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CHANGES IN AFTER-SCHOOL CARE CHOICES, KINDERGARTEN
THROUGH FIFTH GRADES

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ABSTRACT

The purpose of this study was to describe the wide variety of different types of after-school care that parents use and how those types change over time. Next, the study examined the amount of complexity in parents' after-school care arrangements and the number of caregivers children are exposed to in their after-school experiences. Finally, this study examined how certain demographic factors (sex of child, parents' marital status, socioeconomic status, neighborhood safety, mother's work status, and ethnicity) influenced the amount of complexity or the number of care-givers to which a child was exposed.

The subjects in this study were 585 children and families who are part of a multisite, longitudinal research project, the Child Development project. Subjects who participated in this study were approached at kindergarten registration in 1987 about participating in a longitudinal study. Approximately 75% of those families who were approached at each of three sites (Knoxville and Nashville, Tennessee and Bloomington, Indiana) agreed to participate. This procedure then was repeated at all sites in 1988, and a second cohort group was recruited.

Data were collected in the summer after fifth grade. Primary caregivers were asked to recall which types of after-school child care that were used to care for her/his child in the years between kindergarten and fifth grade. The amount of each child's waking hours spent in 12 types of after-school care were recorded. The number of care-givers each child was exposed to also was recorded.

One finding of this study was that a wide variety of after-school care arrangements were used by families over the years. Another finding indicated that complexity (or total number) of after-school care arrangements increases from kindergarten through fifth grade. The number of informal caregivers increased slightly over time. Finally, family socioeconomic status and ethnicity were found to significantly affect the number of people who cared for a child from kindergarten through fifth grade. Low socioeconomic status families tended to have more custodial caregivers than middle or upper socioeconomic status families and Black families tended to have slightly more custodial caregivers provide care for their children than did white families.

TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION.....	1
Statement of the Problem	2
Statement of Purpose	4
Summary	7
II. REVIEW OF LITERATURE	9
Rationale.....	9
Outcome Variables.....	11
Family Background Variables Which Influence	
After-School Care and Its Outcomes.....	13
Factors Which May Moderate the Effects of	
After-School Care Arrangements	16
Future Research Needs.....	17
III. METHOD	20
Subjects	20
Procedure	21
Measures	23
IV. RESULTS	27
Types of After-School Care Utilized in Kindergarten	
through Fifth Grade	27
General Descriptive Patterns of After-School Care	
Kindergarten through Fifth Grade	28
Hours Spent in Type of After-School Care	
Arrangement by Grade	32
Change in Number of Families Over Time in	
Specific After-School Care Arrangements ...	33
Amount of Complexity (Number of After-School	
Care Arrangements) in Each Year	36

Amount of Complexity Across All Years	
K-5 Complexity	3 6
Number of Informal Caregivers in Each Year ...	3 8
Number of Informal Caregivers, Across All	
Years - K-5 Caregivers	4 2
Complexity of After-School Care Arrangements	
by Sex of Child	4 2
Caregivers by Sex of Child	4 2
Caregivers by Mother's Employment Status ...	4 3
Complexity of After-School Care by	
Socioeconomic Status	4 3
Complexity of After-School Care Arrangement	
by Ethnicity	4 4
After-School Care Complexity and Informal	
Caregivers by Neighborhood safety	4 4
Complexity and Informal Caregivers	
by Marital Status	4 4
Socioeconomic Status Effects	4 5

V. REVIEW OF FINDINGS, DISCUSSION AND

RECOMMENDATIONS	4 6
Recommendations for Future Research	5 3

BIBLIOGRAPHY	5 6
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APPENDICES	5 9
Appendix A	6 1
Appendix B	7 9
Appendix C	8 1
Appendix D	8 3
Appendix E	8 5
Appendix F	8 9
Appendix G	9 2
Appendix H	9 4
Appendix I	9 6

Appendix J	99
Appendix K	103
Appendix L	105
VITA	106

CHAPTER I

INTRODUCTION

In the past decade and a half, a great deal of research has focused on the complex issue of after-school care for school-age children (e.g. Colman, Robinson, Rowland, 1990; Galambos & Maggs, 1991; Galambos & Garbarino, 1984; Gold & Andres, 1978; Long & Long, 1983; Rodman, Pratto, & Nelson, 1984; Steinberg, 1986; Woods, 1987). Research on after-school care has demonstrated the importance, to both family and individual child development, of after-school care arrangements. Most of the current after-school care research has concentrated on one of three areas: (a) "Latchkey" children, (b) children in varying qualities of daycare, and (c) those children who spend a great deal of time in adult-supervised after-school care. Unfortunately, research on after-school care has revealed anything but consistent findings.

One group of early after-school care researchers (Long & Long, 1983) found that latchkey children were at higher risk for emotional, social, and academic problems when compared to mother-care children, while other researchers (Rodman, Pratto & Nelson, 1985; Steinberg, 1986; Vandell & Corasaniti, 1988; Vandell & Corasaniti, 1990) did not find a higher amount of these problems for latchkey children versus mother-care children. Some researchers who specifically examined differences in latchkey versus adult-care children (Rodman et al., 1985 and Steinberg, 1986) found no differences between the groups of children in terms of locus of control, self-esteem, teacher ratings of social adjustment, or susceptibility to peer pressure. Even though there is a great deal of

inconsistency in today's research findings on after-school care, it is of great importance that researchers endeavor to understand the effects of after-school child care arrangements on child development.

Statement of the Problem

Although, at first glance, it appears that a great deal of research has already addressed the topic of after-school care of children, closer examination reveals that large gaps currently exist in after-school care research. Therefore, the following area will be addressed: (a) classification difficulties, (b) complexity of after-school care arrangements, and (c) the number of care-givers a child is exposed to in after-school care. Because these areas have not adequately been addressed in after-school care research, the current study will examine them in depth.

The most important area that has not yet been addressed concerns the great variety of child care choices, or types of after-school care arrangements, that are typically available to parents. Consequently, little is known about how many different types of after-school care care arrangements are used by families or how those types of care change or evolve over time. Do families typically use only one type of after-school care, such as mother care? Or is it more typical that families use a combination of after-school care arrangements in a week's time, such as three days where Mary goes to a sitter and two days where he goes to grandmother's house.

Most after-school care research typically focuses on, and classifies the child by, the single predominate type of after-school care used by the family (Rodman et al., 1985; Steinberg, 1986; Vandell & Corasaniti, 1988; Vandell & Ramanan, 1991). The information that is used to classify the predominate type of child care

utilized is based on concurrent or retrospective reports made by mothers or their children. This methodology, however, paints a very one-sided picture of after-school care and has compelled many researchers to conclude that families typically use only one type of after-school care. In reality, it is much more likely that children actually experience a combination of several different types of after-school care. To achieve an in-depth understanding of children's after-school care experiences, it is necessary for researchers to examine just how many different types of after-school care arrangements families use and how much time children spend in those different arrangements.

A second area of after-school care that has yet to be addressed is the amount of complexity (or the total number of different after-school care arrangements used by a family) within after-school care arrangements at a given time. As mentioned above, research findings in the after-school care literature lead us to believe that only a few types of after-school care arrangements are being used by families. Unfortunately, no research to date has investigated whether families use a combination of two or more different after-school care arrangements in the same year. If a family sent Mary to three different sitters, two different relatives, and two after-school activities (such as a sport and a music lesson), and also let him spend some time at home alone, that pattern of after-school care arrangements would be much more complex than that of a family who uses only one or two after-school care arrangements that year. Also, no longitudinal research has examined whether the number of after-school care arrangements vary as a function of time. Do families typically use fewer numbers of arrangements when their children are in kindergarten and first grade (perhaps only one or two types of after-

school care) than when their children are in fourth or fifth grade?

Finally, no research has examined the number of adult care-givers children are exposed to during their after-school care experience. Is it typical that a child is exposed to only one or two care-givers (such as his/her mother and a family daycare provider) when s/he is in kindergarten and first grade? Does the number of care-givers typically increase or decrease as the child ages? Is it more typical that a child comes into contact with many care-givers as s/he ages (such as mom, a neighbor, a friend's mom, and a soccer coach)? How is the number of care-givers related to gender of the child or family socioeconomic status? This study will address these questions.

Statement of Purpose

The problem areas in current after-school care research to be examined in are: (a) classification of after-school care arrangement, (b) complexity of after-school arrangements, and (c) number of care-givers that children are exposed to. Family demographic variables then will be examined to determine their effect on the above mentioned after-school care variables. The five family demographic variables that will be examined in relation to after-school care are: (1) family socioeconomic status (2) mother's employment status, (3) marital status (4) family residential status, and (5) child sex. (NOTE: While the child sex variable is actually biologically based, I choose to label this variable sex of child from this point forward).

Research has revealed a link between socioeconomic status and the types of after-school care arrangements families tend to use. Some research has revealed that low socioeconomic status families more typically use formal day care (Posner & Vandell, 1994), self-care (Lovoko & Ullman, 1989), and adult (mother) care (Vandell &

Ramanan, 1991). Other researchers (specifically examining the role that socioeconomic status plays in determining whether low or high socioeconomic status children spend more time in self-care) have found varied results. Cain and Hofferth (1989) found that white families with higher income were more likely to use self-care. Another researcher has found no relation between socioeconomic status and the type of after-school care arrangement used (Steinberg, 1986). Researchers have demonstrated that the role of socioeconomic status is an important but controversial one in terms of after-school care. At the current time, the exact role that socioeconomic status plays in after-school care arrangements is not fully understood.

Another factor that influences the types of after-school care used for children is maternal employment. Unfortunately, research in this area also is contradictory. Some researchers (Steinberg, 1986) have found that children with mothers who are employed are less likely to be supervised during their after-school hours. An implication drawn from these findings was that maternal employment may have deleterious effects on children. Additionally, Steinberg's (1986) research revealed that children whose mothers were employed outside the home also were more likely to be in self-care than those children whose mothers were not. Woods' (1972) research added that, compared to children whose mothers' remained at home, unsupervised girls exhibited deficits in cognitive functioning. Conversely, research by Richards and Duckett (1994) failed to find significant differences between employed mothers and non-employed mothers in terms of quantity and quality of time spent with their children. Thus, the role of maternal employment is another important, yet conflictual, part of the whole after-school care picture.

A third area that has an impact on after-school care is the

marital status of the parents in the family. Lovoko and Ullman's (1989) research revealed that lower income, single-parent families reported that their children spent more time each week in self-care and that these families experienced higher levels of stress. Vandell and Ramanan (1990) also reported that children in single-parent homes (who were also in mother care after school) were rated as having higher levels of antisocial behavior as compared to children (from either single or two parent homes) in other types of after-school care. Thus, those families who are both low income and single-parent are more likely than those families who are middle- or upper-income and two-parent to use self-care and have children with more behavioral problems. Vandell and Corasaniti (1990) theorized that it is possible, however, that the combination of these two factors--low income and single parent families--contributes more to behavioral problems in these children than the use of self-care.

Another area that has been focused on in the after-school care literature is what role environment plays in after-school care choices. Results of some studies suggest that rural and suburban areas are relatively safe and present few risks to children in self-care (Galambos & Garbarino, 1984; Vandell & Ramanan, 1990) and other researchers conclude that latchkey children are at most risk if they live in urban environments. In addition to safety factors, the environment also affects which types of care parents choose to utilize. Cain and Hofferth (1989), reported geographical differences in after-school care arrangements. Children from suburban and rural areas were more likely to be in self-care than were children from inner-city areas. It is clear that geographic location influences not only which types of after-school care children are in, but also the effects associated with certain types of care.

A final variable that has been shown to have some affect on after-school care arrangements is sex of child. To date, little research has addressed the extent to which sex of child affects the types of care utilized and the outcomes associated with after-school care. Some research has shown that boys are placed in self-care more frequently than are girls (Lovoko & Ullman, 1989). Conversely, other research (Vandell & Ramanan, 1990) finds no correlation between sex of child and the types of after-school care used. In the current study, sex of child will be examined as a possible variable that influences after-school care choices.

Summary

The objective in the present study is to (a) investigate which types of care preadolescents spend their time in after school, and (b) examine the amount of complexity (defined as more than three types of after-school care arrangements used in a given year and over a period of years) that occurs within after-school care arrangements. Do families tend to use only one or two types of after-school care in any given year, or do families tend to use a wide variety of after-school care arrangements? This study also will examine (c) how the combinations of after-school care arrangements change over time. Do families tend to use only one or two types of care over a period of, say, six years, thus indicating a pattern of stable and consistent care? Or do families more often utilize only one or two arrangements when their children are younger and then add more after-school care arrangements as the children get older, indicating that the pattern of after-school care is more complex as time passes? Another factor which will be addressed is (d) the number of care-givers the child is exposed to over the period of after-school child care from

kindergarten to fifth grade. Do families tend to use only a few caregivers when the child is younger and increase that number as the child ages, or is the number of caregivers the child is exposed to more stable over time? Finally, the present study will examine (e) whether certain family demographic factors--specifically socioeconomic status, mother's employment status, marital status, geographic status, and sex of child--affect the types of after-school care arrangements children are in and the level of complexity of those care arrangements.

In summary, the goals of the present study are to: (a) describe the different types of after-school care arrangements school-aged children are in; (b) describe the amount of complexity--both within-years and between-years of care; (c) describe the number of caregivers a child is exposed to, within years and between years; and, finally, (d) describe how after-school care varies as a function of socioeconomic status, mothers' employment status, marital status, geographic location, and sex of child.

CHAPTER II

REVIEW OF LITERATURE

This chapter will contain two parts. The first part of this chapter will consist of a rationale for the study of after-school care based on the need to understand more clearly how after-school care arrangements are utilized by parents. The second part will review the existing research on after-school care and the outcomes associated with various types of after-school care.

Rationale

A full two-thirds of the mothers of school-aged children in the U.S. are now in the labor force, and that number was expected to increase to 75% in the year 1995, according to Hofferth and Phillips, (1987). As a result of this employment trend, most families with young children are now faced with making some type of arrangement for their children's after-school care. Consequently, research focusing on after-school care has increased markedly in recent years. Unfortunately, most of this research has focused on latchkey children, to the point of excluding all other types of arrangements that families may utilize for after school care. Additional research is necessary in order to examine the great variety in the types of after school care that are currently available to families.

Unfortunately, the findings from what after-school care research has been done have been both varied and conflictual. Some researchers find a clear link between certain types of after-school care and negative child outcomes, but other researchers find no such correlations. Future research must address how some children are able to do well in various types of after-school care arrangements

while others seem to be harmed by these same types of after-school care arrangements.

