS factor scores with respect to second-borns.

Mothers of one and two children were compared, using General Lineal Model analysis techniques, on hours worked/week and self-ratings of employment-related separation stress with respect to a first child.

Correlations between all study variables were calculated using Pearson's \( r \). Both simple and stepwise regressions were computed between the MSAS and Interview scores (IBRS) and those variables which significantly correlated with individual factors or the total scores.
CHAPTER IV

RESULTS

Research findings will be reported in five sections corresponding to the original research objectives. The introductory section begins with a correlational analysis between the two measures of maternal separation anxiety used in this study, the Maternal Separation Anxiety Scale (MSAS) and the Interview-based Rating Scales (IBRS). Section two contains a correlational analysis of selected maternal demographics with the MSAS and IBRS for mothers of second-born infants. A correlation matrix with the major study variables defined can be found in Appendix F.

In the third section mothers' mean MSAS responses with respect to first-borns (collected in fall 1981/winter 1982) are compared to mean MSAS responses with respect to second-born infants (collected in spring 1984). MSAS responses were matched by baby age as closely as possible; in all cases the difference in baby age did not exceed four months. In addition, maternal ratings of separation stress currently associated with leaving each child were correlated to their 1984 MSAS mean score responses for the second-born.
The fourth section describes the relationships between maternal role investment, career/work investment, proneness to disorganization under stresses of the expanded maternal experience, and maternal separation anxiety in mothers of second-borns who have returned to work or plan to do so in the very near future.

The fifth section reports comparisons of the maternal self-ratings of separation stress with respect to a first child (2-2.5 year old) by working mothers of one and two children.

Validity of the Maternal Separation Anxiety Measures

Answering the primary objectives of this study of maternal separation anxiety in mothers of second-born infants required that the two measures (MSAS and IBRS) employed in this research be subjected to a correlational analysis. Consequently, an additional objective was proposed:

Objective 1: To examine the construct validity of the two measures of maternal separation anxiety (MSAS and IBRS) used within this study of mothers of second-born infants through correlational analysis between each factor and the total scores.

Research Hypothesis 1: There will be a strong positive correlation between mothers' Factor 1 scores on the MSAS and on the IBRS.

A moderately strong positive correlation was found between Factor 1, MSAS and Factor 1, IBRS \( r = .40, \)
Please refer to Table 10 for correlation coefficients between these measures. Correlations between Factors 1 support retention of Hypothesis 1.

**TABLE 10**

<table>
<thead>
<tr>
<th>IBRS</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>MSAS Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td>.40**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 2</td>
<td></td>
<td>.51***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 3</td>
<td></td>
<td></td>
<td>.24</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>.52***</td>
</tr>
</tbody>
</table>

** p < .01 ** p < .001

Research Hypothesis 2: There will be a strong positive correlation between mothers' Factor 2 scores on the MSAS and on the IBRS.

The correlation between both measures of Factor 2, separation promotes independence and sociability in the child, was $r = .51$, $p < .001$—which supports retention of Hypothesis 2.

**Research Hypothesis 3**: There will be a strong positive correlation between mothers' Factor 3 scores on the MSAS and on the IBRS.

Factor 3 correlated less highly than did either Factor 1 or 2; the correlation was moderately low and positive and indicated a trend toward significance for mothers of
second-born infants ($r = .24, p < .13$). Retention of Hypothesis 3 is therefore only partially supported.

**Research Hypothesis 4:** There will be a strong positive correlation between mothers' Total scores on the MSAS and on the IBRS.

The correlation between Total MSAS and Total IBRS was significant, moderately strong, and positive ($r = .52, p < .001$). As with the Factors, this result supports retention of Hypothesis 4. Table 10 includes correlations between all factors and the totals.

Maternal Demographics and Maternal Separation Anxiety

**Objective 2:** To explore the relationship between selected maternal demographics and maternal separation anxiety in mothers of second-borns as measured by the MSAS and IBRS.

**Research Hypothesis 5:** Maternal separation anxiety, as measured by the MSAS and the interview-based rating scales (IBRS), will be negatively correlated with the demographics of mother education, income, and SES.

As predicted, mother education was negatively correlated with all factors and totals of both the MSAS and IBRS. However, these correlations, with the exception of MSAS Factor 1, were neither strong nor significant. Factor 1 showed a modest negative trend toward significance ($r = -.28, p < .07$) with mother education.

Mother income and SES were also negatively, but not significantly, related to both measures of maternal separation anxiety. Due to the lack of significant
findings, Research Hypothesis 5 is rejected. Correlations between demographics and MSAS and IBRS are presented in Table 11.

TABLE 11

Correlation Coefficients between Selected Demographics and two Measures of Maternal Separation Anxiety (MSAS/IBRS) for Mothers of Second-born Infants

\( n = 40 \)

<table>
<thead>
<tr>
<th></th>
<th>Mother SES</th>
<th>Mother education</th>
<th>Mother income</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MSAS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fac 1</td>
<td>-.21</td>
<td>-.28+</td>
<td>-.06</td>
</tr>
<tr>
<td>Fac 2</td>
<td>-.15</td>
<td>-.15</td>
<td>.04</td>
</tr>
<tr>
<td>Fac 3</td>
<td>-.15</td>
<td>-.16</td>
<td>-.13</td>
</tr>
<tr>
<td>Total</td>
<td>-.22</td>
<td>-.26</td>
<td>.10</td>
</tr>
<tr>
<td><strong>IBRS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fac 1</td>
<td>-.17</td>
<td>-.16</td>
<td>-.07</td>
</tr>
<tr>
<td>Fac 2</td>
<td>-.06</td>
<td>-.09</td>
<td>.01</td>
</tr>
<tr>
<td>Fac 3</td>
<td>-.04</td>
<td>-.17</td>
<td>.11</td>
</tr>
<tr>
<td>Total</td>
<td>-.09</td>
<td>-.15</td>
<td>.09</td>
</tr>
</tbody>
</table>

+ \( p < .07 \)

Correlations between current demographics (Time 2) with those collected at beginning of the longitudinal study (Time 1) for the 40 study subjects were significantly positive. These correlations suggest minimal change in their demographic status over the past 2 to 2.5 years. Mother SES at Time 1 correlated highly with SES at Time 2 (\( r = .78, p < .0001 \)); father SES at both times was almost as significant (\( r = .72, p < .0001 \)). Father income at both times was also highly correlated (\( r = .76, p < .0001 \)); mothers' income was less related, but still significant.
(r = .38, p < .02). Mothers' occupations remained essentially the same for the two time periods (r = .97, p < .0001); fathers' occupations were less stable although highly correlated and significant (r = .66, p < .001). Precise data on educational level were not collected at Time 2, although it was known that four fathers returned to school within the past year.

Maternal Separation Anxiety: Second-born Infants vs. First-born Infants

Objective 3: To explore, in working mothers with two children the difference between maternal separation anxiety previously measured for their first-born infants and the anxiety currently experienced with their second-born infants.

Research Hypothesis 6: Mothers will be significantly less anxious about separation from their second-born infants at seven months of age as compared to their separation anxiety experienced with their first-borns at approximately seven months of age as measured by the MSAS.

In each case every attempt was made to match as closely as possible mothers' responses to the MSAS by second-born infant age to previous MSAS responses for the first-born infants. The age difference between the two infants, at the time of data collection, was no greater than four months. Mean scores for MSAS for infants 1 and infants 2 were correlated using Pearson's r procedure. These correlations, reported in Table 12, were significantly positive and of moderate to strong magnitude (r ranged from .49 to .77 with
levels of < .001 to < .0001); these findings indicate that Maternal Separation Anxiety was a reasonably stable attribute for this sample of working mothers with two children.

**TABLE 12**

<table>
<thead>
<tr>
<th></th>
<th>Infant1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>MSAS Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant2 Factor 1</td>
<td>.49***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infant2 Factor 2</td>
<td>.55***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infant2 Factor 3</td>
<td>.55***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSAS Total</td>
<td>.77****</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p < .001**

Student t tests on the mean score differences of MSAS responses (see Table 13) were significantly different for second-born infants on Factor 1 (t = 2.70, p < .01); 15 mothers increased in anxiety while 25 decreased on this factor. The t test for Factor 2 (t = 3.06, p < .004) was also significant and showed that 9 mothers increased on this factor, 6 maintained the same score, and 25 decreased their scores. Significant difference noted on the MSAS Total (t = 3.05, p < .004) revealed that 12 mothers increased, 1 remained the same, and 18 decreased in their mean scores. There were no significant differences on Factor 3; 22
mothers increased and 18 mothers decreased in their mean scores for this factor.

Table 13 includes the means, standard deviations, and t tests for mothers' MSAS mean scores for both infants.

### TABLE 13

Means, Standard Deviations, & T tests between Maternal Separation Anxiety Scale (MSAS) Scores for First-born at 7 months (1981) and Second-born at 7 months (1984)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>t test</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infant1</td>
<td>21.20</td>
<td>3.95</td>
<td>2.70</td>
<td>.01</td>
</tr>
<tr>
<td>Infant2</td>
<td>19.39</td>
<td>4.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infant1</td>
<td>16.12</td>
<td>4.76</td>
<td>3.06</td>
<td>.004</td>
</tr>
<tr>
<td>Infant2</td>
<td>14.17</td>
<td>3.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infant1</td>
<td>22.70</td>
<td>5.51</td>
<td>-1.00</td>
<td>.32</td>
</tr>
<tr>
<td>Infant2</td>
<td>23.47</td>
<td>4.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSAS Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infant1</td>
<td>19.99</td>
<td>2.62</td>
<td>3.05</td>
<td>.004</td>
</tr>
<tr>
<td>Infant2</td>
<td>19.01</td>
<td>3.20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Possible range of MSAS scores = 7-35
40 Mothers with 2 responses on MSAS

Mothers were less anxious about nonmaternal care and infant responses to separation with their second-borns. They were more likely to view separation as promoting independence and sociability in their infants, but, they were equally as anxious about employment-related separations as they had been with their first-borns at a similar age; in fact, the mean scores for Infant 2 were slightly higher for Factor 3.
Mothers were asked to complete the MSAS in terms of their feelings about separating from their second-borns; they were also asked to rate themselves on current employment-related separation stress with each child. Mothers' MSAS mean score responses (although completed with respect to the second-born) correlated higher, with one exception, with their self-ratings of separation stress (MRSS) for first-born infants than with their self-ratings for the second-born. Strength of the correlation between MRSS2 and Factor 1 was greater for second-borns, \( r = .27, p < .10 \) vs. \( r = .09, \text{nsd} \). Factor 3 and Total MSAS were significantly correlated with MRSS1 while only a trend toward significance was noted for MRSS2 with Factor 1 and MSAS Total.

Mothers' self-ratings of separation stress from first-born (MRSS1) infants correlated significantly higher with Factor 1 of the IBRS \( r = .62, p < .0001 \) vs. \( r = .51, p < .05 \) for second-borns). Factor 2, IBRS, was only significant for Infant1 \( r = .30, p < .05 \). Likewise, IBRS Factor 3 was significant for first-borns \( r = .37, p < .01 \) but not for mothers' response for second-borns. This difference in maternal self-rating of separation stress was further reflected in the Total IBRS which had a moderately high correlation with MRSS1 \( r = .53, p < .001 \) compared to a more modest \( r \) of .33, \( p < .05 \) for MRSS2.
Table 14 illustrates the correlations between MRSS ratings by infant for both the MSAS and IBRS. These findings add additional support for retention of Research Hypothesis 6 that mothers will have less separation anxiety with a second-born child.

