ABSTRACT

Title of Document: HOW NUCLEAR IS THE NUCLEAR FAMILY?

EXTENDED FAMILY INVESTMENTS IN CHILDREN

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Although the American ideology of the family has a nuclear ideal, research suggests that American families rely upon extended family support to raise children.

This study explores how transfers of money, time, and space (i.e. coresidence) from extended family members support children and their immediate families, given the needs and constraints of the family members (children, parents, grandparents) involved.

Analyses in this study use nationally representative data about children and their families from the 1997 Panel Study of Income Dynamics and its accompanying Child Development Supplement.

Consistent with ideas drawn from social exchange theory and the life course perspective, this study finds that the high needs of children and their immediate families are associated with the transfer of resources from extended family members. The needs of children's immediate families (low family incomes, young mothers, one or no parents present in the household, caregivers employed part-time, government program participation) are particularly important for such transfers, more so than the needs of the children themselves, or the constraints of coresidential grandparents.

Considering the overall package of support children receive from extended family members, money, time, and coresidence all reflect different responses to need.

Coresidence in a grandparent-headed household is the transfer of support most linked to

the high needs of children and their immediate families. Grandparents who share their housing with their grandchildren also face considerable constraints themselves. Money transfers are likeliest when children and their families have high needs for such support, but, the greatest amounts of money are transferred to children and families who have relatively low needs for resources.

Finally, time transfers reflect considerable variation in extended family and grandparent involvement. While children and families with employment demands and child care needs are more likely to have grandparents and other extended family members serving as caregivers, other children spend time with grandparents and other extended family members, regardless of need. Time transfers may reflect a desire of grandparents and other extended family members to invest in the social capital of a family, and suggest that non-need based factors may be important for transfers of time to non-coresidential children.

HOW NUCLEAR IS THE NUCLEAR FAMILY? EXTENDED FAMILY INVESTMENTS IN CHILDREN

By

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Advisory Committee: Professor Joan Kahn, Chair Professor Suzanne Bianchi Professor William Falk Professor Sandra Hofferth Professor Melissa Milkie © Copyright by Diana Beth Elliott 2008 Dedication

To Emmett

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Chapter 1: Introduction

The ideology of the nuclear family has a powerful hold on the minds of Americans. As scholars have demonstrated through theory and research, most present-day Americans still perceive the ideal family to be a nuclear one, where parents raise children with little assistance or interference from extended family members (Aldous 1995; Cherlin and Furstenberg 1986; Collier, Rosaldo, and Yanagisako 1992; Hareven 2001; Stacey 1996; Szinovacz 1998a). Yet, as theorists of the family demonstrate, our collective ideological beliefs about the family are a social construction (Collier, Rosaldo, and Yanagisako 1992; Stacey 1996). Our understanding of what a family is emerges from the Ozzie and Harriet era of the 1950s, but does not reflect the multiplicity of family forms in the United States today (Stacey 1996). As Judith Stacey (1996) eloquently writes,

"The family is indeed dead, if what we mean by it is the modern family *system* in which units comprised of male breadwinner and female homemaker, married couples, and their offspring dominate the land. But its ghost, the ideology of the family, survives to haunt the consciousness of all those who refuse to confront it," (p. 49).

Because of the powerful hold that the nuclear family ideal has on the minds of Americans, the hidden and important roles that extended family members play in supporting children and their immediate families are often overlooked.

In this dissertation, I argue that families are interconnected and that there is much more dependence upon extended families to support young children than is normally recognized per the ideology of the nuclear family. Digging beneath the surface of family research reveals that only the most privileged families can achieve the nuclear "dream" (Stacey 1996). Most families are interdependent, particularly when young children are

involved, because high needs and social disadvantages necessitate relying heavily upon assistance from extended family members (Minkler 1991). As ethnographic accounts document, the help provided to families with young children by extended family members is necessary and desired, particularly among those in lower income and working class families (Stack 1974; Young and Willmott 1992).

A prime example of how extended family members support children in families with limited resources is coresidence. Coresidence may be the most common way that extended family, in particular grandparents, help to support the younger generations (Soldo and Hill 1993). Census figures estimate that in 2002, 5.6 million children (8% of all children) were living in a household with a grandparent (Fields 2003), with the majority of households maintained by the grandparent of the child, and not the child's parent (Bryson and Casper 1999). Grandparents may even become "parents" to the child: About 2% of all children in the United States are being raised by grandparents without parents present (Pebley and Rudkin 1999), and this percentage may be even higher in low-income, inner-city areas, where it has been estimated that between 30 and 50 percent of children are living with extended family members without a parent present (Minkler and Roe 1996) (p. 34). Furthermore, coresidence often leads to considerable time donations as well, as it is the most important predictor of extended full-time care by grandparents (Vandell, McCartney, Tresch Owen, Booth, and Clarke-Stewart 2003).

The interdependence of extended family members is directly observable in the case of coresidence, particularly for low-income families in need. This is not to say, however, that middle-class parents eschew extended family assistance to raise their children. For the middle class, extended family assistance is much more hidden and

downplayed than it is among low-income coresidential families. But, just as coresidence is a safety net for low-income children, transfers of money to pay for private schooling or to purchase a home in a middle-class suburb may be viewed as equally important provisions in raising children (Shapiro 2004). As Thomas Shapiro (2004) found in his qualitative study of wealth transfers among the black and white middle class, white middle class parents of young children who received considerable wealth transfers and inheritances from the older generations acknowledged the receipt of these transfers, but still claimed that they "made it on their own." Consequently, white middle-class families with young children receive assistance from extended family members, but their reliance upon such support remains hidden in these families.

We may extol the norm of the nuclear family in the United States, but such examples illustrate that families with young children receive important assistance from extended family members. In this study, I explore how transfers of resources (money, time, and space) from extended family members provide a needed safety net to children and their families, particularly in times of crisis or need. If extended family members are transferring resources to children and their families in times of need, such findings would call into question our ideological belief in the U.S. that children are raised by independent, nuclear families. Within this scope, this study explores the following research questions: Do children who have high individual and family needs receive the most help from extended family members through transfers of money, time, and coresidence? How do the needs and constraints of generations of family members (children, parents and grandparents) affect extended family donations of money, time, and coresidence? Do the same patterns of need prompt the three forms of extended

family support (money, time, coresidence) similarly? If the immediate needs of children and their parents are not motivating extended family transfers, are other determinants involved (such as social capital investments or unmeasured factors such as love and emotions)? Do white and black families respond differently to the needs of children and their parents for assistance?

Overall, the literature on extended family contributions in the lives of children has been limited in its focus and underrepresented in the literature. As a prominent family sociologist has argued, few empirical studies have examined how the extended family marshals support to the benefit of its members; such an oversight in the literature may be indicative of an overall cultural disinterest in matters of kinship (p. 816) (Furstenberg 2005). Thus, the greater American cultural and ideological focus on the nuclear family and subsequent disinterest in extended family networks has also infiltrated the frameworks applied to research on the family by diminishing the importance of kin ties. This dissertation will respond to this shortcoming by examining in a more expansive way how extended family members invest in children's and their immediate family's lives.

Another shortcoming in the small body of literature on extended family contributions in the U.S. is that it has nearly exclusively focused on grandparents' contributions to children's lives. While grandparents are likely doing the lion share of work with respect to assisting the younger generations, such a narrow focus on grandparents may miss the roles that other family members, such as aunts, uncles, and cousins, may be doing for children. This dissertation will explore, where empirically feasible, how other extended family members, in addition to grandparents, may be helping to support the younger generations.

While the small body of literature on extended family involvement (in other words, grandparental involvement) in children's lives has grown somewhat in the last twenty years, it still remains limited both theoretically and methodologically (Aldous 1995). Theoretically, the literature on grandparents' roles in families has been criticized for being atheoretical by not exploring grandparents' involvement in families in any depth beyond basic description (Aldous 1995; Szinovacz 1998c). This dissertation addresses this shortcoming by incorporating social exchange theory and ideas about social capital, as well as the life course perspective into its model and analyses. Social exchange theory and notions of social capital posit that family members will be inclined to help each other out because exchange relationships are already established between kin and the desire to maintain strong ties and high levels of social capital exist within families. The life course perspective allows a deeper understanding of how families work as a system over time; if specific needs and life course events befall children and their immediate families, it is anticipated that extended family members will respond with assistance because of the intertwined nature of many family networks.

Methodologically, studies on extended family contributions (or specifically grandparents' contributions) to children and their families have also been limited. First, studies have tended to focus on select groups of grandparents, such as grandmothers, African-Americans, and "surrogate parent" grandparents, rather than understanding grandparents and other extended family members as a larger population and their contributions to children and their immediate families (Szinovacz 1998b). Second, research studies on intergenerational transfers have also typically focused on only one type of resource transferred within families (Soldo and Hill 1993). Money tends to be the

largest focus in the research literature. By maintaining such a narrow focus on how families work together to the benefit of children, we may be missing the broader picture of support that grandparents and other extended family members provide to its youngest members. Finally, studies have failed to explore how the needs and abilities of multiple members of a family (for example, children, parents, and grandparents) affect transfers of resources. Existing research has shown that grandparental involvement in grandchildren's lives may vary according to the needs of the child and parent generations (Heymann 2000) or even how satisfied a grandparent is with their grandparent identity (Reitzes and Mutran 2004), so consideration of the life circumstances of all relevant family members may be important.

This dissertation will address the aforementioned shortcomings by providing a more comprehensive investigation of the important contributions that extended family members provide to children and their immediate families. This study will make use of nationally representative survey data that enable the consideration of multiple family members (parents, children, and grandparents) and multiple forms of transfers (money, time, and space) available as resources to children and their families. Using scholarly work in sociology about social exchange theory and social capital (Astone, Nathanson, Schoen, and Kim 1999; Bourdieu 1986; Coleman 1988; Furstenberg 2005; Hofferth and Iceland 1998; Lin 2000; Portes 1998) as well as the life course perspective (Elder and O'Rand 1995; King, Russell, and Elder 1998; Macmillan and Copher 2005), this study will examine the need-based family context through which extended family support their kin. Furthermore, this study will provide a detailed examination of which specific life

events and needs are more likely to prompt extended family support to families with young children.

This dissertation is organized in the following way: Chapter 2 develops the argument that extended family members are interconnected and responsive to the needs of children and their families by describing relevant theoretical work and research findings. Chapter 3 presents the overarching conceptual framework and hypotheses that will be used to study extended family contributions to children and their families. Chapter 4 introduces the methodology used in this dissertation, including descriptions of the data and sample, the constructed variables, and the analysis plan that explores the questions set forth in this study. Chapter 5 examines how the needs of children and their families prompt money to be transferred from extended family members. Chapter 6 applies the need-based model of transfers from extended family members to understand how time is shared with children and their families. Chapter 7 applies the need-based model of transfers from extended family members to understand how space, or coresidence, is shared with children and their immediate families. Finally, Chapter 8 concludes the study by discussing the overarching findings and implications of this dissertation.

Chapter 2: Literature Review

When Americans think of a family, they are inevitably confronted with a culturally shared vision of "the family" – a nuclear arrangement with a married mother and father raising biological children together in their own household – perhaps even standing in front of a white picket fence. While this imagery may reflect a collective ideology about families in the United States, it does not reflect reality. Present-day American families are incredibly diverse in form, and children being raised by nuclear families may be an achievable dream only among the most privileged segments of society (Stacey 1996). Consequently, the important role that extended family members play in helping to raise children has been obscured by our collective vision of the "ideal" American family.

Kinship ties have been and continue to be crucial for the survival and well-being of young children and their parents. Extended family members, particularly grandparents, are important "safety nets" for young children and their families, particularly in times of need or crisis. Transfers of money, time spent engaged in cultural activities and functional caregiving (i.e. bathing, feeding), and the provision of housing, are all significant ways in which extended family members invest in and provide resources to its youngest members.

This chapter builds the argument that extended family members are playing important, albeit hidden, supporting roles in the lives of children and their families in the United States. First, I present ideas drawn from social exchange theory about why extended family members are motivated to help children and their immediate families, ranging from basic responses of love and emotional ties to more abstract concerns like

investing in one's own future or the family's social capital. Next, I present existing empirical work suggesting that extended family members consistently transfer resources such as money, time, and space to the benefit of children and their immediate family members, even if family members do not always openly recognize such support. I then discuss how transfers of money, time, and space are often in response to the needs and specific life events of the younger generations, and are facilitated by the abilities and role enactments of the older generations. Finally, I conclude with the limitations in existing theory and research on extended family transfers of resources to children and their families and advocate exploring these ideas in greater depth and detail in this dissertation.

What Motivates Transfers from Extended Family Members?

Whether extended family members transfer space, as evidenced by coresidence among low-income families, or money, as evidenced by assistance with private school tuition and down payments on houses among middle-class families, transfers of resources are important ways in which extended family members support the younger generations. Beyond the immediate material support that transfers provide to children and their families, why are transfers a relevant topic of study? Transfers are sociologically relevant because they represent social exchanges, an important way in which the fabric of the extended family and kin network is held together.

Homans, one of the earliest proponents of social exchange theory, defined social exchange as "the exchange of activity, tangible or intangible, and more or less rewarding or costly, between at least two persons," (p. 54) (Cook and Rice 2003). While early theorists, such as Homans, focused on how social exchanges operated between two individuals only (the dyad), social exchange theory has since expanded beyond the dyad

to consider how extensive social networks are involved in exchanges (Emerson, 1976). Furthermore, while many principles overlap with economists who examine economic exchanges between actors, sociological social exchange theorists are distinctive for applying economic principles to "noneconomic social situations," (Emerson, 1976, 336). Consequently, family demographers have found sociological social exchange theory to be an important framework through which to examine why individuals within families may exchange activities or resources (Astone, Nathanson, Schoen, and Kim 1999). Such a theoretical framework helps to inform why resources are transferred within families because it examines exchange networks such as those nested within kin arrangements, and includes noneconomic social exchanges in its purview.

When considering exchanges between extended family members, it is important to revisit Homans' distinction between tangible and intangible resources. Tangible resources that might be transferred between extended family members include money, child care services, or time spent engaged with children in cultural and educational pursuits. Intangible resources, such as love, emotional attachment, and the creation of social capital (or the resources that individuals can draw upon in social networks) can also be prime motivators for family based behaviors (Astone, Nathanson, Schoen, and Kim 1999), including the transfer of tangible resources. Extended family members might not expect to receive tangible resources immediately in return for what they contribute to children's well-being. However, they certainly might expect to receive intangible resources, such as increased access to seeing the youngest members of the family, stronger relationships with family members, and the expectation that if they were to need help in the future, they might see such resources returned to them.

Why would family members be more motivated to participate in exchanges with particular family members than with other likely exchange partners, such as friends, or even strangers? As the theoretical literature on social exchanges finds, there are a number of motivating factors for engaging in exchanges with other actors. For purposes of this study, four main motivations for exchanging resources within families will be described both because of their theoretical import in the literature and their relevance to family exchanges: 1) rational choice; 2) reciprocity and the expectation of future returns; 3) the desire to invest in family social capital; and 4) the emotional ties one has to an exchange network.

Rational choice. Rational choice is the notion that actors make rational decisions about the costs and benefits of exchanging with different partners. As Cook states, "Rational choice models assume a simplified actor who is "purposive"...and has the capacity to act on his/her preferences so as to maximize the value obtained in action based on these preferences," (2000: 687). Accordingly, in the purest interpretation of this theory, actors are never influenced by the emotions associated with exchange partners or situations (Lawler 2001) nor are they affected by power, existing commitments, and other structural constraints (Cook 2000). The rational choice argument was particularly characteristic of sociological social exchange theorists prior to the 1970s and continues to find favor among many economists and some sociologists to this day (see Coleman 1988; Coleman 1993; Hechter and Kanazawa 1997).

Theories of rational choice have been particularly criticized with regard to its application to the family. This may be because family exchanges often typify two major criticisms of rational choice models: that individuals do not always act in such a

narrowly deliberate way, nor are they motivated by the immediate returns they are expecting from exchanges (Emerson 1976). One such incongruency in the concept of rational choice and its application to family exchanges is the seemingly oppositional idea of altruism, or the notion that individuals may engage in exchanges with no future expectations of receiving compensation for such actions. In sociological models of exchange oriented toward rational choice, such as Coleman's rational view of social capital (1988), altruism does not exist. Many economists share this perspective, arguing that in economic exchanges, theories of altruism do not hold true (see Altonji, Hayashi, Kotlikoff 1992; 1997). However, in applying sociological ideas to the notion of altruism, the issue is not as simple as Coleman or rational choice economists present. Rational choice models cannot adequately explain the motivations for exchanges in family relationships (Astone, Nathanson, Schoen, and Kim 1999; Risman and Ferree 1995). For example, when women care for their young children, altruism often characterizes these arrangements, as there is little expectation of a return from these efforts and such care provision often comes at a high personal cost (Risman and Ferree 1995). Similarly, intergenerational exchanges between family members are often enacted "in full awareness that reciprocity from the direct beneficiary is unlikely," (p. 19) (Astone, Nathanson, Schoen, and Kim 1999). Thus, extended family members may never expect to see a tangible return from the resources they share with the youngest members of the family, so some exchanges within families may be motivated for reasons other than the expectation of realizing a return benefit.

But, altruism may be too restrictive a concept as well, as there are likely benefits realized by family members engaging in exchanges with others. Perhaps the problem is

with the measurement that many economists and rational choice social exchange theorists apply to these questions. Economic studies of altruism between extended family members have simply focused on income and wealth exchanges (Altonji, Hayashi, and Kotlikoff 1992; Altonji, Hayashi, and Kotlikoff 1997) rather than considering the non-economic, or intangible resources that may be transferred and may be perceived as equally valuable (Astone, Nathanson, Schoen, and Kim 1999). Such intangible benefits received by an actor would also support the idea that altruism does not exist (as love or emotional benefits would be the actor's reward). However, this moves the idea of rational choice beyond simple material benefits into the more sociological and social psychological terrain of receiving love and emotional well-being that is perhaps more characteristic of family relationships.

Nonetheless, rational choice continues to be an important theoretical thread within social exchange theory and its overarching framework. In the existing body of literature, rational choice models have often provoked strong and negative reactions from sociologists perhaps because of the narrow and mechanical definitions that economists and others applied in the past. Rational choice models in their purest forms may not be particularly useful in their application to the family, despite arguments by some to the contrary (see Coleman 1988; Coleman 1995; Hechter and Kanazawa 1997). However, when rational choice is conceived as a more conscious and less mechanistic process for engaging in exchanges, it offers greater usefulness for thinking about family-based exchanges. Social networks, such as families, can be thought of as linked through "mutual choice" behaviors that benefit long-term and enduring social relations (Cook 2000). Perhaps "rational choice" as a concept as applied to the family should be

considered in the way that Cook, Gillmore, and Yamagishi define it (1980). They argue that rationality in sociological social exchange theory is best conceived of as "a variable attribute of exchange relations or exchange structures and not as an assumption about individual motives." In other words, individuals' motivations and behaviors are not necessarily guided by rationality, but their patterns of repeated exchange relations may be guided by rationality over time. So, the act of choosing to exchange with family members over time may be a rational choice made by actors.

Reciprocity and the expectation of future returns. The norm of reciprocity, within the context of social exchanges, is the expectation that one will help and certainly not do harm to those who have helped them previously (Befu 1977), or essentially the idea that "takers are obliged to be givers," (p. 1390) (Bearman 1997). Without reciprocity and the expectation of it, exchanges of goods, resources, and activities to the benefit of others would cease to continue. Consequently, commitment and trust are likely to characterize long-standing exchange relationships, such as those found in families, where reciprocity is well established.

Reciprocity is an important theoretical element in the work of economists, sociologists, and anthropologists with respect to exchange relationships. While economists' ideas about reciprocity have been restricted to economic transactions and the historically narrow view that costs will yield direct benefits in dyadic exchanges between two people, sociologists and anthropologists have extended reciprocity beyond dyads to generalized exchange within larger exchange networks (Emerson 1976). Direct, or dyadic exchange, is one way in which reciprocity and exchange occur, but it is characterized by particularly weak exchange relationships (Bearman 1997). In contrast,

generalized exchange, where social exchange occurs indirectly within a group (the member receiving help is not necessarily going to return the favor to the giver) are systems that are "remarkably robust," (p. 1391) (Bearman 1997). If individuals may not expect immediate payback for the resources they provide to others, they may be able to call upon such resources at an undetermined time in the future. Thus, such generalized reciprocity is undeniably linked to cooperation among members of a social group and social network and is particularly strong among networks of kin (Nettle and Dunbar 1997).

Underlying generalized exchange is the strong trust and commitment built into these relationships. Commitments that are formed between exchange partners are likely to ensure future exchanges. Consequently, when commitments are strong, trust in the exchange relationship may be produced, thus ensuring a strong and dependable exchange relationship (Cook 2005). While there are some families for whom exchange relationships may have dissolved long ago, most family relationships are marked by extensive commitment and trust; the long-term nature of family exchange relationships ensures that commitment and trust are developed, making exchanges with family members more dependable than those with strangers.

Empirical research, particularly that done in the area of family caregiving, has shown that the expectation of future reciprocity is an important element of family exchange relationships (Clarke 1997; Raschick and Ingersoll-Dayton 2004). Thus, an extended family member, such as grandparents, aunts, and uncles, may be providing resources (such as babysitting or long-term caregiving) to younger generations in the family with the expectation that they will receive similar resources in the future (such as

in-home or nursing home care), even if it does not come directly from the family members that they helped. One qualitative study also found instances where family members had previously withdrawn from family exchanges and later tried to make up for lost time through a flurry of donations to other family members as their own future needs for help became more salient (Stack and Burton 1994). In sum, families as exchange networks are often characterized by long-standing and enduring relationships built upon commitment and trust, allowing individuals to contribute when resources are high and realize benefits when resources are needed.

The desire to invest in the social capital of the family. Reciprocity, as discussed in the previous section, is also linked to the desire to invest in the social capital of a family: Reciprocity helps to build social capital within families and represent investments in kin networks (Furstenberg 2005; Hofferth, Boisjoly, and Duncan 1999; Hofferth and Iceland 1998). Social capital is the notion that resources emerge from one's social ties, and such resources are a group property that individual group members may access as needed (Bourdieu 1986; Coleman 1988; Furstenberg 2005). One of the most important contributions that sociologists have made to the exchange and transfers literature has been to show that non-economic outcomes, such as investing in social capital, are often important motivations for engaging in exchange relationships (Astone, Nathanson, Schoen, and Kim 1999). Such an assertion has its origins in the work of Homans and Emerson who saw that self-interest was not necessarily a motivator to participate in exchanges, but that creating strong, dependent ties with others with whom they could exchange in the future could be a strong motivator in and of itself (Katz, Lazer, Arrow, and Contractor 2004). Therefore social capital may be seen as an

important motivation among family members to continue to participate in exchanges with other family members (Astone, Nathanson, Schoen, and Kim 1999; Furstenberg 2005; Hofferth, Boisjoly, and Duncan 1999; Hofferth and Iceland 1998). For example, having children is viewed as an investment in social capital in a family and may be seen as a prime motivation for childbearing (Astone, Nathanson, Schoen, and Kim 1999). Similarly, extended family members' transfers of resources to the benefit of children and their immediate families may be seen as an important investment in social capital, and an act performed simply to invest in one's family ties and relationships.

Emotional ties. Within the family context, exchanges may certainly be characterized by emotional attachments and investments. Furthermore, the positive emotional attachments individuals have to their family networks may be an important motivating factor to participate in exchange relationships with family members over others. Two social psychological theories developed by Lawler and his colleagues (2001; 2002) help to frame how emotions are linked to exchange networks: the Relational Cohesion Theory and the Affect Theory of Social Exchange.