Definitions of After-School Care Arrangements

Perhaps the main reason for the ambiguity of findings in after-school care research is that previous researchers have operationalized the types of after-school care in very different ways. Most researchers classify children into one predominate type of care used during the after-school hours. (e.g. Posner & Vandell, 1994; Steinberg, 1986; Vandell & Corasaniti, 1988; Vandell & Ramanan, 1991). However, a few researchers, attempting to broaden this very limited view of after-school care, have classified childrens' after-school care experiences into a greater variety of categories. Galambos' and Maggs' (1991) research included the following after-school care categories: self-care at home, self-care at a friend's home, self-care just out hanging around, and mother-care. It is very important to distinguish among these four categories of child care, because, for example, children who are at home alone (latchkey children) have very different outcomes than those children who are in self-care with friends present.

Due to the way most after-school care research in the literature operationalizes children's care into the predominate type of care arrangement used, children are seen as participating in only one type of after-school care. Although there may be one type of after-school care that a family relies on more than others, it seems unlikely that, in the time span of a week, children would not participate in a variety of activities. After-school care research in the literature makes it very difficult to grasp the full spectrum of diversity present in childrens' after-school care arrangements. This study will examine just how many different types of after-school care families typically utilize in

the span of a school year.

Outcome Variables

Some controversy surrounds the issue of which types of outcome measures to use in after-school care research. To date, a wide variety of measures have been used to examine the outcomes associated with various types of after-school care. In their research, Long & Long (1983), who related after-school care to peer relations and schoolwork, found that latchkey children differed significantly from adult supervised children. Posner and Vandell (1994) reported that low-income children's grades, peer relations, and emotional adjustment were higher after participating in a formal after-school care program. Research done by Galambos and Garbarino (1983) and Vandell and Corasaniti (1985) found that self-care and adult-supervised children did not differ significantly in terms of academic achievement or school adjustment. When Steinberg (1986) examined the differences between latchkey children who "hung out" versus those who came home after school, he found those children who were away from home were more susceptible to peer pressure. It is evident, then, that the after-school care outcome measures themselves differ almost as much as the findings regarding those measures.

After-School Care Outcomes:

Latchkey and Adult-Supervised Children

Although there are many forms of after-school care, the majority of previous research has focused exclusively on "latchkey children", or those children who come home and remain unsupervised for considerable periods of time (Galambos & Maggs, 1991; Rodman, Pratto, & Nelson, 1985; Steinberg, 1986). Some

research indicates that there may be as many as 2 to 6 million children who spend some amount of time every day in self-care (Ross, Saavedra, & Shur, 1992). Rodman et al. (1985) states that there are more children currently in self-care than in daycare centers; a trend that signals the need to understand the long-term outcomes of latchkey care.

Many comparisons have been made between the outcomes for latchkey children with the outcomes of those children who spend their time after school supervised by an adult. Vandell and Corasaniti (1988) stated that the outcome findings on latchkey children unfortunately, are, contradictory. Some researchers have discovered that latchkey children report higher levels of loneliness, fear, stress, and conflict (Long & Long, 1986). Other research has revealed a link between self-care and both problems with peer relationships and higher rates of behavioral and/or academic difficulties (Vandell & Corasaniti, 1988). Conversely, several researchers failed to find any significant differences between latchkey and other adult-supervised children (Galambos & Garbarino, 1985; Rodman et al., 1985).

To further complicate the ability to understand how negative outcomes are associated with certain types of after-school care, Vandell and Corasaniti (1990) found that early and extensive adult-supervised child care predicted overall negative ratings from parents and teachers because of children's academic performance (lower academic and conduct grades, lower standardized test scores, and lower ratings by peers). In direct contrast to the theory that children in self-care usually present more academic and behavioral problems than those cared for by an adult, Vandell and Corasaniti (1990) reported that attending formal after-school care programs was actually associated with social, emotional, and academic problems in

some children when compared with other children who were in either mother-care or self-care. Unfortunately, the only clear result from the examination of after-school care as it relates to latchkey versus adult-supervised care is that the findings are contradictory. At this time, it is not clear whether type of care itself is responsible for the increased amount of problem behaviors seen in some children or whether some aspect of a family's background characteristics is responsible for this trend.

Family Background Variables that Influence

After-School Care and Its Outcomes

Some researchers believe that certain family background variables, such as mother's employment status, parents' marital status, family socioeconomic status, and residential status, may affect in which type of after-school care families choose to place their children and the long-term effects associated with those arrangements (Vandell & Corasaniti, 1990). The following sections will discuss each family background variable in more depth and discuss how each factor relates to the after-school care choices families make.

Maternal Employment. An area of recent interest to researchers concerned with after-school care and child outcomes is maternal employment. Vandell and Ramanan (1992) challenge the long-held idea that a child is best cared for at home by his or her nonemployed mother. Vandell and Ramanan's (1992) study demonstrated that not only maternal employment itself, but also the timing of that employment (early in the child's life as opposed to later) had differing effects on the child's development. Children's math achievement scores were positively predicted by early maternal employment. Their research also suggests that early maternal

employment was most beneficial for low-income children.

Additionally, these researchers found that mothers who remained unemployed were more likely to have families that were living in poverty than those mothers who were employed while their children were in school. This finding seems to indicate that staying home to care for children can significantly limit a low-income family's ability to escape from poverty. In their 1991 study, Vandell and Ramanan found that mother-care was more closely associated with lower family income than any other type of after-school care. Steinberg's (1986) experimental research also demonstrated that maternal employment influenced after-school experiences. His results indicated that children whose mothers worked were more likely to be in self-care than children whose mothers stayed at home. Additionally, Steinberg found that children with working mothers were more likely to be unsupervised when compared to children with nonemployed mothers. Unfortunately, to date, little research has examined how employment may affect the use of after-school care arrangements across a range of social classes. The present study will examine if maternal employment relates to after-school care choices.

Marital Status. Several studies have demonstrated that marital status also is related to the types of after-school care parents utilize (Crouter et al., 1990; Rodman et al., 1984; Woods, 1970). Vandell and Ramanan (1990) found that marital status was highly correlated with child outcomes. In their study, children from divorced homes who came home to their single-parent mothers were more antisocial and had more peer conflicts than children from intact families in any other type of after-school care arrangements. Lovoko and Ullman (1989) found a correlation between the number of hours children spent in self-care and the parent's marital status as well as their

socioeconomic status. These researchers found that children from low-income families and from single-parent homes spent more time in self-care than did children from either higher income or intact families. It appears, then, that single-parent families rely more heavily on self-care for their children. And their children tend to have more behavioral problems than those families who remain intact.

Socioeconomic Status. Researchers have focused on the outcomes of after-school care in low-income versus upper-income families. Vandell and Ramanan (1990) stated that their findings illustrated a definite link between families' financial resources and the types of after-school care that are used. Lower-income families are more likely to use latchkey care than are upper-income families. When social disadvantage is combined with latchkey care, children tend to have more behavioral problems (Lovoko & Ullman, 1989). To further complicate the ability to understand the effect that socioeconomic status has on after-school care outcomes, Posner and Vandell's (1994) study concluded that after-school care programs were associated with positive outcomes for low-income children, while middle-income children in after-school care programs showed more problematic social, emotional, and academic functioning. At the current time, it is less than clear just how socioeconomic status effects after-school care. However, one can conclude, as these researchers did, that a child's socioeconomic status has significant influence on the types of after-school choices available to him/her and how those types of care affect her/him.

Neighborhood Effects. Researchers hoping to understand accurately the long-term effects of after-school care must also take into consideration the way the child's surroundings affect child-care

choices and/or opportunities. Several researchers (Brooks-Gunn, Duncan, Klebanov, & Sealand, 1993; Galambos & Maggs, 1991; Powell & Widdows, 1987) have examined how neighborhoods influence children's after-school care and their subsequent development. The research done by Brooks-Gunn et al. (1993) demonstrated that there were substantial differences between behavior outcomes for black and white children as related to the quality/safety of their neighborhoods. Their study concluded that children growing up in affluent neighborhoods appeared to do better than children in low-income neighborhoods regarding these factors.

Some researchers have concluded that latchkey children are at the most risk when they live in less safe, urban environments (Vandell & Ramanan, 1990). Galambos & Garbarino's (1984) suggests that rural and suburban areas are relatively safe and present few risks to children in self-care ; Vandell & Ramanan, 1990). In addition to safety factors, the environment also affects which types of care parents choose to utilize. Cain and Hofferth (1989) reported geographical differences in after-school care arrangements. Children from suburban and rural areas were more likely to be in self-care than were children from inner-city areas. It appears that neighborhood variables such as demographic location (urban, suburban, rural) as well as neighborhood safety variables influence the types of after-school care arrangements families utilize. This study will examine if environment plays a role in the after-school care choices families make.

Factors That May Moderate the Effects of After-School Care Arrangements

Vandell and Corasaniti (1990) believe it is possible that

children experience the same types of after-school care differently. This is due, in part, to family background characteristics; it is believed that certain variables within a family may moderate the experience of a child in after-school care. Lovoko and Ullman (1989) also believe that family background or demographic factors such as socioeconomic status, sex of child, and recent life stressors, may influence or mediate the direction of effects on a child's adjustment. For instance, boys and girls from low-income families may benefit from formal after-school care, whereas girls from middle-class families may do just fine in self-care and boys from middle-class homes may have behavioral difficulties if left alone.

When family characteristics were controlled for in the (1991) study by Vandell and Ramanan, the differences in the rates of antisocial behavior in children living below the poverty line who were in self-care versus those in mother-care disappeared. This suggests that the type of arrangement itself may not be at fault but the experiences each child has within his or her own family are. Research with low-income families revealed that children who were without adult supervision displayed more antisocial behaviors than those children in mother-care or formal care programs (Posner & Vandell, 1994).

Garbarino (1981) believes that all experiences are in some way moderated by the character of the family. Thus, some children will flourish in a latchkey situation, while others will just manage to cope, and still others will be put at risk. Additional research is needed to identify which children will flourish, cope, or be put at risk.

Future Research Needs

Currently there are several areas in the after-school care research and literature that could be explored. The areas that will be

explored in this study are (a) the variety of after-school care choices that are available to parents, (b) the total number of after-school care arrangements that parents use from kindergarten through fifth grade, and (c) the number of caregivers a child is exposed to from kindergarten through fifth grade.

Variety of After-School Care Arrangements. One area that after-school care studies have not explored is the numerous types/kinds of after-school care arrangements that can be used by parents. Most research has focused on either latchkey children or those children who are supervised by their mother. However, there are many other types of after-school arrangements currently available to families. These types may include any of the following: parent care, self-care, sibling care, relative care (in the relative's home or the child's home), sitter care (in the sitter's home or the child's home), family day care (defined as care provided by a licensed childcare provider in his/her home), daycare center (care facilities that provide supervision for many children), and after-school activities (such as sports, arts, religious programs, Scouts, etc.) This study will describe how many of these types of care arrangements currently are utilized.

Complexity of After-School Care Arrangements. This study also describe the amount of complexity of childcare arrangements. Little if anything is known about how complex childcare arrangements typically are because researchers classify children into one predominate type of after-school care. More information is needed on the actual number of care arrangements parents utilize and how that number changes with time. after-school care research to date also does not answer the following questions: (a) How many different types of after-school care arrangements are children typically exposed to over a period of time? (b) Do parents typically use the same types

of care over a period of years, or do they tend to use a hodgepodge of whatever arrangements are most accessible at the time? (c) Do children who enter self-care (become latchkey children) at younger ages tend to be in self-care when they are older? (d) Do children who enter into very complex after-school care arrangements (more than three different types of care in one year) tend to stay in those complex arrangements, or do parents eventually drop a few combinations in order to make childcare arrangements less complicated? (e) Do certain types of after-school arrangements typically group together to form clusters of care arrangements, or are there no patterns in the types of care used by families? and (f) What is the most frequently used type of after-school care?

Number of Caregivers. A final facet of after-school care which the current research will describe is the number of caregivers a child is exposed to in informal or custodial types (neighbor, relative, or sitter types of care) of care during school-age. This study will describe the number of people who typically care for a child from kindergarten through fifth grade in an attempt to better understand how the number of caregivers relates to the after-school care experience of a child. Outcomes for a child who is cared for by only one or two adults could be very different from the outcomes associated with a child who is cared for by a handful of adults. This study will examine also how the number of caregivers changes with a child's age. Are young children typically cared for by fewer numbers of adults with that number increasing as the child becomes older? Furthermore, the current research will examine whether certain family demographic factors (socioeconomic status, marital status, mother's employment, neighborhood status, and sex of child) influence the number of caregivers parents use with their children.

CHAPTER III

METHODS

Subjects

Subjects in this study consisted of families from three cities (Knoxville and Nashville, Tennessee, and Bloomington, Indiana) who are part an ongoing longitudinal research project called the Child Development Project. This project is funded by the National Institute of Child Health and Human Development. The Child Development Project is a multisite, longitudinal study of children's social adaptation (Bates et al., 1994; Dodge, Bates, & Pettit, 1990). These families were approached by research staff during the preregistration of their children for kindergarten and asked if they would be interested in participating in a longitudinal study. Approximately 75% of the parents who were approached in this manner agreed to participate in the study.

Approximately 100 families were recruited in this was during the first year of this project (1987), and from each geographical site. In 1988, another 100 families were recruited in the same fashion from each site. These groups are known as the Cohort Groups, 1 and 2 groups respectively. Schools at each site were selected to represent the socioeconomic diversity in each of these sites. Schools were predominately white and middle-class and were located in inner-city and suburban areas. The sampling, however, was diverse. Fifty-two percent of the children were male, 81% were White, 17% were African-American, and 2% were other. Children living with single-parent mothers at the time of recruitment made up 26% of the sample. The Hollingshead (1975) four-factor index of social status,

computed from demographic information provided by parents in the initial assessment, indicated a predominantly middle-class sample, with an average family score on the index of 40.4 (SD=14.0). A range of statuses were represented, with 9%, 17%, 25%, 33%, and 16% of the families being classified into the five possible classes (from lowest to highest), according to Hollingshead's recommendations.