TABLE 14
Correlation Coefficients between Maternal Self-Ratings of Separation Stress (MRSS) for 1st- & 2nd-born Infants with two measures of Maternal Separation Anxiety (MSAS and IBRS) for Second-borns

<table>
<thead>
<tr>
<th></th>
<th>MRSS Infant 1</th>
<th>MRSS Infant 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSAS (for 2nd)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 1</td>
<td>.09</td>
<td>.27+</td>
</tr>
<tr>
<td>Factor 2</td>
<td>.22</td>
<td>.11</td>
</tr>
<tr>
<td>Factor 3</td>
<td>.38**</td>
<td>.23</td>
</tr>
<tr>
<td>Total</td>
<td>.30*</td>
<td>.28+</td>
</tr>
<tr>
<td>IBRS (for 2nd)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 1</td>
<td>.62****</td>
<td>.51***</td>
</tr>
<tr>
<td>Factor 2</td>
<td>.30*</td>
<td>.13</td>
</tr>
<tr>
<td>Factor 3</td>
<td>.37**</td>
<td>.17</td>
</tr>
<tr>
<td>Total</td>
<td>.53***</td>
<td>.33*</td>
</tr>
</tbody>
</table>

Note. N = 40 mothers with 2 responses to MRSS (1 for each child) and 1 response to the MSAS and the IBRS (for 2nd child).

Maternal Separation Anxiety and Other Characteristics

Objective 4: To investigate the relationships between maternal role and career investment, proneness to disorganization under the stresses of the expanded maternal experience, and maternal separation anxiety in mothers of second children who have returned to work or plan to do so in the very near future.
Research Hypothesis 7: Maternal Separation Anxiety will be positively related to Maternal Role Investment as measured by the interview-based rating scales (IBRS) and the MSAS.

The correlations between the two measures of Maternal Separation Anxiety and Maternal Role Investment (MRI) were positive in sign, but only Factor 1 was significant ($r = .33, p < .05$ for the MSAS and $r = .34, p < .05$ for the IBRS). MSAS and IBRS Totals showed equally low, weak trends toward significance ($r = .25, p < .12$ with MRI). Correlations for Factors 2 and 3 with MRI were not significant.

Research Hypothesis 7 was rejected for Factors 2 and 3, retained for Factor 1, and considered mildly plausible for the total scale. Refer to Appendix F for the specific correlation coefficients.

Research Hypothesis 8: Maternal Separation Anxiety will be negatively related to career/work investment as measured by the IBRS and the MSAS.

The correlations between the MSAS and career/work investment were both negative and moderately significant. Factor 3 and Total MSAS were particularly significant ($r = -.64, p < .0001$) for both scores. Correlations between career/work investment and the IBRS were not nearly as strong as those with the MSAS. Factor 1 and the Total IBRS were significant ($r = -.42, p < .01$ and $r = -.33, p < .05$). IBRS Factor 3 showed a weak, negative trend toward
significance ($r = -.25, p < .12$); IBRS Factor 2 was not significant. Of interest is the similarity of correlations for both MSAS Factor 1 and the IBRS Factor 1 ($-.41$ vs. $-.42$, $p < .01$). These results support retention of Hypothesis 8.

**Research Hypothesis 9:** Maternal Separation Anxiety will be positively related to Proneness to Disorganization under the Stresses of the Expanded Maternal Experience (PDSEME) as measured by the IBRS and the MSAS.

Proneness to Disorganization under the Stresses of the Expanded Maternal Experiences (PDSEME) was positively related to the IBRS; the correlations between Factor 1 and IBRS Total were moderately significant ($r = .38, p < .02$ and $r = .43, p < .01$ respectively). There was a trend toward significance for Factor 2 ($r = .27, p < .09$) as well as for Factor 3 ($r = .24, p < .13$).

Correlations between PDSEME and the MSAS were not significant; Factor 3 had a very low negative ($-.05$) relationship with PDSEME; the remaining scores were low and positive. Appendix F includes the correlations for these variables. An important distinction should be remembered about the two measures of maternal separation anxiety: the IBRS (from the interview) includes mothers' responses to pregnancy, birth, and the early days of parenthood (which is then measured by the PDSEME), while the MSAS does not contain parallel questions of this nature. Thus, this hypothesis is really limited to the IBRS; if this distinction is accepted, retention of the hypothesis is
supported for Factor 1.

**Research Hypothesis 10:** Maternal Separation Anxiety will be positively related to mothers' choice to remain at home as measured by IBRS and the MSAS.

Correlations between mothers' Choice to remain at home and IBRS were positive, but, only the relationship with Factor 1 was significant ($r = .35, p < .03$).

In contrast, the relationship between the MSAS and this variable were considerably stronger ($r$ ranging from .25, $p < .11$ for Factor 2 to $r = .52, p < .0001$ for Factor 3). The combined results of positive direction and significance with the MSAS support retention of this hypothesis.

Mothers who preferred to remain at home with their infants if given the choice ($n = 27$) differed considerably on several variables when compared by Student $t$ tests to mothers who stated a preference toward working ($n = 13$). They were significantly more anxious on MSAS Factors 1 ($t = -2.73, p < .01$), 2 ($t = -2.05, p < .04$), 3 ($t = -4.25, p < .001$), and Total ($t = -4.23, p < .001$). Significant differences or near significance were also noted for Interview Factor 1 and Total ($t = -2.65, p < .01$ and $t = -1.93, p < .06$ respectively). Retention of Hypothesis 10 is supported.

**Research Hypothesis 11:** Maternal Separation Anxiety will be higher in mothers of sons than in mothers of daughters, as measured by the MSAS and the IBRS.
Maternal responses to both the MSAS and the IBRS were divided into groups by sex of the second infant. T tests, by sex of infant, were performed for each factor and the two totals. Results from these procedures revealed significant differences for Factor 3 and Total IBRS. All others were not significant. Mothers of second-born sons were more anxious about employment-related separations than were mothers of second-born daughters. T tests by sex of first-born infant were not significant.

Because mothers in this population had two children, it was considered appropriate to further test for the effects of the "sex by birth order" and maternal separation anxiety. A series of 4-Way ANOVAs with MSAS and IBRS Factors and Totals as the dependent variables were computed. Only two of the ANOVAs revealed a main effect for group. Factor 1 and Total of the IBRS were significant for group $(F(3,39) = 4.35, p < .01$ and $F(3,39) = 2.93, p < .05$ respectively).

Post hoc paired comparisons on mean score differences were then performed. T tests on the mean score differences between sibling dyads on these variables revealed that mothers who had a boy 1st/girl 2nd ($n = 15$) showed significantly less separation anxiety in relation to nonmaternal care $(t = 3.34, p < .001)$ as well as a lower Total anxiety score for both the MSAS and the IBRS $(t = -2.07, p < .04$ and $-2.13, p < .01$ respectively).
Mothers of two boys (n = 7) showed a trend toward significance for higher scores on separation associated with nonmaternal care ($t = 2.14, p < .10$). Mothers of girl first/boy second and those with two girls (n = 9) had slightly higher, but not significant mean scores. Thus, level of anxiety varied by sex and birth order on Factor 1 and Total of the IBRS and the MSAS. There were no other significant differences for Factors 2 or 3 of the IBRS or for Factor 1, 2, or 3 of the MSAS.

These results lend only limited support to the hypothesis that mothers of second-born sons demonstrate slightly more Maternal Separation Anxiety as measured by the IBRS. This is consistent with the original findings, by $t$ test, for sex of second-born infants. The effect, however, is erased or reversed in the situations where mothers had both a girl and a boy. Mothers with a daughter first/son second (n = 9) had slightly higher means, but were not significantly different than the group; mothers who had son first/girl second were significantly less anxious about nonmaternal care and Total separation anxiety. Although the results are somewhat ambiguous, sex of the infants, and in particular, sex-order of the sibling dyad appears to have an influence on Maternal Separation Anxiety.
Maternal Separation Anxiety in Working Mothers of One vs. Working Mothers of Two Children

Objective 5: To compare Maternal Separation Anxiety with respect to a first child (2-2.5 years old) in both working mothers of one and two children from the same original cohort.

Research Hypothesis 12: There will be no significant difference in Maternal Separation Anxiety with respect to a 2-2.5 year old first child between working mothers of one and working mothers of two children, as measured by maternal self-report (MRSS).

Both mothers of one and two children rated themselves on current employment-related separation stress for each child using a Likert scale of 1 to 9 (1 being no concern and 9 being extremely concerned about leaving).

As mentioned in Chapter 3, correlation coefficients between MSAS mean scores and self-ratings of separation stress (MRSS) for working mothers of one child revealed positive and significant relationships (Table 9). These findings provided the necessary support for validity of the MRSS as a measure of maternal separation anxiety; the MRSS could then be used to compare the maternal separation anxiety of the two groups of mothers.

Using the GLM procedure for analysis, the groups were compared on their self-rating scores (MRSS). There was no significant mean score difference between mothers of one and mothers of two infants on their rating of separation anxiety (MRSS) with respect to a first child. Retention of Hypothesis 12 was supported. Table 15 gives means, standard
deviations, and GLM analysis of the MRSS scores.

### TABLE 15
Means, Standard Deviations, and GLM Analysis
Maternal Rating of Separation Stress (MRSS) with First-born for Mothers of 1 and 2 children

<table>
<thead>
<tr>
<th></th>
<th>Mothers of 1</th>
<th></th>
<th>Mothers of 2</th>
<th></th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 164</td>
<td>Mean</td>
<td>S.D.</td>
<td>n = 40</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>MRSS</td>
<td>3.71</td>
<td>1.77</td>
<td>3.57</td>
<td>1.71</td>
<td>.18</td>
<td>.67</td>
</tr>
</tbody>
</table>

**Further Analyses**

Maternal separation anxiety in mothers of second-born infants was further analyzed to determine which study variables accounted for the most variance. Simple linear regressions of all major study variables on MSAS and IBRS were computed. Variables found to be significant in these preliminary calculations were then used in multiple stepwise regressions. Using a ratio of 1 variable to 10 subjects (SAS Institute Inc., 1982), four variables were entered independently into the stepwise equation. The variables chosen were investment in career/work, investment in mothering, hours worked/week, and proneness to disorganization under the stresses of the expanded maternal experience. The procedure was used for all factors and both totals of the MSAS and the IBRS. Results of these stepwise regressions are included in Table 16. Investment in career/work accounted for the most variability across
TABLE 16

Stepwise Multiple Regression of Maternal Separation

Factors With Selected Independent Variables for Mothers of Second-born Infants

\( n = 40 \)

<table>
<thead>
<tr>
<th>Independent Variables Entered Stepwise in Equation</th>
<th>( r )</th>
<th>( R^2 ) Increment</th>
<th>( R^2 ) Standardized Coefficient (Beta)</th>
<th>( F )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1—MSAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invest/work</td>
<td>-.44**</td>
<td>.17</td>
<td>-.76</td>
<td>7.60**</td>
</tr>
<tr>
<td>Factor 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invest/work</td>
<td>-.40**</td>
<td>.16</td>
<td>-.55</td>
<td>7.24**</td>
</tr>
<tr>
<td>Factor 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invest/work</td>
<td>.64****</td>
<td>.41</td>
<td>-1.49</td>
<td>31.01****</td>
</tr>
<tr>
<td>Invest/mo</td>
<td>.09</td>
<td>.46</td>
<td>.06</td>
<td>-.91</td>
</tr>
<tr>
<td>Total MSAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invest/work</td>
<td>-.64****</td>
<td>.40</td>
<td>-.86</td>
<td>25.91****</td>
</tr>
<tr>
<td>IBRS Factor 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invest/wk</td>
<td>-.42**</td>
<td>.17</td>
<td>-.29</td>
<td>9.75**</td>
</tr>
<tr>
<td>Prostres</td>
<td>.37**</td>
<td>.32</td>
<td>.14</td>
<td>.40</td>
</tr>
<tr>
<td>Factor 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prostres</td>
<td>.27+</td>
<td>.07</td>
<td>.30</td>
<td>3.02+</td>
</tr>
<tr>
<td>Factor 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invest/wk</td>
<td>-.25</td>
<td>.06</td>
<td>-.25</td>
<td>3.66+</td>
</tr>
<tr>
<td>Prostres</td>
<td>.24</td>
<td>.13</td>
<td>.06</td>
<td>.32</td>
</tr>
<tr>
<td>Hrswork</td>
<td>.12</td>
<td>.19</td>
<td>.06</td>
<td>.04</td>
</tr>
<tr>
<td>Total IBRS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prostres</td>
<td>.44**</td>
<td>.19</td>
<td>.38</td>
<td>10.36**</td>
</tr>
<tr>
<td>Invest/wk</td>
<td>-.33*</td>
<td>.30</td>
<td>-.18</td>
<td>5.96*</td>
</tr>
</tbody>
</table>