The Relational Cohesion Theory was the theoretical precursor to the Affect Theory of Social Exchange. As described by Lawler (2002), individuals produce ambiguous emotions as a consequence of engaging in social exchanges. Consequently, individuals try to understand the resulting emotions. If they feel that the exchange and interactions with the exchange partners were positive, they will have a stronger group attachment to the exchange network. If they feel that the exchange and interactions with the exchange partners were negative, they will have a weaker group attachment to the exchange network. In short, emotions are a mechanism; emotions result from exchanges,

which then reinforce future commitments with exchange partners and networks (Cook and Rice 2003). In applying this idea to exchanges between extended family members, a great deal of pleasure or satisfaction may be derived simply by providing for the youngest and neediest family members. These positive feelings may be reward enough for the resources provided and encourage future transfers to such family members.

Similarly, the Affect Theory of Social Exchange (Lawler 2001; Lawler 2002) extends the work of the Relational Cohesion Theory by examining the mechanisms through which social exchanges reinforce and motivate individuals' behaviors. In other words, the more successful exchanges are with others in a specific group, the more individuals will feel good about themselves and about others in this group.

Consequently, individuals will be more motivated to exchange with those groups where "positive feelings about self (pride) and others (gratitude) also occur," (2002: 11) thus helping to solidify individuals' attachments to the group. In applying this idea to a family exchange network, individuals who have successful exchanges with their family members are likely to develop positive feelings about themselves and the family members involved. In other words, continued and positive exchanges among extended family members are likely to produce positive feelings among those involved that then promote the continuation of exchanges and group attachments.

Conclusion. Overall, transfers from extended family members to children and their immediate families often reflect the provision of tangible resources to the younger generations with little expectation of short-term returns. Certainly, there are some families for which social exchanges and social capital are not perceived as beneficial, or may be too costly to the individual members (Furstenberg 2005; Raschick and Ingersoll-

Dayton 2004). For the most part, though, researchers agree that family members feel a collective responsibility and obligation to kin to engage in social exchanges and generate social capital (Astone, Nathanson, Schoen, and Kim 1999; Furstenberg 2005; Piercy 1998; Stack and Burton 1994; Walker and Pratt 1991). Extended family members may be motivated to engage in these exchanges because of the trust and commitment they have in the relationship, the emotional bonds and positive feelings they receive from these relationships, the expectation of future caregiving, or an interest in investing in the social capital of their family. Whatever the motivation, it is clear that kin engage in exchange relationships for reasons other than receiving tangible goods in return. Social exchange theory demonstrates that there are strong and varied motivations for family members to share their resources with family members, thus helping to maintain strong ties and relationships.

Which Resources are Transferred within Families?

The existing body of literature emphasizes the importance of three dimensions of exchange and resource donation made within families: money, time, and space (Soldo and Hill 1993). Although transfers of such resources can happen in any direction, including from the younger generations upward to the older generations, most transfers within extended family networks are downward, from the older generations to the younger ones (Soldo and Hill 1993). Accordingly, transfers of **money** from relatives may consist of any financial support that extended family members donate to families with children. Transfers of **time** can be considered to be the donation of caregiving, contact, support, and companionship on the part of extended family members to the benefit of children. Finally, transfers of **space**, or coresidence, across the immediate

boundaries of a family are primarily a resource transferred to the younger generations by grandparents, rather than by other extended family members.

In this section, each of these elements (money, time, and space) will be discussed with respect to the literature on extended family members and their donation of these resources to children and their immediate families. It is important to note that most research studies that examine extended family contributions to children and their families have focused exclusively on the role of grandparents. Consequently, the research findings presented in this section are also only about grandparents' contributions to children and their families. Despite this limitation, the findings as a whole suggest that extended family members contribute much more to the benefit of children and their families than is usually considered.

Money. Most often, donations of money from extended family members to children and their families are discussed in the literature as intergenerational transfers, from elder parents to adult children. With respect to donations of money, a review of the intergenerational transfers literature finds that the donation of money is primarily downward within families, from the older generations to the younger generations (Soldo and Hill 1993). Most interestingly, some studies suggest that transfers of money from older to younger generations may be contingent upon the economic needs of the younger generations. With respect to intergenerational transfers of money between family members, it is perhaps not surprising that those with lower incomes receive intergenerational transfers less often and of lower amounts (Wilhelm 2001). This is because intergenerational transfers made from parents to adult children are highly contingent upon parents' incomes and their abilities to provide assistance: the higher the

parental incomes, the higher the incidence and amount of donation, ultimately to their adult children who also have higher incomes (Altonji, Hayashi, and Kotlikoff 1997). However, parental donations are also highly tied to their adult children's incomes, as parents donate less money less often when their adult children's incomes are higher (Altonji, Hayashi, and Kotlikoff 1997). Thus, when parental incomes are held constant, adult children in the lowest income brackets are actually *more likely* to receive donations from parents than others (Wilhelm 2001). Furthermore, there is evidence that parents particularly donate money downward to help their adult children when they face economic need and have income constraints that preclude borrowing money from formal institutions (Cox and Jappelli 1990). Overall, these studies suggest that not only is money more often transferred downward within families, but that parental donations are particularly sensitive to the economic needs of their adult children.

The one exception to this finding may be the direction of transfers of money within African-American families. Two different demographic studies using the National Survey of Families and Households (NSFH) data have found that African-American adult children are less likely to receive money from their parents than is the case in white families (Hogan, Eggebeen, and Clogg 1993; Lee and Aytac 1998). Recent qualitative research has supported this finding, even showing that money may be transferred upwards in middle class African-American families, from adult children to elder family members (Shapiro 2004). Thus, African-American families may be an exception to the well-established idea that most intergenerational transfers of money are downward from parents to children, but further research may be needed in this area.

While most studies have focused on transfers from parents to adult children (thus assuming that this wealth will also benefit children in the household), a few studies have specifically focused on the transfers of money that grandparents make directly to grandchildren. Cherlin and Furstenburg (1986) found that 82% of grandparents had reported giving their grandchildren money in the last year. The monetary gifts given by grandparents to their grandchildren may not be entirely trivial amounts either. Silverstein and Marenco (2001) found that 28% of grandparents had ever given their grandchildren a gift or money worth \$500 or more. Thus, it is clear that grandparents not only provide money to the children's parents, but also make sure that their grandchildren are receiving money directly.

Time. In the literature, time donated by extended family members to children and their families is reflected in studies about the time investments that grandparents make in grandchildren's lives. Overall, grandparents are not uniform with respect to how much or what they do in the time they donate to children and their families; there is an incredible range of ways in which grandparents invest their time. Grandparents may be minimally invested in children's lives by seeing them infrequently, or by socializing and talking with them in a companionate way. At the other extreme, some grandparents may be engaged in more intensive donations of time to their grandchildren through occasional, regular, or even custodial caregiving relationships. Therefore, when discussing the donations of time that grandparents provide to their grandchildren, it is useful to distinguish between the companionate role that grandparents may have in children's lives and the more intensive caregiving role of some grandparents.

Overall, there are very few recent studies that examine the different social and companionate ways in which grandparents spend time with their grandchildren, aside from regular caregiving duties. The amount of time spent with and activities shared by grandparents and grandchildren, outside of caregiving duties, is perhaps the most understudied area of intergenerational transfers between grandparents and grandchildren. There are two notable nationally-representative studies that have examined how grandparents spend time with grandchildren, and both find considerable variation in how grandparents enact this role (Cherlin and Furstenberg 1986; Silverstein and Marenco 2001). First, some grandparents are fairly isolated from their grandchildren, with infrequent interaction, often restricted to ritual and holiday gatherings, and marked by geographic distance (Cherlin and Furstenberg 1986). These grandparents have been classified as "remote" grandparents by one study, constituting 29% of the grandparents they surveyed (Cherlin and Furstenberg 1986). While this number may seem high, a more recent nationally-representative study has estimated that 23% of grandparents have in-person contact and 16% have telephone contact with their grandchildren less than once per month. (Silverstein and Marenco 2001). Nearly one-quarter of American grandparents have remote involvement in their grandchildren's lives, marked by little donation of time across generational lines. Therefore, this "remote" style of grandparenting makes it more difficult to develop a close and companionate relationship with grandchildren.

Most grandparents, however, have been classified as companionate grandparents, constituting over half (55%) of grandparents (Cherlin and Furstenberg 1986). This classification fits with findings from another nationally-representative survey where 66%

of grandparents lived within one hour of their nearest grandchild, and 56% of grandparents saw their grandchildren one-to-six times per week, if not daily (Silverstein and Marenco 2001). The companionate style of grandparenting has been characterized by easy, playful, affectionate, and satisfying exchanges between grandparents and grandchildren, often marked by shared leisure activities (Cherlin and Furstenberg 1986). For grandparents, a companionate role includes donating some time to grandchildren's lives, but as grandparents in one study emphasized, the time spent is "good" time: the hard work of disciplining and caregiving was left to the parents, while the grandparents got to share in the hugs, kisses, and leisure activities (Cherlin and Furstenberg 1986). The tradeoff of spending regular, yet pleasurable time, with their grandchildren in a companionate role of grandparenting is that grandparents voice the need to limit their interference in the upbringing of or contact with their grandchildren (Cherlin and Furstenberg 1986). Thus, with respect to intergenerational donations of time, such grandparents spend significant and satisfying time with their grandchildren, yet have limited authority and feel powerless to demand spending more time with their grandchildren, if so desired.

Another way of thinking about the time that extended family members, and particularly grandparents, spend in more "companionate" relationships with children in families is as an investment in the cultural capital of a family. Cultural capital is a sociological concept that posits that attaining the cultural resources deemed most desirable, such as education at the most prestigious schools or a taste for high culture, can enable individuals to acquire society's most desirable credentials and job opportunities (Bourdieu 1984; 1986). It is possible that extended family members may also be

investing time in companionate relationships with their youngest family members in order to ensure the transfer of cultural capital. In other words, extended family members may be investing in children's cultural capital, not for immediate returns, but for the hope that children may be able to be become doctors, lawyers, or other professionals through the proper training early in a child's life. Bourdieu (1986) views time invested in cultural and educational activities with children as the route through which families grant access to privileged arenas in the educational system and society in general. So, companionate grandparents, in addition to having fun with their grandchildren, may also view time spent with grandchildren as an opportunity to expose such children to the most desirable cultural practices in society.

Given that most grandparents are investing time with grandchildren in a companionate way, in which activities are they engaging? Cherlin and Furstenburg (1986) explored this idea in their survey of grandparents and found that in the 12 months prior, grandparents had joked or kidded with their grandchild (91%), watched television with the child (79%), given the child advice (68%), discussed the child's problems (48%), gone to religious services together (43%), disciplined the child (39%), gone on a day trip together (38%), taught the child a skill or game (24%), and helped mediate a disagreement between the child and the child's parents (14%). Similar to Cherlin's and Furstenburg's (1986) findings, another study has also found among grandparents that 84% had engaged in "fun and recreational activities," 79% had "talked about personal concerns," and 60% had "attended religious events and services" with their grandchildren in the last year (Silverstein and Marenco 2001). These studies illustrate that grandparents

are interested not only in having fun with their grandchildren, but are also engaging in the functional day-to-day care of children, as well as exposing them to cultural activities.

Those who are even more involved in the daily lives of their grandchildren have been classified as involved grandparents. "Involved" grandparents often invest more time with their grandchildren because of real needs for their presence in the lives of these children. These more "involved" grandparents (classified as 16% of grandparents) in one study had daily or near-daily contact with grandchildren and assumed a more parental role in advice-giving and discipline toward their grandchildren (Cherlin and Furstenberg 1986).¹

In many cases, the "involved" grandparent is not only heavily involved in social and leisure activities with their grandchildren, but is often also serving as a caregiver to their grandchildren. Over three-quarters (77%) of grandparents reported having baby-sat for their grandchildren in the past year (Silverstein and Marenco 2001), and 40% of all parents with a child under the age of 5 have reported receiving child care help from their parents (Soldo and Hill 1993). A recent study of grandparent caregiving to children from birth to age three found that 14% of children received routine care from grandparents, while 35% of the sample received some form of grandparent care in one of the study's three-month time periods (Vandell et al. 2003). It has even been argued that grandparents' donation of time to their adult children in the form of child care assistance is the most significant way in which intergenerational transfers are provided by parents to their adult children (Soldo and Hill 1993). Clearly baby-sitting and regular caregiving

¹ Similarly, another nationally-representative study found that 15% of grandparents visited with and 13% spoke with their grandchildren daily Silverstein, Merril and Anne Marenco. 2001. "How Americans Enact the Grandparent Role Across the Family Life Course." *Journal of Family Issues* 22:493-522.

are important ways in which "involved" grandparents donate their time across generational lines to the benefit of their adult children and grandchildren.²

With respect to time donations to grandchildren, it is evident that "remote," "companionate," and "involved" grandparents have a range of ways in which they can support the younger generations. Overall the literature suggests that investments of time are motivated not only by choice, but also by the care needs of the younger generations. From socializing, to emotional support, to occasional babysitting, or even routine caregiving, many grandparents have invested significant time in their grandchildren's lives. Although the research literature has not explored how other extended family members are investing time in the youngest members of their families, one can only assume that, like grandparents, they are available to children and their parents to be companions and caregivers as the needs arise.

Space. With respect to space donations, the literature on extended family coresidence suggests that grandparents are most often the kin involved in sharing their homes with young children, rather than other family members. In fact, the evidence suggests that this may actually be one of the more common ways in which the generations support each other (Soldo and Hill 1993). Census figures estimate that in 2002, 5.6 million children (8% of all children) were living in a household with a grandparent present (Fields 2003). When such living arrangements are framed in reference to grandparents, one nationally representative survey also demonstrates the importance of considering racial, ethnic, and gender comparisons; 26% of Black grandmothers, 23% of Hispanic grandmothers, compared to only 7% of white

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² Furthermore, gender is an important way in which involvement is differentiated; grandmothers are more involved in a range of activities in grandchildren's lives than are grandfathers. Ibid.

grandmothers and 4% of white grandfathers live with a grandchild (p. 48) (Szinovacz 1998c). It is important to note, however, that coresidence may be the result of life events on either end of the generational spectrum. Coresidence can be the outcome of difficult life events that the middle generation is experiencing (Aldous 1985) or frail health and tenuous economic standing of the older generation (Soldo and Hill 1993). But, the majority (75%) of all grandparent and grandchild coresidential households are maintained by the grandparent of the child, and not the child's parent (Bryson and Casper 1999). So, the majority of grandparent-grandchild coresidential situations are likely the result of difficulties of the middle generation with grandparents stepping in to provide a home for grandchildren in the wake of family crises, sometimes in the absence of the child's parents (Minkler 1991). Furthermore, coresidence often leads to considerable time donations as well, as it is the most important predictor of extended full-time care by grandparents (Vandell et al. 2003). While no studies have demonstrated the extent to which money is shared between generations within households, we can only speculate that coresidence may also be a predictor of considerable monetary donations to the younger generations.

While the phenomenon of grandchildren living in grandparent-maintained homes constitutes a small percentage of all households in the United States, findings suggest that it is a trend that has grown in the last 30 years. For all children under the age of 18, only 3% lived in grandparent-maintained homes in 1970 (Bryson and Casper 1999). However, by 1997, around 5.5% of all children under the age of 18 were living in grandparent-maintained homes (Bryson and Casper 1999). The increased percentage of children living in grandparent-maintained homes has been attributed to the growing trend of

children living with grandparents *without a parent present* (Bryson and Casper 1999), termed "surrogate parent" grandparenting by some (Minkler and Roe 1996).

Since the 1990s, "surrogate parent" grandparenting has been on the rise (Blum 2002; Bryson and Casper 1999), and has recently been estimated as about 2% of all children in the United States (Pebley and Rudkin 1999). Some have even argued that in low-income, inner-city areas, between 30 and 50 percent of children are living with grandparents and other relatives without the presence of a parent (Minkler and Roe 1996) (p. 34). These arrangements may pose considerable strains; both grandchildren and single grandmothers who are in coresidential and custodial arrangements without the child's parents present are highly likely to be in poverty (Bryson and Casper 1999). Furthermore, grandparents may be taking on these custodial roles in spite of the detriments to their own lifestyles; grandparents who have custody of and are the primary caregivers for their grandchildren also have worse physical and mental health outcomes (Minkler, Fuller-Thomson, Miller, and Driver 1997; Minkler and Roe 1996), poor financial prospects (Casper and Bryson 1998), experiences of social isolation (Minkler and Roe 1996), difficulty negotiating their own paid work (Simon-Rusinowitz and Krach 1996), and the burdens of sharing space with their grandchildren (Aldous 1985; Cherlin and Furstenberg 1986).

Such extremely involved grandparents often need the most help from family members and the government with their surrogate parenting tasks (Minkler and Roe 1996). However, public assistance from government agencies and private medical plans rarely recognize the important role that such custodial grandparents play in children's lives, with most caregivers ineligible for support unless they take legal custody of their

grandchildren (Beltran 2000; Bryson and Casper 1999). So while these grandparents may be stepping in as a safety net to assist their grandchildren because of the poor quality or even absence of public support for these children, they may themselves experience greater hardships in their own lives. Although coresidential and custodial grandparents represent a very small segment of the population, this phenomenon lends further credence to the argument that the generations are interdependent and extended family will step in to care for children in need in their own families.

Conclusion. The empirical findings on transfers of resources like money, time, and coresidence suggest that extended family members are contributing to the well-being of children and their families. While the nature of the investments may vary from an occasional check in the mail or a phone call to the grandparent who lives with and cares for a grandchild as if they were the child's parent, we see that there are many ways in which extended family members help children and their families. However, little is known about the context and complexity of family circumstances that prompt such transfers. This important missing element will be discussed in the next section.

What Precipitates Transfers within Families?

While theoretical work on the importance of social exchanges and social capital within families helps to clarify why extended family members provide support to the youngest members of families, such work provides little insight as to the life events and family circumstances that may prompt intergenerational assistance. The life course perspective is a conceptual framework that elucidates how the context and timing of life events in individuals' lives and family systems may prompt transfers from grandparents to the benefit of children and their families. The concepts of linked lives, roles, life

events and transitions, and context are all particularly relevant to a study of transfers within an extended family network.

Linked lives. Perhaps the most important concept when considering intergenerational links within families is the notion of *linked lives*. Although individuals experience their own life trajectories and life events, they are also linked to other people's lives in interdependent ways. This means that the life experiences of one family member likely impact other family members (Elder and O'Rand 1995). *Linked Lives* is defined as "the embeddedness of human lives in social relationships of kin and friends that extend across the life span. Key examples include relationships between parents and children..." (MacMillan and Copher, 2005, p. 859). In other words, it is the notion that individuals are linked to others through social relationships -- whatever besets an individual will have ramifications for another to whom they are linked. Therefore, when we consider transfers in a family, it is important to consider all members involved and what they contribute to the family configuration at that time – aunts, uncles, grandparents, parents, and children.

One intergenerational research study that demonstrates how important it is to consider the ways that the generations are "linked" is a qualitative study that explored the reasons why grandparents became more involved in helping and supporting their adult children whose children had disabilities (Mirfin-Veitch, Bray, and Watson 1997). While the children with health disabilities were the primary factor for grandparents' greater involvement in helping the younger generations, a strong secondary factor for their involvement was the love and closeness they felt toward their adult children (Mirfin-Veitch, Bray, and Watson 1997). This demonstrates the principle of linked lives, as

factors from both the grandchild *and* adult child generations were important for drawing in greater involvement and assistance from grandparents.

Roles. Another important concept when thinking about intergenerational relationships is the notion of roles. Roles are the "social expectations persons in given social positions have regarding their own behavior and the behavior of others. Examples include being a student, being a worker, or being a spouse or parent," (p. 859) (Macmillan and Copher 2005). Of relevance in this study is the role of being an aunt, an uncle, sister, or brother, a grandparent, and being a parent. However, because of the limited nature of the literature with respect to extended family members, this section will only discuss the role of being a grandparent or a parent to an adult child.

The Grandparent Role: Transfers to Benefit the Needs of Grandchildren. What are the social expectations for being a grandparent in our society? The social expectations appear to be diverse for grandparents, as a comprehensive and nationally-representative study of grandparents found considerable variation in how individuals enacted the grandparent role (Cherlin and Furstenberg 1986). As discussed previously, Cherlin and Furstenburg (1986) created a typology of grandparents, ranging from "remote" to "companionate" to "involved," reflecting how involved they were in their grandchildren's lives and the attachments they held to such involvement. For some, being a grandparent is such a central role that it outweighs other roles (such as worker, spouse, volunteer, etc.) in importance. One researcher identifies "centrality" as one of the five empirical dimensions that constitute the meaning of grandparenthood (Kivnick 1985). For some grandparents, the dimension of centrality, or the idea that the grandparent role is one of the most salient roles in their lives, can produce a great deal of

satisfaction, particularly when grandparents are able to behave in a way consistent with making this role central. But, when expectations about grandparenting roles and behaviors do not come to fruition in the ways that were planned, there is often dissatisfaction experienced. As Kivnick (1985) argues, however, grandparents can exert some influence over the situation by shifting their grandparenting behaviors, such as phoning and visiting grandchildren who live at great distance rather than dwelling in the disappointment that the grandchildren do not live down the street.

In the research findings, the centrality of the grandparent role is an important prompting factor with respect to grandparents' behaviors and the provision of support. One recent study finds that role centrality is important for grandparents, particularly for grandfathers, as there is a significant positive relationship between grandparent centrality and frequency of contact between grandfathers and grandchildren (Reitzes and Mutran 2004). This gender difference may be related to women's roles as kin keepers in families and the greater likelihood that the grandparent identity is already salient for women, tied to their greater involvement in family roles in general (Cherlin and Furstenberg 1986; Reitzes and Mutran 2004). Thus centrality may be linked to greater time spent with grandchildren, maybe more so among grandfathers.

The Parent Role: Transfers to Benefit the Needs of Adult Children. What are the social expectations of being a parent in our society? Simply because one's children reach adulthood does not mean that parental duties stop: Parents continue to support and help their children over the life course. As demonstrated in the intergenerational transfers literature, grandparental transfers of resources often reflect grandparents' concern for their adult children. For example, evidence suggests that those in the oldest generation

who were in closest contact with adult children did so because these adult children had more needs for parental support (Aldous 1987). This is particularly likely to be the case when the middle generation experiences marital separation and divorce, economic hardship, and catastrophic life events such as illness, incarceration, and substance abuse (Hirshorn 1998). Thus, grandchildren may not be the precipitating factor as to why grandparents step in to assist the younger generations; the high needs of the middle generation, may precipitate involvement (Aldous 1987). As Aldous (1985) writes, "it is situational stresses in the middle generation that activate grandparental roles," (p. 131). So the ongoing "parental role" is an important factor in why grandparents are pulled into greater involvement in the lives of grandchildren. As the following section will discuss, the major life events and transitions that children and their immediate families experience is an important reason for the grandparents and parents to adult children to activate such roles and come to the assistance of family members in need.

Life events and transitions. Because of the nature of linked lives and family roles, when individual members experience major life events and transitions from one stage in their life to another, there may be a greater pull to assist family members than is ordinarily the case. Major life events and transitions in the life course help to clarify why grandparents may transfer resources at some points in time, while holding off at other times. Transitions are defined as "Life events that index changes in state or role that are more or less abrupt. Transitions are embedded in trajectories and occur in a discrete time span. Examples include getting a job, getting married, or having a child," (MacMillan and Copher, 2005, p. 859). As the literature reveals, extended family members are

particularly likely to lend a hand when individuals experience life events and transitions such as becoming a parent, becoming separated or divorced, or having a health crisis.