Specifically, this sample consisted of 585 families at the initial assessment prior to kindergarten. Follow-up assessments were conducted with the children starting with kindergarten and continuing every subsequent year through grade five. Additionally, follow-up family assessments in the form of parent questionnaires were conducted in the summers after kindergarten through the sixth grade. The rate of attrition was approximately 3.3% per year. The subjects who dropped out did not differ from the ongoing participants in terms of child adjustment or family background characteristics (see Deater-Deckard, Dodge, Bates, & Pettit, in press).

The assessment of after-school care that is the focus of this study was derived from a detailed, in-home interview with 466 mothers (and, on a few occasions, fathers or grandparents) conducted in the summer following the child's completion of the fifth grade. (NOTE: because the so few of the primary caregivers were fathers or other relatives (less than 1%), primary caregivers will be referred to as mothers from this point forward). The families currently active in this longitudinal study are generally representative of the original group with 51% boys, 16% ethnic minorities, 32% from single-parent families, and an average Hollingshead socioeconomic status score of 40.5 (SD = 14.2).

Procedure

A total of six trained interviewers, two at each of the three sites, scheduled and administered the School-Age Child Care Choices Interview. These interviewers scheduled an in-home interview with the primary caregiver of each child in the summer after fifth grade. The purpose of this interview was to collect detailed retrospective information, on the history of each child's participation in different types of after-school care. These data were collected in one approximately 2-hour long, person-to-person interview. The same investigator guided the mother of each subject through each year of after-school care starting with kindergarten and ending with fifth grade. Primary caregivers were asked to use a previously-designed menu, which contained the names and descriptions of 12 different type(s) of after-school care arrangements, to indicate which types of care her child was in during the school year. These types of care were: (a) parental care; (b) older (nonadult) brother or sister care; (c) self-care; (d) relative care (grandparent, aunt, cousin) in the home of the child; (e) relative care in the home of the relative; (f) sitter (any paid adult nonrelative) in the child's home; (g) sitter care in the sitter's home; (h) neighbor care (where the neighbor is not paid); (i) formal daycare center; (j) family daycare (six or fewer children in the caregiver's home); (k) school-based after-school program (located on the school property that is sponsored by the school or another agency); and (l) activity-oriented, adult-supervised care (Scouts, any type of lesson or sports).

The investigator then asked the primary caregiver to indicate the total number of waking hours that the child spent in each arrangement. Computations of hours were provided by the interviewers and restated to mothers to check for accuracy. Only

whole numbers were used, and parts of an hour (30 minutes or more) were rounded up to the whole. Finally, mothers were asked to indicate how many caregivers the child was exposed to while in each arrangement. The number of caregivers could range from one to many, depending on the type of care used. Mothers then were asked to repeat this process for each of the years between kindergarten and fifth grade. Mothers also were asked to provide information on their work status for each of the school years. Mothers indicated whether they were (a) not employed outside the home, (b) worked full-time (defined as 32 or more hours a week) or (c) worked parttime (32 or fewer hours a week) outside of the home. Finally, primary caregivers indicated their marital status on a year-to-year basis.

In the last part of this interview, the Family Relationships Interview, a supplemental set of questions, was administered to each mother to get additional information on each of these areas: family routines, social relations, family decisions, neighborhood safety, parent practices, and discipline.

Reliability of coders was assessed by having a second interviewer present to independently record 10% of all interviews (5% of interviews were coded by each interviewer). Correlations between the primary and reliability raters' score were high (all r 's were greater than .90)

Measures

To assess the amount of time the child spent in each after-school care category, the primary caregiver was administered the After-School Child Care Choices Interview. This interview obtained detailed information on the types of after-school care that were used for each school year, the number of hours a child spent in each type

of arrangement, and the number of caregivers the child had in each after-school care arrangement.

After-school measures are reported for grades kindergarten through fifth. If a mother indicated that her child spent at least one hour per week in any form of after-school care arrangement, that child was classified as being in that particular arrangement. Specific hours spent in each type of after-school care arrangement also were recorded.

Complexity (total number) of the after-school care arrangements used by families was then assessed by totaling the number of different types of after-school care arrangements in which the child was involved. Because all primary caregivers reported that their children spent at least some time in parent care, all subsequent categories include only the number of nonparental types of care arrangements (thus, this number of types is reduced to 11 instead of 12). The complexity score could vary from 0 (only parent care) to 11 (some involvement in each type of after-school care).

Some single categories were collapsed into a larger category, custodial care, to help simplify the presentation of results for the analysis of number of caregivers parents used for their children. The following categories were combined to form a custodial category of child care: neighbor care in neighbor's or child's home, relative care in relative or child's home, and sitter care in the sitter's or child's home.

Mothers also reported the number of caregivers their child was exposed to in each category of after-school care. This number could range from 1 (meaning only one caregiver provided care for the child in addition to the primary caregiver) to many (which indicates that quite a few people provided care for the child during the course of

the year). Taken as a cumulative measure, the caregiver variable represents the total number of persons (excluding the mother) who cared for the child over the period from kindergarten to fifth grade.

Several other factors examined in relation to after-school care arrangements in the present study were: sex of child, ethnicity, socioeconomic status, marital status, mother's employment status, and Neighborhood safety. The following variables are dichotomous variables: (1) sex of child: male or female; (2) ethnicity: black or white; (3) socioeconomic status: those classified as high and medium socioeconomic status versus those with socioeconomic status classification low on the Hollingshead index (as measured in prekindergarten interview); (4) marital status (reported in the original prekindergarten interview by primary caregiver as either married or single; and (5) neighborhood safety (a cumulative number based on six questions of perceived neighborhood safety as reported by mothers in the after-school care interview that followed fifth grade. The internal consistency of these questions was quite high, with Cronbach's Alpha score of .83.

The following variables are yearly items that were measured: the total number of arrangements that primary caregivers reported (ranging from 1 - 11) , the total number of custodial caregivers (relative, neighbor, or sitter) who cared for the child each year, and mother's employment status. Mothers were classified as either those working full time (32 or more hours a week) or part (1-32 hours a week) versus those who were not employed at all. This question was asked of primary caregivers for each year from kindergarten to fifth grade. If a mother indicated that a father was not present in the home, it was assumed she was a single parent.

The goal of the first part of this study was to describe the types

of after-school care arrangements children are in during kindergarten through fifth grade. Next, the study examined the amounts of time children spent in each of the various types of after-school care from kindergarten through fifth grade. Then this study examined how the amounts of time spent in each type of after-school care arrangement changed over time. Finally, the variables of complexity (total number of arrangements used) within each year and across each year (K-5 Complexity), and the number of caregivers the child was with, within and between each year (K-5 Care-givers) were examined as they relate to: (a) sex of child, (b) socioeconomic status, (c) ethnicity, (d) marital status, (e) perceived neighborhood safety, and (f) economic status of mother.

CHAPTER IV

RESULTS

Types of After-School Care Utilized in Kindergarten Through Fifth Grade

A major goal of this study was to describe the variety of different types of after-school care arrangements that are currently available to families with school-aged children. Mothers in this study used a wide variety of different types of after-school care for their children in the years between the beginning of kindergarten and the end of fifth grade. Of the twelve different types of after-school care each was utilized at one point or another by at least one of the parents! These types of care ranged from mother care, self-care, sibling care, relative care (in the home of the relative or child's home), sitter care (in the home of the sitter or child), neighbor care, family daycare, daycare center, extended school-based day care, and adult-supervised activities (such as sports or lessons).

A specific breakdown of the number of hours children spent in each type of care throughout the six-year period of time is presented in Appendix B. Additionally, this study explored how the amount of complexity and the number of caregivers changed with time. Finally, the study examined how six demographic factors (sex of child, mother's employment status, socioeconomic status, ethnicity, marital status, and neighborhood safety) affected the amount of complexity and the number of caregivers each child had in their after-school care arrangements from kindergarten to fifth grade.

General Descriptive Patterns of After-School Care.

Kindergarten Through Fifth Grade

Parent Care Only. All primary caregivers reported that their children spent at least some time in maternal care in the years from kindergarten through fifth grade. The amount of time spent in parent care gradually declined over time from an average of 34.16 (SD = 12.79) hours in kindergarten to 27.63 (SD = 9.20) hours in fifth grade. Specific means and standard deviations for parent care only for kindergarten through fifth grade can be found in Appendix C. The mean number of hours spent in maternal care only (by years) are presented in Figure 1.

The number of families relying on parent care only also decreased with time. In kindergarten, 122 families reported that they used only parent care after school and, by fifth grade, only 45 families were relying solely on parent care as their after-school care choice. The percentage of children who were exclusively in parent care only declined gradually across time from 26.2% in kindergarten, to 20.5% in first grade, to 19.3% in second grade, to 16.1% in third grade, to 12.7% in fourth grade, and to 9.7% in fifth grade. Percentages are presented in Figure 2.

Nonparental care. Conversely, the number of hours that children spent in any other type of after-school care arrangement besides maternal care, increased with time. Specifically, in kindergarten, mothers reported that children spent an average of 8.7 hours per week in nonparental care, but by fifth grade, that number had risen to 10.78 hours a week. Large standard deviations indicate that there was a great deal of variation in all grades. See Appendix D for specific means and standard deviations. The decreasing number