\(+ p < .10 \)   \( * p < .05 \)   \( ** p < .01 \)   \( *** p < .001 \)   \( **** p < .0001 \)
factors (17% for both MSAS and IBRS Factor 1, 16% for MSAS Factor 2, 40% for MSAS Total, 6% and 30% for IBRS Factor 3 and Total respectively). Proneness to disorganization under the stresses of the expanded maternal experience accounted for the next largest influence (14% for IBRS Factor 1, 6% for Factor 2, and 19% for IBRS Total). Number of hours worked/week entered into the regression equation for Interview Factor 3 by accounting for 6% of the variance. Investment in mothering met the .15 alpha level needed to enter the equation for MSAS Factor 3 where it accounted for 6% of the variance; combined with Investment in career/work it accounted for 46% of the variance on this factor.

**Summary**

The findings of this study were reviewed for each Research Hypothesis and included the following points:

Maternal demographics of education, income, SES were negatively, but not significantly related to Maternal Separation Anxiety as measured by both the MSAS and the IBRS. A trend toward significance was noted between maternal education and Factor 1 (Maternal Separation Anxiety associated with nonmaternal care) of the MSAS. Demographics measured at Time 1 (Maternity ward data collection following birth of first child) and Time 2 (present data collection when second child was an average of 7 months old) were significantly related.
The two measures of Maternal Separation Anxiety (MSAS and IBRS) were significantly correlated (Factor 1: $r = .40$, $p < .01$; Factor 2: $r = .51$, $p < .001$; and Total: $r = .52$, $p < .001$). Factor 3 was not significantly related although the correlation was positive ($r = .25$, $p < .12$). With the exception of Factor 3, these results support the assumption that the MSAS and IBRS are measuring the same personality attribute.

Mean score MSAS responses for first- and second-born infants of working mothers with two children, measured when each infant was approximately 7 months old, were significantly different for Factors 1, 2, and Total. Mothers revealed less worry and sadness about separation in general, and less anxiety about nonmaternal care and infant responses to separation with their second-borns; they were significantly more inclined to view separation as promoting independence and sociability in the second infant. Their mean score MSAS Total responses were also significantly lower for the second child. Mothers' employment-related separation conflicts did not significantly vary from first- to second-borns; on this factor their mean scores actually went up slightly.

Stability of mothers' level of Maternal Separation Anxiety was indicated by the relatively strong correlations between the MSAS responses for each child.
When mothers' self-ratings of Separation Anxiety for each child were compared, they reported less separation stress associated with leaving their second-borns. Correlations between these self-ratings and the MSAS and IBRS (completed for the second-born) were significantly higher for first-born infants. The correlation between ratings of the two children showed a modest trend toward significance ($r = .29, p < .10$).

Factor 1 of both the MSAS and IBRS was positively related to Maternal Role investment.

There were significant, negative correlations with Maternal Career/Work Investment and all factors of MSAS and Factor 1 and Total of the IBRS.

Maternal Separation Anxiety for Factor 1 and Total of IBRS were positively correlated with Proneness to Disorganization under Stresses of the Expanded Maternal Experience (PDSEME). Factors 2 and 3 of the IBRS showed trends toward significance with this variable; PDSEME was not significantly related to the MSAS.

Mothers' preference to stay at home, if given the choice, was significantly related to all aspects of the MSAS and to Factor 1 of the IBRS. Working mothers who would have preferred to stay at home demonstrated more Separation Anxiety.

Mothers of second-born sons were significantly more anxious about employment-related separations than were
mothers of second-born daughters as measured by Factor 1 and Total of the IBRS and the MSAS Total.

A series of 4-way ANOVAs of maternal separation anxiety by sex and birth order revealed a main effect for group on Factor 1 and Total IBRS. Follow-up paired comparisons revealed several significant differences for sibling combinations.

Mothers who had a boy first/girl second were significantly less anxious about Maternal Separation. Mothers of two boys showed a trend toward higher Maternal Separation Anxiety related to nonmaternal care.

Mothers of one and two children showed no significant differences on their self-ratings of current separation stress associated with a first child of 2-2.5 years of age.

Although not originally formulated as a research hypothesis, the question of what independent variables most influenced Maternal Separation Anxiety emerged as the analysis progressed. Using simple linear regression, followed by stepwise regression techniques with four study variables it was found that investment in career/work accounted for the greatest variability for the MSAS and Factors 1 and 3 of the IBRS. Proneness to disorganization under stresses of the expanded maternal experience accounted for the greatest variance for Factor 2 and Total of the IBRS. Two other variables (investment in mothering and number of hours worked/week), when entered into the
equation, made fairly small contributions to the variance associated with maternal separation anxiety.
In view of the above information it seemed important to study the nature of maternal separation anxiety in working mothers of two infants. This study developed from three objectives: (1) to describe the personality attribute of maternal separation anxiety in mothers of two infants. A
question of primary interest was "Do working mothers of two children feel less anxious about leaving their second-borns than they did about leaving their first-borns in order to return to work?"; (2) to explore the relationships between maternal separation anxiety and the maternal attributes of proneness to disorganization under stresses of the expanded maternal experience, maternal role investment, work status preference, and career/work investment; and (3) to describe how working mothers of one and two children compared on separation anxiety with respect to a first (2-2.5 year old) child.

Discussion of the study results will correspond to the research objectives with several amplifications. Section 1 includes discussion of the validity of the two measures of maternal separation anxiety used in the study. Section 2 addresses the relationship between selected maternal demographics and separation anxiety for mothers in this study. Section 3 provides an interpretation of maternal separation anxiety as it relates specifically to mothers' responses on the MSAS for a first-born at approximately 7 months and later with a second-born infant at 7 months. Section 4 examines the relationships of maternal separation anxiety with respect to maternal role investment, career/work investment, work status preference, and proneness to disorganization under stresses of the expanded maternal experience in mothers of second-born infants. In
the 5th and final section, mothers of one and two children are compared on their self-ratings of current separation stress experienced with a first child 2-2.5 years of age.

Acknowledgment of the limitations of the present study as well as implications for future research will conclude the discussion.

Validity of Measures of Maternal Separation Anxiety

Individual factors from the two measures of maternal separation anxiety, the Maternal Separation Anxiety Scale (MSAS) and the Interview-based Rating Scales (IBRS) were highly correlated and positive for Factors 1, 2, and Total; Factor 3 did not approach significance. Perhaps mothers have developed rationalizations about separation associated with employment (Factor 3) to the degree that they deny anxiety in this area; denial may be harder to cover or rationalize in relation to separation effects on the infant (Factor 2) or to their concerns about nonmaternal care (Factor 1). Extensive interviewing may have uncovered some of these rationalizations; such clarification would be much harder to do with a questionnaire.

Gnezda (1983/1984) found similar correlations between the MSAS and the interview scales in her study of both working and nonworking mothers at 7 weeks following birth of a first child. Bunge (1983) also found significant correlations between Factors 1, 3, and MSAS and IBRS Total
in her study of the relationship of socioeconomic status in employed working- and middle-class mothers of one year old infants. These findings, both previous and present, add support to the construct validity of maternal separation anxiety. Differences in strength of the relationship between individual factors may be more indicative of changes in baby age, numbers of children (as in the case of this study), interviewer technique, or of limited variability in response to a given factor rather than to mothers' overall separation anxiety level. In spite of changes in the individual factors the correlations between the Total MSAS and Total IBRS (which indicate general or overall anxiety) have remained consistently strong (Gnezda: $r = .71$, $p < .0001$; Bunge: $r = .61$, $p < .0001$; Pitzer: $r = .52$, $p < .001$) over the 2.5 years of data collection.

**Correlations between MSAS/IBRS and other Maternal Characteristics**

The correlations between the two measures of maternal separation anxiety (MSAS and IBRS) and other maternal characteristics were somewhat inconsistent. MSAS factors were significant and negatively related to work investment; the IBRS factors were less related to this characteristic. The comparison of MSAS and IBRS correlations with other major variables was also irregular. Often one measure was significant on several factors and the other was not or only showed significance on one factor. These differences
suggest that although these measures are tapping a similar personality attribute, one could be more sensitive to a particular area; a contrasting interpretation is that the probing and validation of attitudes by extensive questioning during an interview allow for more information than is possible with a questionnaire and consequently gives more accuracy. Because the questionnaire has been found valid and reliable with a population of 900 mothers of first-borns, the chance that it is less sensitive than the interview appears remote. A better interpretation is that the two instruments are complimentary methods that can reveal more information together than either one can by itself. Use of more than one method of data collection has been highly recommended as improving the quality of research (Bronfenbrenner, 1979).

Maternal Demographics and Maternal Separation Anxiety

Maternal SES, education, and income were negatively, but not significantly, correlated to maternal separation anxiety. Mothers in this study, although representative of a broad range of SES, were predominantly middle-class. This is in contrast to Bunge's (1983) finding that demographics were both negatively and significantly correlated with mothers MSAS scores but not with their IBRS scores. Her sample was divided by SES into working- and middle-class; women in her study all worked full-time (35 hours/week mean)
compared to the present subjects who worked 29.5 hours/week (mean). Fewer hours of separation may have lessened the degree of anxiety associated with leaving their infants and could possibly account for some of the difference in findings.

In the present study maternal education was the only demographic variable approaching significance when correlated with MSAS ($r = -0.25$, $p < 0.11$). This is consistent with Kessler's (1982) contention that education is the single most important predictor of psychological distress for working women. Maternal separation anxiety decreases as mothers' education increases.

Although mothers' educational status did not change during the average 18 month interval between infants, several fathers returned to school. Seven mothers and 12 fathers changed jobs or were promoted in their present job; 6 fathers lost jobs (all but one was either working or going to school at time of interview). These changes could have altered the SES/maternal separation anxiety correlations slightly.

Correlations between demographics at Time 1 and 2 were positive and significant so this group of second-time mothers appears more homogeneous for SES; their Duncan Prestige Scores were higher than those in Bunge's 1983 study.
Eleven mothers, all registered nurses, clustered at 41.46 on the Duncan Prestige Score, increasing the central tendency of SES. Student t tests between registered nurses and all other subjects on demographics were significantly different for the following variables: mother age (R.N.s were older, 29.36 years vs. 27.07, p < .05); and hours worked/week—R.N.s worked fewer hours (19.91 vs. 33.14, p < .0001). R.N.s also showed a trend toward more disorganization under stresses of the expanded maternal experience (p < .10); they were also less convinced that separation promoted independence and sociability in the infant (p < .08). Perhaps R.N.s experience more separation anxiety because they have had opportunities to witness the results of poor child care, negligence, or overt abuse of children through their professional work. One nurse-mother in the present study reported that her youngest child had been dropped accidently by the sitter. This accident resulted in a mild concussion for the child and a change in childcare arrangements.