One prominent example in the literature of extended family members being drawn into helping the youngest generations is the transition into parenthood, particularly if the new parent is a young and inexperienced teenage parent or unmarried mother. Between 1980 and 1995, the number of births to unwed mothers ages 15 to 44 increased by 50 percent (Ventura, Mosher, Curtin, Abma, and Henshaw 2000). Within this larger group of childbearing women, the number of births to unmarried teenagers, ages 15 to 19 increased by 44 percent between 1982 and 1995 (Ventura et al. 2000). Overall, the increase in births to unmarried mothers has important implications for extended family involvement, particularly from grandparents, as one study has found that nearly half (45%) of children born to unwed parents coresided with relatives during their childhood, most often with grandparents (p. 300) (Aquilino 1996). Furthermore, teenage parenthood has also been argued to be one of the most significant reasons for grandparents becoming involved in the daily upbringing of their grandchildren (Hirshorn 1998). When teenage mothers live with their parents, grandparental assistance may range from taking over complete care of the infant in a surrogate-parent capacity to providing occasional caregiving assistance to the infant, as well as emotional support and instruction to their teenage daughter (SmithBattle 1996). Overall, these findings suggest that the parents of unmarried teenage mothers are called upon for considerable assistance in their grandparental roles because their own daughters are not emotionally or financially capable of being a parent without such support.

In the case of *separation and divorce*, extended family members, and particularly grandparents, may become more involved in children's lives as the adults involved begin their lives anew. Such involvement may include a range of activities such as the provision of occasional daycare, housing, or even discipline and primary caregiving duties (Hirshorn 1998). In instances of divorce, grandmothers have reported viewing themselves and their homes as a "safe harbor" or "island of security" for grandchildren in the wake of the disruptions in the children's family situations (p. 88) (Johnson 1985). More intensive involvement following divorce may particularly be the case for maternal grandparents (Spitze, Logan, Deane, and Zerger 1994), particularly grandmothers (Cherlin and Furstenberg 1986; Hirshorn 1998) who are younger in age (Johnson 1985), as they are most likely to be called upon to assist their daughters with child care and other responsibilities relating to custody arrangements during and after marital separation and divorce.³

Health issues and disabilities experienced by adult family members may be another factor that draws extended family members, and as noted in the literature, grandparents, into assisting the younger generations. A grandparent may be called in to assist their adult children with child care following health issues such as illness, surgery, or the birth of another child (Hirshorn 1998). For example, in one interview described by Heymann (2000), a grandmother was drawn into caring for her daughter, paralyzed in an

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³ Because custody is often awarded to children's mothers, divorce and separation can sometimes create distance, particularly for paternal grandparents who often have diminished access to their grandchildren. (Cherlin, Andrew J. and Jr. Furstenberg, Frank F. 1985. "Styles and Strategies of Grandparenting." Pp. 97-116 in *Grandparenthood*, edited by V. L. Bengston and J. F. Robertson. Beverly Hills, CA: Sage Publications, Spitze, Glenna, John R. Logan, Glenn Deane, and Suzanne Zerger. 1994. "Adult Children's Divorce and Intergenerational Relationships." *Journal of Marriage and the Family* 56:279-293.)

automobile accident, and young grandson while also dealing with her own debilitating illness and demanding work schedule (pp. 94-95).

Not surprisingly, the *work patterns of mothers*, particularly with respect to full-time and non-standard employment and transitions into new jobs, have a relationship to the involvement of extended family members, and especially grandparents, in children's lives (Presser 1989; Vandell et al. 2003). Studies suggest that grandparents are more involved in full-time caregiving to their grandchildren when the children's mothers are employed full-time (Vandell et al. 2003). Grandparents are also more involved in sporadic and part-time caregiving to children when mothers are employed in occupations with nonstandard hours (Vandell et al. 2003). Providing care to their grandchildren may be an important way in which grandparents are providing support to their employed adult children.

While catastrophic life events are sudden and sometimes devastating in families, chronic hardships, such as *limited economic resources and poverty*, also necessitate that family members be more involved in the lives of other family members. The reasons for this are twofold. First, economic hardship and poverty are associated with a greater likelihood of a family experiencing a catastrophic life event such as incarceration and arrest (Messner, Raffalovich, and McMillan 2001) or substance abuse (Blumenthal and Kagen 2002), which often pulls extended family members, especially grandparents, into custodial care for grandchildren (Ehrle, Geen, and Clark 2001; Johnson and Waldfogel 2003; Myers, Smarsh, Amlund-Hagen, and Kennon 1999; Roe, Minkler, and Barnwell 1994). Second, when family members experience economic hardships, they often rely upon the "safety net" of the extended family for assistance (Beltran 2000; Pittman 2003;

Stack 1974). So, economic hardship and poverty may force multiple generations to live in the same household or share housing and resources as the need arises (Stack 1974). Economic hardship and poverty may also lead to a greater use of extended family members for daycare provision to small children. Working mothers with limited economic resources often rely upon grandparents, particularly grandmothers, for daycare services while employed (Baum 2002; Presser 1989), thereby involving grandparents in the routine care of their grandchildren. Thus, extended family members may be involved more often in the lives of children when economic hardship and poverty are at issue.

Finally, *life events experienced by children (such as health, academic, and behavioral needs)* may also prompt extended family members to come to their aid. The few studies that have examined the importance of the life events of children for pulling in extended family involvement have focused nearly exclusively on the role of grandparents. In one study investigating the extent to which grandparents assist parents of children with disabilities such as cerebral palsy, developmental delay, Down syndrome, and autism, grandparents were the most frequent sources of informal, unpaid support to these parents (Green 2001). Moreover, help provided by these grandparents was extremely beneficial; grandparental assistance was associated with a more positive emotional outlook and a higher likelihood of avoiding physical exhaustion among the parents of children with disabilities (Green 2001). Another study found that continuous support on the part of grandparents, rather than sporadic support, was particularly beneficial and most valued by parents of children with disabilities (Mirfin-Veitch, Bray, and Watson 1997).

Conclusion. How do these key concepts in the life course framework connect to the study of transfers of resources from extended family members to children and their immediate families? First, the concept of linked lives demonstrates that within families, there should be more attention directed to the involvement of family members outside of the nuclear family when considering transfers of resources such as money, time, and coresidence because of the intertwined nature of family life, beyond the boundaries of the nuclear family. Second, the concept of roles demonstrates that there are certain expectations attached to family roles such as "grandparent" or "parent," that may also prompt transfers across nuclear family lines. Furthermore, extended family members may be more inclined to assist if the role they are enacting is particularly central to their lives. Finally, the life events and transitions that children and their parents experience illustrate the importance of considering how specific needs for help may prompt transfers of resources from extended family members.

What Are the Current Limitations in the Research?

Despite our cultural preoccupation with the nuclear family ideal, there are hints in the literature that our families are not as nuclear as we would like to believe. Yet, we still know very little about the ways in which extended family members help to support its youngest members. The literature has certainly demonstrated that the transfer of resources in families is primarily downward – from older to younger generations. There is also some suggestion in the literature that extended family members, and grandparents in particular, are more likely to support the younger generations when young children are involved and there is apparent need for such support. But, we still do not have a good sense of how extended family members fill in the gaps when needs in the younger

generations arise. Furthermore, studies conducted on these topics have primarily used qualitative data, and when quantitative data have been used, the findings tend to describe simple family relationships, rather than delving into the complexity of circumstances that connect kin. This section will describe in detail the most significant limitations in the literature, all of which suggest that there is much work to be done – theoretically and methodologically – on this topic.

Of additional noteworthiness is the narrow focus on grandparents in the literature on extended family assistance to children, with few studies taking a more expansive view. Again, the conclusions drawn in this section are hampered by this narrow focus on grandparents in the literature. As will be discussed in the next chapter, this dissertation will examine other extended family arrangements, where empirically possible, in addition to exploring grandparents' transfers of resources to children and their families.

Theoretical limitations. Perhaps the biggest shortcoming with respect to the work that has been done on extended family contributions to children, and in particular the work done on intergenerational transfers and grandparents' contributions to children's well-being, is that it has been, for the most part, atheoretical in nature (Aldous 1995). This is problematic because much of the intergenerational transfers literature could benefit from a deeper understanding about why family members are motivated to act on behalf of another family member. For example, economists have employed rational choice models in their studies (Altonji, Hayashi, and Kotlikoff 1997). But, as previously discussed, presenting family exchanges in the context of a restricted rational choice model ignores the bulk of the work done by sociological social exchange theorists who find that family exchanges do not adhere to such assumptions: donors within families do

not usually expect to realize direct and immediate benefits to their actions (Astone, Nathanson, Schoen, and Kim 1999). Yet, sociological research studies examining extended family transfers to children (namely from grandparents), rarely acknowledge the complex motivations and processes operating through such exchanges.

By using social exchange theory and work done on social capital, as well as the life course perspective, we may better understand why extended family members may be inclined to assist children and their families and what precipitates such transfers. For example, work in the area of families and social exchange theory suggests that investment in future generations and the love and attachment derived from this may be a strong motivator in and of itself to transfer resources (Astone, Nathanson, Schoen, and Kim 1999). Similarly, transfers by older family members on behalf of the younger generations may be seen as investments in social capital – in other words, such transfers may be viewed as important simply because they are valuable resources to other group members and may allow future transfers of resources within the group to happen (Astone, Nathanson, Schoen, and Kim 1999; Hofferth, Boisjoly, and Duncan 1999; Hofferth and Iceland 1998). By integrating the life course perspective, it is also clear that family members are interdependent and their lives are linked (Elder and O'Rand 1995). So, transfers are also occurring because of transitions and needs that arise in the family system. Based on these theoretical vantage points, extended family members' transfers of resources are likely happening with little expectation of immediate returns, and are often in response to needs of the family's youngest members. Such evidence also calls into question the assumption in the literature and among families that nuclear families

raise children with little support from extended family. But, these notions have not been explored in the relatively atheoretical literature so far.

Methodological limitations. Perhaps the most significant methodological limitations in the existing literature on extended family investments in children and their immediate families are the data sources and restrictive analyses that researchers have employed in their work so far. Despite calls for more thorough investigations, there simply are not enough studies that comprehensively examine how extended family members invest in children and their immediate families (Aldous 1995; Furstenberg 2005). Even in the small, yet, growing body of literature on grandparents' roles in children's lives, the focus has been on the small minority of coresidential grandparents, and studies have been mostly descriptive in nature. Furthermore, there is very little known, aside from a few studies on grandparent caregivers, how extended family members invest their time in the lives of the children in their families, including social and occasional roles (Cherlin and Furstenberg 1986). Therefore, more studies are needed that examine extended family investments in the lives of children in a more comprehensive and in-depth way, to move beyond our limited understanding of these relationships.

Furthermore, studies on extended family investments in children have rarely used large scale, representative data sources to investigate such questions. The exception to this has been the few studies that have used the National Study of Families and Households (NSFH), but these studies have not had the benefit of rich data on time investments of extended family members in the lives of children. One study has used the National Longitudinal Study (NLS) data to understand how grandparents feel affection

and have contact with their grandchildren (Silverstein and Long 1998). But, no study has yet used the rich data included on the PSID and PSID-CDS to understand the process through which extended family members transfer resources to children and their immediate families and the life events and needs that may prompt such transfers.

Another limitation is that few studies have been able to include data from more than one generation involved in a family. While some studies have asked grandparents for their estimations of their participation in the lives of their grandchildren (Cherlin and Furstenberg 1986), or on occasion have involved grandparent and grandchild dyads (Schutter, Scherman, and Carroll 1997), there is no evidence of a study that incorporates all generations involved from the grandparent to the adult child to the grandchild. As the life course perspective and the concept of "linked lives" suggests, it is important for researchers to consider all of the generations and participants in a family, as they may each contribute to the transfer of resources.

Finally, there is some confusion in the literature as to the role that race may play in extended family support, with some believing differences are a result of family structure and others believing differences are a result of the inequality of resources (Sarkisian and Gerstel 2004). Qualitative researchers of the 1970s and 1980s found that African-American families were characterized by rich ties and a strong exchange network which provided for its neediest members (Nobles 1981; Stack 1974). Recent demographic work has consistently argued that in quantitative analyses of intergenerational exchanges, white families have stronger and more supportive exchange networks than black families, even when socioeconomic characteristics are controlled (Hogan, Eggebeen, and Clogg 1993; Lee and Aytac 1998; Logan and Spitze 1996; Rossi

and Rossi 1990). Consequently, family scholars have begun to ponder and explore this seeming disjuncture in the literature on extended family support (Brewster and Padavic 2002; Hogan, Eggebeen, and Clogg 1993; Sarkisian and Gerstel 2004). However, there is clearly more work to be done in this area in terms of incorporating and exploring the different family context of white and African-American families and in particular, focusing on how resources may be transferred to the benefit of children and their families. An analysis of race may also clarify how some resources (money, time, and coresidence) may be distributed and needed differently in response to different life events and needs of black and white families with young children.

As will be discussed in the following section, this dissertation will attempt to address the aforementioned shortcomings. By examining theoretical perspectives that may inform how extended family transfers of resources matter to children and the process through which they occur, this study will make an important contribution to the literature by providing a more comprehensive and theoretically reasoned investigation of these issues. Not only is it important to understand whether or not transfers of resources are occurring across the boundaries of nuclear families, it is also important to understand how transfers represent investments in the social capital of a family. Furthermore, by using a comprehensive, nationally representative, and high quality data source that encompasses data from multiple members of a family involved in transfers (such as children, parents, and even grandparents), this study will be able to speak to family interdependence through linked lives, and the life course events and social conditions that prompt such transfers of capital. Finally, analyses by race may clarify how white and black families respond differently to the needs of children and their parents for assistance

and whether such responses appear to be nested in resource deficits or different cultural notions of family.

Chapter 3: Conceptual Framework and Hypotheses

As established in the previous chapter, extended family may provide a safety net in times of need for children and their families, despite the boundaries perceived to exist around the nuclear family. This dissertation will explore the significance of extended family members' transfers for the welfare of children and their immediate families. It will examine whether those children and families who face the greatest needs for assistance indeed receive it from extended family members.

Children and their immediate families may experience tremendous and varied needs for help that call upon extended family members for assistance. The needs of the child's immediate parents and caregivers have most often been linked in the existing literature to extended family assistance, particularly from grandparents. For example, challenging life events such as divorce (Johnson 1985), teen childbearing (Aquilino 1996; SmithBattle 1996), health issues (Heymann 2000), employment demands (Vandell et al. 2003), incarceration (Johnson and Waldfogel 2003), and substance abuse (Roe, Minkler, and Barnwell 1994) have all been linked to extended family assistance, particularly from grandparents, to children and their immediate families. Although not well established in the literature, the needs of the children themselves may also draw upon extended family members' support, as children's health issues (Mirfin-Veitch, Bray, and Watson 1997) and caregiver neglect (Ehrle, Geen, and Clark 2001) have also been linked to such assistance.

While there are various factors that may prompt extended family members' assistance, the strongest theme that emerges in the literature is that extended family assistance is likeliest when there is a clear, perceived need for their help (Aldous 1995).

This suggests that families are interdependent; when family members need help, assistance is donated across generational lines (Aldous 1995; Minkler 1991; Soldo and Hill 1993) and across the boundaries of the nuclear family. What is not yet clear from the research is *how* extended family members work together to support children and their families in need. Most research studies that explore extended family support focus on intergenerational transfers (for example from grandparents to adult children) and have generally been limited by focusing on only one dimension of support (e.g. money, time) (Soldo and Hill 1993). Thus, most studies have not considered how money, time, and coresidential assistance may or may not work together to form a net of extended family support for children. Furthermore, the research evidence has also not revealed *which* need-based factors are most likely to draw extended family members into assisting children and their immediate families. Consequently, there is a need for studies that comprehensively explore the complexities surrounding how extended families work together to support children.

This dissertation aims to fill in the research gaps by exploring with a large, representative, multi-generational, and longitudinal data set whether children's immediate families are truly "nuclear" with the following research questions: Do children who have high individual and family needs receive the most help from extended family members through transfers of money, time, and coresidence? How do the needs and constraints of generations of family members (children, parents and grandparents) affect extended family donations of money, time, and coresidence? Do the same patterns of need prompt the three forms of extended family support (money, time, coresidence) similarly? If the immediate needs of children and their parents are not motivating extended family

transfers, are other determinants involved (such as social capital investments or unmeasured factors such as love and emotions)? Do white and black families respond differently to the needs of children and their parents for assistance?

Theoretical Arguments Guiding This Study

The main thesis of this study is that families are interdependent: extended family members are an important source of support for children and their immediate families.

The ideas put forth in this dissertation do not follow one established theoretical model, but draw from several theoretical perspectives (social exchange theory and ideas about social capital, as well as the life course perspective) to argue that extended family members' investments serve as important safety nets for children and their families, particularly when there are clear needs for such assistance.

As discussed in the previous chapter, social exchange theory presents the idea that extended family members may invest in the younger generations for reasons other than the immediate return of resources. Extended family members may be motivated to help their youngest family members because they receive considerable satisfaction from providing help or have immediate or long-term expectations of returns to such gestures. Another primary motivation for extended family members to participate in such exchanges may be an interest in investing in the social capital of a family (Astone, Nathanson, Schoen, and Kim 1999; Hofferth, Boisjoly, and Duncan 1999; Hofferth and Iceland 1998). By investing in the social capital of a family, extended family members are ensuring continued strong ties in the family.

Theoretically, this dissertation conceptualizes social exchanges and social capital as strong motivations for extended family members to cross nuclear family lines to assist

children and their families (see Figures 3.1 and 3.2). However, because of data limitations, such individual-level motivations that may facilitate the transfer of resources from extended family members to children and their families are unmeasured in the subsequent analyses. There is one exception to this, however. The perceived social capital available to children and their immediate families from extended family members is included as a predictor of the transfer of resources from extended family members to children and their immediate families. As Figure 3.2 shows, social capital is not operationalized in this study as a motivation for individual action, but is a culmination of individual investments made by extended family members in the social capital of the family.

An implicit assumption in the work of scholars in social exchange theory and work on social capital is that resources are transferred simply because established relationships between individuals exist in families. There is little discussion of the preemptory factors that may initiate or encourage more or less transference of resources or affect the decision to give to one family member over another. The life course perspective is particularly useful for explaining how individuals' life events and circumstances, in other words needs and constraints, may draw in the assistance of family members at a particular point in time (Elder and O'Rand 1995; Macmillan and Copher 2005). The life course perspective presents the notion that individuals' lives are composed of different life pathways and trajectories and are also marked by important life course transitions. Applying these concepts to this dissertation, it is theoretically important to consider the myriad individual life events and constraints that all family

members may introduce into the family's dynamics that have a bearing on extended family transfers.

Furthermore, according to the life course perspective, individuals' life trajectories and life events are embedded in a particular historical and social context (Elder and O'Rand 1995). One important social context is the family: Although individuals experience their own life trajectories and life events, they are also linked to other people's lives in interdependent ways, such that the experiences of one family member will likely have repercussions for other family members. As Elder and O'Rand (1995) state, "All lives are lived interdependently, and this connectedness structures a process of self-development. Linked lives are a product of intergenerational ties and social transmission," (p. 456). The notion of linked lives is particularly important for this dissertation; family members are interdependent and if a problem befalls children, then it is theorized that extended family members will assist in whatever way they can.

Based on the literature presented in the previous chapter and this section derived from social exchange theory and work on social capital, as well as the life course perspective, this dissertation explores how extended family members are an important safety net for children and their extended families by transferring resources in times of need. Demographic studies have certainly examined intergenerational transfers from older generations to younger generations (see Soldo and Hill 1993 and Aldous 1995 for comprehensive reviews of the existing literature), such research has been limited in scope, having failed to explore in depth the process through which transfers are occurring. Nor have studies taken into account the life course perspective and how life events and characteristics of all members in the family system may affect transfers.

Studies have also failed to explore these transfers within a context of social stratification, particularly race, to investigate how such transfers may be a part of a larger context of inequalities that already exist among children and their families. So, this dissertation will make a needed contribution to the literature by comprehensively exploring the family context and needs that encourage transfers from extended family members.

Hypotheses

Transfers of resources across the boundaries of the nuclear family represent investments in social capital (Astone, Nathanson, Schoen, and Kim 1999) and according to the life course perspective, are likely prompted or constrained by specific life events of family members (Elder and O'Rand 1995; Macmillan and Copher 2005). Given the notion that family lives are linked and interconnected, such that individual needs have an impact on the whole family system, we would expect to see that the needs and constraints of all family members involved would be important for the transfer of resources across the boundaries of the nuclear family. Also, given the importance of social capital as an investment in families, we would expect to see that regardless of constraints, if a family has high social capital, more resources would be transferred.

Given these ideas, the aim of this dissertation is to explore the process through which extended family members transfer money, time, and space to children and their immediate families and how these resources are prompted by the needs, constraints, and social capital of those involved. The following conceptual and operational models are representations of the process guiding the ideas in this study. First, a conceptual model is presented that represents the theoretical motivations explaining why extended family members may be inclined to help out children and their immediate families. As

represented in this model, family members may be motivated to transfer resources because of love and emotions, a desire to invest in the social capital of a family, or the anticipated receipt of future caregiving in late life. Second, the operational model and hypotheses that are explored in this study consider how multiple life events and needs happening in a family may affect the transfer of resources. The operational model shows how the life events of a family (including children's families' needs, children's own needs, and in the case of coresidence, grandparents' abilities to help) prompt extended family members to be motivated and ultimately transfer resources to their youngest family members in need of help. Furthermore, the social capital that exists as a resource within families is also anticipated to prompt extended family support.

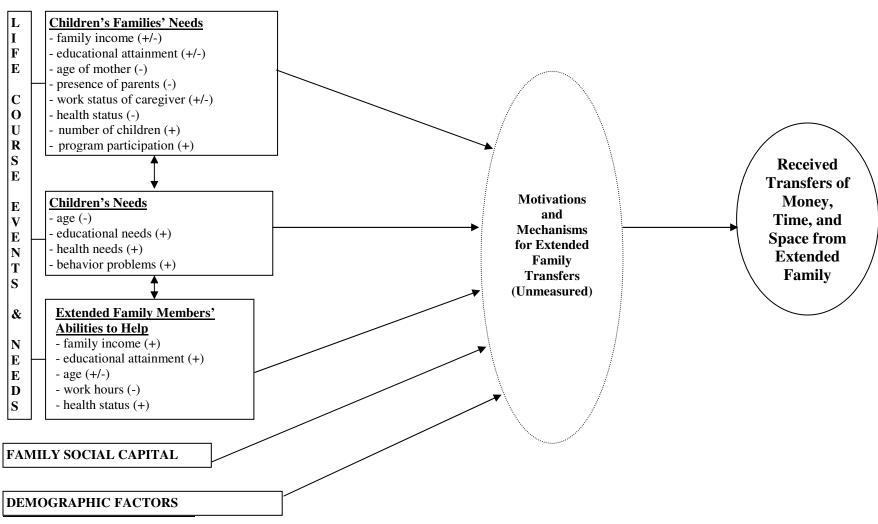
Looking in depth at the models, Figure 3.1 is a conceptual model of the motivations and mechanisms within families that may facilitate transfers of resources from extended family members to children and their immediate families. While the concepts shown in model 3.1 are unmeasured in the PSID data and are not included in the final analyses, they provide further clarification of the process through which extended family transfers of resources are happening. As discussed in the literature review in chapter 2, four major theoretical threads exist in the literature to explain the motivations for family members to exchange resources. The first theoretical motivator included in the conceptual model, rational choice, explains exchange through the direct cost and benefit of a transaction between two individuals. The fairly narrow definition of exchange as explained by very traditional and economics-oriented rational choice models, has limited utility for this study, because kin networks are characterized by more generalized and long-term exchanges (Bearman 1997), as well as non-economic exchanges (such as time

investments and coresidence). However, the next three theoretical motivators included in the conceptual model (reciprocity and the expectation of future returns, the desire to invest in family social capital, and the emotional ties to exchange networks) offer insights into the study of extended family transfers of resources to children and their families. As the literature describes, the long-standing exchange networks established in families encourage members to share resources because they may expect assistance when they need it in the future, see a benefit to enhancing social ties within the family, and/or have a positive, emotional attachment to their role in the family and the exchanges that ensue with other relatives. These factors are strong underlying motivations for family members to invest in their family networks and to give to those children and their families who have high needs for assistance.