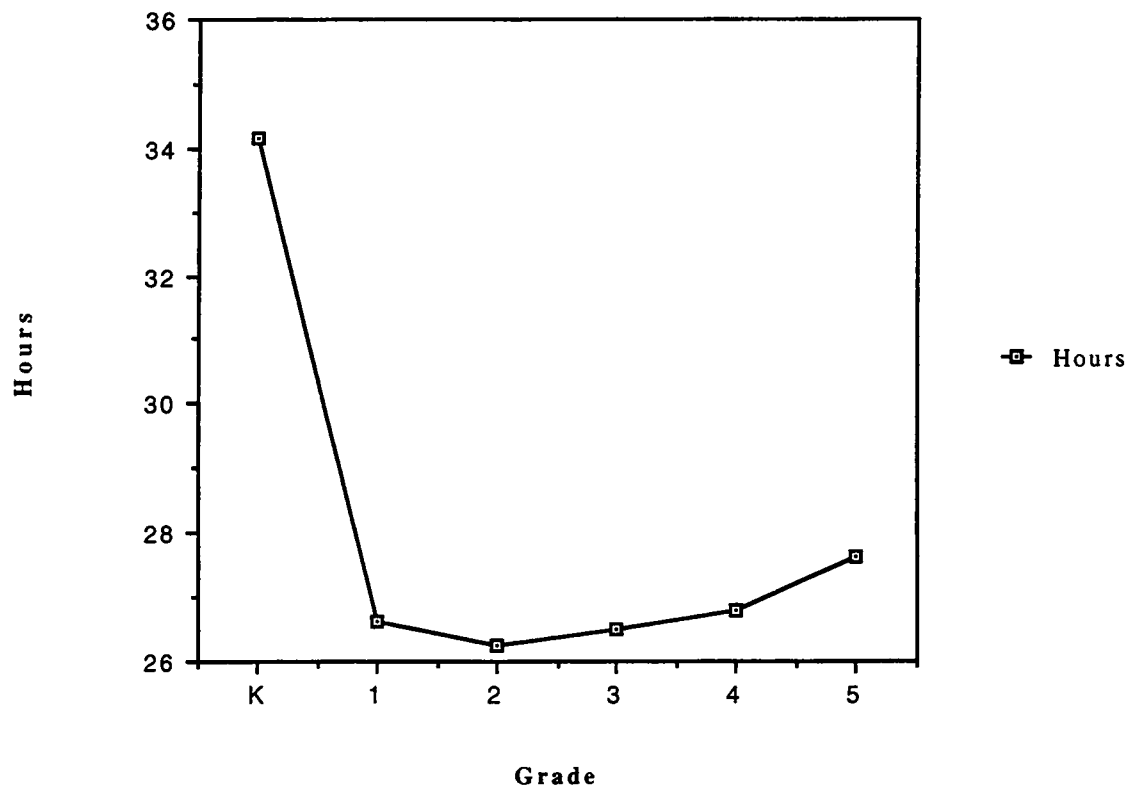


Figure 1. Hours Per Week In Parent Care

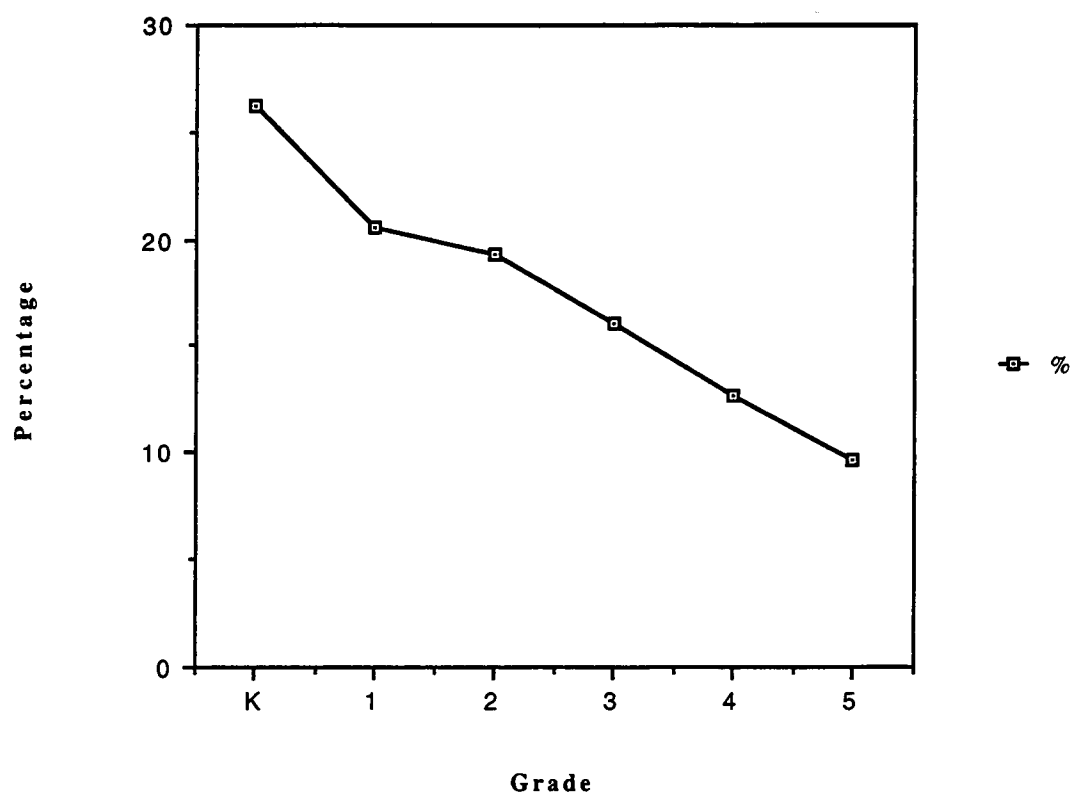


Figure 2. Percentage of Families in Only Parent Care

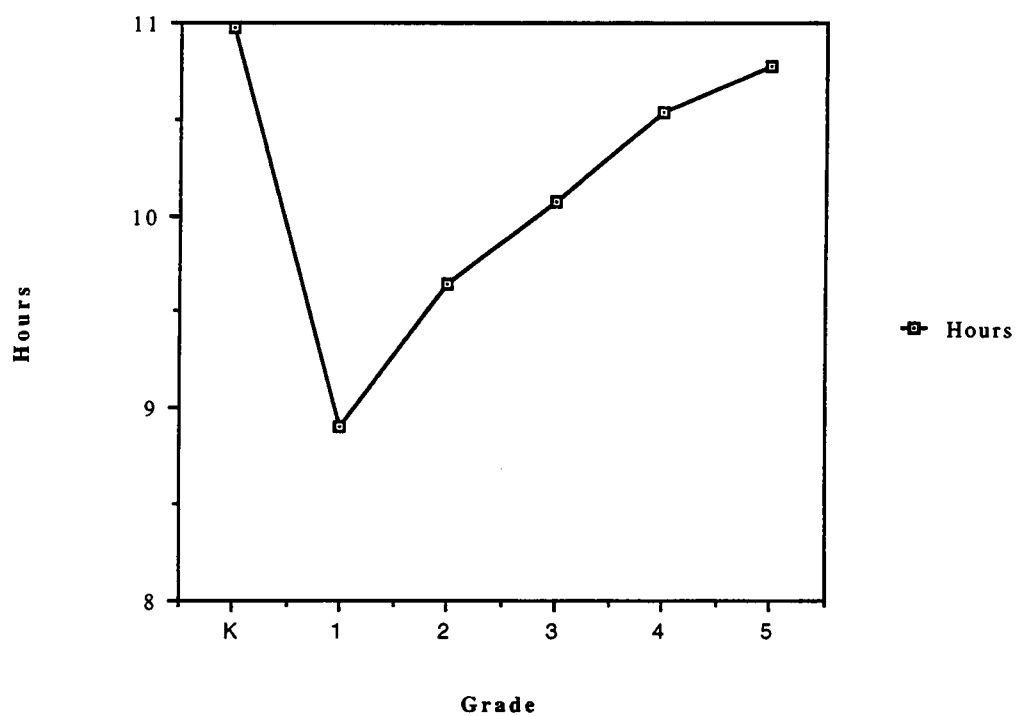


Figure 3. Hours Per Week In Nonparent Care by Year

of hours spent in nonparent care by year are presented in Figure 3.

Hours Spent in Type of After-School Care

Arrangements by Grade

Kindergarten. Mothers reported that, in addition to maternal care, children spent most of their time in either a daycare center, with a relative or sitter, in an adult-supervised activity or in a family day care center. Specific means of hours for kindergarten and all following years can be found in Appendix E.

First grade. In first grade, primary caregivers reported that children spent more time in a daycare center than any other type of care. The next greatest amount of time was spent in an adult supervised activity, a school based program, or with a sitter in the sitter's home, respectively.

Second grade. By the second grade, mothers reported their children spent most of their time in either a daycare center, with a relative, in a school-based program or with a neighbor.

Third grade. In third grade, mothers reported that their children spent most of their time in an adult-supervised activity, a daycare center, with a neighbor, or in a school-based program.

Fourth grade. By the the fourth grade, primary caregivers reported that children spent most of their time in an adult-supervised activity, with a relative, in a daycare center, or with a neighbor.

Fifth grade. Finally, by the fifth grade, children spent most of their time in an adult-supervised activity, in self-care, with a neighbor, or with a sibling. The amount of time spent in sibling care, self-care, neighbor care, and adult-supervised activities increased with time, while the amount of time spent in relative care (in child or relative's home), sitter care (in the sitter's home), family daycare,

daycare center, and school-based daycare decreased.

Change in Number of Families Over Time
in Specific After-School Care Arrangements

The number of families using certain types of care also increased with time. In general, children spent more time in sitter care (in sitter's home), in family daycare, or in a daycare center, during the earlier years (kindergarten, first, and second grade). In the children's latter years, however, these same children spent more time in sibling care, self-care, with a relative, with a sitter in the child's home, with a neighbor, and in adult supervised care arrangements. The specific numbers of families using each type of care and the mean hours of time spent in each type of care, kindergarten versus fifth grade, can be found in Appendix F.

In general, more families used sibling care for more hours by the time their child reached fifth grade than they did when their children were in kindergarten. Ninety-five families used sibling care in fifth grade for 5.55 hours versus 30 families (for 4.73 hours) in kindergarten. For self-care, many more families were using this type of care by fifth grade, for more hours, than they did in kindergarten. For instance, 196 families used self-care in fifth grade versus 6 families in kindergarten. More children spent more hours in the care of a relative in the child's or their relative's home in kindergarten than they did in fifth grade (105 families in kindergarten versus 89 in fifth grade). The number of families using and the amount of time children spent in sitter care in the child's home increased slightly from kindergarten to fifth grade (from 17 families for 5.88 hours in kindergarten to 20 families for 7 hours in fifth grade). The amount of time spent with a sitter in the sitter's home (16.27 hours versus

9.19) and the number of children in the type of arrangement decreased from 41 in kindergarten to 16 in fifth grade. The number of families with children in neighbor care (64 versus 99) and the amount of time (4.56 hours versus 5.37 hours) children spent with those neighbors increased from kindergarten to fifth grade. A few (16) families used family daycare for a large number of hours (20.06 hours) in kindergarten, but by fifth grade, only a couple of families (4) used this type of care and for half as much time (9.50 hours). Quite a few families used daycare centers in kindergarten (97 families) for a lot of hours (18.11 hours), while only one-fourth of the families (or 4) used this type of care by fifth grade. School-based programs were used by a few families (23) in kindergarten for a moderate amount of time (11.91 hours). Twice as many families used this type of care by fifth grade (49 families), but for fewer hours (6.84 hours) than when the children were in kindergarten. Finally, adult-supervised activities were used by many families (153) in kindergarten for a few hours each week (2.47 hours), but by fifth grade, that number had almost doubled (294 families), and the number of hours children spent in that type of care also had almost doubled (4.30 hours). A graph of the number of hours spent in each type of care, kindergarten versus fifth grade--can be found in Figure 4.

As noted in Figure 4., the number of families using sibling care, self-care, neighbor care, school-based programs, and adult-supervised activities increased from kindergarten to fifth grade. The number of families relying on relative care (either in the child's or relative's home), a sitter in the sitter's home, family daycare, and daycare centers decreased from kindergarten to fifth grade.

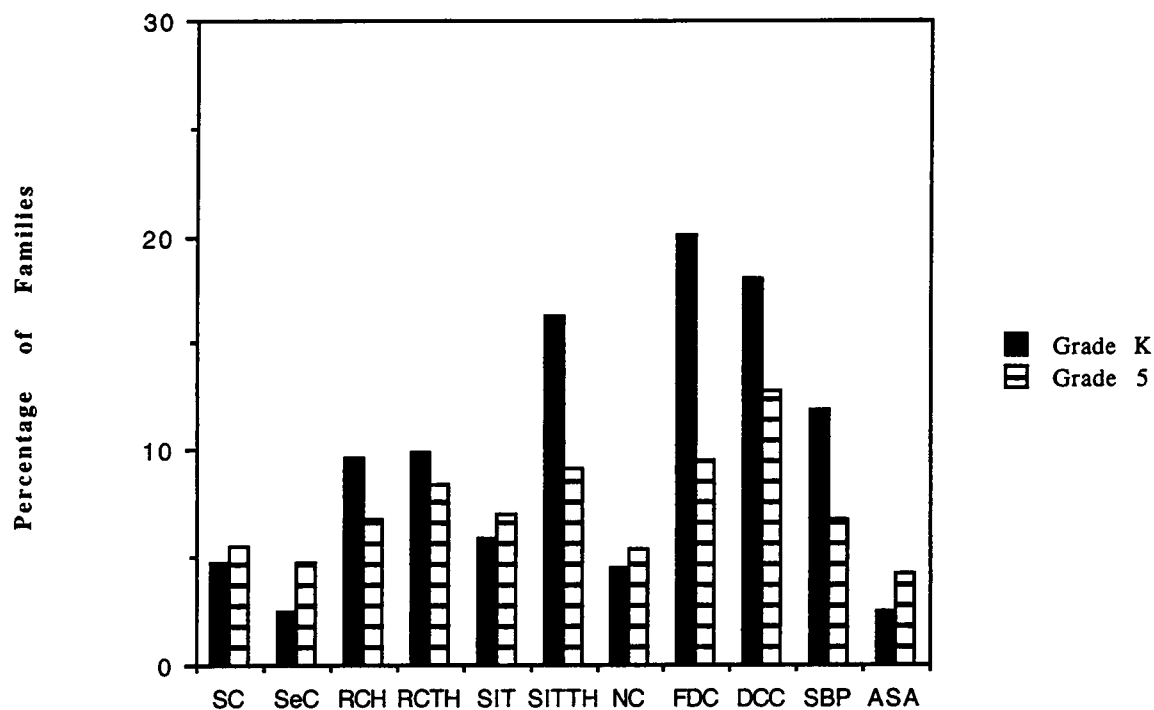


Figure 4. Hours in Each Type of Care, K Versus 5

SC = Sibling Care

SeC = Self Care

RCH = Relative in Child's Home

RCTH = Relative in Relative's Home

SIT = Sitter in Child's Home

SITTH = Sitter in Sitter's Home

NC = Neighbor Care

FDC = Family Day Care Center

DCC = Day Care Center

SBP = School Based Program

ASA = Adult Supervised Activity

(NOTE: the abbreviations used in this figure differ slightly from the abbreviations used in the body of this document.)

Amount of Complexity (Number of After School Care
Arrangements) in Each Year

The number of after-school care arrangements used by families differs in kindergarten through fifth grade. The mean number of after-school care arrangements in kindergarten was 1.19 arrangements, or about one after-school arrangement for that year. By the time the children had reached fifth grade, the mean number of arrangements was 1.90, or an average of two types of arrangements for that year. These results indicate that the overall amount of complexity increases across grades. For specific means and standard deviations, please see Appendix G. Shown in Figure 5 is the increase in complexity from kindergarten through fifth grade.

Amount of Complexity Across All Years - K-5 Complexity

Most families in this study reported using about three different types of after-school care arrangements across all years of care, ($M = 3.09$, $SD = 1.61$). Two-thirds (61.8%) of families interviewed indicated that they used between two and four different types of after-school care arrangements between kindergarten and fifth grade. One conclusion is that families typically use a couple of different types of after-school care over the years, not just one, as previous research has indicated.

Very few families indicated that they used only one or two different types of after-school care. In this study, 3.4% of families reported that they used only mother care in all six years, another 14.8% reported that they used only one type of care in all six years, 20.2% reported that they used only two types of care, another 21.2% of families reported using three types of care across all years, as



Figure 5. Complexity of Care Arrangements by Year

many as 20.2% of families stated that they used four different arrangements across all years, 12.4% of the families used five arrangements, 6.9% used six different types of arrangements, and only .5% and .2% of families indicated that they used as many as seven or eight, respectively, different types of care across all six years. Shown in Figure 6. is the percentage of families in 0 (only mother care) through 9 types of after-school care from kindergarten through fifth grade.

Number of Informal Caregivers in Each Year

In order to simplify the presentation of results for the number of caregivers each child was exposed to, one metacategory, named "informal caregivers" was formed. This group was created by combining the following after-school care categories: relative in the child's home; relative in the relative's home; sitter in the child's home and sitter in the sitter's home; and neighbor care. This combined category was created to capture the number of people a child was exposed to on an informal basis or custodial-type basis, where the people are not trained to provide organized after-school care services. Mothers reported that they typically used very few informal caregivers in the first few years of their child's schooling. Almost 30% of mothers reported that they used one or two informal caregivers in kindergarten; another 8.6% of primary caregivers reported that they used between three and four informal caregivers in kindergarten. By the fifth grade, only 27.6% of families used one or two informal caregivers, and 4.7% of families reported that they used between three and five different caregivers. Please see Table 1 for the specific percentages of families using one or more informal caregivers from kindergarten through fifth grade.

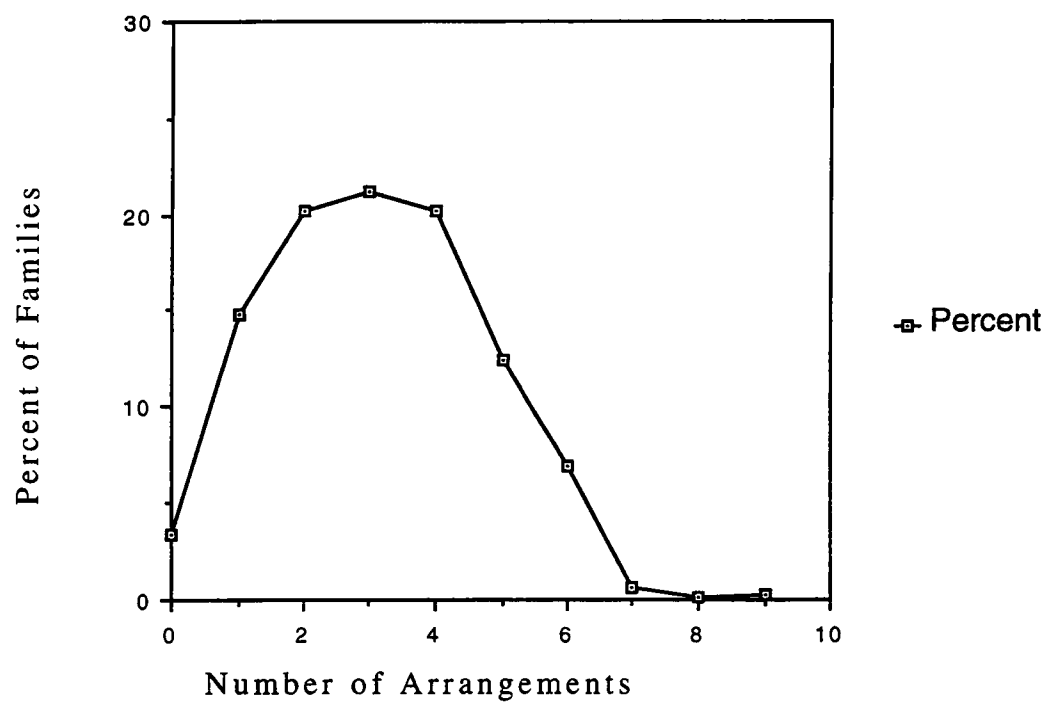


Figure 6. K-5-Complexity of After-School Care Arrangements

Table 1
Percentages of Informal caregivers by Years

Years	Number of caregivers	Percentage of Families
Kindergarten	1	21.9
	2	7.4
	3	0.7
	4	0.5
First	1	15.0
	2	12.3
	3	3.1
	4	1.3
	5	0.2
Second	1	17.4
	2	10.9
	3	3.5
	4	1.8
	5	0.3

Table 1. Continued

Years	Number of caregivers	Percentage of Families
Third	1	16.6
	2	12.3
	3	3.1
	4	1.5
	5	0.3
Fourth	1	18.1
	2	11.7
	3	3.3
	4	1.2
	5	0.2
Fifth	1	16.4
	2	11.2
	3	2.8
	4	2.1
	5	0.3

Number of Informal Caregivers, Across All Years - K-5 Caregivers

One finding is that the number of caregivers that a child was exposed to increased with time. Most families in this study reported that, in addition to their primary care giver, their child was exposed to two custodial caregivers, ($M = 2.20$, $SD = 2.53$) from kindergarten through fifth grade. However, a few families (11.3%) reported that as many as 6 to 11 people cared for their child in the years between kindergarten and fifth grade. For specific percentages, please see Appendix H.