Mothers in the present study may have been more homogeneous for SES because of subject attrition. Potential subjects not reached by letter or phone (a possible indicator of greater mobility and lower SES) would perhaps have demonstrated a more negative relationship between SES and MSAS.
A more plausible reason for the differences between demographic and maternal separation anxiety findings in this study is that mothers who were more anxious about separation may have decided to remain at home after having a second child and consequently did not meet the study criteria.

**Differences in Maternal Separation Anxiety Responses to First-born Infant and Second-born Infant**

As predicted, mothers' mean scores on the MSAS declined significantly with respect to the second infant, except for their concerns about employment-related separations. Mothers' reported fewer concerns about leaving their second-borns; yet their degree of employment-related separation anxiety did not vary significantly between their MSAS response with respect to first-born at seven months and later with respect to a second-born at seven months.

It appears that previous experience with a first-born helped these mothers leave their second-born infants in the care of someone else without excessive concerns about the effect of separation. Mothers frequently commented about the advantages to the infant of being with another adult and of having experiences with other infants and young children.

However, these mothers continued to feel anxious about leaving the second child to return to work. Perhaps, as Bowlby (1980) suggests, these mothers were reacting to the physical interruption of the maternal-child relationship; intellectually they were comfortable with leaving the child
with another adult, they believed that separation promoted sociability and independence in the child, yet they still felt anxious about physically leaving to go to work. Several mothers mentioned the feelings of uneasiness they experienced when they actually left their homes to go to work.

Mothers' own ratings of separation stress associated with their first-borns correlated significantly higher with the MSAS (which was completed with respect to the second-born) than did their current ratings of separation stress with their second-borns. This finding is perplexing and needs further investigation. Mothers' greater worry about their first-borns may have influenced these correlations since 28 mothers mentioned being more worried about their first-borns' behavior in their absence; these worries were related to safety issues as well as to the child's general well-being. The age of the first-borns may have contributed to these concerns; first-borns ranged in age from 18-33 months at the time of the interview. They also reported missing the first child's "babyhood" and they were concerned about missing this experience again with a second child; they especially felt that this was a concern if they planned to have no more children. Other worries were related to health of both infants, concerns about first child being jealous of the second (generally reported as "this didn't turn out to be a problem"), and lack of time to
do all the things with both children that they felt were desirable. Previous findings that parenting two children involves less personal time and more work have been reported (Jacobs & Moss, 1976; Kamerman, 1980; Lasko, 1954).

Although parenting two children was considered more time-consuming, 37.5% (n = 15) of these mothers reported that life in general and the actual mothering process was somewhat easier. This is consistent with the research on transition to parenting reported by Feldman (1974) and with the parent-child research of Lasko (1954); their findings suggest that parents become more child-centered with succeeding children and that they express more warmth toward their children and less toward each other. In addition, working outside the home may have provided these mothers with a "time of their own" and increased feelings of self-esteem not experienced through mothering (Baruch, Barnett, & Rivers, 1983).

In contrast, 20% (n = 8) of the mothers reported no change in degree of "difficulty" when mothering two children and 42.5% (n = 17) reported more difficulty with mothering and life in general. These latter mothers may represent the "crisis model" of transition to parenting proposed by LeMasters (1957).

Sex of Second-born and Maternal Separation Anxiety

Mothers demonstrated significantly higher levels of employment-related separation anxiety for second-born sons.
on the IBRS. These results may have been influenced by the content of the interview, i.e., how did you feel about having a daughter, son, another son or daughter? Were you looking forward to a sister or brother for first child? The results might also have been influenced by the interviewer's interest and pursual of the topic. This content is not addressed in the MSAS.

Mothers of two sons not only had significantly more separation anxiety as measured by the IBRS Total, but they also showed a trend toward significantly higher scores for employment-related separation anxiety. Children have demonstrated more distress when left by the parent of the same sex (Weinraub & Frankel, 1977). Mothers, in this study, responded more to a child of the opposite sex. This is more consistent with the findings of Corter and Bow (1976) that mothers demonstrated earlier retrieval of boys in a laboratory situation despite the lack of difference in fussing between boys and girls.

Birth order and sex of infant influenced mothers' level of separation anxiety. Mothers with son first/daughter second had lower IBRS mean scores. If having a second-born son increases maternal separation anxiety, then having a second-born daughter could decrease or defuse this anxiety. Mothers have shown less interaction with second-born of two girls (Jacobs & Moss, 1976). Research with parents of slightly older children indicate that: (1) mothers who
worked full-time had more negative descriptions of 3 year old sons compared to more optimistic descriptions of daughters (Bronfenbrenner et al., 1984); (2) in dual wage earner families 12 month old sons received less stimulation (Zaslow et al., 1983); and (3) sons of nonworking mothers received more attention, sons of working mothers less, and daughters of working mothers received the most maternal attention (Stuckey et al., 1982).

In the present research it is difficult to say whether mothers' level of interaction with the infant had any relationship to maternal separation anxiety. The possibility of a connection is intriguing, nonetheless. Mothers' separation anxiety may be manifested in different ways as children grow older and this early difference in maternal feelings towards sons and daughters may be an early clue of differential parenting.

In previous studies of maternal separation anxiety in mothers of 11-16 month old first-born infants, Bunge (1983) found no significant differences by sex of infant; McBride (1983/1984) found that mothers spoke more to their daughters upon reunion during a laboratory separation observation. No other sex differences were noted in these earlier studies of working mothers of first-born infants. It is conceivable that sex differences, e.g. greater activity and aggression of boys vs. greater verbal and empathetic abilities of girls (Clark-Stewart, 1983) contribute to differences in maternal
separation anxiety responses to sons and daughters. It may be harder to leave an active, aggressive son who may signal his dislike of mother leaving compared to a more verbal, empathetic daughter who may be more capable at 2-2.5 years to understand why mother is leaving. This does not, however, explain the difference of leaving a 7 month-old son or daughter. Mothers may be reacting to separation from a son in a psychoanalytic or socio-culturally proscribed manner. Assuming there is a bias in our society favoring male children, it may be harder to leave the more valued child. Mothers may be less certain how a son will respond to separation; they may believe that daughters will respond as they themselves would; they may also read and respond to cues from daughters more readily than they do from their sons.

Maternal Separation Anxiety (MSA) and other Maternal Characteristics

Maternal role investment

It was not surprising that Maternal Role Investment (MRI) correlated most significantly with Factor 1 on both the MSAS and IBRS; mothers' attitudes toward nonmaternal care are perhaps closely related to their own investment in the role of mother; these two variables may tap the same personality attribute. In comparison, Factors 2 and 3 were less highly correlated with MRI; they are less dependent on
mothering per se but are perhaps more related to other personality attributes, i.e., achievement, independence.

Mothers may feel increased separation stress when leaving for work simply because of job vs. family demands, personal fatigue, or because of society's continued expectation that they should remain at home with their young children. Not meeting this expectation may lead to role conflict and subsequent stress associated with separation. Mothers may feel that being separated from their infant(s) is good for themselves and the infant(s), yet they may continue to feel anxious about leaving. Research Hypothesis 3 was not refined enough to pick up the subtle differences between MSAS factors needed to accurately predict its relationship with Maternal Role Investment. Of interest is the similarity between MRI correlations with both Factor 1 MSAS and Factor 1 IBRS; such close responses add support to the hypothesis that these two measures are tapping the same feelings and beliefs about separation.

Degree of investment in the maternal role was rated on a scale from 1 to 9. Mean score for this population of mothers of two children was 6.8 (S.D. = 1.32). This is somewhat lower maternal investment than found by Bunge in her sample of working mothers with year old infants (mean = 7.43, S.D. = 1.71).

A slightly decreased maternal role investment with succeeding children may be likened to the findings by Lasko
(1954) that parents express less warmth and responsiveness toward succeeding children particularly during preschool years.

**Work Status Preference**

Work preference was found to be significantly related to maternal separation anxiety in this population. Mothers who would have preferred to remain at home with their infants \( n = 27 \) were significantly more anxious about separation than were those mothers who stated a preference for work \( n = 13 \). Gnezda (1983/1984) and Bunge (1983) have reported similar findings.

Mothers' preference to remain at home was significantly correlated with worry, guilt, and sadness associated with separation from their infants; home preference also correlated highly with work-related separation anxiety and the MSAS total score. This relationship seems logical; mothers who believed that they should be their child's exclusive caregiver were more anxious when they could not assume that role because of work responsibilities.

IBRS Factors 2, 3, and Total were not significantly related to work preference. Perhaps when questioned about the effects of separation on their second-born these mothers were more apt to view separation as promoting independence and sociability in the child because they had had positive experiences with their first-borns; several commented during the interview how sociable and outgoing their first-borns
were and they felt that their second-borns would also benefit from brief separations. This is another example, suggested by Spielberger's State-Trait theory of anxiety, where previous experience with a situation (child benefiting from alternative care) can lower an individual's level of state anxiety.

Although the mean scores for mothers who preferred to remain at home were slightly higher than those of mothers who stated a preference to work, there were no significant differences between their degree of maternal role investment. As a group, these women appeared to support Russo's contention that most women "want at least two children" and to "raise them well" in order to fulfill the "Motherhood Mandate" (1976).

When asked whether they preferred to work or to stay home mothers may have had ambivalent feelings but felt required to answer; some may have answered "stay home" as this has been considered the socially desirable response for mothers of young infants (Bernard, 1974; Friedan, 1981). This socially desired response (that a mother should stay home and care for her own child) is rapidly on the decline according to a recent survey ("Where Do," 1983).

Correlational analysis of subjects' work status preference with other major variables revealed that mothers who preferred to remain at home were working in significantly less prestigious occupations (by census code)
than were those mothers who preferred to work; they did not, however, vary by education, SES, or income from those mothers who preferred to work. They were significantly less invested in their work/career, worked fewer hours/week, stopped working earlier during their second pregnancy, and returned to work later than did the mothers who stated a preference for work.

These findings suggest that women in this study varied more by work preference than by actual demographic differences. Mean scores were slightly lower for mother income and SES for the home preference group, but mean scores for their husbands' incomes and SES were actually higher (which may have been a significant reason why these mothers worked fewer hours/week). These mothers may have found the combination of mothering and employment most tolerable with their level of separation anxiety (Hock, 1980); this choice may have involved taking a lower paying job for fewer hours/week than one they were possibly educated to assume. Mothers' delay of career goals for family responsibilities has previously been identified (Hoffman, 1974; Bernard, 1974; Poloma, 1972).

When asked about their work vs. home preference, a number of the study mothers responded "I would work part-time if the job allowed for fewer hours", or "I would work part-time if we didn't need the money so much". When asked why they were working, 60% of these mothers reported
that they worked because of financial need. This is consistent with findings from other studies (Gnezda, 1983/1984; Kamerman, 1980; Schwartz, 1980).

**Hours worked/week and Separation Anxiety**

Mothers who worked more than 30 hours per week were more likely to have infants closer in age (interval between infants was 17.75 months for > 30 hours/week vs. 20.26 months for < 30 hours/week); they tended to return to work when their second infant was younger \((p < .08)\); and they were more likely to use a nonrelative sitter than were mothers who worked fewer than 30 hours/week \((p < .01)\).

Mothers who worked more hours also were significantly different in regards to one complication of pregnancy; six reported more problems with placental disorders \((p < .01)\) and they tended to have had a newborn with health problems requiring hospitalization \((p < .08)\). These mothers may have been compelled to work full-time to help pay for extensive medical care; this reason for working was reported in at least five of the home interviews.