Figure 3.1 demonstrates the various theoretical motivations for extended family members to share resources with children and their families. In other words, such motivations characterize those of the potential extended family *donors* of money, time, and coresidence in the exchange relationship. However, Figure 3.1 does not show the specific reasons that prompt such family members to make such donations. Figure 3.2 describes the operational model being explored in this dissertation, or the specific life course events and needs that children and their families (or the potential *recipients* in the exchange relationship) have that might draw in extended family support.

Figure 3.1: Conceptual Model of Motivations and Mechanisms for Extended Family Transfers of Resources to Children and **Their Families MOTIVATIONS** AND MECHANISMS FOR EXTENDED FAMILY **TRANSFERS Rational Choice Reciprocity/Expectation of Future Returns** Received **Transfers of** Money, Time, and Space from Extended **Family** Desire to invest in family social capital **Emotional ties to exchange network**

Figure 3.2: Operational Model of Factors Prompting Extended Family Transfers of Resources to Children and Their Families⁴



⁴ The signs (+/-) signify the hypothesized relationship of each factor with expected outcomes of extended family transfers of money, time, and space to children and their families. A positive relationship is signified by (+) and a negative relationship is signified by (-).

Looking in detail at Figure 3.2, the top two boxes on the left constitute the needs and life events of children and their families that are measured in this study and are theorized to prompt extended family transfers of resources. The needs present in children's families and among children are linked, as represented by connecting arrows, as the needs of children will affect the needs of parents, and vice versa. Overall, this model anticipates that the greater the needs that children's families encounter (younger mothers, absent parents, work demands, poorer health, having more children, and government program participation) and the greater the needs of the children (age, educational needs, health needs, and behavioral problems), the greater and more likely transfers from extended families will be. Income and education of the children's families are anticipated to vary according to the resources transferred (i.e. more functional caregiving and coresidence if the incomes are lower and more cultural time spent with extended family members if the children's families' educational attainment is higher) (Figure 3.2).

The third box on the left represents the abilities of extended family members to help children and their immediate families. Because of the interconnectedness of family networks, this box is also linked to the needs of children and their immediate families. This model anticipates that the more income and education extended family members have, the more they will be able to help. Furthermore, constraints like older and much younger age, longer work hours, and worse health are anticipated to limit the abilities of extended family members to help.⁵

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⁵ Because of data constraints, this study will only explore the abilities of extended family members to help children and their parents in the model exploring coresidence by including data from grandparents.

The fourth box on the left of the model constitutes the perceived availability of resources from extended family members: the family's social capital. The family's social capital is expected to be an existing resource in families that has been developed through past exchanges of resources. Furthermore, it is anticipated to be a resource collectively shared by the family, yet able to be accessed by family members in need. Thus, it is anticipated to facilitate the transfer of resources from extended family to children, regardless of the abilities of family members to help; the greater the perceived social capital, the more likely extended family members are making other investments in their youngest kin's lives.

Finally, the last box on the left of the model captures demographic factors that may also affect the transfer of resources from extended family members to children and their families. The most important demographic factor to be explored in this study is race. Race is anticipated to be significant for transfers across extended family lines, particularly given existing research showing differences among white and black families on monetary transfers (Hogan, Eggebeen, and Clogg 1993; Lee and Aytac 1998) and the incidence of grandparent and grandchild coresidence (Bryson and Casper 1999).

As represented graphically in Figure 3.2, the life course events and needs, existence of social capital, and demographic factors are all expected to motivate extended family members to transfer resources to the benefit of children and their families. As previously described, the motivations and mechanisms for extended family transfers to transfer resources (as theorized and explored in the work on social exchanges and social capital) are unable to be measured in this dissertation due to data constraints. However, because of the considerable body of work establishing social exchange theories and their

links to transfers within family networks (Astone, Nathanson, Schoen, and Kim 1999), this is not a limitation. Rather, this rich body of theoretical and conceptual work will enhance the explanation of findings throughout this study, particularly in those instances where the high needs of children and their immediate families are *not* associated with transfers.

The following hypotheses draw upon existing theory and research, as well as the previously outlined conceptual framework and model. The hypotheses will elaborate on the relationship that specific factors in the model may have upon transfers of extended family members' resources (money, time, space) to children and their immediate families.

Children's Families' Needs

Children's family income. The evidence on family income and its relationship to transfers of capital from extended family is mixed. With respect to money transfers, the intergenerational transfers literature finds that intergenerational support of all forms (financial, caregiving, advice giving) was higher to adult children who had higher levels of income, while adult children in poverty were far less likely to receive any support (Hogan, Eggebeen, and Clogg 1993; Lee and Aytac 1998). There may be limitations with the findings on intergenerational transfers, however. Both studies used the National Survey of Families and Households (NSFH) and acknowledge that the resources in the grandparent generation could not be measured with their data (Hogan, Eggebeen, and Clogg 1993) and that the measurement of financial transfers were limited to amounts of \$200 or more, perhaps introducing a bias into the data (Lee and Aytac 1998).

Furthermore, race may be an important factor here, at least with respect to monetary donations as an outcome, as African-American families with children may receive less money overall relative to white families (Hogan, Eggebeen, and Clogg 1993; Lee and Aytac 1998; Shapiro 2004). However, another recent study has suggested that social class rather than race explains much more variation in findings on kin support, with those of higher socioeconomic standing receiving more financial support regardless of race (Sarkisian and Gerstel 2004). These conflicting findings suggest the need for additional exploration of the importance of race.

With respect to time investments, the family caregiving literature suggests low-income working mothers, may depend upon functional, caregiving time from grandparents as an alternative to high cost childcare (Baum 2002; Smith 2002; Uttal 1999). However, theoretical work on cultural capital suggests that those with more of society's desired resources (i.e. money) will also have access to more cultural capital (Bourdieu 1986; Lin 2000), and by extension, more time engaged with extended family members in culturally desirable activities. Furthermore, children's coresidence with grandparents has long been associated with the greater needs of lower income families (Bryson and Casper 1999; Casper and Bryson 1998; Minkler 1999; Minkler and Roe 1996; Pebley and Rudkin 1999). So, based on these findings, I hypothesize that:

1.1 Children's families that have higher incomes receive transfers of **money** in *greater amounts* from extended family members; the *likelihood* of receiving any money, however, will be higher among lower income families.

- 1.2 Children's families that have lower incomes are more likely to receive time from extended family and grandparents, particularly help with functional caregiving tasks; in contrast, children's families that have higher incomes are more likely to receive time from extended family members and grandparents with cultural activities.
- 1.3 Children's families that have lower incomes will be more likely to coreside with grandparents.

Children's family's educational attainment. One study using NSFH data found that the higher the education, the more likely adult children will be in a high exchange relationship and will receive unreciprocated support from their parents (Hogan, Eggebeen, and Clogg 1993). Another study, also using NSFH data, has found that adult children with more education are more likely to receive financial assistance than others (Lee and Aytac 1998). Regarding time assistance, theories of cultural capital suggest that families with higher levels of education will be inclined to transfer these resources to the younger generations by sharing in cultural activities (Bourdieu 1984; Bourdieu 1986). With respect to functional caregiving, studies have not found any associations with a family's education and receipt of grandparent caregiving (Vandell et al. 2003). Any effects of education may also be outweighed by the importance of income as a predictor of coresidence, but it is likely to assume that lower levels of education will be associated with coresidence. Based on these findings in the literature, I hypothesize that:

1.4 Children's families that have higher levels of educational attainment are more likely to receive greater amounts of **money** from extended family members.

- 1.5 Children's families that have higher levels of educational attainment are more likely to receive cultural time investments from extended family members and grandparents; while functional caregiving time investments will not be significantly different for children whose families have different educational backgrounds.
- 1.6 Lower levels of education in children's families will be associated with a higher likelihood of **coresidence** with grandparents.

Mother's age. The age of a mother may be significant for transfers of resources, particularly time investments. It has been argued that unmarried, teenage mothers may be one of the biggest precipitating reasons for grandparents to become more involved in caregiving their grandchildren (Hirshorn 1998). Younger mothers are also much more likely to receive intermittent care for their children from grandmothers (Vandell et al. 2003). Coresidence may also be higher for children with young mothers (Aquilino 1996; Zabin, Wong, Weinick, and Emerson 1992). The evidence is less clear as to whether grandparents will transfer more money if mothers are young. However, based on the extreme needs of young mothers, such mothers and their children may be more likely to receive investments of money, too. Therefore, I hypothesize that:

1.7 Children with younger mothers are more likely to receive transfers of money, time, and coresidence from extended family members and grandparents.

Presence of Parents. Children who live with a single mother or coreside with grandparents in the absence of parents receive much more assistance from extended family than other children. It has long been established in the sociological literature on

work and family that women bear much of the responsibility in families for household labor and the work of caring for children (Chafetz 1991; Goode 1982; Polatnick 1973; Williams 2000). Furthermore, the literature on mothers and daughters reveals a great deal of solidarity, particularly when daughters become parents themselves (Boyd 1989). Mothers are also particularly likely to become more involved in their daughters' lives following divorce when children are present in the family (Aldous 1985; Boyd 1989; Spitze, Logan, Deane, and Zerger 1994; Wilson 1987). As revealed through experiments using vignettes, there is also a preference for older mothers to provide assistance to their own daughters rather than their daughters-in-law (Coleman, Ganong, and Cable 1997). These ideas suggest that grandchildren may receive more assistance from their mothers' parents than their fathers' parents, and single mothers may benefit most.

Furthermore, when parents are absent from children's lives, for various reasons, grandparents are likely to provide a home and become surrogate parents to these children (Minkler and Roe 1996) and coresidence is the most important predictor of extended full-time care by grandparents (Vandell et al. 2003). So, families headed by a single mother or with no parent at all are more likely to be characterized by greater investments by grandparents. I therefore hypothesize:

1.8 Children with a single mother present or no parents present in the household are more likely to receive **money**, **time**, and **coresidence** from extended family members.

Work status of mother. A mother's work status has been found to be associated with the receipt of time investments from extended family. Mothers who work full-time during the first three years of their child's life are much more likely to use extended full-

time grandparent care (defined as at least 30 hours a week during regular durations) than to not use grandparent care or to use it more sporadically (Vandell et al. 2003). Studies have not found links between mothers' full-time work status and money investments from extended family members. One researcher has found that grandparents are more involved in providing money to middle-class families when such families experience temporary job loss (Shapiro, 2004), but this likely happens when men, rather than women lose their jobs because of the gendered nature of work and family. Furthermore, more economically and educationally privileged women may be intentionally reducing their workload by choice in order to invest in intensive mothering toward their young children (Hays 1996), thus necessitating few investments from extended family members. Work status has not been a significant predictive variable in past studies of coresidence, but because of the marginal status of low income workers with children (Baum 2002), those employed full-time may be less inclined to live with extended family members. So, based on these findings, I hypothesize that:

- 1.9 Children with mothers who work full-time are more likely than those whose mothers work part-time to receive transfers of time from extended family members and grandparents.
- 1.10 Children with mothers who work full-time will be less likely than those working part-time to receive money and coresidential assistance from extended family members.

Health status. Few studies have investigated the relevance of the health of children's parents for drawing in extended family support. Researchers have suggested, though, that adult children experiencing health issues such as illness, surgery, or the birth

of another child (Hirshorn 1998), as well as catastrophic events such as paralysis (Heymann 2000) draw extended family members, particularly grandparents, into spending more time and caring for children. Surprisingly, when other forms of support, beyond caregiving are investigated, one study did not find that the health status of children's parents drew in greater intergenerational support from grandparents (Hogan, Eggebeen, and Clogg 1993). Because few studies have investigated the relationship of parents' health and grandparents' transfers of capital, it suggests the need for further study. I hypothesize that:

1.11 Children who have a primary caregiver in poor health are more likely to receive transfers of **money**, **time**, and **coresidence** from extended family members.

Number of children. Because raising children requires a considerable investment of resources, it is likely that the more children in a family, the more likely parents will receive assistance from grandparents and other extended family members. Until now, this has not been explored in great depth with respect to extended family dynamics and the number of very young children in extended families. I hypothesize that:

1.12 Children who live in a household with a greater number of children under the age of 18 will be more likely to receive transfers of **money**, **time**, and **coresidence** from extended family members.

Government program participation. Studies have suggested that welfare participation is associated with a higher likelihood of dependence upon kin (Hao 1994), particularly with respect to child care (Smith 2002). It is likely that government subsidies made to children with respect to their food security (such as WIC and free lunch) will

also be associated with greater dependence upon kin because of the high needs experienced by children's immediate families. So, it is hypothesized that:

1.13 Children whose families receive government subsidies on their behalf will be more likely to receive transfers of money, time, and coresidence from extended family members.

Children's Needs

Child's age. The age of the child has clear relevance for the transfer of capital from extended family; the younger the child, the more support is needed from kin. The findings support this notion; parents with a preschool age child are much more likely to receive support from older family members than parents of a school age child (Hogan, Eggebeen, and Clogg 1993). Therefore I hypothesize that:

2.1 Children who are younger are more likely to receive **money**, **time**, and **coresidential** support from extended family members.

Child's educational needs. To date, no studies have explored the relationship of children's educational needs and transfers of capital from extended family. It may be likely that grandparents are transferring money to facilitate a better education, as transfers of capital may be particularly important in middle-class families even when the child has no special educational needs (Shapiro 2004). Furthermore, it is likely that children with special educational needs might also need specialized caregiving or educational investments (cultural capital) from grandparents to keep children with educational needs at pace with other children. Coresidence may be associated with special education needs simply because of deficits in resources in low-income families.

2.2 Children who have more special educational needs are more likely to receive transfers of **money**, **time**, and **coresidence** from extended family members.

Child's health status. Studies have found that grandparents may be drawn into assisting the younger generations when children have health needs. While studies have not explored transfers of money, caregiving and emotional support from grandparents may be the most frequent form of unpaid support that parents of children with disabilities receive (Green 2001). Another study found that continuous support on the part of grandparents, rather than sporadic support, was particularly beneficial and most valued by parents of children with disabilities (Mirfin-Veitch, Bray, and Watson 1997). Although these studies do not speak to coresidence, it is likely that children from resource deficient households would also have worse health. Furthermore, health care costs may also prompt transfers of money to children's families. So the following hypothesis asserts:

2.3 Children who have more health needs are more likely to receive transfers of **money**, **time**, and **coresidence** from extended family members.

Child's behavioral problems. At present, no studies have explored the relationship between children's behavioral problems and transfers of resources from extended family. It may be likely that extended family are investing more time in caregiving to children with behavioral problems because of the difficulty in finding caregivers willing to watch such children. Even grandparents who caregive to such children report burdens, despite their obligations to such grandchildren (Bowers and Myers 1999). It is also likely that children with behavioral needs might require

additional supervision or therapy, perhaps drawing grandparents into transferring money to facilitate such extra interventions. It is not clear that behavioral problems would prompt coresidential sharing with extended family, but coresidence has been associated with greater behavioral problems in children (Pittman 2003). Based on these assumptions:

2.4 Children who have more behavior problems are more likely to receive transfers of **money** and **time** from and to be **coresiding** with extended family members.

Extended Family Members' Abilities to Help

In this study, extended family data are only included in the coresidence sample, because this sample was restricted to children who had PSID grandparents in the study. Therefore, the following hypotheses are about grandparents' resources with respect to *coresidence* with grandchildren *only*.

Grandparents' family income. The literature shows that grandparents with lower family incomes are more likely to be in coresidential situations and to be providing considerable care to grandchildren (Bryson and Casper 1999; Caputo 2000; Casper and Bryson 1998). Based on this finding, I hypothesize that:

3.1 Grandparents with lower family incomes are more likely than those with higher incomes to be **coresiding** with children and their families.

Grandparents' educational attainment. Studies that investigate coresidential grandparents and their educational background have found that such grandparents on the whole are better educated or as educated as their peers (Bryson and Casper 1999; Fuller-Thomson and Minkler 2001). But, single grandmothers who coreside with grandchildren

are less well educated than other grandparents (Casper and Bryson 1998). Thus, educational attainment may have mixed results based on whether or not there is a single grandmother in the household.

3.2 Grandparents with higher education are more likely to be **coresiding** with children, except in the case of single grandmothers who are more likely to have lower levels of education if coresiding with children.

Grandparents' age. Studies have found that younger grandparents are more likely to be coresiding in their own home with grandchildren than other grandparents (Bryson and Casper 1999). Therefore:

3.3 Grandparents who are younger are more likely to be **coresiding** with their grandchildren.

Grandparents' work hours. Few studies have examined the relationship of grandparents' work hours and their coresidence with grandchildren. Studies have found that grandparents who have grandchildren in their homes are more likely to be working (Bryson and Casper 1999), . but grandparents may have to adjust their work hours to accommodate increased responsibilities for caregiving to grandchildren or not. So:

3.4 Grandparents who work part-time will be more likely than those working full-time to be **coresiding** with their grandchildren.

Grandparents' health status. One study has found that grandparents who maintain homes for their grandchildren are more likely to be in better health (Bryson and Casper 1999). However, other studies have found that grandparents who care for grandchildren have more functional health limitations (ADLs) and higher levels of depression (Minkler and Fuller-Thomson 1999; Minkler, Fuller-Thomson, Miller, and

Driver 1997). But, because "surrogate parent" grandparents are highly likely to live in poverty (Bryson and Casper 1999), such health conditions could be associated with other factors in their lives. Because of these mixed findings, grandparents' health status should be investigated further. The following hypothesis will be explored:

3.5 When the income of grandparents is controlled for, grandparents who report good health will be more likely to **coreside** with their grandchildren.

Family Social Capital

Some have argued that the most promising avenue of research on social capital and the family is the exploration of how social capital is an investment that family members make to maintain strong family ties (Astone, Nathanson, Schoen, and Kim 1999). As assumed in social exchange theory, group members are often investing in their social networks simply because such investments are seen as a worthwhile outcome (Katz, Lazer, Arrow, and Contractor 2004). Therefore, it is likely that extended family who invest in the social capital of their families are transferring resources in times of need, and are *perceived* by children and their families as likely providers of resources in future times of need.

In this study, social capital is conceptualized not only as an individual-level motivator, but is also operationalized as an available resource to families with young children. As studies have explored, the interest in investing in the social capital may be an important motivator for individuals to exchange resources within families (Astone, Nathanson, Schoen, and Kim 1999). In this study, social capital is conceptualized (see Figure 3.1) as an unmeasured motivator for individuals in families to respond to the

needs of children and their immediate families. As other scholars have discussed, social capital may also exist "in the family bank," or as a resource that can be accessed in times of need or crisis (Furstenberg 2005; Hofferth, Boisjoly, and Duncan 1999; Hofferth and Iceland 1998). This is how social capital is operationalized in the model to be explored in this study (Figure 3.2). In other words, this existing "bank" of social capital across a network of kin can be drawn upon by young families with children in times of need or crisis, thus promoting the transfer of resources across nuclear family boundaries. So, I hypothesize that:

4.1 Children for whom their family's social capital is high are more likely to receive **money**, **time**, and **coresidence** from extended family members.

Chapter 4: Methodology

The main thesis of this study is that families are interdependent. Grandparents, aunts and uncles, and even great-grandparents may be an important source of support for children and their families, especially in times of need. Such family interdependence presents a considerable challenge to the ideology of the nuclear family: families are simply not as nuclear as we may assume in American society, especially when the well-being of children is of concern. This dissertation aims to explore how investments of money, time, and coresidence from extended family members on behalf of children and their immediate families are important sources of support when children are in need.

To study the role of extended family members' investments in support of children and their families, this dissertation employs quantitative analyses using multigenerational data from children, their immediate families, and in the case of coresidence, from their grandparents, too. The data source for this dissertation is the Panel Study of Income Dynamics (PSID), and its 1997 and Child Development Supplement (CDS). This chapter describes in detail the methodology used in this dissertation: the PSID and CDS data, as well as the sample drawn from these data for the study; the dependent, independent, and control variables that will be used to explore the theoretical arguments through quantitative analyses in this dissertation; and the analysis plan.

Data and Sample

Source of the data. The PSID is as a nationally-representative, longitudinal study that began in 1968 by researchers at the University of Michigan with a sample of 5,000 American families (Hill 1991). The PSID has continued to follow these original families, including all children who left the original households and then formed new households

and families (Hill 1991). This is one of the most unique features of the PSID. Unlike other surveys that stop following respondents once they leave a household, the PSID continues to follow split-off households and families, provided they are connected by blood relation (or adoption) to the original sample's families. The most recent wave of data collection for the PSID was conducted in 2005, and there are now nearly 7,400 families in the study because of split-off households and the addition of a new sample (Panel Study of Income Dynamics 2005). Because the PSID has followed the original study's families⁶ continuously since 1968, it has become one of the best sources of longitudinal and nationally representative data collected from individuals and their family members in the United States.

The Child Development Supplement (CDS) to the PSID was initiated in 1997 to explore the youngest PSID generation, or children age 0 to 12, and those who care for them. The children of the CDS were drawn from the sample based on their family's participation in the main PSID sample, and the CDS sample includes many siblings who live in the same households. The CDS is nationally representative and, for most children, is connected to the longitudinal family data collected since 1968 in the main PSID study, allowing the ability to link children to their parents, and even grandparents, in a nationally representative and longitudinal data set.

The CDS data themselves are also longitudinal, as children of the first wave of the CDS (CDS-I) were followed up in 2002 and 2003 in an additional round of data collection among the children, then aged 5 to 17 (CDS-II).⁷ In the CDS-I, data were

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⁶ Although the PSID data were collected annually from 1968 through 1997, by 1999 it was switched to biennial data collection.

⁷ Because the CDS-II data are not relevant for this study, only data from the CDS-I will be analyzed.

collected from 3,563 children (Supplement 2005). In the CDS-II, data were collected from 91% of the families who participated in the CDS-I in 1997, resulting in follow-up data on 2,907 children and adolescents (p. 1) (Supplement 2005). However, this study will be restricted to the 1997 CDS data.

Appropriateness of the data. The quantitative analyses in this dissertation investigate how extended family investments of money, time, and coresidence to the benefit of children and their immediate families are important sources of support in times of need. Because the PSID and CDS data have considerable information about children, their immediate families, and even their grandparents, as well as extensive measures capturing investments of money, time, and coresidence, these data are entirely appropriate and fitting for the quantitative analyses proposed herein.

Other studies have also used the PSID to study intergenerational transfers within families. Economists have investigated monetary transfers in PSID families and have found a modest link between the incomes of adult children and the support they receive from their parents (Altonji, Hayashi, and Kotlikoff 1992; Altonji, Hayashi, and Kotlikoff 1997). Another study using 1980 and 1988 PSID data found that time and money may not be traded off in family networks, but may be positively related in an overall package of support (Hofferth, Boisjoly, and Duncan 1999). While these aforementioned studies have made important inroads into understanding how extended families are linked in money and time transfers, no study prior to this one has used the PSID to investigate extended family investments in young children and their immediate families regarding money, time, and coresidence. Furthermore, this dissertation will be particularly attuned

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⁸ Although 3,563 children were preserved in the CDS-I sample, 83 of these children were later identified as non-sample and not a part of the PSID.

to how children's own attributes and those of their immediate families are precipitating factors for extended family investments, making good use of the extensive family and child data collected in the PSID and CDS.