Complexity of After-School Care Arrangements by Sex of Child

Complexity was examined as a function of sex of child. In general, females tended to use slightly more arrangements than males did, but this was not a significant difference. A 2-tail t -test was used to compare the two groups. It revealed that there were no significant differences between the number of arrangements used in kindergarten through fifth grades for males versus females.

Caregivers by Sex of Child

The results indicated that there were no significant differences between males and females in terms of the total number of custodial caregivers from kindergarten through fifth grade.

Complexity of After-School Care by Mother's Employment Status

Next, complexity was examined in terms of maternal employment status (those mothers working full or part time versus those mothers not working at all). It is clear that there was a significant difference between the complexity of arrangements for

those children who had mothers who were employed full or part time versus those children whose mothers were not employed at all. A 2-tailed test of means revealed that those children with employed mothers had significantly more after-school care arrangements from kindergarten through fifth grade. For specific values, by year, please see Appendix I.

Caregivers by Mother's Employment Status

The number of caregivers were examined in relation to mother's employment status. A Chi-square revealed that in third grade, children whose mothers were employed did have significantly more informal caregivers than those children whose mothers were not employed, Pearson = 10.02, $df = 3$, $p = .01$. Please see Appendix J for specific results. On the whole, however, mother's employment status was not related to the number of informal caregivers a child was exposed to over time. Please see Appendix J for mother's employment status results by year.

Complexity of After-School Care by Socioeconomic Status

Next, complexity was examined in terms of socioeconomic status (rated as high or medium versus low as reported by mothers in the prekindergarten interview). A 2-tailed test of means revealed that there were no differences between high and medium versus low socioeconomic status families in terms of the number of arrangements their children were in from kindergarten through fifth grade.

Caregivers by Socioeconomic Status

The number of caregivers was significantly related to socioeconomic status. The results indicated that lower socioeconomic

status families used significantly more custodial caregivers than did high or medium socioeconomic status families. For specific values, please see Appendix K.

Complexity of After-School Care Arrangements by Ethnicity

Ethnicity was not a significant factor in terms of complexity. There were no significant differences between blacks and whites on the number of after-school care arrangements used from kindergarten through fifth grade.

Caregivers by Ethnicity

The total number of caregivers a child was exposed to from kindergarten through fifth grade however, was, related to ethnicity. A 2-tail test of equal means revealed that blacks, when compared to whites, had significantly more caregivers ($t = -2.23$, $p = .026$). Please refer to Appendix L for specific values.

After-School Care Complexity and Informal Caregivers by Neighborhood Safety

Perceived neighborhood safety (as measured by questions administered to mothers in after-school care interview) was not a factor for either complexity across years or the number of custodial caregivers.

Complexity and Informal Caregivers by Marital Status

Next, complexity was examined in terms of marital status. A MANOVA was used to analyze the data as there were multiple independent variables (a yearly number of types of after-school care and yearly number of caregivers) and only one independent variable

(marital status). The MANOVA test revealed that there were no significant differences between those families who were single-parent families versus those who were in-tact for the amount of complexity reported in each of the years between kindergarten and fifth grade. A t-test revealed that there were no significant differences in the number of informal caregivers and marital status as well.

Socioeconomic Status Effects

When socioeconomic status was controlled for in an ANOVA test, the significantly greater number of custodial caregivers used by black families versus white families, disappears. Perhaps the results are not substantiated because a disproportionately high number of black families in this study were low-income.

CHAPTER V

REVIEW OF FINDINGS, DISCUSSION, AND RECOMMENDATIONS

This study's primary purpose was to describe in-depth the variety of types of after-school care arrangements families typically use for their children when in elementary school (from kindergarten to fifth grade). Previous research typically has examined only a few categories of after-school care, such as parent care, adult care, self-care, and or daycare (Long & Long, 1983; Rodman, Pratto, & Nelson, 1985; Steinberg, 1986; Vandell & Corasaniti, 1988; Vandell & Corasaniti, 1990; Vandell & Ramanan, 1991). This study has described the wide variety of different types of after-school care arrangements that families really rely upon. These types of after-school care included care provided by mother, siblings, the child him/herself, relatives, sitters, neighbors, family daycare providers, day-care centers, and other adults such as coaches, tutors, religious persons, teachers, and Scout leaders. A much more diverse variety of after-school care arrangements was reported in this study than has been previously presented by after-school care research. In order to understand a child's after-school care experiences, this research broadened the number of after-school care arrangements that were examined and resisted the tendency to collapse several types of care into a few, larger categories.

A second purpose was to determine how these different types of after-school care arrangements change with time. In general, all families in this study indicated that they used parent care during the years between kindergarten and fifth grade. However, the amount of

time children spent in the care of their mothers decreased over time. Additionally, the number of families using parent care decreased from 122 in kindergarten to only 45 in fifth grade. Families reported that they rely quite heavily on mothers to provide a great deal of their child's after-school care in the early years. Then, as their children get older, families rely more on other adults to provide the majority of after-school care. The usual pattern here seems to be that most children spend most of their time after school with their mothers in the early years, then with other adults as they get older.

The types of after-school care arrangements that parents reported using also changes with time. The three most commonly used after-school care types varied a great deal from kindergarten to fifth grade. During kindergarten, most parents typically used a combination of daycare centers, relatives, or sitters to care for their children. In first grade, parents relied heavily on daycare centers, but also used adult-supervised activities and school-based programs. Parents still used daycare centers and school-based programs in second grade, and added neighbors to the list of people caring for their children. In third grade, most families used adult-supervised activities as the primary way to care for their child, but quite a few still relied on daycare centers and neighbors. Adult-supervised activities remained the most frequently used type of after-school care arrangement for the next two years. In addition to that type of care, families also used relatives, and a few used daycare centers in fourth grade. By the fifth grade, a many families also relied on the child to provide for her/his own after-school care needs, and neighbors and siblings rounded out the list of people providing some after-school care for the children in the fifth grade. In summary, the number of families and the hours they used daycare centers and adult-

supervised activities to provide after-school care did not change much from kindergarten through fifth grade. However, families also used a variety of other types of after-school care arrangements (relatives, sitters, neighbors, siblings) to provide supervision of their children during the after-school hours from kindergarten through fifth grade.

Another finding in this study was that the number of hours a child spent in the various types of after-school care changed with time. Specifically, there was an increase in the amount of time that children spent in sibling care, self-care, sitter care in child's home neighbor care, and adult-supervised activities from kindergarten to fifth grade.

Conversely, the amount of time children spent in relative care, sitter care in sitter's home, family daycare centers, and daycare centers decreased with time. Over time, there was a trend toward relying more heavily on informal types of after-school care arrangements. As the child aged, parents used less and less formal after-school care (such as daycare centers, family daycare, or school-based programs), and allow the child to be cared for by him/herself, a sibling, a neighbor, or some other adult in an adult-supervised activity (e.g., sports, lessons, Scouts). One can conclude from these data, then, that as children age and mature, parents are more willing to seek alternatives to the traditional daycare type of after-school care. Families in this study used many different and adaptive ways to care for their maturing child's after-school care needs than had been previously reported in the after-school care literature.

The next area this study addressed was the amount of yearly complexity (or total number of after-school care arrangements used), and K-5 complexity, which is the sum of all arrangements over all six years. The amount of complexity increased with time. The mean

number of arrangements was 1.2 in kindergarten and had risen to 1.9 by fifth grade. Families used slightly fewer arrangements when their children were younger, and the number increased as children aged. It seems logical that, when children are younger, families would try to keep the number of after-school care arrangements low and not have the child move from one after-school care arrangement to another. As children mature and are developmentally ready to spend more time away from their parents, and as they need more stimulation and variety during the after-school hours, the parents in this study apparently choose to increase the number of activities in which their children participated.

In this study, most families reported using three different types of after-school care arrangements across the six-year period (K-5 complexity). Two thirds of the families reported that, in addition to mother care, their child was in between two and four other after-school care arrangements from kindergarten to fifth grade. There was, however, quite a large range in the amount of K-5 complexity (only one arrangement in addition to mother care, up to as many as 8 arrangements in addition to mother care). An additional 20% of the families reported that their child was in five or more after-school care arrangements. This indicates that some families tried a new care arrangement almost every year. Future research needs to study adjustment/behavioral outcomes for children who have very stable patterns of after-school care arrangements over the course of time versus those children who are in a different arrangement every year, with little stability across time.

Another area this study addressed was the number of informal caregivers a child was exposed to each year and across all years (K-5 caregivers). One conclusion from that data is that informal

caregivers were not used very frequently by most families in the early years. Only 29.3% of families in this study reported using one or two informal caregivers at all in the first year of after-school care. By the fifth grade, only 27.6% of families used only one or two informal caregivers. However, a small portion of the families (11.3%) used as many as 6 to 11 informal caregivers for the period of time between kindergarten and fifth grade. While most families used only a few informal caregivers over the six-year period, some families had to rely on many people to provide care for their children for the same time frame. Again, future research needs to address how children are affected by the high amount of turnover that accompanies being with multiple caregivers over a relatively short period of time versus those children who have relatively stable patterns of care and fewer numbers of caregivers.

Finally, this study examined how after-school care choices were affected by certain demographic factors, specifically sex of child, mother's employment status, family socioeconomic status, ethnicity, neighborhood safety, and marital status. Each area will be discussed in the following section.

Sex of Child. There were no significant differences between males and females in terms of the amount of complexity or the number of informal caregivers. Males tended to have slightly more complexity in their after-school care arrangements but not a significant amount. Previous research has stated that boys and girls tend to be in different types of after-school care arrangements but has not dealt with whether or not there are different levels of complexity in after-school care for males versus females.

Mother's Employment. Children who had mothers who were employed tended to experience more complex arrangements over time

than did those children whose mothers were not employed. These results seem logical. Mothers who work and are thus not able to provide direct after-school supervision need to use more arrangements to care for their children after school than mothers who are at home to provide that supervision. Mothers who work also are faced with the necessity of making alternative arrangements to their usual care arrangement when the need arises, so this would also increase the number of arrangements their children would experience.

The number of caregivers a child was exposed to was only related to mother's employment status when the child was in second grade. Moms who were employed while their child was in second grade used higher numbers of informal caregivers than did nonworking mothers. This result indicates that, as the amount of complexity was increasing, so too was the number of people caring for the employed mothers' children.

Socioeconomic Status. It is clear from the data that there was no difference in the amount of complexity of after-school care arrangements between high- and medium- versus low-income families. This result is somewhat surprising because previous research has found differences in the types of after-school care that lower-income families use, such as higher rates of self-care and other-adult care. Based on these prior findings, a difference in the amount of complexity in lower-income families was expected. This, however, was not the case. What we see in the data is that low-income and middle- or upper- families have the same amount of complexity in their after-school care arrangements.

It is clear from the data, however, that there were significantly higher numbers of informal caregivers for low-socioeconomic status families. This could mean that families who did not have the

economic means to pay for more traditional forms of after-school care relied more heavily upon nonpaid, friends and neighbors to be caregivers.

Ethnicity. It is clear that there were no differences between black and white families in terms of the complexity of their care arrangements. There was, however, a significant difference between black and white families on the number of informal caregivers to which their children were exposed. In this study, the black families used slightly higher numbers of informal caregivers than did white families.

Neighborhood Safety. There were no significant differences between those families who perceived their neighborhoods to be safe versus those who believed their neighborhoods were unsafe regarding either the amount of complexity of after-school care arrangements or the number of caregivers. These results were somewhat surprising because earlier research indicated that neighborhood safety does play a role in terms of what types of after-school care arrangements parents choose to make and when parents begin to allow their children to be in self-care. Thus, one might have expected that there might be a difference in the complexity of arrangements or the number of caregivers in areas that were not perceived to be safe. One conclusion from the data is that those parents from poor or unsafe neighborhoods did have more variety in their after-school care arrangements because they had fewer after-school options available to them due to a lack of financial resources. This factor may explain why families from poorer neighborhoods did not have more complexity in their after-school care arrangements. Or perhaps, the six questions used to after-school ascertain the primary caregiver's perception of neighborhood safety, failed to do that successfully.

Marital Status. Finally, the relationship between complexity and caregivers was examined in terms of parental marital status. No significant differences were found to exist between those families who were two-parent versus those who were single-parent. This is somewhat of a surprising result because research on families indicates that divorcing couples face many transitions and disruptions. It might be expected, then, that those families who were single-parent would use more different types of after-school care or more caregivers and, thus, have a higher K-5 complexity or K-5 caregiver score than intact families. This was not the case with these data.

Finally, when socioeconomic status was controlled for, the significant differences between black and white on the number of informal caregivers disappears. The previous conclusion need to be modified because socioeconomic status was a factor that explained some of the differences between black and white families in the this study. This result also indicates that a disproportionate number of the black families in this study were low-income.