Previous research on pregnancy and employment has indicated a relationship between two complications (fetal growth retardation and large placental infarcts) and the following conditions: occupations that require long periods of standing, and mothering another small child while working up until the end of pregnancy (Naeye & Peters, 1982; Chamberlain & Garcia, 1983). Increased maternal anxiety
during early pregnancy has also been related to later pregnancy complications and newborn abnormalities (McDonald, 1968; Gorsuch & Key, 1974)

**Career/work investment**

The significant negative relationship between maternal career/work investment and maternal separation anxiety replicates earlier findings by Hock (1978, 1980) and Gnezda (1983/1984). Although mothers who expressed higher career/work investment had lower separation anxiety, they did nonetheless have separation anxiety.

Mothers who were invested in their career/work may have perceived separation as less threatening to their self-esteem, particularly if their identities were defined beyond that of the mothering role. According to Spielberger's (1972) theory, if they perceived separation as less threatening, they should have experienced less state-anxiety. Investment in career/work possibly helped them develop more separation coping strategies, as Spielberger has suggested. These strategies, in turn, may have allowed them to separate from their infants with less state anxiety.

This interpretation falls down in regard to Factor 3. Even though mothers have had previous experience separating from their first-borns to return to work, this experience does not significantly reduce their anxiety in regards to leaving the second-born. The work status preference
variable addresses the issue of separation from the infant to return to work and thus correlates highly. It is a dichotomous variable; mothers either prefer to be at home or they prefer to work. The MSAS scale has a range of 1-5 with 5 meaning most concerned; the IBRS scale has a wider range (1-9) which may produce a slightly different response. The interview also allowed for probing and clarification compared to the 1-5 choice of the MSAS questionnaire.

Career/work investment had a strong, negative relationship with maternal role investment and maternal separation anxiety. Those mothers invested in work were less concerned about exclusive maternal care, had less guilt, sadness, and worry associated with leaving their infants, and they demonstrated less concern about the effects of separation on their infants.

Perhaps the lack of a significant correlation between Factor 2 and work investment was influenced by the young age of the second-born infant. Although mothers frequently reported (interview) seeing little value of separation to a young infant, their MSAS mean scores indicated that they were significantly more likely to view separation as promoting independence and sociability in their 7-month old second-born infant than they had when their first-born was approximately the same age.

The overall negative and significant relationship between work investment and maternal separation anxiety is
similar to Birnbaum's (1975) finding that professional women were less invested in mothering and hence, indirectly less apt to experience separation anxiety associated with working. However, Birnbaum's subjects still reported guilt and worry about the effect of their working on their children.

Hock (1980) also found that mothers who desired and enjoyed work had more conflict than mothers who worked because of financial need. Having to work appeared to diminish the conflict associated with leaving their children.

Hoffman (1983) has suggested that employed mothers view motherhood as less of a major part of their identity, yet they are still enthusiastic about mothering and they consider their children important sources of love and affection. Mothering and employment are clearly both very important.

Differences in the magnitude of the correlations between the two measures of separation anxiety (MSAS and IBRS) and career/work investment are somewhat perplexing.

**Proneness to Disorganization under the Stresses of the Expanded Maternal Experience**

Mothers who became more disorganized following the birth of their second infants also had significantly more sadness, worry, and guilt when separating from them. They worried more about the effects of separation on the infant
and they expressed stronger beliefs in exclusive maternal care, according to the IBRS. Correlations between Proneness to Disorganization under the Stresses of the Expanded Maternal Experience (PDSEME) and the MSAS were not significant. PDSEME appeared to tap a maternal personality attribute more highly related to IBRS Factors. The interview dealt with mothers' response to having another infant; these concerns are not included in the MSAS. It seems reasonable that the IBRS would correlated more significantly with this variable than it would with the MSAS.

PDSEME may have correlated higher with Factor 1 because exclusive maternal care could naturally be disrupted by the addition of another child to the family. Exclusive care of two children is less feasible than with one child. Addition of another child could also increase mothers' worries and guilt about separations; working mothers with two children have less time to spend with each child. Mothers may worry about effects of separation on the infant if they (or the infant) had a particularly difficult time during pregnancy or delivery.

The complication of having a sick or preterm baby correlated significantly with PDSEME. Mothers perhaps were reluctant about leaving a previously ill or small newborn with an alternative caregiver. Feetham (1984) found that mothers of infants having a history of breathing problems at
birth were less likely to return to work regardless of their socio-economic status.

PDSEME was not significantly related to employment-related separation anxiety. Mothers may have developed certain coping responses through experience with their first-born infants that facilitated departures from the second-born. It may be easier to leave two children together (all children in this study were essentially cared for by the same sitter/daycare center) than to leave one child.

Mothers who were stressed by the addition of another child may have considered going to work a relief from 24-hour childcare responsibilities. However, since the relationship between PDSEME and IBRS Total was significantly positive ($r = .44, p < .01$), mothers who were stressed by the additional child were also experiencing more overall separation anxiety.

**Maternal Separation Anxiety in Working Mothers of One and Two children**

Correlations between self-ratings of employment-related separation stress and the MSAS factors were positive and significant for mothers with one child ($n = 164$). The moderately strong relationship between the two variables suggests that mothers' self-ratings of separation stress are quite good indicators of their MSAS responses.

Comparisons of mothers of one and mothers of two
self-ratings by the GLM analysis indicated no significant differences between them. Having one or two children does not appear to alter a mother's level of separation anxiety in regards to a first child.

Grossman et al. (1980), using Spielberger's State-Trait Index, found no significant difference in anxiety level between first-time and experienced (more than one child) mothers although first-time mothers showed a trend toward more anxiety.

Walker and Walker (1980) also used Spielberger's State-Trait Anxiety Index to assess the relationship between employment status, number and ages of children, and maternal anxiety. They found anxiety to be highest in women with children between the ages of 2 and 5; employed women were significantly less anxious than nonemployed women. Having preschool children has previously been shown to be related to maternal distress (Moss & Plewis, 1977).

The first-borns in the present study were all toddlers two years or older at the time of the interview. Mothers frequently mentioned having fewer worries and concerns about leaving the second child than they had about the first child; this response was also reflected in their self-ratings of separation stress experienced with each child. Ratings of separation stress associated with the first-born child correlated more significantly with mothers' mean MSAS responses (completed for second child) at Time 2.
These findings appear consistent with Walker and Walker's (1980) evidence that mothering a child between the ages of 2 to 5 is more stressful than mothering children less than 2 or over 5 years of age.

Summary and Concluding Remarks

The findings of this study suggest interesting relationships between maternal separation anxiety, maternal parity, and employment. These results also indirectly imply that working mothers with two infants less than three years of age appear to cope rather well with the complexity of their lives. Mothers in this study did not consider their lives to be extremely difficult despite the considerable amount of change many of them had experienced in the past year.

Findings from this population suggest that maternal separation anxiety does not relate to demographics in a predominantly middle-class population of Caucasian mothers of second-born infants. Maternal separation anxiety appears to be more related to individual characteristics than to pervasive socio-economic influences. This is an important finding worthy of further research. Maternal education was the variable most nearly related to maternal separation anxiety and should be considered more carefully in future designs. Is it the absolute level of a mother's education that influences separation anxiety or is it the nature of education that influences attitudes toward separation?
The findings also suggest that maternal separation diminishes with a second-born child, except in regard to conflict between employment and maternal roles; employment-related separation anxiety may remain essentially the same with an additional child. Further delineation of this finding is in order. It will be interesting to see if this difference is replicated in other populations, and if it persists over longer periods of time.

It is conceivable that this personality attribute is so stable that a given woman will respond similarly to separation events throughout her life, e.g., child goes away to school, child is hospitalized for an extended period of time (or mother must remain with a hospitalized child and is thus separated from other children who remain at home), and when an adult child moves away (geographically) from home.

Further, the findings suggest that maternal separation anxiety is positively related to maternal role investment and to mothers' preference to remain at home if given the choice. In contrast, the results of this study suggest that maternal separation anxiety decreases as career/work investment increases and as mothers' hours work/week increase. Mothers who are more comfortable with separation from their infants work more and appear to be more invested in that choice.

There appears to be a relationship between sex of a second-born infant and birth order on maternal separation
anxiety; mothers of second-born sons appear to be more anxious about employment-related separations but the strength of this relationship is influenced by the sex of the first child.

Being a working mother with a second-born son may be more novel, more stressful, and thus may require greater coping strategies. If a woman is already in conflict over her multiple roles she may have greater difficulty establishing a relationship with a son (child of the opposite sex); her satisfaction or dissatisfaction with the mother-child relationship may influence her level of maternal separation anxiety. Interestingly enough, having a first-born son followed by a daughter appears to negate this effect. Having a daughter may relieve separation anxiety. Several mothers of same-sex dyads in the present study commented that they were sorry not to have at least "one girl" or "one boy". This comment was often made in connection with the question of whether they planned to have more children. If no more children were planned they expressed some sadness. Certainly more data are needed on larger samples of mothers with two children before any conclusions can be drawn regarding the relationship between infant sex and maternal separation anxiety.

The findings also suggest that working mothers of one and two children do not differ in their separation anxiety with respect to a first-born 2-2.5 year old child. This
implies that maternal separation anxiety is a rather stable personality attribute not highly influenced by additional children, although it did diminish in mothers of second-borns with respect to concerns about alternative care, influences of separation on the infant, and in total separation anxiety in the present population of working mothers of second-borns infants. Maternal separation anxiety appears to remain fairly constant in spite of the passage of time and the addition a second child. Mothering another child has not appreciably decreased this personality attribute. Perhaps there is a ceiling effect on how much adaption to separation a mother will experience. As mentioned above, a given mother may respond to separation from her child(ren) in much the same manner over her lifetime.

Limitations of the Study

Design constraints and the nature of the population placed several limitations on this study. The subjects were a subgroup of mothers already enrolled in an ongoing project (an asset as well as a limitation). Mothers may have been self-selected by attrition. They were all married Caucasians and they predominantly represented the middle class. Single, minority working mothers may respond quite differently to separation from their second-born infants.

Range of age between the first- and second-born infants was necessarily wide to provide enough subjects. Infants of
such diverse ages can elicit different responses from mothers; maternal reactions to separation may vary by infant age. This effect was not found by statistical analysis, but it was mentioned within the context of several interviews. Using a larger number of subjects with infants of varying ages would help determine whether age of infant has a significant influence on maternal separation anxiety.

The length of time mothers had been back at work varied greatly; seeing each mother at different times relevant to returning to work could possibly have influenced their MSAS scores. Obtaining mothers' MSAS response to a second infant at birth and again after each mother returned to work would have provided information parallel to that already collected with the first-born and thus would have provided a more rigorous design. Administration of the same measures at the same infant age (for siblings) should be considered in any future maternal separation anxiety research.

Lack of direct comparisons of MSAS responses for both children quite possibly reduced the significance of results related to maternal separation anxiety in working mothers of one and two infants. This issue will remain in question until a group of mothers with two children complete the MSAS for both children at one data collection time, and correlation coefficients are computed between the two scores.

Interviews of an equal number of working mothers of one
child would have provided greater depth to the comparison aspect of this study, especially to our understanding of the relationship between maternal separation anxiety and other maternal characteristics.

Implications for Future Research

Replication of the present study with mothers of second-borns whose infants are farther apart in age would be useful. Such a study would necessarily involve a new group of mothers and would ideally begin at the birth of a first child and continue long enough to gather information on a variety of family changes (new baby, new job, etc.). Careful analysis of the relationship between type of career/work a mother is engaged in and maternal separation anxiety would also be useful. For instance, do mothers in more traditional female occupations have more separation anxiety? Do mothers in high status, non-traditional occupations have less separation anxiety?