Sample Used in this Study. The sample created for use in this study is based on multiple data files of the PSID and CDS and links data from children to that of their immediate families, and when exploring coresidence, also links children and their families to grandparents in the PSID study. There were multiple steps involved to define who was eligible for inclusion in the samples for each analysis included in the study (Table 4.1).

The sample used in this dissertation is based upon the 3,563 children surveyed in the 1997 CDS, with the exclusion of those children in the new immigrant sample. The sample was drawn from the CDS-I data file, or data collected from the CDS children and their primary caregivers in 1997. This data file is publicly available through the PSID website portal to data downloads: (http://simba.isr.umich.edu/ALL/). In addition to the CDS-I data file, the more detailed Time Diary file, capturing how and with whom children spent time over a two day period (one weekday and one weekend day) for the CDS children is used in this study.

By including all children and their families who were interviewed for the CDS in 1997, the baseline sample size was 3,563 (Table 4.1). In 1997, the new immigrant sample was added to the PSID to better represent changes in the immigrant population since the study began in 1968 (Hill 2007). Children in the new immigrant sample had no family history data in the study prior to 1997 and were deemed ineligible, reducing the sample to 3,234 cases (Table 4.1).

Analyses of monetary transfers from extended family members were further restricted to those children who had no missing data on such monetary transfers from relatives (n = 3,218). Analyses of time children spent with extended family members were further restricted to those children who completed time diaries in 1997 (n = 2,584). Finally, analyses of coresidence included 1) all children in the CDS who were not in the new immigrant sample (n = 3,234) and 2) those children who had eligible and available data from grandparents in the sample (n = 2,242) to understand grandparent-specific coresidence. (For additional information on how the grandparent sample was created, please see Table 4.1 and Appendix I.)

Table 4.1: Creation of the study samples: Money, Time, and Coresidence Analyses

STUDY SAMPLES AND ELIGIBILITY CRITERIA	SAMPLE SIZE
ORIGINAL CDS SAMPLE OF CHILDREN IN 1997	3,563
CDS children who were part of the new immigrant sample (n = 329)	
[Ineligibility was defined by identification in the new immigrant sample (variable "newimmi"	
in the CDS data set). Such families were added in 1997, and had no family history data.]	2 224
TOTAL ELIGIBLE CDS CHILDREN PRIOR TO SPECIFIC ANALYSES	3,234
MONEY ANALYSES:	
CDS children who were missing money transfers data from relatives (n = 16)	
[Ineligibility was defined here by missing data on key dependent variable]	3,218
TIME ANALYSES:	
1997 STUDY SAMPLE	
CDS children who did not complete time diaries in $1997 (n = 650)$	
[Ineligiblity was defined here by missing data on key dependent variable]	2,584
CORESIDENCE ANALYSES:	
OVERALL STUDY SAMPLE	3,234
GRANDPARENT STUDY SAMPLE	
INELIGIBILITY:	
CDS children whose PSID grandparents had died since 1968 (n = 259)	
[Ineligibility was defined here by having grandparents who were surveyed at the	
beginning of the PSID data collection in 1968 but passed away prior to 1997, resulting in no available grandparent data in 1997.]	2,975
CDS children without PSID grandparents in the sample (n = 151)	2,573
[Ineligibility was defined here by only having grandparents in 1997 who were not	
valid PSID sample members, or those grandparents with person numbers between	
900-996).]	2,824
CDS children with PSID grandparents who are not heads of households (n = 24)	
[Ineligibility was defined here by having grandparents who were not heads of	
households and therefore could not provide coresidence.]	2,800
ATTRITION:	
CDS children with legitimate PSID grandparents who had no 1997 data (n = 558)	
[Grandparents were absent from the PSID in 1997, not attributable to death.]	2,242

Characteristics of the sample. The sample used in this study is representative of the larger population of children and their families in the United States, with the exception of the racial composition of the sample. Although the PSID sample was originally designed in 1968 to draw upon nationally representative households and low-

income households, in 1997 actions were taken to adjust the sample (Hill 2007). The core sample from 1968 was reduced, but was refreshed with households who were either 1) in the original sample and headed by an African-American respondent with a child under the age of 12 in 1996, or 2) were a part of the new immigrant sample, designed to reflect changes in the composition of the immigrant population since 1968 (Hill 2007). Because of the 1997 changes to the PSID sample, and the exclusion of the new immigrant families from this study, there are more African-American children in this study (44%) than is the case in the general population (Table 4.2).

Table 4.2 shows other key demographic characteristics of the 3,234 children in the study sample and their immediate families. In the sample, there are a total of 3,234 children, among whom half are girls and half are boys, with a mean age of 6.07 years old (Table 4.2). With respect to family arrangements, most children have at least one other sibling living in the same family at the time of the survey (77%), and most also have at least one other family member participating in the CDS (66%). Most children live in a two-parent household (58%), while 35% live in a household with a single mother. Finally, only 7% of the sample was living at the time of survey with a biological grandparent (Table 4.2).

To compensate for the complexity of having data from children in the same family in the sample (a de facto cluster sample), final models were run in SAS by applying clustering controls through the proc surveyfreq, proc surveylogistic, and proc surveyreg commands.

Table 4.2: Summary frequency counts, means, and percentages on key sample characteristics (Unweighted)

Table 4.2: Summary frequency counts, means, and percentages on key sample char-	FREQUENCY
	COUNTS, MEANS,
SAMPLE CHARACTERISTICS	& PERCENTAGES
Individual children in the sample (total)	3234
Gender of children	
Boys	1660 (51%)
Girls	1574 (49%)
Race/ethnicity of children	
White non-Hispanic	1623 (50%)
Black non-Hispanic	1437 (44%)
Hispanic	47 (1%)
Asian or Pacific Islander	2 ()
American Indian or Alaskan Native	19 (1%)
Other	99 (3%)
Refused	7 ()
Mean age of children in the sample	6.07 years old
Number of CDS children in household in the sample	
One	1110 (34%)
Two	2124 (66%)
Children's siblings living in the family unit at the time of survey	
None	754 (23%)
One	1428 (44%)
Two	762 (24%)
Three or more	290 (9%)
Living arrangements of children's biological parents at the time of survey	
No biological parents in household	130 (4%)
Biological mother and father in household	1877 (58%)
Biological mother only	1143 (35%)
Biological father only	84 (3%)
Child coresides with grandparent	
No, does not coreside	2994 (93%)
Yes, coresides with grandparent	240 (7%)

Weighting. Children are the unit of analysis in this study, so the child-based weight in the 1997 (CH97PRWT) CDS data will be used in the final analyses.

Data Limitations. The PSID and CDS data are appropriate for this study because of the rich measures available about children and their families. But, there are a few data limitations to using the CDS and PSID data to understand extended family members' investments in the younger generations. Principally, the dependent variable capturing monetary transfers into PSID households in 1997 asks if "relatives" gave money, and does not specify the relationship of the relatives (grandparents, uncles, aunts, etc) to the

recipients. Similarly, the measures of time spent with children only specify if extended family members were grandparents or "other relatives," also lacking some clarity on the relationship of the extended family members to the child. Consequently, analyses of monetary transfers will simply analyze investments of "relatives" in general, while analyses of time transfers will analyze grandparental investments as well as those of other relatives in the child's extended family.

Also, some children in the CDS are siblings and cousins to other CDS children, resulting in some participants sharing households and extended families. While the study would be cleaner if children unique to each family were in the CDS sample, such overlap in the sample does not mean that children in the same families have the same outcomes. For example, some children may have spent more or less time with extended family members in a week than their siblings or cousins did. Statistically, the overlap of grandparents among individual children in the study is corrected in final regression models by using survey data analysis commands in SAS (proc surveyfreq, proc surveyreg).

Finally, as is the case with many studies, sample attrition may raise questions about the representativeness of the sample. Attrition in the time analyses sample in this study is the result of data collection issues: Not all of the children in the CDS completed both a weekend and weekday time diary. Attrition in the grandparent coresidence analyses in this study is the result of death and the intermittent participation of grandparents in the overall PSID sample: Without data from grandparents in the PSID in 1997, coresidence analyses could not be conducted. To understand the ways in which the sample may be biased, bivariate statistics for the samples included and excluded from the

time and coresidence analyses are included in Appendix II. As a result, the final sample used in both sets of analyses (time and coresidence) is skewed toward children from families of higher socioeconomic backgrounds (see Appendix II). But, this is to be expected. The PSID and panel studies in general routinely lose individuals of lower socioeconomic levels (Fitzgerald, Gottschalk, and Moffitt 1998), and such attrition in the PSID has neither produced notable biases in population-based outcomes (Lillard and Panis 1998) nor contributed to a loss of representativeness with the population at large (Fitzgerald, Gottschalk, and Moffitt 1998). (See also Appendix IV for the comparability of independent variables across all three samples used in analyses in the study).

Dependent Variables

In this study, multiple outcome measures are used to investigate the money, time, and coresidence that extended family members share with children and their immediate families. Summary means and percentages for the outcome measures are in Table 4.3.

Table 4.3: Summary means and percentages for dependent variables (Weighted)

DEPENDENT VARIABLES	MEANS & PERCENTAGES
MONEY	
Money given by PSID relatives to child's household in the past year $(n = 3,218)$	
Percent reporting any money (TSFR_YN)	10%
Average annual amount in 1997 (past 12 months) (TSFR_TOT)	\$590.78
Average annual amount in 1997 (past 12 months) among recipients (n=325)	\$5728.24
TIME	
Time spent engaged with extended family, excluding grandparents $(n = 2,584)$	
Percent reporting no time in last week (EXTIME_MULT)	64%
Percent reporting cultural time only in the last week	10
Percent reporting functional time only in the last week	6
Percent reporting cultural and functional time in last week	20
Average hours total time per week (EXTIME_TOT)	4.33 hrs
Average hours total time per week among recipients (n=1,097)	12.15 hrs
Time spent engaged with grandparents only (n = 2,584)	
Percent reporting no time in last week (GPTIME_MULT)	62%
Percent reporting cultural time only in the last week	8
Percent reporting functional time only in the last week	10
Percent reporting cultural and functional time in last week	20
Average hours total time per week (GPTIME_TOT)	4.24 hrs
Average hours total time per week among recipients (n=998)	11.22 hrs
CORESIDENCE	
Coresidence in the household of grandparents (n = 2,242) (G_CORES_DV)	5%

Money. The donation of money across generational lines is an outcome measure in this study. The variable TSFR_TOT is a created variable that sums the amount of money donated by relatives to the child's household in 1996 as reported by the heads of household in 1997. The dichotomous variable TSFR_YN is derived from TSFR_TOT and represents whether a child's household received any money from relatives in 1996 (1) or not (0). Overall, only 16 children were missing family data on monetary transfers received from relatives, so a total of 3,218 children were included in analyses of money transfers from relatives. The question wording in 1997 from which these data are based

⁹ In the case of "other" responses for how often money was received from relatives, I have assumed the most conservative time frame, or a one-time only donation in the amount reported by the respondent.

was, "Did you [head] receive any help in 1996 from relatives? How much was it (per week, month, year, other)? Did she [wife] receive any help in 1996 from relatives or friends? How much was from relatives (per week, month, year, other)?" Overall, 10% of the 3,218 children in the sample lived in households that received money from relatives in 1996, with an average annual amount of \$590.78 received in 1996 and reported in 1997 (Table 4.3).

Time. The donation of time across generational lines is an outcome measure in this study and is evidenced in children's and primary caregivers' reports of CDS children spending time with grandparents and other extended family members. The variable EXTIME_TOT is the amount of time (in hours) that children reported spending engaged in activities with extended family members, excluding grandparents, during a one-week period in 1997, while GPTIME_TOT is similarly created, but is restricted to time spent with grandparents only. Data are also available for each child that report whether relatives were present and available, but not engaged with the child in an activity. This study focuses solely on "engaged" time, as the measure reflects greater extended family involvement with the child and may be a more reliably reported measure.

To create these variables, CDS time diary¹⁰ data for each child who completed a diary in the sample on both a weekday and a weekend day (n=2,584 children) were aggregated to represent the total amount of time spent engaged in an activity where

¹⁰ A time diary is a record of the child's activities on a random weekday and random weekend day (as selected by researchers) and is completed by older children themselves, or in the case of very young children, by the child's caregiver. Records in the time diary begin at midnight on the given day and typically constitute 15 to 40 different entries of activities done in that day, the time such activities took, and the other individuals present at the time (see http://psidonline.isr.umich.edu/CDS/time_diary/readme.html for more details).

extended family members were also involved.¹¹ The data were then multiplied by 5 in the case of a weekday and multiplied by 2 in the case of a weekend day in order to generate a weekly estimate of time spent engaged with extended family members. The data were then transformed from units of seconds into minutes and finally into the total number of hours spent per week engaged in an activity with extended family members present. Overall, children were engaged for averages of 4.33 hours with extended family members and 4.24 hours with grandparents only per week (Table 4.3).

From the variables EXTIME_TOT and GPTIME_TOT, the dummy variables EXTIME_DUM and GPTIME_DUM were created that indicated whether or not children had spent any time engaged with extended family or grandparents in the time diary week in 1997. Approximately 36% of children reported spending time engaged in activities with extended family during the surveyed week in 1997, while 38% reported spending some time similarly engaged in activities with grandparents.

To indicate the quality of the time that children spend with extended family members, additional variables were created. The variables GPTIME_FUNC and EXTIME_FUNC (1997) are categorical variables that take into account whether children are spending engaged time with grandparents and other extended family members in functional and daily household and personal care activities. Functional activities were determined to be those activities in the children's time diaries coded between 011 and 499, or the larger categories of "paid work," "household activities," "child care," "obtaining goods and services," "personal needs and care," and most of the passive leisure codes, with the exception of codes for reading (939 to 943). Such activities were

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¹¹ Extended family members were identified through the time diary variables in 1997 and 2002 for "grandparent participating" and "other relative participating." The other relative designation excludes parents and siblings.

determined to consist of daily routine care and housekeeping activities rather than enrichment activities. In contrast, the variables GPTIME_CULT and EXTIME_CULT (1997) were created to indicate that the time diary activities reported by children and their caregivers were largely of an enrichment and "cultural" nature. Cultural or educational and enrichment activities are those activities in the children's time diaries coded between 501 and 899, or the larger categories of "home computer related activities," "organizational activities," "entertainment/social activities," "sports and active leisure," and the passive leisure codes for reading (939 to 943). The categories for the functional and cultural variables are (0) no time spent with grandparents [other extended family members] in functional [cultural] activities and (1) time spent engaged with grandparents [other extended family members] in functional [cultural] activities. Of the 2,584 eligible children in 1997, 62% and 64% reported spending no time with grandparents or other extended family members respectively, 8% and 10% reported spending only cultural time with grandparents or other extended family members, 10% and 6% spent time with grandparents or other extended family members in functional activities only, and 20% reported spending time in functional and cultural activities with grandparents or other extended family members (Table 4.3).

Coresidence. The donation of space across generational lines is explored through children's coresidence in the households of extended family members. Among the 3,234 children in the sample who were not new immigrants, 5% lived in a grandparent-headed household, with less than 1% living in a household of an extended family member other than a grandparent (Table 4.3). Because of the low incidence of coresidence with extended family members other than grandparents, this study will focus solely on the

coresidence of children in grandparent-headed households and analyses were restricted to the sample of children who also had grandparent data in the PSID sample in 1997 (n = 2,242).

Because this dissertation focuses on extended family members' investments in children, coresidential situations where the children's parents were head of the household, yet an extended family member or grandparent was also residing in the household, will not be considered. This decision was made for practical and substantive reasons. On the practical side, when relatives in the household are not household heads, there is very little information about them available in the data set. On the substantive side, when relatives live in the household headed by the child's parent, we have no way of knowing why. In other words, did the relative live in the child's parents' household because of the needs of the extended family member or that of the child's family?

Furthermore, such scenarios are much less common than scenarios where children live in grandparent-headed households: only one-quarter of situations where grandchildren live with grandparents are households headed by the child's parents (Bryson and Casper, 1999).

A dummy variable was created to indicate whether or not a child was living in the household headed by these grandparents in 1997 (C_CORES_IV). The variable was created by tabulating the relation to head variable for each child in the CDS to understand if the child was a grandchild of the head of household in 1997. The variable was then recoded to a dichotomous variable, where 0 means that the child does not live in a grandparent-headed household and 1 means that the child does live in such households.

Overall, 5% of the children in the sample had coresided in a grandparent-headed household in 1997.

Independent Variables

The independent variables in this study include the needs of the children's immediate families, as well as the needs specific to the children themselves. The independent variables in this study are hypothesized to relate to extended family members' investments in children and their immediate families. Details about the definitions and values of the independent variables of interest are shown in Table 4.4. Furthermore, a correlation matrix of the independent variables is included in Appendix III and reveals minimal collinearity among the variables included in this study. Appendix IV also shows that the independent variables are quite comparable across each of the three samples (for analyses of the money, time, and coresidence dependent variables).

Table 4.4: Definitions, percentages, and means of independent variables in the study (1997) (n=3,234) (Weighted)

Independent Variables	Definitions	Percentages and means	
Children's Families' Ne	eds		
Children's families' income	0 to \$700,021; [Reported annual family income in 1996.]	\$54,563	
Children's families' education	0 to 17; [Defined as the highest number of years of educational attainment of household head or wife.]	13.69	
Mothers' age	14 to 65 [Mothers' age in 1997; in a few cases, information for mothers were missing and age of fathers was used.]	33.61	
Presence of parents in household	Mother only; father only; neither parent present; [Both parents present is the excluded category in multivariate analyses.]	Two parents Single mother Single father No parents	67% 28 2
Primary caregivers' employment status	No paid employment; low part-time (1-20 hrs); high part-time (21-35 hrs); full-time (36+ hrs); [Collapsed categories for hours worked per week; Full-time employment is excluded category.]	No empl. Low part-time High part-time Full-time	22% 21 26 31
Primary caregivers' health	Good health (1); poor health (0).	Poor Good	7% 93
Number of children <18 in family	1 to 9 [Number of children under 18 in the same family unit as the child]	2.33	
Program participation	Yes (1) or no (0); [Reported by the primary caregiver about the child's participation in either WIC or the Federal Free Lunch Program].	No Yes	75% 25
Children's Needs			
Child's age	Infants/toddlers (0-3); Preschool (4-5); younger school-age (6-9); [Older school-age children (10-12) are excluded category in multivariate analyses.]	Inf/toddler Preschool Young school. Older school.	30% 16 31 23
Special education needs	Yes (ever or at present) (1) or no (0); [Included in analyses of children in Kindergarten or higher.]	No Yes	87% 13
General health status	Excellent (5); very good (4); good (3); fair (2); poor (1) [Reported by the primary caregiver about the child]	4.38	
Disability status	0 to 3 possible ways in which child is limited (sports/play; school/day care; schoolwork). Recoded to a dummy variable where 0 is no disabilities and 1 is 1 or more. [Reported by the primary caregiver about the child]	No Yes	95% 5
Behavior problems (total)	0 to 27, where higher numbers indicate high externalizing behaviors (aggression) and/or high internalizing behaviors (withdrawn). [Children 3 and older.]	8.06	
Social Capital	,		
Children's families' social capital	0 to 3; Recoded to a dummy variable where 0 is no assistance would be sought from extended family and 1 is any report. [Defined as reports that the primary caregiver would seek assistance from extended family in three hypothetical scenarios.]	No Yes	40% 60

Children's Families' Needs

The inclusion of variables specific to children's families will clarify how the immediate needs of children's families may draw in extended family investments. The following variables from children's families are anticipated to be predictors of extended family investments: family income; education; mothers' age; presence of parents in the household; primary caregivers' employment status; primary caregivers' health status; the number of children under 18 in the household; and the child's federal nutritional program participation.

Children's families' incomes. This continuous variable reflects annual income received by all family members living in the child's household in 1996, as reported in 1997, with a range from 0 to \$700,021 in that year.

Children's families' education. This variable indicates the highest level of education reported by the head or wife in the household. This is a continuous variable, representing number of years of education completed, ranging from 0 to 17 years or more completed.

Mothers' age. This continuous variable represents, in years, the age of the child's mother in 1997, and ranges from 14 to 65 years old.

Presence of parent(s). The presence of the child's parents in the household is dummy coded with the following categories (where both parents present is the excluded category): mother only (biological/adoptive/step); father only (biological/adoptive/step); and neither parent present.

child on a daily basis.

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¹² The PSID CDS sometimes collects data from the primary caregiver to the child rather than from a designated parent. In most cases, the primary caregiver is the mother and is secondarily the father. On rare occasions, the primary caregiver may also be a grandparent. An individual can only be designated as the primary caregiver if they live in the same household as the child and report being most responsible for the

Primary caregivers' employment status. Primary caregivers' employment status in the paid labor force is an ordinal, categorical variable: non-employed (0); low part-time employment, or 1 to 20 hours a week (1); high part-time employment, or 21 to 35 hours a week (2); and full-time employment, or 36 or more hours a week (3).¹³

Primary caregivers' physical health. This dummy coded variable is based on the 1997 PSID question, "Are any family members there [in your household] in poor health? Who is that?" If the ID number of the primary caregiver is listed as being in poor health, this variable is 0, otherwise, good health is 1.¹³

Number of children in household. The number of children in the household could affect the distribution of grandparents' support within families. This continuous variable is a count of the number of children in the child's household who are under the age of 18, ranging from 1 to 9.

Program participation. This dummy coded variable is based on primary caregivers' reports as to whether children participated in federally subsidized nutrition programs such as WIC and the Federal Free Lunch Program. Primary caregivers were asked about WIC participation in the question, "Does [child] participate in the Supplemental Nutrition Program for Women, Infants, and Children, also known as the WIC program?" Primary caregivers were also asked about the child's receipt of free lunch in the question, "Did you (or another person) apply for (CHILD) to receive free or reduced-price lunches under the Federal School Lunch Program during this school year?" If children were under the age of 5 and participated in WIC or if children were age 5 and

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¹³ This variable will be omitted in the separate grandparent coresidence analyses, as for some coresiding children, their primary caregivers are grandparents.

older and received a free or reduced-price lunch, this variable was 1, otherwise non-participation was 0.

Children's Needs

One of the innovations of this study is the ability to include child-specific information in the analytic models to understand how the child's own needs may affect extended family investments directly. The following variables from the children in the sample are anticipated to be predictors of extended family investments: age of child; special educational needs; health needs (general health and disability status); and behavior problems.

Age. Child's age is a categorical variable that distinguishes between age according to likely participation in school-based programs: infants/toddlers (0-3 years); preschoolers (4-5 years); young school-age children (6-9); and older school-age children (10-12).

Special educational needs. This dummy variable is based on responses to the question, "Has he/she ever been classified by the school as needing special education?" where yes is 1 and no is 0. This variable is limited to children who attend Kindergarten and higher grades.¹⁴

General health status. This is based on the caregiver's perception of health and the question, "Would you say (child's) health is excellent, very good, good, fair, or poor?" Responses have been reverse coded, with excellent the highest (5) and poor the lowest (1).

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¹⁴ Separate regression models will be run to test variables that apply to children in Kindergarten or higher, including the measures: special educational needs; behavior problems (external); and behavior problems (internal).

Disability status. This is based on the question asked of caregivers, "Does (child) currently have any physical or mental condition that would limit or prevent (his/her) ability to... do usual childhood activities such as play, or participate in games or sports, attend school (preschool or day care) regularly, or do regular school work?"