Recommendations for Future Research

Future research needs to expand the investigation of the wide variety of after-school care options available to parents with school-age children. The current study demonstrates that researchers can no longer conceptualize after-school care providers only in terms of "mothers" versus "other adults" versus "self or sibling" care. Additionally, future research needs to continue to examine large numbers of children in order to accurately determine how children's after-school care needs change with time and development. This study has addressed the issue of how after-school care arrangements change over the time period between kindergarten and fifth grade,

but little is known about how after-school care changes when children make the transition into late middle school and high school. Finally, additional research needs to be done to understand exactly how complex versus stable child care arrangements, and how many versus a few caregivers effect a child's overall academic, social, and emotional functioning. This larger picture was beyond the scope of the current research project, but future efforts can tackle this issue.

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APPENDICES

APPENDIX A

Child Care Choices

TC Name: _____
 Int. Date: _____
 Interviewer: _____
 Respondent: _____

TCID: _____
 Year: 88-89 89-90 90-91 91-92 92-93 93-94
 Grade: K(-1) T-1(0) 1 2 3 4 5 6 7
 Relation: 0=Mother 1=Father 2=Other

School Year (time not in school)
 (Hrs/Wk) Waking: _____ Parent: _____ Non-parent: _____
 # Arrangements: _____ # Types: _____ Inconsistency: H(1) M(2) L(3)
 Mother worked: FT(1) PT(2) N(3) NA _____ Father worked: FT(1) PT(2) N(3) NA _____

	Hrs/Wk	Arrang	Instab	Notes
1. Parent care				
2. Sibling care				
3. Self care				
4. Relative in your (TC) home				
5. Relative in their home				
6. Sitter in your (TC) home				
7. Sitter in their home				
8. Neighbor				
9. Family day care				
10. Day care center				
11. School based program				
12. Adult-supervised activity				

Parent rating: 1(well/same) 2 3(OK/not sure) 4 5(problems/change)
 Interviewer rating: 1(O) 2 3(A) 4 5(P)

Summer
 Waking: _____ # Arrangements: _____ Inconsistency: H(1) M(2) L(3)
 Mother Worked: FT(1) PT(2) N(3) NA _____ Father Worked: FT(1) PT(2) N(3) NA
 Hrs/Wk: _____ 1. Parent care _____
 _____ 2. Sib and Self care _____
 _____ 3. Relative, sitter, or neighbor care _____
 _____ 4. Adult-supervised activity _____
 Interviewer rating: 1(O) 2 3(A) 4 5(P) _____

Date: _____

We would like to ask how you felt about your child's care arrangements during this last year.
We'd like to know how satisfied you were with those arrangements.
Please use the following scale to rate how satisfied you were with each arrangement used:

0 (Does not apply) (Very Dissatisfied) (Dissatisfied) (Neither Satisfied nor Dissatisfied) (Satisfied) (Very Satisfied) 5

Did you use (circle)	1	2	3	4	5	6	7	8	9	10	11	12
How satisfied were you with:	Parent in other home	Sib	Self	Relative in your home	Relative in their home	Sitter in your home	Sitter in their home	Neigh- bor	Day care	School-based program	Adult super	
Their dependability												
Educational stimulation												
Friends or playmates												
Their attention towards your child												
Their values												
Health and safety												
Their treatment of your child												
Your communication with them												
Your child's happiness with the arrangement												
Convenience												
Cost												
Location												
Overall satisfaction												

Were you concerned about any arrangement? Yes(0) No(1) Type of care (use number from above):
Type of concern: Safety(1) Peer social(2) Adult social(3) Other(4) Change arrangement? Yes(0) No(1)

TCID: _____

Date: _____

Completed by: _____

Relation to Child: _____

FAMILY RELATIONSHIPS INTERVIEW

The first set of questions (section A) is only for those parents who reported in the retrospective child care interview that their child spent any time during a school year or summer taking care of him/herself. It should be noted that these questions primarily are intended for families who have relied on self care as a form of after-school care (i.e., in which no adult is present for all or part of the day). Some of the questions below may seem less relevant for those families in which an adult is home but the child nonetheless is in periods of self care. All questions should be asked, however.

If no self care occurred, go to section B.

A. Family Routines

The child was on his/her "own" in the home:

- ___ 1. without an adult present.
- ___ 2. even though an adult was sometimes present.
- ___ 3. even though an adult was usually present.

1. One of the challenging decisions that a parent must make is when to allow the child to take care of him/herself after school or during the summer. Below is a list of things that some parents have identified as reasons for selecting self-care as an option for their families. Which (if any) of these statements influenced your decision about self-care? (please check all that apply)

- ___ a. child showed an awareness of relevant safety issues
- ___ b. child followed rules without need for close supervision
- ___ c. my job required that I leave for work earlier than my child left for school.
- ___ d. my job schedule made it impossible for me to be home when my child returned from school.
- ___ e. there were no good child care services available.
- ___ f. there was no money in my budget to pay for child care services.
- ___ g. I had no family or friends who could take care of my child for me.
- ___ h. my child insisted on caring for himself/herself.
- ___ i. my child would only have to stay alone for a little while because the time difference between when my child was home alone and when I returned was not great enough to seek child care.
- ___ j. none of the above statements influenced my choice for self-care.
- ___ k. other, specify: _____

2. We also are interested in how you worked out these arrangements with your child. Please rate the likelihood of each of the following items for when your child is home by him/herself (or with a younger sibling):

For questions a and b, use the following scale:

- 0 = never
- 1 = only if there is a problem or specific issue
- 2 = at least once every 4-8 hours
- 3 = every few hours
- 4 = every hour
- 5 = more than once an hour

___ a. I call to check up on him/her.

___ b. I require my child to call me.

For questions c - f, use the following scale:

- 1 = < 5% of the time (almost never)
- 2 = about 25% of the time (occasionally)
- 3 = about 50% of the time (about half the time)
- 4 = about 75% of the time (most of the time)
- 5 = > 95% of the time (almost all the time)

___ d. My child knows when and where to reach me.

___ e. I notify my neighbor or other relatives or adults close by who my child may call on in case of an emergency.

___ f. My child has a schedule or daily plan to follow which we will discuss together.

====> The following sections should be completed for all families.

B. Social Relations

1. We're talking to many families to find out what they think about parent issues, and how they are raising their children. We expect there will be many answers, as we know there are many ways to raise kids today. This part of the interview deals with how parents feel about what their children do and how family members keep track of one another. Please rate each of the following items using this scale:

- 1 = < 5% of the time (almost never)
- 2 = about 25% of the time (occasionally)
- 3 = about 50% of the time (about half the time)
- 4 = about 75% of the time (most of the time)
- 5 = > 95% of the time (almost all the time)

___ a. When your child is not at home, do you know where he/she is?

- ___ b. When your child is not at home, do you know who he/she is with?
- ___ c. When your child is not at home, do you know when he/she will return home?
- ___ d. Do you know the first and last names of the friends he/she is with?

C. Family Decisions

In most families parents make the decisions about some things, but children make their own decisions about other things. On other things parents and children may discuss the issue and come to some agreement. We would like to know who makes decisions about things in families. About each topic, please tell us who makes the decision.

- 1 = Parents decide
- 2 = Parents discuss with child but have final say
- 3 = Joint decision
- 4 = Child decides

- ___ a. How late my child can stay up
- ___ b. Who my child can play with
- ___ c. How late my child goes out after school
- ___ d. Where my child goes after school
- ___ e. Where the family goes on vacation
- ___ f. What cereal to buy at the store
- ___ g. What my child eats for supper
- ___ h. How my child spends his or her money and allowance
- ___ i. What my child watches on TV
- ___ j. Which movies my child can see
- ___ k. What my child can eat for a snack
- ___ l. What restaurant we eat at
- ___ m. What my child can eat when we go out
- ___ n. Where my child can ride his/her bike
- ___ o. How my child wears his/her hair
- ___ p. What clothes my child can buy

D. Neighborhood Safety

1. We would like to know about where you live and how safe you think it is.

- 1 = Very Safe
- 2 = Safe
- 3 = Fairly Safe
- 4 = Not Too Safe
- 5 = Unsafe
- 6 = Very Unsafe

- ___ a. How safe is your neighborhood?
- ___ b. How safe do you feel coming home alone?
- ___ c. How safe do you think it is for your child to play outside when you aren't at home?
- ___ d. How safe do you feel your child is playing outside when you ARE at home?
- ___ e. How safe do you feel while you are in your house alone?
- ___ f. How safe do you feel walking in your neighborhood alone?

E. Parent Practices

This section mainly deals with parents and children and schoolwork and what family members do together.

___ 1. In general, how many nights a week does _____ do any homework ?

___ 2. How often does he/she finish his/her homework?

- 0 = NA - never has any homework
- 1 = Never
- 2 = Occasionally
- 3 = About half the time
- 4 = Often
- 5 = Always or almost always
- 6 = Don't know

___ 3. How seriously does he/she take his/her homework?

- 0 = NA - never has any homework
- 1 = Not at all seriously
- 2 = Not very seriously
- 3 = 50/50
- 4 = Seriously
- 5 = Very seriously
- 6 = Don't know

- ____ 4. We are interested in what kind of involvement parents have with their child's homework. Which of these statements best describes your involvement with _____'s homework?

- 0 = NA - he/she has no homework to be involved in
- 1 = I'm not involved, that's between him/her and the teacher
- 2 = I encourage and support him/her doing homework, but how and when he/she gets it done is up to him/her
- 3 = I sometimes check how much homework he/she has, but not every day
- 4 = I check daily about what homework he/she has and make sure there is time for him/her to do it

- ____ 5. How difficult is it for you to know where your child is and what he/she is doing?

- 1 = Not at all difficult
- 2 = A little difficult
- 3 = Somewhat difficult
- 4 = Quite difficult
- 5 = Extremely difficult

For Questions 6-9 use the following scale:

- 1 = Never
- 2 = Hardly ever
- 3 = Sometimes
- 4 = Often
- 5 = Always or almost always

- ____ 6. How often do you think _____ goes to places that you ask him/her not to go?
- ____ 7. When _____ is at a friend's house, how often do you think that a parent or another adult is there?
- ____ 8. How often would you know if _____ played with children who get in trouble?
- ____ 9. If your child is at home without an adult, how often does your child call you, leave a note, or communicate with you if he/she is going out?

For Questions 10 and 11, use the following scale:

- 1 Never
- 2 Hardly ever
- 3 Some days
- 4 Most days
- 5 Every day

- ____ 10. How often do you talk with your child about what they do at school?
- ____ 11. How often do you talk with your child about what they do with their friends when they are away from home?

F. Discipline

This next section is about how parents deal with their child when he or she misbehaves. Parents often have a general strategy for dealing with their children when they misbehave. There are many different approaches to disciplining children and parents differ in their strategies according to their beliefs. In the is part of the interview, I'll be asking you about how you deal with _____ when he/she misbehaves.

1. Below is a list of things that parents have told us they do when their child misbehaves. I'd like you to rate each of these discipline actions in terms of how often you currently use them with your child.

Use the following scale:

- 1 = I never use this method
- 2 = I use this rarely
- 3 = I use this sometimes
- 4 = I use this frequently

- ___ a. Try to ignore
- ___ b. Question why he/she is doing the behavior
- ___ c. Raise your voice, scold
- ___ d. Wash mouth out
- ___ e. Let natural consequences happen
- ___ f. Discuss the problem
- ___ g. Yell
- ___ h. Get the child to correct or make up for the problem he/she caused
- ___ i. Do nothing
- ___ j. Slap or hit with hand (anywhere except bottom)
- ___ k. Give one warning only
- ___ l. Repeat warnings
- ___ m. Ground
- ___ n. Restrict privileges
- ___ o. Spank (on bottom)
- ___ p. Distract child, redirect his/her behavior
- ___ q. Tell child to stop
- ___ r. Use a belt/paddle
- ___ s. Give a bad mark on a point chart
- ___ t. Give a fine
- ___ u. Time-out, send to room
- ___ v. Other, specify _____

2. Now I'm going to ask you what you would do if your child misbehaves in a certain way. For each question, tell me which one (or two) things from the above list you would be most likely to do.

What would you do if

- ___ a. your child argued or talked back to you?
- ___ b. your child hit or threatened another child?
- ___ c. your child has an argument with another child?
- ___ d. your child lied about breaking a household object?
- ___ e. your child took small change left out by an adult?
- ___ f. your child took something from a store that he/she didn't pay for.

TCID _____

Page 1

Mother Father Other (Please circle)

Child's Name _____

Changes and Adjustments Questionnaire

In this questionnaire, we would like you to bring us up to date on what's been going on with your family since last year. Please think about what has happened in the past year before answering the questions. As before, the information you give us is strictly confidential. When we say "your child," we mean the child who is part of our project.

A. PARENT'S WORK INFORMATION

1. Mother's work:

During the past year, on the average, about how much per week did the mother in this family work or go to school? Please circle the answer that comes closest.

0 hours	part-time 1-19 hrs.	part-time 20-34 hrs.	full-time 35-40 hrs.	more than 40 hrs.	no mother in the home
1	2	3	4	5	8

2. Father's work:

During the past year, on the average, about how much time per week did the father or other male partner in this family work or go to school? Please circle the answer that comes closest.

0 hours	part-time 1-19 hrs.	part-time 20-34 hrs.	full-time 35-40 hrs.	more than 40 hrs.	no mother in the home
1	2	3	4	5	8

B. FAMILY CHANGES AND ADJUSTMENTS

1. What kind of changes and adjustments has your family had in the past year? Please circle yes (1) or no (0) for each item.

	<u>No</u>	<u>Yes</u>
a. moved	0	1
b. major repairs/remodeling to home	0	1
c. severe and/or frequent illness for child	0	1
d. accidents and/or injures for child	0	1
e. other medical problems for child	0	1
f. medical problems for close family members	0	1
g. death of close family member	0	1
h. death of other important person	0	1
i. divorce and/or separation for you or your husband/wife	0	1
j. parent and child were separated (due to illness, divorce, work, etc.)	0	1
k. money problems	0	1

TCID _____

Page 2

		<u>No</u>	<u>Yes</u>		
l.	legal problems	0	1		
m.	problems and conflicts with relatives	0	1		
n.	birth of a baby	0	1		
o.	problems at school for child	0	1		
p.	problems at work for parents	0	1		
q.	loss of a job	0	1		
r.	remarriage or marital reconciliation	0	1		
2.	How hard were these changes and adjustments for your child?				
	no changes, or changes helped	not hard at all	a little hard	hard	very hard
	1	2	3	4	5
3.	How hard were these changes and adjustments for you and the rest of the family?				
	no changes, or changes helped	not hard at all	a little hard	hard	very hard
	1	2	3	4	5

C. BEHAVIOR CHANGE EFFORTS

1. Parents usually deal with children's behavior by methods such as denying privileges, spanking, discussing an incident with the child, etc. However, sometimes parents get so concerned about their children's behavior that they start a real campaign — an extended effort — to change the child. Have you been that concerned in the past year or two?