Future research should include use of the MSAS in cross-sectional studies of working mothers with children of different ages from more diverse SES groups. Responses from single and married mothers from minority groups are needed now that the instrument has been found reliable with a substantial number of Caucasian mothers.

Most certainly another study should be designed to compare working and nonworking mothers of similar SES, parity, etc. on pregnancy complications. In view of the
number of complications found in this population of 40 working mothers, use of multiple measures of stress and maternal separation anxiety seem important considerations in future related research. It would be important to collect data during and following pregnancy as well as to include medical verification in the data. The implications for better documentation of women's health relevant to working while pregnant and/or caring for very small children are enormous. Findings from this study indicate that health professionals need to collect more work-related data when they interview (and provide care to) pregnant mothers.

Future research should include longitudinal measures of maternal role investment, career/work investment, and changes experienced with an additional child as well as measures of separation anxiety used in the present design. A small follow-up study is tentatively planned using a subsample of this population who also participated in the Bunge (1983) research; comparison of their scores on certain variables with the present data might give us a better understanding of group changes on selected variables i.e., Maternal Role Investment and Career/Work Investment.

Implications derived from present study

Working mothers or women who anticipate combining employment and mothering should be counseled that separation from young infants often involves feelings of ambivalence and conflict. They can be reassured that some aspects of
separation will probably diminish with a second child, but that they may continue to experience about the same amount of concern surrounding the actual separation event when they leave their second-born as they did when they left their first-born. Mothers who prefer to work and who are invested in their career/work will most likely experience less separation anxiety than will those mothers who are working reluctantly. Mothers who work full-time will quite possibly experience less separation anxiety than those who elect to work part-time. This appears to be a self-selection process; mothers who are comfortable leaving their infants in the care of others appear to work more hours/week and do so with less separation anxiety.

Employers of working mothers of infants should also be advised that as employees these women have concerns about leaving their children and in particular, that mothers worry about making arrangements when a child or sitter is ill. Improved benefits for working mothers are long overdue and should certainly include maternity leave, job-sharing, flex-time, on-site daycare and the option (where appropriate) to complete work at home, i.e., some accounting and computing firms have already experimented with such policies.

The health of pregnant working women should be monitored carefully, especially during the last few months of pregnancy. Maternity leaves should be designed to allow
for time off both before and after delivery. Mothers in the present study frequently commented that they "saved" their leave time until "after the baby arrived" in order to spend more "time with the baby". In reality, mothers pregnant with a second child may need to stop work earlier than they did with their first child for various physiological reasons.

The implications for more and improved alternative childcare are also enormous. Although mothers in this study were primarily depending on family members or private sitters, more than half of them said that they would consider using daycare if it were available at or near their place of employment. These women, as a group, saw themselves as remaining employed during their adult years; they gave no indication of working less in the future; in fact many saw themselves working more as their children reached school age. Although most of them were working for economic reasons and they often felt reluctant to leave their infants, they also reported satisfaction with their multiple roles. It seems evident that many women are working and raising small children simultaneously; what is not evident is how they will comfortably integrate these roles unless society becomes more responsive to their needs by implementing some of the above-mentioned employment benefits.
The mothers in this study represent a small sample of middle-class working women in a large midwestern American city. They have indicated by their ratings of life in general and their present separation stress associated with leaving both children to return to work that they are managing quite well despite the many changes in their lives.

As the person collecting and analyzing this data I was continually impressed by how well these women were managing their multiple roles. Maternal separation anxiety, career/work investment, and maternal role investment may be interacting with still another attribute, possibly competence, that was not considered in the study. The range of future studies is limited only by one's imagination of the possible contributing factors involved in maternal separation anxiety.


APPENDIX A

Protocol for phone call to potential subjects

Hello, Mrs. -----

My name is Martha Pitzer. I am a graduate student working with Dr. Ellen Hock in the Department of Family Relations and Human Development at Ohio State University. I understand that you have participated in Dr. Hock's study of Mothers and Infants for some time now and that you have recently had or soon will have another child. Is that correct?

We appreciate your interest and involvement in the ongoing study of mothers and their children, and hope that you will continue to share your experiences of mothering with us.

May I ask you several questions now? (If mother states she is interested, but this is not a convenient time, I will ask when would be a better time to talk to her-If she responds that now is a convenient time I will proceed with the following questions-If she does not wish to respond, the conversation will be politely terminated).

Has your second baby already arrived? If yes, I am interested in knowing whether you had a girl or a boy, and what was her/his birth date?

Were you working before ------(second child) was born? Are you by any chance working now? Do you plan to return to work in the near future?

(If mother is working, or plans to return to work in the near future, I will ask her to participate in my study). I wonder if you would consider discussing your experiences with me now that you have or will soon have another child? My dissertation research is focused on mothers who have more than one child and plan to continue working.

I would like to arrange to interview you, either at your home or at a place of your choice, when it would be most convenient for you. I can come in the evening, weekends, or whenever it would best fit with your schedule.

(If mother agrees to participate, a time and date for the home visit will be arranged. I will close by stating that I will send her a letter confirming our appointment, and that the letter will include a brief written description of the study and a questionnaire (Appendix F) for her to complete before the interview.)
APPENDIX B

Letter to potential subjects
(sent when unable to reach subjects by phone)

Ohio State University
Dept. of Family Relations
& Human Development
315 Campbell Hall
1787 Neil Avenue

Dear

My name is Martha Pitzer. I am a graduate student working with Dr. Ellen Hock in the Department of Family Relations and Human Development at Ohio State University. I understand that you have participated in Dr. Hock's study of Mothers and Infants for some time now and that you have recently had or soon will have another child. We appreciate your interest and involvement in the ongoing study of mothers and their children, and hope that you will continue to share your experiences of mothering with us.

I wonder if you would consider discussing your experiences with me now that you have or will soon have another child? My dissertation research is focused on mothers who have more than one child and plan to continue working.

I would like to arrange to interview you, either at your home or at a place of your choice, when it would be most convenient for you. I can come in the evening, weekends, or whenever it would best fit with your schedule.

If you are willing to participate in my study would you kindly complete the enclosed questionnaire and the fact sheet at the bottom of this letter and return them to me in the enclosed, self-addressed envelope.

Thank you in advance for your time and consideration.

Sincerely,

Martha Pitzer, R.N., M.S.
451-7655 or 422-9430
Subject Id......

Mother's Fact Sheet

1. Have you had your second baby?   Yes   No

2. If yes, when was baby born?

   Did you have a girl or a boy?

3. Are you presently working?   Yes   No

   Are you planning to return to work in the near future?   Yes   No

4. Would you be willing to participate in my study of working mothers with two children?   Yes   No

5. Current phone number where you can be reached to arrange an interview:
Dear Mothers:

I am a graduate student working with Dr. Ellen Hock in the Department of Family Relations and Human Development at Ohio State University. I understand that you have participated in Dr. Hock's study of mothers and infants since your child was born. I hope that you will continue to be involved in her study as your responses have provided us with valuable information which will be helpful to other new mothers and their babies.

I am particularly interested in how you are feeling about child care now that your son or daughter is two years old. Would you kindly take a few minutes to answer the following questions as well as the enclosed questionnaire?

As we have stressed in the past your responses are coded and referred to only by number. There are no right or wrong answers; we are simply interested in your opinions.

Enclosed is a stamped, addressed envelope for your convenience. Your early response would be most appreciated. Thank you in advance for your help.

Sincerely,

Martha Pitzer, R.N., M.S.
ID No._____

Mother's Information Form

1. Are you presently working outside the home? Yes No

2. Are you working (circle one) Part-time Full-time
   Hours working/week_______

3. Since our last contact with you have you had another baby? Yes No

4. Are you now pregnant? Yes No
   If yes, when is baby expected?_______

5. On a scale of 1 to 9 (with 1 meaning no concerns and 9 meaning extremely worried) how would you rate your present feelings about work-related separations from your child?
   1......2......3......4......5......6......7......8......9
   No concern Extremely worried

6. Your current address:
   (If different from our current listing)
   Phone Number:
APPENDIX D

Letter to Participants

Date
Dept. of Family Relations
& Human Development
315 Campbell Hall
The Ohio State University
Columbus, Ohio 43210

Dear ----------

Thank you very much for agreeing to participate in my study of mothers and their children. As I mentioned on the telephone, I am a graduate student working with Dr. Ellen Hock, and my particular interest is mothers who have recently given birth to their second child. I believe that mothers with two children may have some different concerns than mothers who have only one child.

I would simply like to come to your home, at the prearranged time and date ---------------, 1984 to talk to you about your feelings of what it is like to be a working mother with two young children.

My visit should take no more than an hour of your time. Before I come, would you please complete the enclosed questionnaire which I will collect when I meet with you.

You may call me at home (614) 451-7655 or at the University (614) 422-9430 if you find that my visit must be changed to another day or time.

I look forward to meeting you. Again, thank you for participating in this research.

Sincerely,

Martha Pitzer, M.S., R.N.
APPENDIX E

MATERNAL HOME INTERVIEW

Mother's name............................................................
Mother's birthdate.....................................................
Mother's current occupation...........................................
Hours worked/week....................................................
Mother's current gross income.....................................
Father's current occupation.........................................
Father's current gross income.....................................
Recent changes (job-related, return to school, health, etc.)...
Second baby's name & sex............................................
Second baby's birthdate..............................................
First baby's name & sex..............................................
First baby's birthdate..............................................
Second baby's age in weeks at time mother returned to work...
Type of child care majority of time...............................
Number of child care arrangements needed since second baby's birth...
Date of interview....................................................

150
MATERNAL HOME INTERVIEW

Directions for setting environment:

After greeting M and entering the home, spend a few minutes becoming acquainted and setting a comfortable tone for the interview. Before beginning the interview, engage in conversation about the children, the weather, etc. Ask mother where she would be most comfortable during interview. Ask mother to sign consent form (PA-027) and her permission to tape the interview, and stress the anonymity of the procedure. Assure her that tapes will be used only by the researcher and that they will be erased as soon as the data are collected, coded, and analyzed. Explain that the data are identified by code number only.

INTRODUCTION

I am talking to lots of women, trying to learn more about what it's like for each of them to be a mother of two children and also work outside the home. I'm especially interested in how mothers feel about going back to work after having a second child. One of the things I'm finding is that not everyone has the same attitudes and feelings, and in order to fit all the pieces of the puzzle together, I'm interviewing women with many different kinds of jobs and professions. That's why I appreciate the time you've been willing to give me on this project. It's a big help.

I have some fairly specific questions I'd like to ask, and please remember that there are no right or wrong answers. I'm only interested in your opinions and feelings about these issues. If you should consider a question too personal you are not obligated to answer.

In the past we have asked you about your concerns about your first child; today I would like to learn about your present experiences and concerns with your second child. It is common to feel differently about one's children, so I want to assure you that there is no reason to be consistent in your responses from one child to the other.
SEPARATION STRESS

1. Can you remember what it was like when you left.......? (second child)

   On a scale of 1 to 9 (1 being not anxious at all to 9 being very anxious) how would you rate your anxiety about leaving.......(2nd child) for the first time when you returned to work?

   1 2 3 4 5 6 7 8 9

   a. Describe how things went the first day you went back to work.

   b. What was it like when you first left.......(2nd) at sitter's/or at the center?

   c. How was it being back at work?

   d. How did it go when you went to pick.......up at the sitter's that day?

2. When you are at work now, how do you feel about being away from.......(baby's name)?

   a. How often do you think about.......when you're at work?
      Is this related to something you might be doing at work (seeing other people's children, for instance) or to the time of day?  (Probe)

   b. When you do think about him/her, what things are you thinking about?  (Probe)

   c. Can you be totally involved in your work when you are away from the baby?  (Probe)

   d. Do you find yourself concerned enough to phone babysitter?
      If yes, how often does this happen?