Behavior problems. Two subscales constitute behavioral problems in this study: externalizing behaviors, such as aggressiveness; and internalizing behaviors, such as being withdrawn or sad. The external scale includes 16 items and has a range from 16 to 48, with 48 being the highest rating of external behavioral problems and an overall Cronbach's alpha of .86. The internal scale includes 13 items ranging in value from 13 to 39, with 39 being the highest rating of internal behavioral problems, and a Cronbach's alpha of .81. These measures were rescaled to create a total behavior problems scale that ranged from 0 to 27. These scales are limited to children age 3 and older.

Social Capital

Coleman (1988) describes social capital as resources that exist within a group and are available to individual members simply because of continued participation and membership in that group. In other words, the perceived support that exists in a family, which other family members can call upon in times of need or crisis, is a form of social capital. In this study, social capital is operationalized as a tally of a total of three possible instances (emergency help, monetary assistance, and advice seeking) in which the child's primary caregiver would be most inclined to seek support from extended family. The wording for these questions is: "Suppose that you had an emergency in the middle of the night and needed help. Who would you call? What if you had to borrow some money for a few weeks because of an emergency? Who would you ask? Suppose you had a

problem, and you were feeling depressed or confused about what to do. Who would you ask for help or advice?" The responses to these questions allows coding of responses to distinguish between family and non-family members to create a social capital variable specific to extended family members, including grandparents. The variable SOCCAP_REL ranges from 0 (no report of seeking help from extended family) to 3 (reports of seeking help from extended family in all three scenarios presented). Overall, 53% of the children's primary caregivers report that they would call upon extended family for assistance in at least one of the hypothetical scenarios.

Grandparent Generation

To better understand the generational characteristics and dynamics within families that increase the odds that children reside in the households of grandparents, additional analyses will be conducted that include data not only from children and their immediate families, but also from their grandparents. The inclusion of variables specific to the grandparent generation will clarify if grandparents' own *abilities to help* matter for coresidence with grandchildren (Table 4.5). It is important to note that data limitations do not permit using the grandparent variables to understand transfers of money or time to children and their families. This is because neither the question about money received from relatives nor the question about time children spent with grandparents specify *which relatives or grandparents* were involved. In other words, we cannot determine if the same grandparents who transferred money or spent time with grandchildren are also the same grandparents who are in the PSID sample for whom data are also available.

Table 4.5: Definitions, percentages, and means of grandparent independent variables

Independent Variables	Definitions	m	tages and leans (2,242)
Grandparents' income	0 to \$560,916; [Defined as the highest reported family income of either PSID grandmother or PSID grandfather in 1996]	\$4	9,459
Grandparents' education	0 to 17; [Defined as highest number of years of educational attainment of either grandparent]	1	2.90
Grandparents' age	29 to 87 years old; [Defined as the highest age reported by either PSID grandparent]	6	2.41
Grandparents' work hours	0 to 160 [Defined as the highest reported weekly combined work hours of heads and wives among PSID grandparents]	37.53	
Grandparents' health status	Excellent, very good, good health (1) OR fair or poor health (0); [Defined as highest self-reported health by PSID grandparent heads or wives]	Poor Good	31% 69

Grandparents' abilities to help the younger generations are operationalized in the constraints grandparents have that may limit transfers of capital to their children and grandchildren. Such constraints include: income; education; age; work hours; and health status.

Grandparents' income. This variable indicates the highest reported family income by either PSID grandparent in 1997 for the year 1996, with a range from \$0 to \$560,916.

Grandparents' education. This variable is the highest number of years of education reported by either PSID grandparent in the study and ranges from 0 (no completed years of education) to 17 (17 or more years of education).

Grandparents' age. This variable represents the age, in years, of the oldest PSID grandparent to the CDS child, ranging from 29 to 95 years old.

Grandparents' work hours. This continuous variable is the highest reported weekly combined work hours of the heads and wives among PSID grandparents and ranges from 0 to 160 hours per week worked.

Grandparents' health status. This dummy variable represents the highest self-reported health of either the heads or wives among PSID grandparents, with excellent, very good, and good health being 1 and fair or poor health being 0.

Control Variables

These models include control variables that may be relevant to the study, but are not anticipated to be relevant theoretical predictors. The control variables have two functions: 1) to control for demographic characteristics of the family; and 2) to control for grandparents' characteristics (Table 4.6).

Table 4.6: Definitions of control variables in the study

Control Variables	Definitions		
Demographic Characteristics of the Family			
Race	White, non-Hispanic; Black, non-Hispanic; Hispanic; Other; [White, non-Hispanic is the excluded category.]		
Gender of Child	Boy (1) or Girl (0).		
Primary caregiver is grandparent	Yes (1) or no (0); [Defined as grandparent being reported primary caregiver to child.]		
Relative care	Relative care is a regular arrangement for child (1) or no (0); [Included in time analyses only].		
Grandparent Characteristics			
Grandparent family structure	Single grandmother (1) or not (0).		

Demographic characteristics of the family

Race. Race has been linked to variations in grandparent involvement in caregiving for children (Uttal 1999; Vandell et al. 2003), as well as different rates of monetary transfers between among extended family members (Hogan, Eggebeen, and Clogg 1993; Lee and Aytac 1998; Logan and Spitze 1996; Rossi and Rossi 1990). The child's race (as reported by the primary caregiver) is included in models as a control.

Gender of the child. The gender of the child could affect the investments that grandparents make in their grandchildren and will be included as a control variable. It is a dummy variable coded as boy (1) or girl (0).

Primary caregiver is a grandparent. Whether or not the primary caregiver is a grandparent is an important control, particularly for those variables where primary caregiver information is collected (employment, health status). It is a dummy variable coded as yes (1) or no (0).

Relative care. In the analyses of time investments, knowing whether or not a child receives any care from relatives may be an important control. It is a dummy variable coded as yes (1) or no (0).

Grandparent characteristics

Grandparent family structure. In the analyses of coresidence that focus on grandparent households, grandparents' own data will be included. Because data will be drawn from all PSID grandparents in the sample, including couples, single grandparents, and separated grandparents, it is important to control for the source of the data.

Furthermore, because of the gendered nature of caregiving (Folbre 2001; Williams 2000), whether a child has data from a grandmother or not may be relevant. So, a dummy variable was created, drawn from the gender of the grandparent and the grandparents' living arrangements, with the categories of single grandmothers (1) or not (0).

Analysis Plan

The analyses in this dissertation include descriptive statistics, as well as multivariate ordinary least squares (OLS) and logistic and multinomial regression analyses to explore how three forms of extended family investments (money, time, and

coresidence) are made on behalf of children and their immediate families. The analyses make use of the PSID and CDS data from 1997 and include data from children, their immediate families, and in the case of coresidence, data from grandparents as well.

Descriptive statistics

Descriptive statistics were run to present basic characteristics of the 1997 CDS sample, including the percentages and means of each of the dependent variables for key independent variables in the study (see Tables 4.4 and 4.5 for definitions of the independent variables). ¹⁵ Descriptive statistics were also run on the dependent variables according to race (Table 4.3). Some scholars argue that there are important family differences by race with respect to extended family assistance (Burr and Mutchler 1999; Burton 1995; Hogan, Eggebeen, and Clogg 1993; Lee, Peek, and Coward 1998; Lee and Aytac 1998; Uttal 1999), but the forms of assistance and the conditions under which it is provided are still unclear in the literature. To further explore these questions, the African-American and white children (constituting 94% of the sample) were analyzed separately to understand how race produces variations in extended family assistance to children and their families. Such analyses set the stage for later regression models examining how race contributes to important differences in money, time, and coresidence patterns with extended family members. Table 4.7 shows differences by race on key independent variables.

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¹⁵ The percentages and means for the dependent variables of the overall sample have been previously shown in Table 4.3 and were described in the text that followed that table.

Table 4.7: Percentages and means of independent variables by race (1997) (Weighted)

	F	Race
	White	African- American
	n = 1,623	n = 1,437
Children's Families' Needs		
Children's families' income	\$62,658	\$26,360
Children's families' education	14.09	12.41
Children's families' social capital (yes)	63%	54%
Mothers' age	34.06	32.55
Single parent family	18%	62%
Primary caregivers' employment		
None	22%	22%
Low part-time	20	19
High part-time	27	23
Full-time	30	35
Primary caregivers' health (poor)	5%	15%
Number of children <18 in family	2.22	2.74
Relative care (yes)	10%	17%
Children's Needs		
Child's age		
Infant/toddler	31%	25%
Preschool	16	15
Young school age	31	34
Older school age	23	25
Special education needs (yes)	12%	14%
General health status	4.45	4.09
Disability status (yes)	4%	5%
Behavior problems	8.02	8.25
Program participation (yes)	16%	59%

Multivariate regression analyses to explore the hypotheses

Multivariate regression analyses will test the main thesis in this dissertation that families are interdependent and extended family members play important supporting roles in the lives of children and their families, particularly when needs are considered. This theoretical argument will be explored by analyzing three outcomes indicating extended family investments: money, time, and coresidence.

Money. Analyses of money use the entire CDS sample, with the exception of the 16 children who had no data on monetary transfers from relatives (n = 3,218). Logistic regression analyses were performed on a dummy variable noting whether the child's immediate family received any money from relatives in 1997 (TSFR_YN). OLS regression analyses were also performed on a continuous variable measuring the amount of money received from relatives in 1997 (TSFR_TOT).

Table 4.8 outlines the process for how the analyses were performed for the outcome measures. As shown on this table, the money analyses were run for the overall sample, as well as those who were school age (5 and older) to note if there were different donation patterns from extended family to children once they entered school. As is the case with all three of the dependent variables, money analyses were also run separately by race to understand any notable differences produced. The model included all of the independent variables, except where noted on Table 4.8.

Table 4.8: Plan for Regression Models: Money, Time, and Coresidence (1997)

Independent Variables	Coresidence	Time	Money	Money – Children 5 and Older**
Grandparents' Abilities to Help*	X			
Children's Families' Needs	X ^a	X	X ^a	X ^a
Children's Needs	X ^b	X ^b	X ^b	X
Control Variables	X	X	X	X

a Relative care is only included in the time analyses.

Time. Regression analyses of time investments from grandparents and other extended family members on behalf of children and their families were performed on the sample of CDS children who had complete time diaries in 1997 and were not coresiding in a grandparent-headed household (n = 2,406). The reason the sample was restricted to

 $b\ Educational\ special\ needs\ and\ behavior\ problems\ are\ only\ included\ for\ school\ age\ children.$

non-coresidential children for the regression models exploring time investments was the strong association between coresidence in a grandparent-headed household and time spent with extended family members, particularly grandparents. Because a whole chapter is devoted exclusively to exploring coresidence, the decision was made to restrict the sample accordingly.

In order to understand how grandparents and other extended family members invested in children and their families models were run to examine: 1) the likelihood that extended family and grandparents spent time engaged with children in logistic regression models (EXTIME_DUM and GPTIME_DUM); 2) the total amount of time spent with grandparents (GPTIME_TOT) and other extended family members (EXTIME_TOT) in OLS regression models; and 3) the quality of time (whether functional care is provided or cultural investments are made) with grandparents (GPTIME_CULT, GPTIME_FUNC), and extended family members (EXTIME_CULT, EXTIME_FUNC) in logistic regression models. Each of these analyses was also run separately by race to understand any differences in outcomes. These models include all of the independent variables, except where noted on Table 4.8.

Coresidence. Finally, regression analyses will also explore how coresidence in extended family members' households constitutes investments in children. A logistic regression analysis was performed to explore this idea, by focusing on children's coresidence in grandparent-headed households, as well as the characteristics of the children, their immediate families, and grandparents themselves (Table 4.8). The logistic regression model for coresidence employs stepwise methods that allow the introduction of information from grandparents separately from that of the children and their immediate

families in separate passes in order to build the model. Stepwise regression models enhance our understanding of how the needs of children and their families may matter differently from grandparents' abilities to help with respect to coresidence.

Consequently, Model 1 includes characteristics from the grandparents with whom the children coreside, while Model 2 introduces data from the child's immediate family and the children themselves, including demographic and family status characteristics, as well as needs-based characteristics. This model was also run separately on the African-American sample of children in the study who constituted the majority of children coresiding with grandparents. The models included all of the independent variables except where noted on Table 4.8.

Chapter 5: Analysis of Extended Family Investments in Children: Money

Monetary donations are perhaps the easiest way for extended family and grandparents to assist children and their families. It requires minimal effort to give money and does not require living near the children. For example, one study found that grandparents were more likely to send money to their grandchildren when they lived far away, yet were in close contact with them (Silverstein and Marenco 2001). However, extended family members' abilities to provide monetary assistance to children and their immediate families may be affected by their own financial needs and abilities, and consequently, the economic inequalities that exist in society.

To explore how extended family members support children through monetary donations, this chapter presents descriptive and multivariate findings that investigate two basic questions with the needs-based model. First, which children are likeliest to receive any financial help from extended family members? Second, which children receive the most financial help from extended family members? As this chapter will show, the likeliest to receive monetary donations are those children who have the most needs in their family lives. But, those receiving the largest amounts of money from extended family members are not necessarily the neediest children.

Overall Descriptive and Multivariate Model Findings

Descriptive Findings

The descriptive statistics show that children with the most individual and family needs are generally the likeliest to receive assistance from extended family members (Table 5.1). Consistent with hypotheses (and significant in the descriptive data), the highest proportions of children who receive transfers of money from relatives are more

likely to: have lower family incomes; be younger or single mothers; have primary caregivers who work fewer hours or are in poor health; participate in government programs (WIC and free lunch); and are themselves younger. Contrary to hypotheses (and significant in the descriptive data), transfers of money from relatives are associated with families who have fewer children under 18 in the household and those whose children are not in special education (Table 5.1).

When examining descriptive findings for African-American and white children and proportions who received money from relatives, a few differences emerge (Table 5.1). White children are more likely to have received money from relatives than black children (10.9% compared to 7.6% overall). Also, white children with primary caregivers in poor health, with fewer children under the age of 18 in the family, and who do not receive special education are more likely to receive money from relatives, while these factors are not significant for black children (Table 5.1).

Table 5.1: Percent who Received Money from Relatives by Children's and their Families' Characteristics for Overall Sample, African American, and White Children (1997) (Weighted; Clustered)

	Overall Sample n = 3234	All African American and White Children n = 3045	African American n = 1431	White n = 1614
TOTAL	10.3%	10.2%	7.6%	10.9%
Children's Families' Needs				
Children's families' income				
Less than \$15,000	15.8%*	16.3% *	$12.2\%^{\ *}$	22.4% *
\$15,000-\$29,999	14.8% *	13.6% *	6.6% *	16.5% *
\$30,000-\$44,999	9.5%	10.2%	2.4%	11.4%
\$45,000-\$69,999	7.0%	7.2%	2.6%	7.8%
\$70,000 or more ^a	7.5%	7.5%	1.3%	7.8%
Children's families' education				
Less than high school	10.3%	11.7%	7.6%	15.5%
High school	10.8%	10.6%	11.7% ^	10.3%
Some college	10.4%	10.4%	4.6%	11.9%
College and post college ^a	9.8%	9.3%	3.9%	9.7%
Extended family social capital (no)	10.6%	10.8%	9.3%	11.3%
Extended family social capital (yes)	10.2%	9.9%	6.1%	10.7%
Mothers' age				

14.10	26.501 ^	26.691	7.00	42.207 ^
14-19 20-24	26.5% ^	26.6% [^] 19.0% ***	7.0%	42.3% ^
20-24 25-29	20.1% ****		12.4%*	21.1%**
	13.7%*	14.8%*	11.4%	16.0%*
30-34 35-39	8.8%	8.9%	3.9%	10.1%
33-39 40+ ^a	8.4%	8.3%	9.6%	8.1%
	6.8%	6.3%	3.9%	6.9%
Single mother (no)	8.7%	8.9%	3.5%	9.5%
Single mother (yes)	14.4% *	13.9% *	10.1% **	17.1% *
Primary caregivers' employment	12.10	44.00	0.46	10.70
No employment	12.4%	11.9%	9.4%	12.5%
Low part-time (1-19 hrs/wk)	12.9% ^	13.8% ^	8.1%	15.1% ^
High part-time (20-34 hrs/wk)	8.5%	7.8%	7.1%	8.0%
Full-time (35+ hrs/wk) ^a	8.6%	8.9%	6.5%	9.6%
Primary caregivers' health (fair/poor)	20.6%	21.6% ^	12.4%	28.8% ^
Primary caregivers' health (exc/v.good/good)	9.6%	9.4%	6.8%	10.0%
Number of children < 18 in family				
One	13.2%*	13.2%	7.7%	14.4% ^
Two	10.3%	9.5%	4.4%	10.3%
Three	9.7%	10.5%	11.0%	10.3%
Four or more ^a	7.0%	7.7%	8.3%	7.1%
Program participation (no)	9.4%	9.3%	4.9%	9.8%
Program participation (yes)	12.9%	13.3%	9.5%*	16.8%
Children's Needs	12.9 /0	13.370	9.5 /0	10.6 //
Child's age				
Infant/Toddler (0-3)	15.1% ***	15.0% ***	8.8%	16.3% ***
Preschool (4-5)	13.1%	11.2% **	7.4%	10.5%
Young school age (6-9)	8.7%	8.7%	6.6%	9.3%*
Older school age (10-12) ^a	5.4%	5.6%	7.8%	5.0%
Special education (never)	10.7%	10.6%	7.1%	11.4% ***
Special education (now/ever)	5.7%	6.3%	12.0%	4.5%
Child health (fair/poor)	11.1%	10.8%	4.3%	14.8%
Child health (excellent/very good/good)	10.3%	10.8%	4.3% 7.7%	14.8%
Disability status (no)	10.3%			
Disability status (no) Disability status (yes)	9.8%	10.3% 9.7%	7.6% 6.9%	10.9% 10.5%
Behavior problems (internal/external)	7.070	7. 170	0.370	10.370
First and second quartile (low) (0-5)	10.9%	10.7%	8.3%	11.2%
Third quartile (5-10)	10.9% 8.7%	8.8%	8.3% 5.7%	9.7%
Fourth quartile (high) (11+) ^a	8.7% 10.8%	8.8% 10.9%	3.7% 8.6%	9.7% 11.5%
Control Variables	10.070	10.370	0.0%	11.370
Gender				
Boys	9.9%	9.5%	7.2%	10.2%
Girls				
Race/ethnicity	10.8%	11.0%	8.1%	11.6%
White, non-Hispanic ^a	10.9%	n/a	n/a	n/a
Black, non-Hispanic	7.6%			
Hispanic		n/a	n/a	n/a
Other	6.8%	n/a	n/a	n/a
Other	13.7%	n/a	n/a	n/a

a. Reference category for chi-square significance tests. b. Significance is noted as follows: $^{\wedge}$ (<0.10), * (<.05), ** (<.01), *** (<.001).

Overall Multivariate Model Findings

Looking at the logistic regression model (Table 5.2), where money received from relatives is regressed on various child and family measures, many of the factors are significant, and the overall fit of the model is fair (Adjusted R-square of 0.110). Overall, children whose immediate families have greater needs are more likely to report receiving transfers of money from extended family members. In particular, the absence of a parent is an important factor in the transfer of money from relatives outside of the household to the children's families. Children who live with a single mother (p<.001) or a single father (p<0.10) are more likely to receive transfers of money from relatives, compared to two-parent families. Those who live only with single mothers are nearly two and a half times more likely to receive transfers of money from relatives, while those who live only with single fathers are nearly three times more likely to receive transfers of money from relatives (Table 5.2).

Consistent with the needs-based hypotheses and model, other needs of the children's families are significantly associated with a greater likelihood of receiving money from relatives. Children with primary caregivers who are in poorer health are more likely to receive money from relatives than others (p<.001). Also, children who participate in government subsidized programs are over one and a half times more likely to receive money from relatives than children who are not on such programs (p<.05) (Table 5.2).

Age is the only characteristic of the children themselves that is predictive of a greater likelihood of receiving money from relatives: Younger children are more likely

than older children to receive money from relatives. For example, children who are infants or toddlers (age 0-3) are nearly three times as likely to receive money from relatives than older school age children (age 10-12) (p<.001). Preschool age children (age 4-5) are over twice as likely (p<.01) and younger school age children (age 6-9) are one and a half times as likely (p<0.10) to receive money from relatives than older school age children (age 10-12) (Table 5.2).

Race is also a significant predictor, as white children are more likely than black children to receive transfers of money from relatives (p<.001) (Table 5.2). This is consistent with the work of Shapiro (2004) who finds that transfers of money and assets within African-American families are not necessarily downward: African-American families with young children often reported transferring money to support older relatives.

Looking at Model 2, or the model restricted to school-age children, the two additional variables added to the model, special education and behavior problems, are significant (p<0.1 and p<.01) (Table 5.2). So, children who have never received special education but who have more behavior problems are more likely to receive money from relatives. While most of the need-based factors remain significant for children 5 and older compared to the general model for all children, there are a few notable changes. Children's families' program participation is no longer significant. Children age 5 and older are also significantly less likely to receive money if they have no parents present in their household (compared to two-parents present in the household) or if they are Hispanic (compared to white children).