0 no (if no, you have completed this questionnaire. Thank you.)

1 yes

2. If yes, what behaviors or attitudes did you try to change in your child?
(Please check those that apply).

- a. _____ aggressiveness, fighting with kids
 b. _____ rule following, lack of respect
 c. _____ lack of friends, overly shy
 d. _____ fearfulness, worrying
 e. _____ school work
 f. _____ other (please list) _____

TCID _____

Page 3

3. For those behaviors that you checked in question 2 (i.e. the previous question concerning the changes you made to deal with your child's behavior/attitude), circle "yes" or "no" to indicate those that you TRIED.

Y = Yes; N = No (Circle all that apply)

- Y / N a. discussed with child
 Y / N b. discussed with child's other parent
 Y / N c. discussed with husband/wife/friend living in home (if different than b)
 Y / N d. discussed with friends or relatives
 Y / N e. discussed with professionals (doctor, teacher, psychologist, case worker)
 Y / N f. discussed with pastor
 Y / N g. prayed
 Y / N h. changed my own behavior (became more strict or directive with child)
 Y / N i. changed my own behavior (became less strict or more relaxed about it)
 Y / N j. got child interested in new activities or taught child new skills
 Y / N k. spent more time myself with child
 Y / N l. got child to spend more time with peers
 Y / N m. got my spouse (husband/wife) (or child's other parent) to help me help my child change
 Y / N n. got others (e.g., child's brother or sister, grandparent) to help my child change
 Y / N o. changed arrangement of home (e.g., move child to a different bedroom or moved family to a bigger house)
 Y / N p. changed household routines (e.g., new bedtime, new chores assigned)
 Y / N q. changed who lived in child's home (e.g., invited grandmother to come and help, or invited lazy guest to leave, or moved into own place)
 Y / N r. other (please describe) _____

4. NOTE: FOR ONLY THOSE APPROACHES FOR WHICH YOU CIRCLED "YES", CHOOSE THE THREE THAT YOU FOUND TO BE MOST HELPFUL. List those three (using the letter to indicate) in the spaces below. Then also indicate just how helpful each was.

The three most
helpful approaches

How helpful was it?

	A little helpful	fairly helpful	very helpful
#1 _____	1	2	3
#2 _____	1	2	3
#3 _____	1	2	3

TCID _____

Page 4

5. a. Do you feel your child's behavior/attitude (as marked in item C2) has improved?

0	1	2	3	8
not at all	a little	pretty well	very much	doesn't apply (no changes tried)

- b. Do you feel that your efforts helped the change in some way?

0	1	2	8
not at all	some	quite a bit	doesn't apply

- c. Will you use approaches like those in item 3 to try to make changes in the future with the same or new behaviors/attitudes? Please circle your answer.

0	very unlikely -- will choose different approach
1	possible
2	somewhat possible
3	very likely will use the same approaches

THANKS FOR COMPLETING THIS QUESTIONNAIRE!

FAST TRACK PROJECT

— FOR OFFICE USE ONLY —

CODE

- A. Cohort Number (1=1st,
2=2nd, 3=3rd)
B. Site (0=NC, 1=TN, 2, 4=WA and
3=PA)
C-F. Child's ID
G. Year of Child's Participation in
Study (1=1st, 2=2nd, etc.)

USE NO. 2 PENCIL ONLY

A	B	C	D	E	F	G
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

CODE

- A.-B. Teacher ID
C.-D. Interviewer ID

A	B	C	D
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

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Child Behavior Checklist — P

Child's Name _____

This is a list of items that describe children and youth. For each item that describes your child now or within the past 6 months, please fill in the 2 if the item is very true or often true of your child. Fill in the 1 if the item is somewhat or sometimes true of your child, and if the item is not true of your child, fill in the 0. Please answer all items as well as you can, even if some do not seem to apply to your child.

0 = Not True (as far as you know) 1 = Somewhat or Sometimes True 2 = Very True or Often True

1. Acts too young for his/her age	0	1	2	26. Doesn't seem to feel guilty after misbehaving	0	1	2
2. Allergy (describe): _____	0	1	2	27. Easily jealous	0	1	2
3. Argues a lot	0	1	2	28. Eats or drinks things that are not food—doesn't include sweets (describe): _____	0	1	2
4. Asthma	0	1	2	29. Fears certain animals, situations, or places, other than school (describe): _____	0	1	2
5. Behaves like opposite sex	0	1	2	30. Fears going to school	0	1	2
6. Bowel movements outside toilet	0	1	2	31. Fears he/she might think or do something bad	0	1	2
7. Bragging, boasting	0	1	2	32. Feels he/she has to be perfect	0	1	2
8. Can't concentrate, can't pay attention for long	0	1	2	33. Feels or complains that no one loves him/her	0	1	2
9. Can't get his/her mind off certain thoughts; obsessions (describe): _____	0	1	2	34. Feels others are out to get him/her	0	1	2
10. Can't sit still, restless, or hyperactive	0	1	2	35. Feels worthless or inferior	0	1	2
11. Clings to adults or too dependent	0	1	2	36. Gets hurt a lot, accident-prone	0	1	2
12. Complaints of loneliness	0	1	2	37. Gets in many fights	0	1	2
13. Confused or seems to be in a fog	0	1	2	38. Gets teased a lot	0	1	2
14. Cries a lot	0	1	2	39. Hangs around with others who get in trouble	0	1	2
15. Cruel to animals	0	1	2	40. Hears sounds or voices that aren't there (describe): _____	0	1	2
16. Cruelty, bullying, or meanness to others	0	1	2	41. Impulsive or acts without thinking	0	1	2
17. Day-dreams or gets lost in his/her thoughts	0	1	2	42. Would rather be alone than with others	0	1	2
18. Deliberately harms self or attempts suicide	0	1	2	43. Lying or cheating	0	1	2
19. Demands a lot of attention	0	1	2	44. Bites fingernails	0	1	2
20. Destroys his/her own things	0	1	2	45. Nervous, highstrung, or tense	0	1	2
21. Destroys things belonging to his/her family or others	0	1	2	46. Nervous movements or twitching (describe): _____	0	1	2
22. Disobedient at home	0	1	2	47. Nightmares	0	1	2
23. Disobedient at school	0	1	2	48. Not liked by other kids	0	1	2
24. Doesn't eat well	0	1	2				
25. Doesn't get along with other kids	0	1	2				

0 = Not True (as far as you know)

1 = Somewhat or Sometimes True

2 = Very True or Often True

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49. Constipated, doesn't move bowels	0	1	2
50. Too fearful or anxious	0	1	2
51. Feels dizzy	0	1	2
52. Feels too guilty	0	1	2
53. Overeating	0	1	2
54. Overtired	0	1	2
55. Overweight	0	1	2
56. Physical problems without known medical cause:			
a. Aches or pains (not headaches)	0	1	2
b. Headaches	0	1	2
c. Nausea, feels sick	0	1	2
d. Problems with eyes (describe): _____	0	1	2
e. Rashes or other skin problems	0	1	2
f. Stomachaches or cramps	0	1	2
g. Vomiting, throwing up	0	1	2
h. Other (describe): _____	0	1	2
57. Physically attacks people	0	1	2
58. Picks nose, skin, or other parts of body (describe): _____	0	1	2
59. Plays with own sex parts in public	0	1	2
60. Plays with own sex parts too much	0	1	2
61. Poor school work	0	1	2
62. Poorly coordinated or clumsy	0	1	2
63. Prefers being with older kids	0	1	2
64. Prefers being with younger kids	0	1	2
65. Refuses to talk	0	1	2
66. Repeats certain acts over and over; compulsions (describe): _____	0	1	2
67. Runs away from home	0	1	2
68. Screams a lot	0	1	2
69. Secretive, keeps things to self	0	1	2
70. Sees things that aren't there (describe): _____	0	1	2
71. Self-conscious or easily embarrassed	0	1	2
72. Sets fires	0	1	2
73. Sexual problems (describe): _____	0	1	2
74. Showing off or clowning	0	1	2
75. Shy or timid	0	1	2
76. Sleeps less than most kids	0	1	2
77. Sleeps more than most kids during day and/or night (describe): _____	0	1	2
78. Smears or plays with bowel movements	0	1	2
79. Speech problem (describe): _____	0	1	2
80. Stares blankly	0	1	2
81. Steals at home	0	1	2
82. Steals outside the home	0	1	2
83. Stores up things he/she doesn't need (describe): _____	0	1	2
84. Strange behavior (describe): _____	0	1	2
85. Strange ideas (describe): _____	0	1	2
86. Stubborn, sullen, or irritable	0	1	2
87. Sudden changes in mood or feelings	0	1	2
88. Sulks a lot	0	1	2
89. Suspicious	0	1	2
90. Swearing or obscene language	0	1	2
91. Talks about killing self	0	1	2
92. Talks or walks in sleep (describe): _____	0	1	2
93. Talks too much	0	1	2
94. Teases a lot	0	1	2
95. Temper tantrums or hot temper	0	1	2
96. Thinks about sex too much	0	1	2
97. Threatens people	0	1	2
98. Thumb-sucking	0	1	2
99. Too concerned with neatness or cleanliness	0	1	2
100. Trouble sleeping (describe): _____	0	1	2
101. Truancy, skips school	0	1	2
102. Underactive, slow moving, or lacks energy	0	1	2
103. Unhappy, sad, or depressed	0	1	2
104. Unusually loud	0	1	2
105. Uses alcohol or drugs for nonmedical purposes (describe): _____	0	1	2
106. Vandalism	0	1	2
107. Wets self during the day	0	1	2
108. Wets the bed	0	1	2
109. Whining	0	1	2
110. Wishes to be of opposite sex	0	1	2
111. Withdrawn, doesn't get involved with others	0	1	2
112. Worries	0	1	2
113. Please write in any problems your child has that were not listed above: _____	0	1	2
_____	0	1	2
_____	0	1	2
_____	0	1	2
_____	0	1	2

CHILD BEHAVIOR CHECKLIST FOR AGES 4-16

For office use only
ID #

CHILD'S NAME			PARENT'S TYPE OF WORK (Please be specific—for example: auto mechanic, high school teacher, homemaker, laborer, lathe operator, shoe salesman, army sergeant, even if parent does not live with child.)			
SEX ☐ Boy ☐ Girl	AGE	RACE	FATHER'S TYPE OF WORK: _____			
TODAY'S DATE Mo. _____ Day _____ Yr. _____		CHILD'S BIRTHDATE Mo. _____ Day _____ Yr. _____	MOTHER'S TYPE OF WORK: _____			
GRADE IN SCHOOL			THIS FORM FILLED OUT BY: ☐ Mother ☐ Father ☐ Other (Specify): _____			

I. Please list the sports your child most likes to take part in. For example: swimming, baseball, skating, skate boarding, bike riding, fishing, etc. ☐ None	Compared to other children of the same age, about how much time does he/she spend in each?	Compared to other children of the same age, how well does he/she do each one?
	Don't Know Less Than Average Average More Than Average	Don't Know Below Average Average Above Average
a. _____	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
b. _____	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
c. _____	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

II. Please list your child's favorite hobbies, activities, and games, other than sports. For example: stamps, dolls, books, piano, crafts, singing, etc. (Do not include T.V.) ☐ None	Compared to other children of the same age, about how much time does he/she spend in each?	Compared to other children of the same age, how well does he/she do each one?
	Don't Know Less Than Average Average More Than Average	Don't Know Below Average Average Above Average
a. _____	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
b. _____	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
c. _____	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

III. Please list any organizations, clubs, teams, or groups your child belongs to. ☐ None	Compared to other children of the same age, how active is he/she in each?	
	Don't Know Less Active Average More Active	
a. _____	☐ ☐ ☐ ☐	
b. _____	☐ ☐ ☐ ☐	
c. _____	☐ ☐ ☐ ☐	

IV. Please list any jobs or chores your child has. For example: paper route, babysitting, making bed, etc. ☐ None	Compared to other children of the same age, how well does he/she carry them out?	
	Don't Know Below Average Average Above Average	
a. _____	☐ ☐ ☐ ☐	
b. _____	☐ ☐ ☐ ☐	
c. _____	☐ ☐ ☐ ☐	

- V. 1. About how many close friends does your child have? ☐ None ☐ 1 ☐ 2 or 3 ☐ 4 or more
2. About how many times a week does your child do things with them? ☐ less than 1 ☐ 1 or 2 ☐ 3 or more

VI. Compared to other children of his/her age, how well does your child:

	Worse	About the same	Better
a. Get along with his/her brothers & sisters?	☐	☐	☐
b. Get along with other children?	☐	☐	☐
c. Behave with his/her parents?	☐	☐	☐
d. Play and work by himself/herself?	☐	☐	☐

VII. 1. Current school performance—for children aged 6 and older:

	Failing	Below average	Average	Above average
☐ Does not go to school				
a. Reading or English	☐	☐	☐	☐
b. Writing	☐	☐	☐	☐
c. Arithmetic or Math	☐	☐	☐	☐
d. Spelling	☐	☐	☐	☐
Other academic subjects—for example: history, science, foreign language, geography.	☐	☐	☐	☐
e. _____	☐	☐	☐	☐
f. _____	☐	☐	☐	☐
g. _____	☐	☐	☐	☐

2. Is your child in a special class?

- ☐ No ☐ Yes—what kind?

3. Has your child ever repeated a grade?

- ☐ No ☐ Yes—grade and reason

4. Has your child had any academic or other problems in school?

- ☐ No ☐ Yes—please describe

When did these problems start?

Have these problems ended?

- ☐ No ☐ Yes—when?