3. Do you worry about this baby?
   If so, what kinds of things do you worry about?  (Probe)
4. In general, how do you feel about leaving...with
someone else in order for you to be able to go to work? Why?

   a. Do you miss...while you are at work?
      What is it that you miss?

   b. Do you feel guilty? Why? (Probe)

   c. Does leaving your child with someone else make you
      nervous?
      If yes, why do you think this is happening? (Probe)

SEPARATION STRESS: Rating Guide

  M expresses no anxiety at leaving child. She expresses
  no regret at having to be away from her child. She does
  not report missing her child, nor does she worry while
  she is at work.

  M may experience some discomfort when away from her child
  and at work. She is concerned about child's well-being
  in her absence but is able to enjoy her life away from
  the child. She is not absorbed in worry. M may regret
  having to be away from child often, but does not express
  strong guilt feelings. She may miss her child.

  M dreads being away from her child in order to work. She
  usually worries constantly while away and is eager to
  return. Separation is highly stressful. She may express
  strong guilt feelings.

RATING: 1 2 3 4 5 6 7 8 9

EMPLOYMENT-RELATED SEPARATION CONCERNS

1. How do you feel about being back at work? Did you
   return to the same job?

   a. What don't you like about being at work? (Probe)

   b. Has having the new baby changed your feelings about
      work?
      If so, how? (Probe)
2. How does your husband feel about your being back at work? (Probe)
   a. Is he the kind of husband who helps around the house and with caring for the children?
   b. How do you think he feels about sharing those responsibilities, now that you are working again?
   c. Now that you have two children, has his behavior changed? If so, how? Why do you think this has happened?

3. Has working changed your ability to meet your responsibilities as a mother?
   a. Does your company have special work policies that make it easier to be a working mother?
   b. What are they? (flex time, day care, sick leave, supportive boss, etc.)
   c. Would you use day care if it were provided at or near your work?
   d. What things would you change about your job that would make it easier to be a working mother?

EMPLOYMENT-RELATED SEPARATION CONCERNS: Rating Guide

M expresses minimal conflict associated with integrating motherhood and work. She expresses competence in balancing work and motherhood responsibilities.

M expresses some conflict associated with integrating motherhood and work roles. She is interested in being a mother and in work, and she reports some difficulty in satisfactorily balancing her dual responsibilities.

M expresses a high degree of conflict associated with integrating motherhood and work. Her primary orientation may be either toward motherhood or toward work.

Regardless of her orientation M reports dissatisfaction, frustration, and upset in relation to meeting her primary orientation. She views her secondary orientation as interfering with her primary role.

RATING: 1 2 3 4 5 6 7 8 9
CAREER/WORK INVESTMENT

1. Some people say that, for a woman, having children and a job all at the same time takes a lot of effort. How do you feel about that? Would you say that things have gotten easier or harder for you now that you have two children?

2. Why did you go back to work? (primary reason)
   How many years have you worked?
   How important is it for you to work?
   How complete would your life be if you weren't working?
   Are you satisfied with the length of time you stayed home after the baby was born?
   If not, would you rather have been home a longer or shorter time?
   a. Do you want to, or plan to, continue to work? Why?
   b. What do you think your work satisfaction is related to? (Probe—money, sense of achievement, relationships with adults, sense of responsibility)
   c. What do you like about working?

3. Did your mother work outside the home while you were growing up? How did you feel about it?

4. Do you have close friends with children who are also working?
   Do you have sister(s) or sister-in-law(s) who are also working?
   If so, does their working too make any difference to you?
CAREER/WORK INVESTMENT: Rating Guide

M displays essentially no career/work investment. She would prefer not to work if that were possible.

M is moderately invested in her career/work, but views other aspects of her life as important also. M wants to work, but it is not the most important aspect of her life.

M is highly invested in her career/work and views work as a satisfying or necessary experience, and her major way of fulfillment in life. M cannot conceive of not working. Work is important to M for several reasons (i.e., financial, social, intellectual challenge, etc.)

RATING: 1 2 3 4 5 6 7 8 9

ATTITUDE TOWARD NONMATERNAL CARE

1. Do you think that babysitters, day care teachers, or other adults are as good as you are at knowing what your baby needs and in taking care of those needs?

2. Are there special things that you give your baby when you take care of him/her that another person can't? If so, what are they?

3. Are there special things that another adult can give your baby that you can't? What are they and why?

4. In general, how do you feel about having your child cared for on a regular basis by someone else? (Probe)
   a. How do you think this will affect your baby?
   b. How did you find your sitter/day care center?
   c. What qualities did you look for in that other person or setting?
   d. Do you think that you are more concerned with your child's safety and well-being than a babysitter would be? Why?
   e. Since having a second child, have your feelings about leaving a baby with a babysitter changed? If so, how?
   f. What part did your experience with the first child have on these feelings?
ATTITUDE TOWARD NONMATERNAL CARE: Rating Guide

M exhibits essentially no apprehension over someone else caring for her child.

M expresses some fears and describes concerns over nonmaternal care but is not preoccupied with these concerns. Generally, M feels that she can meet her child's needs more effectively than the alternative caregiver can.

M is preoccupied with apprehension over nonmaternal care. She expresses fears and is concerned for a specific kind of child care. She believes that she is the only person who can truly meet her child's needs. She believes that nonmaternal care will interfere with mother-child attachment. She may report feeling jealous of the alternative caregiver.

RATING: 1 2 3 4 5 6 7 8 9

SEPARATION PROMOTES INDEPENDENCE

1. Lots of things are happening while.......(baby's name) is at the babysitter's/day care center.
   
   How do you feel about that?
   
   How do you think it affects your baby?

2. Some people think that when children are taken care of by people other than their own parents, they develop differently than children whose mothers are with them full-time.
   
   What do you think? How would they differ? Why?

3. I've heard some mothers say that even if their children cry or make a fuss, it's important that the children spend some time away from them. How do you feel about this?
   
   a. Is being away from you good for your child? (Probe)
   
   b. Is it harmful to your baby to be with other adults? If so, how?
SEPARATION PROMOTES INDEPENDENCE: Rating Guide

M perceives mother-child separations as necessary in order for the child to develop as an independent individual regardless of any distress or difficulty the child experiences during separation.

M perceives stress-free mother-child separations as contributing to the child's ability to develop as an independent individual but does not see separation as essential.

M perceives mother-child separations as unnecessary for the development of autonomy. She expresses the belief that children benefit most from the security and familiarity of shared experiences between mother and child as they develop into independent individuals.

RATING: 1 2 3 4 5 6 7 8 9

MATERNAL ROLE INVESTMENT

1. Please rank the following 3 things in terms of how much satisfaction they give you, with 1 being the most satisfying aspect of your life.
   - being married
   - being a mother
   - working

2. How would you have felt if you found out you couldn't have had children? Why?
   a. Would you have adopted children? Why or why not? (Probe)

   b. Have you always wanted to have children? Why or why not?

   c. How important is it to you to be a mother? Why or why not?

3. What do you expect from motherhood?
   a. How has being a mother changed your life? What about being a mother a second time? Has that made a difference?

4. How complete would your life be if you weren't a mother?

5. If you could choose between staying at home with your new baby or going to work, which would you choose?
MATERNAL ROLE INVESTMENT: RATING GUIDE

Being a mother is of relatively little importance to M; she expresses minimal investment in this role.

M expresses moderate investment; it is important to her to be a mother, but other aspects of her life are also important to her.

Being a mother is extremely important to M; she feels it is her major way of fulfillment in life and she cannot imagine not being a mother.

RATING: 1 2 3 4 5 6 7 8 9

PRONENESS TO DISORGANIZATION UNDER STRESSES OF THE EXPANDED MATERNAL EXPERIENCE

1. Was your pregnancy with.......(new baby) planned or unplanned?

2. How did you feel about being pregnant again?

Would you like to have more children? How many more children would you like to have?

3. Did your second pregnancy differ from your first? (Probe) How did you feel physically? How did you feel emotionally? (Probe)

4. Did becoming pregnant at that particular time affect your work plans?

How long did you work during 2nd pregnancy?

5. How did labor and delivery go with the second baby?

Did you have any special concerns this time? (Probe) How did you react to the birth? Were you let down afterwards?

6. Were you happy with the sex of your second child?

Was your husband? How did you feel about having a brother or sister for.......(first child)?
7. How did the first few weeks after.......(2nd child's) birth go?

   a. Did you have any worries about yourself, the new baby, your first child, or your husband after the delivery?

   b. Did you have any upsetting dreams during those first weeks?

   c. Did you have some extra help? Was your husband able to take time off from work?

8. In general, how would you say things are going for you now that you are a mother of two young children?

   Much harder Somewhat more About the Somewhat Easier
difficult Same Easier

   9 7 5 3 1

PRONENESS TO DISORGANIZATION UNDER STRESSES OF THE Expanded MATERNAL EXPERIENCES: Rating Guide

   M is highly adaptive and flexible and is unperturbed by all kinds and intensities of stresses related to the addition of a new member to the family. She perceives herself as managing quite well.

   M is moderately adaptive and on occasion may become disorganized by significant stresses past or anticipated, but such disorganization is not persistent or terribly severe and she continues to function with reasonable effectiveness. M recognizes that she does not always manage her expanded role as well as she would like, but she sees the occasional mismanagement as situational and most of the time she is doing well.

   M is highly sensitive to stresses of all kinds, she is easily disorganized, and her well-being and functioning may remain impaired long after a stressful situation has ceased. M perceives that she is consistently unable to manage her expanded role and reports that this is an area of concern for her. She expresses concerns although earlier remarks may contradict her perceptions of how she is doing.

   RATING: 1 2 3 4 5 6 7 8 9
Considering that you are/will soon be working again, how would you rate your ability to handle brief separations from your first child? and, from your second? (Where 1 means very easy, no concern, and 9 means most difficult or extreme concern about leaving).

1 2 3 4 5 6 7 8 9 1st child

1 2 3 4 5 6 7 8 9 2nd child

Are there any concerns you feel are important in relation to leaving your child to return to work that I have not mentioned?

I appreciate your willingness to share your thoughts with me on this subject. Thank you again for your participation.
162

Subject ID......
MATERNAL HOME INTERVIEW - RATINGS

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Mother's self-ratings:
Separation from 2nd when 1st returned to to work_____
Separation from 1st when working now_____
Separation from 2nd when working now_____

If could choose between work or home with baby:
Work 1
Home 2
APPENDIX F

LEGEND FOR NAMES FOUND IN
CORRELATION MATRIX OF MAJOR STUDY VARIABLES

MSAS...Maternal Separation Anxiety Scale

Fac1...maternal separation anxiety: worry, guilt, and sadness surrounding a separation event. The extent to which mother perceives her child needs exclusive care; a mother's beliefs about child's ability to adapt to nonmaternal care.

Fac2...Separation Promotes Sociability and Independence: mother's interpretation of separation experiences contributing to the child's sociability and independence.

Fac3...Employment-Related Separation Concerns: mother's feelings and attitudes toward work and motherhood; primary orientation is either toward work or toward motherhood—personal conflicts regarding integration of employment and mothering roles and responsibilities.

Total MSAS...sum of Factors 1, 2, and 3, divided by 3.

IBRS...Interview-Based Rating Scale of Maternal Separation Anxiety.

Fac1...as above.

Fac2...as above.

Fac3...as above.

Total IBRS...as above
Mage...Mother age at time of interview.

Med...Number of years of school completed by mother at Time 1 (Maternity Ward) when enrolled in longitudinal study.

MSES...Mother socioeconomic status as measured by the Revised Duncan Prestige Score.