Table 5.2: Logistic regression model: Child's family received money from relatives (1997)

(Weighted: Clustered)

Child's age ^{c.} 1.029*** 2.799 n/a n/a Preschool (4-5) 0.828** 2.288 1.053*** 2.867 Young school age (6-9) 0.447^ 1.563 0.569* 1.767 Special education n/a n/a -0.671^ 0.511 General health status 0.053 1.054 0.085 1.089 Disability status 0.021 1.021 -0.128 0.880 Behavior problems n/a n/a 0.056** 1.057 Control Variables Grandparent is primary caregiver -0.451 0.637 1.143 3.135 Race ^{d.} Black, non-Hispanic -0.962**** 0.382 -0.816* 0.442 Hispanic -0.641 0.527 -13.865*** <0.001 Other -0.051 0.950 0.539 0.686 Gender (Girl) 0.060 1.062 0.187 1.206 Constant -2.951** -5.711*** -5.711*** Adjusted R-square 0.110	(Weighted; Clustered)				
Children's Families' Needs Coefficient Odds ratio Coefficient Odds ratio Children's families' income -2.200E-06 1.000 -7.550E-07 1.000 Children's families' education 0.114* 1.121 0.079 1.082 Extended family social capital -0.024 0.976 0.026 1.026 Presence of parents* 0.883**** 2.417 1.013** 2.754 Single mother 0.883**** 2.417 1.013** 2.754 Single father 1.042* 2.834 1.195* 3.304 No parents -0.841 0.431 -1.830** 0.160 Primary caregivers' employment*. 0.358 1.431 0.392 1.480 Low part-time (1-19 hrs/wk) 0.380 1.462 0.299 1.349 High part-time (20-34 hrs/wk) -0.130 0.878 -0.188 0.829 Primary caregivers' health -1.077** 0.341 -0.741* 0.494 Number of children < 18 in family -0.107 0.899 -0.049 0.952					
Children's Families' Needs -2.200E-06 1.000 -7.550E-07 1.000 Children's families' income -2.200E-06 1.000 -7.550E-07 1.000 Extended family social capital -0.048 0.953 -0.131 0.877 Mothers' age -0.024 0.976 0.026 1.026 Presence of parentsa Single mother 0.883**** 2.417 1.013*** 2.754 Single father 1.042^2 2.834 1.195^3 3.304 No parents -0.841 0.431 -1.830*** 0.160 Primary caregivers' employmenth 0.358 1.431 0.392 1.480 None 0.358 1.431 0.392 1.480 Low part-time (1-19 hrs/wk) 0.380 1.462 0.299 1.349 High part-time (20-34 hrs/wk) -0.130 0.878 -0.188 0.829 Primary caregivers' health -1.077*** 0.341 -0.741** 0.494 Number of children < 18 in family -0.107 0.899 -0.049 0.952 <th></th> <th></th> <th></th> <th></th> <th></th>					
Children's families' income Children's families' education Extended family social capital Mothers' age Presence of parents* Single mother Single father No parents None Low part-time (1-19 hrs/wk) High part-time (20-34 hrs/wk) Primary caregivers' health Number of children's Needs Grandparent is primary caregiver Grandparent is primary caregiver Race ^d Black, non-Hispanic Pissen des Adujusted R-square Adjusted R-square Constant Adjusted R-square -2.200E-06 1.000 1.102 1.021 1.021 0.077 0.097 0.026 1.0026 1.0026 1.0026 1.0027 0.0026 1.0027 0.0026 1.0027 0.0026 1.0027 0.0026 1.0027 0.0026 1.0027 1.0037 0.0026 1.0037 0.0026 1.0037 1.0037 0.0026 1.0037 1.0037 0.0026 1.0037 1.0037 1.0037 1.0037 1.0037 1.0037 1.004 1.004 1.004 1.004 1.004 1.007 1.009 1.004 1.006 1.0		Coefficient	Odds ratio	Coefficient	Odds ratio
Children's families' education Children's families Constant Constant Constant Constant Children's families Constant					
Extended family social capital Mothers' age Presence of parents* Single mother Single father No parents None Control Variables Grandparent is primary caregiver Raced Gender (Girl) Constant Adjusted R-square Adjusted R-square Adjusted R-square Adjusted R-square Adjusted R-square Adjusted R-square O.048 0.953 -0.131 0.877 0.0877 0.0873 -0.026 1.026 1.026 1.026 1.026 1.026 1.026 1.026 1.026 1.026 1.026 1.026 1.026 1.026 1.026 1.026 1.026 1.026 1.027 1.013*** 2.754 1.040 2.039 1.480 0.392 1.480 0.392 1.480 0.892 1.480 0.878 -0.188 0.829 Primary caregivers' health -1.077** 0.341 -0.741* 0.494	Children's families' income		1.000		1.000
Mothers' age -0.024 0.976 0.026 1.026 Presence of parents ^{a.} Single mother 0.883 **** 2.417 1.013 *** 2.754 Single father 1.042 ^ 2.834 1.195 ^ 3.304 No parents 0.160 Primary caregivers' employment None 0.358 1.431 0.392 1.480 Low part-time (1-19 hrs/wk) 0.380 1.462 0.299 1.349 High part-time (20-34 hrs/wk) -0.130 0.878 -0.188 0.829 Primary caregivers' health -1.077 ** 0.341 -0.741 * 0.494 0.494 Number of children < 18 in family		0.114*	1.121	0.079	1.082
Presence of parentsa Single mother 0.883 *** 2.417 1.013 ** 2.754 Single father 1.042	-	-0.048	0.953	-0.131	0.877
Single mother 0.883**** 2.417 1.013*** 2.754 Single father 1.042^ 2.834 1.195^ 3.304 No parents -0.841 0.431 -1.830*** 0.160 Primary caregivers' employmenth 0.358 1.431 0.392 1.480 Low part-time (1-19 hrs/wk) 0.380 1.462 0.299 1.349 High part-time (20-34 hrs/wk) -0.130 0.878 -0.188 0.829 Primary caregivers' health -1.077*** 0.341 -0.741** 0.494 Number of children < 18 in family		-0.024	0.976	0.026	1.026
Single father 1.042	Presence of parents ^a .				
No parents	Single mother	0.883 ***	2.417	1.013 **	2.754
Primary caregivers' employment ^{b.} None Low part-time (1-19 hrs/wk) High part-time (20-34 hrs/wk) Primary caregivers' health Number of children < 18 in family Program participation Children's Needs Child's age ^{c.} Infant/Toddler (0-3) Preschool (4-5) Special education General health status Disability status Behavior problems Grandparent is primary caregiver Black, non-Hispanic Other Othe	Single father	1.042 ^	2.834	1.195 ^	3.304
None	No parents	-0.841	0.431	-1.830 **	0.160
Low part-time (1-19 hrs/wk) 0.380 1.462 0.299 1.349 High part-time (20-34 hrs/wk) -0.130 0.878 -0.188 0.829 Primary caregivers' health -1.077 ** 0.341 -0.741 * 0.494 Number of children < 18 in family -0.107 0.899 -0.049 0.952 Program participation 0.525 * 1.690 0.697 2.008 Children's Needs Child's age ^c Infant/Toddler (0-3) 1.029 *** 2.799 n/a n/a Preschool (4-5) 0.828 ** 2.288 1.053 *** 2.867 Young school age (6-9) 0.447 1.563 0.569 * 1.767 Special education n/a n/a -0.671 0.511 General health status 0.053 1.054 0.085 1.089 Disability status 0.021 1.021 -0.128 0.880 Behavior problems n/a n/a 0.056 ** 1.057 Control Variables Grandparent is primary caregiver Race ^{d.} 0.451 0.637 1.143 3.135 Race ^{d.} Black, non-Hispanic -0.962 *** 0.382 -0.816 * 0.442 Hispanic -0.641 0.527 -13.865 *** <0.001 Other -0.051 0.950 0.539 0.686 Gender (Girl) 0.060 1.062 0.187 1.206 Constant -2.951 ** -5.711 *** Adjusted R-square 0.110 0.125	Primary caregivers' employment ^{b.}				
High part-time (20-34 hrs/wk)	None	0.358	1.431	0.392	1.480
Primary caregivers' health -1.077 ** 0.341	Low part-time (1-19 hrs/wk)	0.380	1.462	0.299	1.349
Number of children < 18 in family Program participation	High part-time (20-34 hrs/wk)	-0.130	0.878	-0.188	0.829
Number of children < 18 in family Program participation 0.525 * 1.690 0.697 2.008	Primary caregivers' health	-1.077 **	0.341	-0.741*	0.494
Children's Needs Children's Needs Child's age ^{c.} Infant/Toddler (0-3) 1.029**** 2.799 n/a n/a Preschool (4-5) 0.828*** 2.288 1.053**** 2.867 Young school age (6-9) 0.447^ 1.563 0.569* 1.767 Special education n/a n/a -0.671^ 0.511 General health status 0.053 1.054 0.085 1.089 Disability status 0.021 1.021 -0.128 0.880 Behavior problems n/a n/a 0.056*** 1.057 Control Variables Grandparent is primary caregiver -0.451 0.637 1.143 3.135 Race ^{d.} Black, non-Hispanic -0.962**** 0.382 -0.816* 0.442 Hispanic -0.641 0.527 -13.865**** <0.001	Number of children < 18 in family	-0.107		-0.049	
Child's age ^{c.} 1.029*** 2.799 n/a n/a Preschool (4-5) 0.828** 2.288 1.053*** 2.867 Young school age (6-9) 0.447^ 1.563 0.569* 1.767 Special education n/a n/a -0.671^ 0.511 General health status 0.053 1.054 0.085 1.089 Disability status 0.021 1.021 -0.128 0.880 Behavior problems n/a n/a 0.056** 1.057 Control Variables Grandparent is primary caregiver -0.451 0.637 1.143 3.135 Race ^{d.} Black, non-Hispanic -0.962**** 0.382 -0.816* 0.442 Hispanic -0.641 0.527 -13.865*** <0.001	Program participation	0.525 *	1.690	0.697	2.008
Infant/Toddler (0-3)	Children's Needs				
Preschool (4-5) 0.828 ** 2.288 1.053 *** 2.867 Young school age (6-9) 0.447 ^ 1.563 0.569 * 1.767 Special education n/a n/a -0.671 ^ 0.511 General health status 0.053 1.054 0.085 1.089 Disability status 0.021 1.021 -0.128 0.880 Behavior problems n/a n/a 0.056 ** 1.057 Control Variables Grandparent is primary caregiver -0.451 0.637 1.143 3.135 Race ^{d.} Black, non-Hispanic -0.962 *** 0.382 -0.816 * 0.442 Hispanic -0.641 0.527 -13.865 *** <0.001	Child's age ^{c.}				
Preschool (4-5) 0.828 ** 2.288 1.053 *** 2.867 Young school age (6-9) 0.447 ^ 1.563 0.569 * 1.767 Special education n/a n/a -0.671 ^ 0.511 General health status 0.053 1.054 0.085 1.089 Disability status 0.021 1.021 -0.128 0.880 Behavior problems n/a n/a 0.056 ** 1.057 Control Variables Grandparent is primary caregiver -0.451 0.637 1.143 3.135 Race ^{d.} Black, non-Hispanic -0.962 *** 0.382 -0.816 * 0.442 Hispanic -0.641 0.527 -13.865 *** <0.001	Infant/Toddler (0-3)	1.029 ***	2.799	n/a	n/a
Special education n/a n/a -0.671 ^ 0.511 General health status 0.053 1.054 0.085 1.089 Disability status 0.021 1.021 -0.128 0.880 Behavior problems n/a n/a 0.056 ** 1.057 Control Variables Grandparent is primary caregiver -0.451 0.637 1.143 3.135 Race ^{d.} Black, non-Hispanic -0.962 *** 0.382 -0.816 * 0.442 Hispanic -0.641 0.527 -13.865 *** <0.001	Preschool (4-5)		2.288	1.053 ***	2.867
Special education n/a n/a -0.671 ^ 0.511 General health status 0.053 1.054 0.085 1.089 Disability status 0.021 1.021 -0.128 0.880 Behavior problems n/a 0.056 ** 1.057 Control Variables Grandparent is primary caregiver Race ^{d.} -0.451 0.637 1.143 3.135 Black, non-Hispanic -0.962 *** 0.382 -0.816 * 0.442 Hispanic -0.641 0.527 -13.865 *** <0.001	Young school age (6-9)	0.447 ^	1.563		1.767
Disability status 0.021 1.021 -0.128 0.880 Behavior problems n/a n/a 0.056** 1.057 Control Variables Grandparent is primary caregiver Race ^{d.} -0.451 0.637 1.143 3.135 Black, non-Hispanic -0.962*** 0.382 -0.816* 0.442 Hispanic -0.641 0.527 -13.865*** <0.001		n/a	n/a	-0.671 ^	0.511
Behavior problems n/a n/a 0.056** 1.057 Control Variables Grandparent is primary caregiver Race ^{d.} -0.451 0.637 1.143 3.135 Black, non-Hispanic Hispanic Other Gender (Girl) -0.962*** 0.382 -0.816* 0.442 Hispanic Other	General health status	0.053	1.054	0.085	1.089
Behavior problems n/a n/a 0.056** 1.057 Control Variables Grandparent is primary caregiver Race ^{d.} -0.451 0.637 1.143 3.135 Black, non-Hispanic Hispanic Other Gender (Girl) -0.962*** 0.382 -0.816* 0.442 Hispanic Other	Disability status	0.021	1.021	-0.128	0.880
Control Variables -0.451 0.637 1.143 3.135 Race ^{d.} Black, non-Hispanic -0.962 *** 0.382 -0.816 * 0.442 Hispanic -0.641 0.527 -13.865 *** <0.001	Behavior problems	n/a		0.056 **	
Race ^{d.} 0.382 -0.816* 0.442 Hispanic -0.641 0.527 -13.865*** <0.001	Control Variables				
Race ^{d.} 0.382 -0.816* 0.442 Hispanic -0.641 0.527 -13.865*** <0.001	Grandparent is primary caregiver	-0.451	0.637	1.143	3.135
Hispanic -0.641 0.527 -13.865 *** <0.001 Other -0.051 0.950 0.539 0.686 Gender (Girl) 0.060 1.062 0.187 1.206 Constant -2.951 ** -5.711 *** Adjusted R-square 0.110 0.125					
Other Gender (Girl) -0.051 0.950 0.539 0.686 0.539 0.686 0.187 1.206 Constant Adjusted R-square -2.951 ** 0.110 0.125 -5.711 *** 0.125	Black, non-Hispanic	-0.962 ***	0.382	-0.816*	0.442
Gender (Girl) 0.060 1.062 0.187 1.206 Constant -2.951 ** -5.711 *** Adjusted R-square 0.110 0.125	Hispanic		0.527	-13.865 ***	< 0.001
Constant -2.951 ** -5.711 *** Adjusted R-square 0.110 0.125	I -	-0.051	0.950	0.539	0.686
Adjusted R-square 0.110 0.125	Gender (Girl)	0.060	1.062	0.187	1.206
Adjusted R-square 0.110 0.125					
·	Constant	-2.951 **		-5.711 ***	
N 3,218 1,947	Adjusted R-square	0.110		0.125	
	N	3,218		1,947	

Significance is noted as follows: $^{(<0.10)}$, $^{(<0.5)}$, $^{(<0.10)}$, $^{(<0.10)}$, $^{(<0.10)}$.

<sup>a. Excluded category is two-parent family arrangements.
b. Excluded category is full-time work.
c. Excluded category is older school age children.
d. Excluded category is white, Non-Hispanic identified children.</sup>

Table 5.3 compares logistic regression models by race and regresses whether children's families received money from relatives on various family and child characteristics. As with the overall logistic model (Table 5.2), the adjusted R-squares are fair.

In looking at the models for African-American and white children (Table 5.3), only primary caregivers' poor health (p<0.10; p<.01) and program participation (p<.05; p<0.10) are significant factors shared by both groups. There are far more differences between the two groups with respect to significant predictors. For African-American children, those with families having lower incomes (p<0.10) and those with younger mothers (p<0.10) are more likely to be receiving money from relatives, while those with grandparents as primary caregivers are less likely to receive money from relatives (p<.05). For white children, having a single mother or a single father are associated with a greater likelihood of monetary transfers from relatives, compared to two-parent families. White children with a single mother are 2.3 times more likely (p<.01) and white children with a single father are 3.2 times more likely (p<.05) to receive money from relatives compared to white children in two-parent families (p<.01).

One interesting comparative difference by race is the age of the child and the likelihood of receiving money from relatives (Table 5.3). African-American children are more likely to receive money from relatives if they are older (age 10-12) (not significant). In contrast, white children are far more likely to receive money from relatives if they are younger (p<.001). White infants and toddlers are 3.3 times more likely, preschoolers are 2.6 times more likely, and young school age children are 1.8 times more likely to receive money than older school age children (age 10-12).

Table 5.3: Logistic regression model: Child's family received money from relatives by race (1997)

(Weighted; Clustered)

	African-Ameri	can Children	White Ch	nildren
	Coefficient	Odds ratio	Coefficient	Odds ratio
Children's Families' Needs				
Children's families' income	-4.000E-05 ^	1.000	-1.380E-06	1.000
Children's families' education	0.116	1.123	0.081	1.084
Extended family social capital	-0.625	0.535	0.022	1.022
Mothers' age	-0.056 ^	0.946	-0.023	0.978
Presence of parents ^a .				
Single mother	0.458	1.581	0.851 **	2.343
Single father	0.278	1.321	1.185 *	3.271
No parents	-0.273	0.761	-0.772	0.462
Primary caregivers' employment ^{b.}				
None	-0.447	0.640	0.301	1.351
Low part-time (1-19 hrs/wk)	-0.641	0.527	0.503	1.653
High part-time (20-34 hrs/wk)	-0.406	0.666	-0.248	0.781
Primary caregivers' physical health	-0.839 ^	0.432	-1.214 **	0.297
Number of children < 18 in family	0.096	1.100	-0.109	0.896
Program participation	0.608 *	1.837	0.512 ^	1.669
Children's Needs				
Child's age ^{c.}				
Infant/Toddler (0-3)	-0.177	0.838	1.193 ***	3.296
Preschool (4-5)	-0.145	0.865	0.945 **	2.573
Young school age (6-9)	-0.465	0.628	0.601 *	1.824
General health status	0.017	1.017	0.118	1.125
Disability status	-0.247	0.781	0.081	1.084
Control Variables				
Grandparent is primary caregiver	-2.680*	0.069	0.484	1.622
Gender (Girl)	-0.010	0.990	0.158	1.171
	0.040		2.050	
Constant	-0.849		-3.059 *	
Adjusted R-square	0.135		0.116	
N	1,431		1,614	

a. Excluded category is two-parent family arrangements.

Significance is noted as follows: $^{(<0.10)}$, $^{(<.05)}$, ** (<.01), *** (<.001).

While Table 5.2 examined the likelihood of relatives giving money, Table 5.4 regresses the amount of money the child's family received from relatives on various family and child measures. The explanatory value of this model is quite low (Adjusted R-square of 0.019 for Model 1 and 0.011 for Model 2), and much lower than the adjusted

b. Excluded category is full-time work.

c. Excluded category is older school age children.

R-squares in Tables 5.2 and 5.3. This indicates that the need-based model explored in this dissertation is a better predictor of the *likelihood* of transfers of money rather than the *amount* of money transferred to children's families from outside relatives.

Looking in detail at Table 5.4, a few of the measures are significant. For the overall sample of children (Model 1), only three factors were significant predictors of children's families receiving more money and were not necessarily indicative of need. For example, families with more education received greater amounts of money from relatives (p<.05), as did white children (p<0.10) (compared to black children). The only factor significantly associated with children's families receiving greater amounts of money was the age of the child: Children who were infants or toddlers (age 0 to 3) received greater amounts of money from relatives (p<.05).

Looking at Model 2, which was restricted to school-aged children, different factors emerged as significant. Again, in contrast to the needs-based model and hypotheses explored in this study, children who had fewer needs were the ones receiving the greatest amounts of money from relatives. Looking at family needs (or best understood here as a lack of needs), children who lived with two parents received more money than children with no parents present (p<0.10). The children's own lack of need also translated into more money being received from relatives: children who had never received special education (p<0.10), who were in better health (p<.05), and who were beginning elementary school (age 6-9) compared to their older counterparts (p<.05) also received more money. Again, race was also a significant predictor, as white children received more money than black (p<.01) or Hispanic children (p<0.10). These non-need based findings suggest that other unmeasured, yet conceptually relevant interests of

extended family members may be operating here. Family members may be transferring greater sums of money to children and their families because of emotional ties and bonds, an expectation of reciprocity at a later date, or an interest in building the social capital of a family. Or, this could simply be a case of stratification and inequality in transfers as has been argued by others examining race differences and monetary transfers (Hogan, Eggebeen, and Clogg 1993; Lee and Aytac 1998). Yet, without data on the economic status of extended family members, it is unclear if this is the case.

Table 5.4: OLS regression model: Amount of money child's family received from relatives (1997) (Weighted; Clustered)

from relatives (1997) (Weighted; Cluste	ered)	I
	Model 1 - Overall Sample	Model 2 - Children 5 and Older
	Coefficient	Coefficient
Children's Families' Needs		
Children's families' income	3.000E-04	1.800E-03
Children's families' education	155.200 *	41.500
Extended family social capital	-84.668	184.774
Mothers' age	-51.183	0.381
Presence of parents ^a .		
Single mother	525.870	63.672
Single father	159.964	24.964
No parents	-461.183	-227.254 ^
Primary caregivers' employment ^{b.}		
None	1137.050	52.821
Low part-time (1-19 hrs/wk)	-371.261	-243.310
High part-time (20-34 hrs/wk)	-195.190	-136.640
Primary caregivers' physical health	214.217	-22.366
Number of children < 18 in family	-74.840	-61.725
Program participation	620.266	48.492
Children's Needs		
Child's age ^{c.}		
Infant/Toddler (0-3)	553.0845 *	n/a
Preschool (4-5)	121.898	109.205
Young school age (6-9)	76.433	272.433 *
Special education	n/a	-177.585 ^
General health status	286.609	145.793 *
Disability status	0.907	-87.487
Behavior problems	n/a	18.112
Control Variables		
Grandparent is primary caregiver	-11.321	186.921
Race ^{d.}		
Black, non-Hispanic	-612.261 [^]	-173.180 **
Hispanic	-263.748	-183.550 [^]
Other	3158.053	-13.151
Gender (Girl)	128.987	59.303
	1007.640	1240 707
Constant	-1897.640	-1240.787
Adjusted R-square	0.019	0.011
N	3,218	1,947

Significance is noted as follows: $^{(<0.10)}$, $^{(<0.5)}$, ** (<.01), *** (<.001).

<sup>a. Excluded category is two-parent family arrangements.
b. Excluded category is full-time work.
c. Excluded category is older school age children.
d. Excluded category is white, Non-Hispanic identified children.</sup>

Summary

Overall, the findings in this chapter indicate that the needs of children and their families are important determinants of money being donated by relatives. In particular, the needs-based model explored in this dissertation is particularly well suited to explain whether or not children receive money from relatives, rather than the amount of money given. In fact, as demonstrated by the data, a *lack of need* was often associated with greater amounts of money being given to children and their families.

When needs determined whether or not children received money, it was more often the needs of the children's families and not the children themselves that determined whether money was donated by relatives. Only the age of the child emerged as an important child-based predictor of money being donated. It could be argued, however, that child's age is also an indicator of the needs of the child's immediate families for assistance, as infants and toddlers require more money for child care and incidentals than older children. So the needs of the children's families are the driving factors in whether or not relatives are donating money.

There are also indications that race may be an important distinguishing factor in money being donated by relatives to children and their families. It is notable that white children are more likely to receive money from relatives than black children, which is consistent with the findings of other studies (Hogan, Eggebeen, and Clogg 1993; Lee and Aytac 1998). Furthermore, African-American children with the greatest needs may be the least likely to receive economic support from extended family members. When the needs-based model was run separately for African-American and white children, African-American children who had grandparents as primary caregivers were far less likely to

receive money from other relatives. Considering these children are among the most economically disadvantaged children (Bryson and Casper 1999; Minkler and Fuller-Thomson 2005), this indicates that there is no hidden economic support system for the neediest of African-American children.

Chapter 6: Analysis of Extended Family Investments in Children: Time

Time is a precious commodity, such that some have argued that it is as valuable or even more valuable than money to families (Bittman and Folbre 2004). Its value to families with young children can range from the basic need to have reliable child care while pursuing paid work, to the desire to spend more time eating family dinners or reading an extra story at bedtime. However, in a society that prioritizes time invested in paid work rather than time invested in family care (Folbre 2001), children and their families often fall short.

This chapter explores the ways in which grandparents and other extended family support children and their families by providing much needed investments of time to their youngest kin. Unlike money, which is often a resource readily available to the well off, or coresidence, which may be the last-resort for society's most disadvantaged members, time is a resource universally valued and desired by families with young children. What is not universal, though, is the way in which time is spent with children within families. While more disadvantaged families are likelier to call upon extended family members to serve as surrogate parents, families with more resources are likelier to call upon extended family members to spend more leisure and educational time with children.

Building upon the model in this study, this chapter will explore a number of questions about how grandparents and other extended family members invest their time in children's lives. Which children are most likely to spend time with grandparents and other extended family members? How much time do children spend with grandparents and other extended family members? How are children spending their time with grandparents and other extended family members? Together the answers to these

questions paint a picture of need, as well as preferences, among children and their families and the extent to which grandparents and other extended family are called upon to fulfill parental or companionate roles.

Which children are most likely to spend time with grandparents or other extended family?

Descriptive Findings

Table 6.1 presents a descriptive overview of the ways in which children spend time with family members, friends, and non-relatives over the course of a given week. When examining with whom kids spend time in a given week, children are most likely to report spending time with mothers (96.5%), non-relatives (presumably teachers and care providers) (83.5%), siblings (80.1%), and fathers (76.8%). Children were next most likely to spend time with friends (57.2%), grandparents (37.8%), and other extended family (35.6%). Because not all children are part of stepfamilies, they were least likely to report time with stepfathers (3.4%), stepsiblings (2.3%), and stepmothers (1.2%).