APPENDIX B

Number of Hours Spent in Each Type of After-School Care
Arrangements by Year

	K	1	2	3	4	5
SIB	.30 <u>SD=1.54</u>	.50 <u>SD=2.06</u>	.61 <u>SD=2.58</u>	.71 <u>SD=2.23</u>	1.01 <u>SD=2.77</u>	1.13 <u>SD=2.94</u>
SELF	.03 <u>SD=.32</u>	.07 <u>SD=.61</u>	.14 <u>SD=.91</u>	.26 <u>SD=1.21</u>	.77 <u>SD=2.25</u>	2.00 <u>SD=3.92</u>
RELATIVE CHILD	.60 <u>SD=3.34</u>	.41 <u>SD=2.0</u>	.47 <u>SD=2.29</u>	.42 <u>SD=4.54</u>	.46 <u>SD=2.85</u>	.39 <u>SD=2.09</u>
RELATIVE THEIR	1.63 <u>SD=5.31</u>	1.18 <u>SD=4.07</u>	1.30 <u>SD=4.23</u>	1.39 <u>SD=4.54</u>	1.42 <u>SD=4.67</u>	1.11 <u>SD=4.15</u>
SITTER CHILD	.21 <u>SD=1.53</u>	.17 <u>SD=1.29</u>	.39 <u>SD=2.09</u>	.27 <u>SD=1.61</u>	.23 <u>SD=1.63</u>	.30 <u>SD=2.02</u>
SITTER THEIR	1.43 <u>SD=5.70</u>	.80 <u>SD=3.29</u>	.78 <u>SD=3.28</u>	.66 <u>SD=2.77</u>	.51 <u>SD=2.59</u>	.32 <u>SD=1.88</u>
NEIGHBOR	.63 <u>SD=2.31</u>	.76 <u>SD=2.53</u>	.95 <u>SD=2.77</u>	1.21 <u>SD=3.57</u>	1.08 <u>SD=3.28</u>	1.14 <u>SD=3.07</u>
F.D.C.	.69 <u>SD=4.04</u>	.30 <u>SD=2.39</u>	.26 <u>SD=2.25</u>	.20 <u>SD=1.86</u>	.15 <u>SD=1.52</u>	.08 <u>SD=1.28</u>
D.C.C.	3.77 <u>SD=8.36</u>	2.31 <u>SD=5.71</u>	1.72 <u>SD=5.15</u>	1.53 <u>SD=4.66</u>	1.17 <u>SD=4.12</u>	.66 <u>SD=3.11</u>
S.B.P.	.59 <u>SD=3.30</u>	.87 <u>SD=3.49</u>	1.12 <u>SD=3.80</u>	1.12 <u>SD=3.80</u>	1.07 <u>SD=3.65</u>	.72 <u>SD=2.86</u>
ASA	.81 <u>SD=1.76</u>	1.32 <u>SD=2.25</u>	.71 <u>SD=2.23</u>	2.05 <u>SD=2.67</u>	2.42 <u>SD=3.41</u>	2.71 <u>SD=3.59</u>

APPENDIX C

Mean Hours Spent in Parent Care by Years and Standard Deviations

Kindergarten	<u>M</u> = 34.16	<u>SD</u> = 12.79
First Grade	<u>M</u> = 26.62	<u>SD</u> = 9.00
Second Grade	<u>M</u> = 26.24	<u>SD</u> = 9.00
Third Grade	<u>M</u> = 26.50	<u>SD</u> = 9.47
Fourth Grade	<u>M</u> = 26.78	<u>SD</u> = 9.24
Fifth Grade	<u>M</u> = 27.63	<u>SD</u> = 9.20

APPENDIX D

Mean Hours Spent in Nonparent Care by Years
and Standard Deviations

Kindergarten	<u>M</u> = 10.97	<u>SD</u> = 11.39
First Grade	<u>M</u> = 8.91	<u>SD</u> = 8.44
Second Grade	<u>M</u> = 9.64	<u>SD</u> = 8.60
Third Grade	<u>M</u> = 10.07	<u>SD</u> = 8.89
Fourth Grade	<u>M</u> = 10.53	<u>SD</u> = 8.87
Fifth Grade	<u>M</u> = 10.78	<u>SD</u> = 8.71

APPENDIX E

Types of after-school care Arrangements by Grade,
in Descending Order for Number of Hours Used

Kindergarten

Daycare Center	3.77 hours
Relative (Relative's home)	1.63 hours
Sitter (Sitter's home)	1.43 hours
Adult-Supervised Activity	0.81 hours
Family Day Care	0.69 hours
Neighbor	0.63 hours
Relative (Child's home)	0.60 hours
School-Based Program	0.59 hours
Sibling Care	0.30 hours
Sitter (Child's Home)	0.21 hours
Self-care	0.03 hours

First Grade

Daycare Center	2.31 hours
Adult-Supervised Activity	1.32 hours
School Based Program	0.87 hours
Sitter (Sitter's home)	0.80 hours
Neighbor	0.76 hours
Sibling	0.50 hours
Relative (Child's home)	0.41 hours
Family Daycare	0.30 hours
Sitter (Child's home)	0.17 hours
Self-care	0.07 hours

Second Grade

Daycare Center	1.72 hours
Relative (Relative's home)	1.30 hours
School-Based Program	1.12 hours
Neighbor	0.95 hours
Sitter(Sitter's Home)	0.78 hours
Adult Supervised Program	0.71 hours
Sibling Care	0.61 hours
Relative (Child's Home)	0.47 hours
Sitter (Child's Home)	0.39 hours
Family Daycare	0.26 hours
Self-care	0.14 hours

Third Grade

Adult-Supervised Activity	2.05 hours
Daycare Center	1.53 hours
Neighbor	1.21 hours
School-Based Program	1.12 hours
Sibling	0.71 hours
Sitter (Sitter's Home)	0.66 hours
Relative (Relative's Home)	0.42 hours
Sitter (Child's Home)	0.27 hours
Self-care	0.26 hours
Family Daycare	0.20 hours

Fourth Grade

Adult-Supervised Activity	2.42 hours
Relative (Relative's home)	1.42 hours
Daycare Center	1.17 hours
Neighbor	1.08 hours
School-Based Program	1.07 hours
Sibling	1.01 hours
Self-care	0.77 hours
Sitter (Sitter's home)	0.51 hours
Relative (Child's home)	0.46 hours
Sitter (Child's home)	0.23 hours
Family Daycare	0.15 hours

Fifth Grade

Adult-Supervised Activity	2.71 hours
Self-care	2.00 hours
Neighbor	1.14 hours
Sibling	1.13 hours
Relative (Relative's home)	1.11 hours
School-based program	0.72 hours
Daycare Center	0.66 hours
Relative (Child's Home)	0.39 hours
Sitter (Sitter's Home)	0.32 hours
Sitter (Child's home)	0.30 hours
Family Daycare	0.08 hours

APPENDIX F

Number of Families and the Amount of Time in Each Type of
Care, Kindergarten Versus Fifth Grade

	Kindergarten	Fifth Grade
Sibling Care	30 Families	95 Families
	4.73 hours (<u>SD</u> =4.05)	5.55 hours (<u>SD</u> =4.25)
Self-care	6 Families	196 Families
	2.50 hours (<u>SD</u> =1.52)	4.74 hours (<u>SD</u> =4.84)
Relative Care (Child's Home)	29 Families	27 Families
	9.66 hours (<u>SD</u> =9.72)	6.81 hours (<u>SD</u> =5.74)
Relative Care (Relative's Home)	76 Families	62 Families
	9.97 hours (<u>SD</u> =9.52)	8.37 hours (<u>SD</u> =8.35)
Sitter Care (Child's Home)	17 Families	20 Families
	5.88 hours (<u>SD</u> =5.74)	7 hours (<u>SD</u> =7.10)
Sitter Care (Sitter's Home)	41 Families	16 Families
	16.27 hours (<u>SD</u> =11.44)	9.19 hours (<u>SD</u> =4.72)
Neighbor Care	64 Families	99 Families
	4.56 hours (<u>SD</u> =4.59)	5.37 hours (<u>SD</u> =5.23)
Family Day- Care	16 Families	4 Families
	20.06 hours (<u>SD</u> =9.53)	9.50 hours (<u>SD</u> =10.72)
Daycare Center	97 Families	25 Families
	18.11 hours (<u>SD</u> =8.72)	12.84 hours (<u>SD</u> =6.26)

	Kindergarten	Fifth Grade
School-Based Program	23 Families 11.91 hours (<u>SD</u> =9.42)	49 Families 6.84 hours (<u>SD</u> =6.04)
Adult-Supervised Activity	153 Families 2.47 hours (<u>SD</u> =2.31)	294 Families 4.30 hours (<u>SD</u> =3.70)

APPENDIX G

Complexity of after-school care Arrangements
by Years and Standard Deviations

Kindergarten	<u>M</u> = 1.19	<u>SD</u> = 0.99
First Grade	<u>M</u> = 1.32	<u>SD</u> = 1.00
Second Grade	<u>M</u> = 1.44	<u>SD</u> = 1.06
Third Grade	<u>M</u> = 1.58	<u>SD</u> = 1.08
Fourth Grade	<u>M</u> = 1.70	<u>SD</u> = 1.14
Fifth Grade	<u>M</u> = 1.90	<u>SD</u> = 1.12

APPENDIX H

Percentages of Families Using Informal Caregivers

Number of Caregivers	Percentage of Families
Only mother care	34.8
one	13.9
two	18.2
three	7.9
four	8.8
five	4.9
six	4.9
seven	1.7
eight	1.3
nine	1.5
ten	.9
eleven	.4
twelve	.4
thirteen	.2

APPENDIX I

Complexity of After-School Care Arrangements
and Mother's Employment Status by Year

Complexity Kindergarten

Variable	N	M	SD	SE
Nonemployed	166	.831	.889	.070
Employed	288	1.41	.966	.057

Variances	t-value	df	2-Tail Significance	SE of Difference
Equal	-6.34	452	.000	.092
Unequal	-6.46	365	.000	.090

Complexity First Grade

Variable	N	M	SD	SE
Nonemployed	151	1.01	.952	.077
Employed	303	1.50	.949	.054

Variances	t-value	df	2-Tail Significance	SE of Difference
Equal	-5.16	452	.000	.095
Unequal	-5.16	299	.000	.095

Complexity Second Grade

Variable	N	M	SD	SE
Nonemployed	135	1.00	.981	.084
Employed	321	1.65	1.01	.057

Variances	t-value	df	2-Tail Significance	SE of Difference
Equal	-6.22	454	.000	.103
Unequal	-6.30	260	.000	.102

Complexity Third Grade

Variable	Number of Cases	Mean	SD	SE of Mean
Nonemployed	135	1.13	.996	.086
Employed	318	1.80	1.02	.057

Variences	t-value	df	2-Tail Significance	SE of Difference
Equal	-6.48	451	.000	.104
Unequal	-6.55	260	.000	.103

Complexity Fourth Grade

Variable	N	M	SD	SE
Nonemployed	121	1.26	1.05	.095
Employed	332	1.88	1.11	.061

Variences	t-value	df	2-Tail Significance	SE of Difference
Equal	-5.28	451	.000	.116
Unequal	-5.42	224	.000	.113

Complexity Fifth Grade

Variable	N	M	SD	SE
Nonemployed	120	1.55	1.16	.106
Employed	332	2.04	1.05	.057

Variences	t-value	df	2-Tail Significance	SE of Difference
Equal	-4.26	450	.000	.115
Unequal	-4.06	194	.000	.120

APPENDIX J

Number of Informal Caregivers
by Mother's Employment Status

Informal Caregivers by Economic Status in Kindergarten

Count	Employed	Nonemployed	Row total
.00	1 6 1	2 7 4	435 (95.8%)
1.00	4	1 4	18 (4.0%)
2.00	1		

Pearson value = 3.37 df = 2 $p = .19$

Informal Caregivers by Economic Status in First Grade

Count	Employed	Nonemployed	Row total
.00	1 2 8	2 3 6	364 (80.2%)
1.00	1 9	5 2	71 (15.6%)
2.00	2	1 4	16 (3.5%)
3.00	2	1	3 (.7%)

Column	1 5 1	3 0 3	4 5 4
total	(33.3%)	(66.7%)	(100%)

Pearson value = 6.56 df = 3 $p = .09$

Informal Caregivers by Economic Status in Second Grade

Count	Employed	Nonemployed	Row total
.00	1 1 9	2 5 3	3 7 2 (81.5%)
1.00	1 5	5 6	7 1 (15.6%)
2.00	1	1 0	1 1 (2.4%)
3.00	2	2	2 (.4%)
Column total	1 3 5 (29.5%)	3 2 1 (70.4%)	4 5 6 (100%)

Pearson value = 6.53 df = 3 p = .09

Informal Caregivers by Economic Status in Third Grade

Count	Employed	Nonemployed	Row total
.00	1 2 0	2 5 0	3 7 0 (81.7%)
1.00	1 5	5 1	6 6 (14.6%)
2.00		1 5	1 5 (3.5%)
3.00		1	1 (.2%)
Column total	1 3 5 (29.8%)	3 1 8 (70.2%)	4 5 3 (100%)

Pearson value = 10.02 df = 3 p = .02

Informal Caregivers by Economic Status in Fourth Grade

Count	Employed	Nonemployed	Row total
.00	103	251	364 (80.4%)
1.00	15	57	72 (15.9%)
2.00	3	13	15 (3.5%)
3.00		1	1 (.2%)

Column	121	332	453
total	(26.7%)	(73.3%)	(100%)

Pearson value = 2.62 df = 3 $p = .45$

Informal Caregivers by Economic Status in Fifth Grade

Count	Employed	Nonemployed	Row total
.00	102	259	351 (79.9%)
1.00	13	51	74 (15.4%)
2.00	5	12	17 (3.8%)

Column	120	332	452
total	(26.5%)	(73.4%)	(100%)

Pearson value = 3.67 df = 3 $p = .16$

APPENDIX K

Informal Caregivers by Socioeconomic Status

Variable	N	M	SD	SE
Medium				
High	352	4.14	2.80	.149
Low	106	4.89	3.49	.339

t-test of Equality of Means

Variances	t-value	df	2-tail Significance	SE
Equal	-2.25	456	.025	.330
Unequal	-2.00	148	.047	.370

APPENDIX L

Number of Informal Caregivers by Ethnicity

Variable	N	M	SD	SE
White	393	4.15	2.92	.147
Black	68	5.01	3.17	.385

t-test of Equality of Means

Variances	t-value	df	2-tail Significance	SE
Equal	-2.23	459	.026	.388
Unequal	-2.10	88	.038	.412

VITA

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