HrsWk...Number of hours mother works/week.

Bsex1...Sex of first-born.

Bsex2...Sex of second-born.

B2ageMwork...Age of second-born when mother returned to work.

Wk/Hm...Mother would prefer to remain at home (2) vs. preference to work (1) if given a choice.

InvWk...Mother's degree of investment in a career/work role.

InvMo...Mother's degree of investment in mothering role.

ProStr...Mother's proneness to disorganization under the stresses of the expanded maternal experience.

MRSS1...Mother's self-rating of current separation stress associated with first-born.

MRSS2...Mother's self-rating of current separation stress associated with second-born.

FSES...Father's socioeconomic status as measured by the Revised Duncan Prestige Score.
ATTITUDES ABOUT CHILDCARE

The following statements represent matters of interest and concern about childcare. Not all people feel the same way about them. Answer the statements as you are feeling now or think you will feel as your child grows older. Read each statement carefully and circle the number at the right which most closely reflects YOUR degree of agreement or disagreement. Try to answer all statements without skipping items or looking back. Answer all the items without discussing any of them with your spouse.

1. More than any other adult, I can best meet my child's needs.
2. I worry when someone else cares for my child.
3. I would not leave my child with a babysitter just so I could have some time for myself.
4. My child is afraid and sad when he/she is not with me.
5. My life wouldn't be complete without a career.
6. I don't enjoy myself when I'm away from my child.
7. When away from my child, I often wonder if his/her physical needs (dry diapers, enough to eat, etc.) are being met.
8. If a child is independent and outgoing, he/she will make friends easily without his/her mother's help.
9. It is not good for my child to be cared for by someone else because he/she may be exposed to values and attitudes that I disagree with.
10. I would resent my job if it meant I had to be away from my child.
11. My child will benefit from group experiences (i.e., nursery school, day care, kindergarten) since they will provide him/her social experiences that he/she could not get at home.
12. When I am away from my child, I feel lonely and miss him/her a great deal.

(Hock, E., 1981)
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<td>13.</td>
<td>When I am away from my child, I would expect him/her to be frightened and insecure and to show a lot of distress.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14.</td>
<td>If I routinely left my child with a babysitter or in a day care center, I would feel I was neglecting my responsibilities as a parent.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15.</td>
<td>I am more concerned with my child's physical safety than a babysitter or teacher.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16.</td>
<td>Even if my child doesn't act scared, I know he/she is really upset when I leave.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17.</td>
<td>When my child is being cared for by a babysitter or in a group care program/school on a regular basis, I feel that I have really lost control over his/her life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>18.</td>
<td>Holding and cuddling my child makes me feel so good that I really miss the physical closeness when I'm away.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>19.</td>
<td>When away from my child, I am sure that the babysitter or teacher spends enough time playing with him/her.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>20.</td>
<td>I like to have my child close to me most of the time.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>21.</td>
<td>I have a systematic plan for how I'm going to build my career in the world of work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>22.</td>
<td>If I am not at home full-time with my young child, he/she will not develop a trusting, secure, and loving relationship with me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>23.</td>
<td>I don't like to leave my child.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>24.</td>
<td>If my child spends a lot of time with a babysitter, I would be afraid he/she would begin to prefer the babysitter to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>25.</td>
<td>I would not feel guilty leaving my child with a babysitter.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>26.</td>
<td>I would feel self-conscious and uneasy if my child got upset when I left him/her with a sitter.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>27.</td>
<td>I believe that my child misses me when I have to let someone else take care of him/her for awhile.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>1 Strongly disagree</td>
<td>2 Disagree</td>
<td>3 Somewhat agree</td>
<td>4 Agree</td>
</tr>
<tr>
<td>---</td>
<td>-------------------</td>
<td>------------</td>
<td>----------------</td>
<td>--------</td>
</tr>
<tr>
<td>28.</td>
<td>It reflects badly on me if my child makes a fuss when I leave him/her with someone else.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29.</td>
<td>It is good for my child to spend time away from me so that he/she can learn to deal independently with unfamiliar people and new situations.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30.</td>
<td>I miss holding or cuddling my child when I am away from him/her.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31.</td>
<td>When I am separated from my child, I wonder whether he/she is crying and missing me.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32.</td>
<td>A career or job brings me a lot of personal satisfaction.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33.</td>
<td>When away from my child, I worry about whether or not the babysitter or teacher is able to soothe and comfort my child if he/she is lonely or upset.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34.</td>
<td>I really worry about whether or not my child will be good when he/she is with a babysitter or at school.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35.</td>
<td>I can provide more intellectual stimulation for my child than could another caregiver.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36.</td>
<td>Even though my child fusses a bit when I leave, I know he/she will be OK in a few minutes--after I'm out of sight.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37.</td>
<td>Either my spouse or I could care equally well for my child.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38.</td>
<td>It is normal for me to worry about my child's safety when he/she is not with me.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39.</td>
<td>When I am away from my child I am afraid I will miss out on the excitement of seeing him/her achieve developmental milestones.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40.</td>
<td>I rarely worry when my child is away from me.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41.</td>
<td>I would not regret postponing my career in order to stay home with my child.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42.</td>
<td>My child would often get into dangerous situations if I were not there to protect him/her.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43.</td>
<td>I would not expect to feel sad, as though I am losing my &quot;baby,&quot; when my child begins day care or kindergarten.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

44. My child is happier with me than with babysitters or teachers.
   1 2 3 4 5

45. Children are very demanding and I often wish I had more time for a career.
   1 2 3 4 5

46. I would expect my child to adjust easily to new situations whether or not I am with him/her.
   1 2 3 4 5

47. My child prefers to be with me more than with anyone else.
   1 2 3 4 5

48. If my child cries and is obviously disturbed when I leave him/her with a babysitter, at a day care center, or at school, I'm afraid people will think that I am an ineffective parent.
   1 2 3 4 5

49. A child is likely to get upset when he/she is left with a babysitter.
   1 2 3 4 5

50. When I first leave my child in an unfamiliar setting I get depressed and feel sad.
   1 2 3 4 5

51. My child will not get enough physical affection at a babysitter's, day care center or kindergarten.
   1 2 3 4 5

52. It will be difficult for my child to adjust to someone else taking care of him/her.
   1 2 3 4 5

53. Children will be afraid in a new place without their mother.
   1 2 3 4 5

54. A mother should take her young child with her whenever she feels like it.
   1 2 3 4 5

55. I am naturally better at keeping my child safe than any other person.
   1 2 3 4 5

56. My child needs to spend time away from me in order to develop a sense of being an individual in his/her own right.
   1 2 3 4 5

57. If I could choose between working full-time or staying home with my child, I would want to stay home.
   1 2 3 4 5

58. If my child were in a group situation (i.e., nursery school, day care, public school), I would worry if he/she is being dominated by other children.
   1 2 3 4 5

59. Most young children seem to adapt very easily to other people who care for them.
   1 2 3 4 5
<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>60.</td>
<td>Only a mother just naturally knows how to comfort her distressed child.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61.</td>
<td>Children adjust easily to being in new situations.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62.</td>
<td>Exposure to many different people is good for my child.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63.</td>
<td>I feel sad when my child is affectionate with other adults.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64.</td>
<td>Motherhood is a major way of fulfillment in a woman's life.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65.</td>
<td>I worry that my child is never completely comfortable in an unfamiliar setting if I am not with him/her.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66.</td>
<td>After leaving my child with a sitter or at school, I rarely feel sad.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>67.</td>
<td>There are times in the lives of young children when they need to be with people other than their mothers.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68.</td>
<td>I need time away from my child in order to enjoy adult company and to be a well-rounded and fulfilled individual.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following statements represent matters of interest and concern to parents. Not all people feel the same way about them. Answer the statements as you are feeling now or think you will feel as your child grows older. Read each statement carefully and circle the number at the right which most closely reflects YOUR degree of agreement or disagreement. Try to answer all statements without skipping items or looking back. Answer all the items without discussing any of them with anyone.

1. I miss holding or cuddling my child when I am away from him/her.
2. My child is happier with me than with babysitters or teachers.
3. Children will be afraid in a new place without their mother.
4. My life wouldn't be complete without a career.
5. If a child is independent and outgoing, he/she will make friends easily without his/her mother's help.
6. When away from my child, I often wonder if his/her physical needs (dry diapers, enough to eat, etc.) are being met.
7. Holding and cuddling my child makes me feel so good that I really miss the physical closeness when I'm away.
8. I am more concerned with my child's physical safety than a babysitter or teacher.
9. It will be difficult for my child to adjust to someone else taking care of him/her.
10. I would resent my job if it meant I had to be away from my child.
11. My child will benefit from group experiences (i.e., nursery school, day care, kindergarten) since they will provide him/her social experiences that he/she could not get at home.
12. When I am away from my child, I feel lonely and miss him/her a great deal.
13. Only a mother just naturally knows how to comfort her distressed child.
14. A child is likely to get upset when he/she is left with a babysitter.

(Hock, Gnezda, McBride, 1982)
15. I have a systematic plan for how I'm going to build my career in the world of work.

16. It is good for my child to spend time away from me so that he/she can learn to deal independently with unfamiliar people and new situations.

17. I like to have my child close to me most of the time.

18. I am naturally better at keeping my child safe than any other person.

19. I believe that my child misses me when I have to let someone else take care of him/her for awhile.

20. A career or job brings me a lot of personal satisfaction.

21. Even though my child fusses a bit when I leave, I know he/she will be OK in a few minutes—after I'm out of sight.

22. I don't like to leave my child.

23. My child prefers to be with me more than with anyone else.

24. My child is afraid and sad when he/she is not with me.

25. I would not regret postponing my career in order to stay home with my child.

26. My child needs to spend time away from me in order to develop a sense of being an individual in his/her own right.

27. When I am separated from my child, I wonder whether he/she is crying and missing me.

28. I don't enjoy myself when I'm away from my child.

29. I worry that my child is never completely comfortable in an unfamiliar setting if I am not with him/her.

30. Children are very demanding and I often wish I had more time for a career.

31. Exposure to many different people is good for my child.

32. I worry when someone else cares for my child.

33. If I could choose between working full-time or staying home with my child, I would want to stay home.

34. There are times in the lives of young children when they need to be with people other than their mothers.

35. When away from my child, I worry about whether or not the babysitter is able to soothe and comfort my child if he/she is lonely or upset.
CONSENT FOR PARTICIPATION IN
SOCIAL AND BEHAVIORAL RESEARCH

I consent to participating in (or my child's participation in) research entitled:
Maternal Separation Anxiety in Mothers of Second Born Infants

Ellen Hock, Ph.D. or his/her authorized representative has
(Principal Investigator)
explained the purpose of the study, the procedures to be followed, and the expected duration of my (my child's) participation. Possible benefits of the study have been described as have alternative procedures, if such procedures are applicable and available. I understand that my interview will be tape recorded and that the tape will be erased as soon as study is completed.

I acknowledge that I have had the opportunity to obtain additional information regarding the study and that any questions I have raised have been answered to my full satisfaction. Further, I understand that I am (my child is) free to withdraw consent at any time and to discontinue participation in the study without prejudice to me (my child). The information obtained from me (my child) will remain confidential unless I specifically agree otherwise by placing my initials here ________.

Finally, I acknowledge that I have read and fully understand the consent form.
I sign it freely and voluntarily. A copy has been given to me.

Date: __________________________ Signed: ______________ (Participant)

Signed: __________________________
(Principal Investigator or his/her Authorized Representative)

Signed: __________________________
(Person Authorized to Consent for Participant - If Required)

Witness: __________________________

HS-027 (Rev. 12-81) -- To be used only in connection with social and behavioral research.