Table 6.1: Percent of Children who Spent Any Time with Family, Friends, and Others by Selected Indices (1997) (Weighted; Clustered; n=2,584)

	Mother	Father	Siblings	Stepmom	Stepdad	Step- siblings	Friends	Grand- parents	Other Extended Family	Other non- relatives
TOTAL	96.5%	76.8%	80.1%	1.2%	3.4%	2.3%	57.2%	37.8%	35.6%	83.5%
Children's age										
Under 5	98.4%	80.4%	69.3%	0.3%	2.9%	1.9%	36.5%	48.4%	40.6%	65.4%
5 and older	95.2%	74.5%	87.0%	1.8%	3.8%	2.5%	70.6%	31.0%	32.4%	95.2%
Children's race										
White, non-Hispanic	97.2%	85.7%	80.5%	1.2%	3.4%	2.2%	59.0%	37.7%	32.0%	84.0%
Black, non-Hispanic	92.9%	44.8%	82.0%	0.9%	2.5%	2.2%	49.5%	36.9%	50.8%	82.5%
Children's family structure										
Single mother	97.6%	29.4%	75.6%	1.5%	10.3%	3.3%	57.2%	43.0%	43.5%	84.1%
Single father	53.1%	97.9%	67.4%	14.1%	2.2%	5.8%	56.7%	25.3%	45.8%	95.0%
No parents present	59.6%	41.8%	58.2%		1.9%		49.9%	64.4%	61.8%	86.8%
Two-parent family	99.0%	96.3%	83.1%	0.7%	0.8%	1.9%	57.6%	35.0%	31.1%	82.7%
Child coresides with grandparent										
No	97.6%	78.8%	81.3%	1.2%	3.4%	2.4%	58.5%	35.6%	34.2%	84.2%
Yes	72.0%	32.7%	51.8%		3.4%	0.2%	29.3%	87.6%	67.2%	67.1%

Only a little over a third of all children reported spending time with grandparents or other extended family members in the past week (Table 6.1). Not surprisingly, those most likely to report any time with grandparents were children without parents present in the household (64.4%) and those coresiding with grandparents (87.6%). Those most likely to report any time with other extended family were African-American (50.8%), those without parents present (61.8%), and those who coresided with grandparents (67.2%) (Table 6.1).

Table 6.2 looks in greater depth at the characteristics of children spending time with grandparents and other extended family members, not only for the overall sample, but also by race. In the overall sample, children who spend more time with grandparents and other extended family tend to: have lower family incomes (under \$45,000 a year); have families with less than a college education; have younger mothers, especially if they are teenagers; be under the age of 3; and coreside with grandparents (Table 6.2).

Table 6.2: Percent who Spent Any Time with Grandparents and Other Extended Family by Children's and their Families' Characteristics for Overall Sample, African American, and White Children (1997) (Weighted: Clustered: n = 2.584)

	Time	with Grandpa	arents	Time with Other Extended Family				
	Overall Sample n = 2,584	African American n = 1,078	White n = 1,368	Overall Sample n = 2,584	African American n = 1,078	White n = 1,368		
TOTAL	37.8%	36.9%	37.7%	35.6%	50.8%	32.0%		
Children's Families' Needs								
Children's families' income								
Less than \$15,000	38.3%	31.1%	43.3%	47.3% ***	50.4%	35.7% ^		
\$15,000-\$29,999	46.3% **	55.8% **	42.0% ^	40.3% **	50.9%	37.0% *		
\$30,000-\$44,999	44.0% **	38.1% **	45.7% *	43.0% ***	48.5%	43.0% ***		
\$45,000-\$69,999	34.6%	29.2% ^	34.7%	30.0%	51.4%	29.0%		
\$70,000 or more ^a	30.3%	14.7%	31.9%	25.4%	55.6%	24.2%		
Children's families' education								
Less than high school	52.1% ***	55.7% ***	44.9% ^	48.9% ***	54.0% *	42.2% *		
High school	37.4% ^	35.4% *	39.3% ^	41.8% ***	50.0% **	40.4% ***		
Some college	40.7% **	29.7%	42.9% **	38.2% ***	58.4% **	32.8% ^		
College and post college ^a	30.9%	19.9%	31.7%	24.1%	30.3%	24.5%		

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¹⁶ One might expect coresiding grandchildren and grandparents to report a higher percentage of interaction. However, as noted in Chapter 4, this study measures time grandparents (and other extended family) *directly engaged* with children.

Extended family social capital (no)	32.4%	33.7%	30.5%	35.5%	53.3%	29.9%
Extended family social capital (yes)	40.4% *	38.9%	40.8% ***	35.6%	49.4%	32.9%
Mothers' age	10.170	30.770	10.070	33.070	17.170	32.770
14-19	77.9% ***	73.5% ***	72.6% **	64.6% ***	67.3%	63.6% *
20-24	61.6% ***	60.6% ***	63.3% ***	47.7% ***	53.3%	48.5% ***
25-29	47.3% ***	41.8% ***	49.8% ***	45.9% ***	59.2%	42.5% ***
30-34	46.2% ***	53.2% ***	46.1% ***	37.4% ***	41.1%	36.5% ***
35-39	25.6%	15.9%	26.8%	30.1%	49.4%	26.7%
40+ ^a	20.9%	10.4%	22.7%	24.3%	52.1%	18.7%
Single mother (no)	35.9%	34.0%	36.2%	32.7%	52.0%	31.1%
Single mother (yes)	43.0% *	38.8%	45.3% *	43.5% **	50.2%	36.3%
Primary caregivers' employment	13.070	30.070	13.370	13.570	30.270	30.370
No employment	34.2%	28.0%	34.9%	36.3%	53.8%	32.9%
Low part-time (1-19 hrs/wk)	39.0%	28.5%	42.0% *	39.0%	63.9% *	32.3%
High part-time (20-34 hrs/wk)	44.9% **	51.5%	43.2%	37.4%	50.3%	35.5%
Full-time (35+ hrs/wk) ^a	33.6%	37.4%	31.9%	31.3%	42.4%	27.9%
Primary caregivers' health (fair/poor)	24.3% *	25.6%	18.4%	40.5%	56.2%	23.9%
Primary caregivers' health (exc/v.good/good)	38.7%	38.8%	38.6%	35.3%	49.6%	32.4%
Number of children < 18 in family	36.170	30.0 //	36.0 //	33.370	49.070	32.470
One	49.3% **	33.2%	52.0% ***	44.9% *	59.3% ^	42.6%*
Two	37.2%	39.3%	37.1% *	32.8%	52.5%	30.1%
Three	33.7%		32.8%	35.6%	54.2%	29.4%
Four or more ^a		31.9%				
Program participation (no)	29.3%	41.3%	19.0%	30.8%	39.3%	24.6%
Program participation (yes)	38.5%	39.2%	38.3%	32.7% 44.3% ***	54.6%	30.7% 38.6% ^
Children's Needs	35.9%	35.4%	34.8%	44.5%	48.3%	38.0%
Child's age						
Infant/Toddler (0-3)	51 OCT ***	51 00 ***	50.00 ***	41.00 **	40.00	40.60 ***
Preschool (4-5)	51.0% ***	51.8% ***	50.2% ***	41.0% **	48.9%	40.6% ***
ì '	37.6%*	39.9%*	39.0% **	35.5%	62.4%	29.9%
Young school age (6-9) Older school age (10-12) ^a	32.9%	33.1%	33.0%*	33.6%	41.0%*	30.7%*
Special education (never)	27.4%	24.3%	26.2%	31.3%	60.1%	23.3%
1 -	38.5%	39.1%	38.3%	35.6%	52.1%	32.2%
Special education (now/ever) Child health (fair/poor)	29.2% ^	16.6%*	30.3%	35.4%	39.0%	29.0%
I	42.0%	30.1%	49.1%	38.9%	45.5%	34.9%
Child health (excellent/very good/good)	37.7%	37.2%	37.6%	35.6%	51.0%	31.9%
Disability status (no)	38.5%	37.8%	38.4%	35.6%	51.4%	32.0%
Disability status (yes)	23.0% **	19.9% ^	22.5% *	36.5%	40.1%	31.3%
Behavior problems (internal/external)						*
First and second quartile (low) (0-5)	37.8%	38.9%	36.9%	37.4%	50.6%	35.0%*
Third quartile (5-10)	38.6%	33.9%	39.9%	34.5%	49.6%	30.1%
Fourth quartile (high) (11+) ^a	37.1%	37.1%	37.2%	33.0%	52.9%	27.4%
Control Variables		A	a			
Relative-provided child care (no)	36.5%	35.6%	36.5%	35.2%	53.0%	31.8%
Relative-provided child care (yes)	48.7% *	43.4%	50.0% ***	38.9%	40.3%	34.2%
Child coresides with grandparent (no)	35.6% ***	30.3% ***	36.4% ***	34.2% ***	48.8% *	31.0% **
Child coresides with grandparent (yes)	87.6%	90.2%	83.9%	67.2%	67.1%	65.6%
Race						
White, non-Hispanic ^a	37.7%	n/a	n/a	32.0%	n/a	n/a
Black, non-Hispanic	36.9%	n/a	n/a	50.8% ***	n/a	n/a
Hispanic	50.7%	n/a	n/a	31.0%	n/a	n/a
Other	36.1%	n/a	n/a	38.9%	n/a	n/a
Gender]					

Boys	36.9%	37.0%	36.2%	34.1%	47.5%	30.4%
Girls	38.8%	36.9%	39.3%	37.2%	55.7%	33.6%

a. Reference category for chi-square significance tests.

In contrast to white children, there is less variation in family characteristics among black children with respect to who spends time with grandparents and other extended family members (Table 6.2). Among white families more so than black families, those headed by single mothers, those who report more social capital from extended family members, those with primary caregivers in better health, those with only children, and those where a relative provides child care are more likely to spend time with grandparents. Similarly, white children more so than black children are likelier to spend time with other extended family members if their families have lower incomes, if they have younger mothers, and if they are under the age of 3 (Table 6.2).

Overall Multivariate Model Findings

In order to understand which children are most likely to spend time with grandparents or other extended family members, Table 6.3 presents the results for logistic regression models predicting the likelihood of spending engaged time with grandparents and other extended family for the sample of non-coresidential children overall and by race. It is important to note that the sample in all of the regression analyses in this chapter have been restricted to children who *do not live* in grandparent-headed households. The descriptive tables demonstrate a strong association between time spent with grandparents and coresidence in a grandparent-headed household. Because, coresidence is explored in extensive detail in the next section, the regression analyses will focus on children not living in grandparent-headed households (n = 2,406).

b. Significance is noted as follows: $^{(0.10)}$, $^{(0.$

In examining the adjusted R-square for each model, the model best explains time spent with grandparents, particularly for African-American children (0.265). As the following results demonstrate, some predictors are particularly important for understanding variations in time spent with grandparents and other extended family members.

Table 6.3: Logistic regression model: Whether children spent any time with grandparents or other extended family (1997) (Weighted; Clustered; n = 2,406 children not residing

in grandparent-headed households)

			Grandpare	ents			Extended Family						
	Overall		African Amer	rican	White		Overall		African Ame	rican	White		
	Coefficient	Odds ratio	Coefficient	Odds ratio	Coefficient	Odds ratio	Coefficient	Odds ratio	Coefficient	Odds ratio	Coefficient	Odds ratio	
Children's Families' Needs													
Children's families' income	-2.060E-06	1.000	4.636E-07	1.000	-2.260E-06	1.000	-3.530E-06	1.000	5.826E-06	1.000	-3.600E-06	1.000	
Children's families' education	-0.045	0.956	-0.260 **	0.771	0.005	1.005	-0.086	0.918	-0.133 *	0.876	-0.052	0.949	
Extended family social capital	0.520 ***	1.682	0.479 *	1.614	0.611 ***	1.842	0.218	1.244	0.235	1.265	0.296 ^	1.345	
Mothers' age	-0.803 ***	0.923	-0.077 ***	0.926	-0.088 ***	0.916	-0.031 *	0.969	-0.007	0.993	-0.046 **	0.955	
Presence of parents ^a													
Single mother	0.203	1.226	-0.014	0.986	0.248	1.281	-0.117	0.889	-0.156	0.856	-0.107	0.898	
Single father	-1.252 **	0.286	-1.049	0.350	-1.230 *	0.292	0.353	1.424	-1.135 *	0.321	0.519	1.681	
No parents	0.567	1.763	0.714	2.043	0.209	1.233	0.938 *	2.556	1.161	3.193	0.804	2.234	
Primary caregivers' employment ^{b.}													
None	0.008	1.008	-0.763	0.466	0.117	1.124	0.153	1.165	0.421	1.524	0.129	1.138	
Low part-time (1-19 hrs/wk)	0.232	1.262	-0.897 ^	0.408	0.449 *	1.567	0.374 ^	1.453	1.055 *	2.871	0.180	1.197	
High part-time (20-34 hrs/wk)	0.357 ^	1.429	0.014	1.014	0.420 *	1.522	0.180	1.197	0.104	1.110	0.264	1.302	
Primary caregivers' health	1.011 **	2.748	0.887 ^	2.428	1.364 **	3.910	0.230	1.259	0.019	1.019	0.657	1.929	
Number of children <18 in family	-0.091	0.913	0.015	1.015	-0.141	0.869	-0.180 *	0.835	-0.326 **	0.722	-0.074	0.928	
Program participation	-0.480 **	0.619	-0.016	0.984	-0.543 *	0.581	-0.006	0.994	-0.304	0.738	-0.030	0.971	
Children's Needs													
Child's age ^{c.}													
Infant/Toddler (0-3)	0.355	1.426	0.669	1.953	0.342	1.408	0.089	1.094	-0.714 ^	0.490	0.356	1.428	
Preschool (4-5)	-0.003	0.997	0.156	1.169	0.182	1.199	0.032	1.032	-0.216	0.806	0.113	1.120	
Young school age (6-9)	0.026	1.026	0.101	1.106	0.103	1.108	0.035	1.036	-0.629 ^	0.533	0.294	1.342	
General health status	0.082	1.085	0.077	1.080	0.027	1.027	-0.144	0.866	-0.096	0.909	-0.181 ^	0.835	
Disability status	-0.890 *	0.411	-1.149 *	0.317	-1.050 **	0.350	-0.113	0.894	-0.818	0.441	-0.241	0.786	

Control Variables												
Relative-provided child care	1.093 ***	2.985	0.884 *	2.421	1.132 ***	3.102	0.268	1.307	0.083	1.087	0.311	1.365
Race ^{d.}												
Black, non-Hispanic	-0.296	0.744	n/a	n/a	n/a	n/a	0.671 ***	1.957	n/a	n/a	n/a	n/a
Hispanic	0.131	1.140	n/a	n/a	n/a	n/a	-0.472	0.624	n/a	n/a	n/a	n/a
Other	-0.275	0.759	n/a	n/a	n/a	n/a	0.065	1.067	n/a	n/a	n/a	n/a
Gender (Girl)	0.082	1.085	0.110	1.116	0.131	1.140	0.211 ^	1.235	0.326	1.386	0.103	1.240
Constant	0.976		3.222 **		0.286		1.780 *		2.758 *		1.120	
Adjusted R-square	0.186		0.265		0.193		0.101		0.155		0.092	
N	2,406		942		1,332		2,406		942		1,332	

Significance is noted as follows: $^{(<0.10)}$, $^{(<0.5)}$, ** (<.01), *** (<.001).

<sup>a. Excluded category is two-parent family arrangements.
b. Excluded category is full-time work.
c. Excluded category is older school age children.
d. Excluded category is white, Non-Hispanic identified children.</sup>

Grandparents. With respect to being more likely to spend time with grandparents, overall, children whose families perceive more social capital from extended family members (p<.001), who have younger mothers (p<.001), who have two-parents in their households relative to single fathers (p<.01), who have primary caregivers in high part-time employment (p<0.10), who have primary caregivers in good health (p<.01), who have families not participating in federal programs (p<.01), who are not disabled (p<.05), and who are cared for by relatives (p<.001) are all more likely to be spending time with grandparents than other children (Table 6.3).

In analyzing race differences, there are some distinctions between African-American children and white children and their likelihood of spending time with grandparents. African-American children are more likely to be spending time with grandparents if their family educational level is lower (p<.01), if they report more extended family social capital (p<.05), if they have younger mothers (p<.001), if they have primary caregivers employed in full-time jobs relative to low part-time employment (p<0.10), if they have primary caregivers in better health (p<0.10; 2.4 times more likely), if they have fewer disabilities (p<.05), and if they are cared for by relatives (p<.05; 2.4 times more likely). Like African-American children, white children are also more likely to have spent time engaged with grandparents if they report more extended family social capital (p<.001), have younger mothers (p<.001), have caregivers in better health (p<.01; 3.9 times more likely), report fewer disabilities (p<.01), and are cared for by relatives (p<.001). In contrast to African-American children, white children are also more likely to spend time with grandparents if they reside with two parents rather than a single father (p<.05), if their parents work in high part-time employment (p<.05) versus full-time

employment, and if they do not participate in government subsidized programs (p<.05) (Table 6.3). The most notable difference between African American and white children is that white children are more likely to be spending time with grandparents when their primary caregivers are in part-time jobs, while this is not an important factor for African-American children. This suggests that grandparents may be a source of childcare for white parents, particularly mothers, who are employed at jobs for less than 40 hours a week.

It is interesting to note that across all the samples (overall, African American, white) children who have higher extended family social capital are also more likely to spend time with grandparents. This suggests one of two scenarios. On the one hand, parents may be drawing from the existing "bank" of social capital in the family for help with caregiving and grandparents are responding in kind. On the other hand, grandparents could be investing in the social capital of their extended family networks by choosing to spend time with their grandchildren without being asked to do so by the children's immediate families.

Extended family. With respect to extended family members other than grandparents, children whose families have less education (p<.05), who have younger mothers (p<.05), who have no parents in the household (p<.05), whose primary caregivers work low part-time jobs (p<0.10), who have fewer children under 18 in the household (p<.01), who self-identify as Black (p<.001), and who are girls (p<0.10) are all more likely to spend time with extended family members other than grandparents (Table 6.3).

Looking at differences by race among children, white children with higher reported extended family social capital (p<0.10), younger mothers (p<.01), and those in worse health (p<0.10) are all more likely to spend time engaged with extended family other than grandparents (Table 6.3). In contrast, African-American children are more likely to spend time with other extended family members if they: have lower levels of family education (p<.05), have two parents in their household rather than single fathers (p<.05), have primary caregivers with low part-time employment (p<.05), have fewer children under 18 in the household (p<.01), and are older school age (10 to 12) relative to being infants or toddlers (p<0.10) or young school age (6 to 9) (p<0.10) (Table 6.3). How much time do children spend with grandparents or other extended family

members?

Descriptive Findings

On the whole, children are spending averages of 4.24 hours per week with grandparents and 4.33 hours per week with other extended family members. Not surprisingly, time spent with grandparents and other extended family members is not as high as time spent in more frequent and routinized interactions with parents and siblings, other non-relatives (presumably teachers and caregivers), and friends (Table 6.4).

Table 6.4: Means of Time Spent in Hours Per Week with Family, Friends, and Others by Selected Indices (1997) (Weighted; Clustered; n = 2,584)

	Mother	Father	Siblings	Stepmom	Stepdad	Step- siblings	Friends	Grand- parents	Other Extended Family	Other non- relatives
TOTAL	23.54	12.08	25.84	0.06	0.27	0.29	8.95	4.24	4.33	29.54
Children's age										
Under 5	32.23	14.64	25.56	0.03	0.22	0.23	4.61	6.76	4.85	16.60
5 and older	17.93	10.43	26.02	0.07	0.29	0.32	11.75	2.62	3.99	37.91
Children's race										
White, non-Hispanic	24.32	13.86	25.54	0.05	0.23	0.27	9.26	4.07	3.33	28.96
Black, non-Hispanic	20.33	5.26	27.89	0.07	0.24	0.24	7.09	4.01	8.78	31.70
Children's family structure										
Single mother	21.37	3.04	25.11	0.04	0.93	0.40	10.13	5.01	6.12	31.82
Single father	5.45	19.22	17.28	1.30	0.18	1.18	14.20	3.66	5.73	34.21
No parents present	13.10	6.36	14.12		0.13		8.43	14.50	9.80	33.90
Two-parent family	25.39	15.67	26.90	0.03	0.02	0.23	8.35	3.51	3.34	28.32
Child coresides with grandparent										
No	23.86	12.44	26.28	0.06	0.27	0.30	9.14	3.64	3.96	29.85
Yes	16.60	4.21	16.23		0.13	0.01	4.55	17.55	12.44	22.71

Time spent with grandparents and other extended family members varies considerably by selected demographic characteristics. Not surprisingly, children under age 5 spend more time with grandparents (6.76 hours per week) and other extended family members (4.85 hours per week) than older children spend. While there is little difference between African-American and white children with respect to time spent with grandparents, when looking at time spent with other extended family members, African-American children spend more time with them (8.78 hours per week) than white children do (3.33 hours per week). Children who reside with two parents spend the least time with grandparents and other extended family members, while children who do not reside with either of their parents spend the most time with grandparents (14.5 hours per week) and other extended family members (9.8 hours per week). Of all children, those who coreside with grandparents spend the most time with both grandparents (17.55 hours per week) and other extended family members (12.44 hours per week), suggesting that grandparents

and other extended family members are being called upon to act as surrogate parents in these cases (Table 6.4).

Overall Multivariate Model Findings

Table 6.5 presents the results of an OLS regression model that regresses the amount of time children spend with grandparents and other extended family on the variables in the needs-based model. In examining the adjusted R-squares for the models, the model is only marginally better at explaining variations in the amount of time spent with grandparents (0.091) rather than time spent with other extended family members (0.061) for the overall sample. When analyses are performed on the African-American and white samples of children, the model fit is only marginally improved over that of the overall sample for African-American children and the amount of time spent with extended family members other than grandparents.

Grandparents. Looking at the overall sample of children, a number of factors significantly predict who spends more time with grandparents than others. Children who have less family income (p<.05), more extended family social capital (p<.05), younger mothers (p<.001), two parents relative to those with single fathers (p<0.10), fewer children in their household (p<.01), are infants or toddlers (p<.01), have fewer disabilities (p<.05), and receive care from relatives (p<.05) all spend more time with grandparents than others.

When the sub-samples of children are compared by race, a number of differences become apparent. While both African-American and white children spend more time with grandparents when they have younger mothers (p<.05 for African-American children; p<.01 for white children) and when they are infants or toddlers (p<.05 for

African-American children; p<.01 for white children), the similarities between the subsamples end there. White children are also more likely to spend more time with grandparents if primary caregivers report more extended family social capital (p<.05), if primary caregivers have better health (p<.05), if there are fewer children in their immediate household (p<.01), if the children have fewer disabilities (p<0.10), and if relatives provide child care (p<.05). This suggests that for white children especially, grandparents are spending more time with children as a result of their roles as care providers to such children, and this relationship is not necessarily driven by the children's and their families' needs (Table 6.5). The lack of needs-based predictors suggests that other factors such as love and emotions, the desire to invest in the family's social capital, or an interest in future reciprocity could be promoting white grandparents' greater time investments with children who have few immediate needs.

Table 6.5: OLS regression model: Amount of time children spent with grandparents and other extended family, overall and by race (1997) (Weighted; Clustered; n = 2,406 children not residing in grandparent-headed households)

nousenoids)		Grandparent	S	Other Extended Family				
			3					
	Overall	African- American	White	Overall	African- American	White		
Children's Families' Needs	o verun	11111011011	v v III e e	O VOI UII	7 THICH CALL	· · · · · · · · · · · · · · · · · · ·		
Children's families' income	-1.040E-05 *	-5.300E-06	-9.500E-06	-2.600E-06	-1.070E-05	-1.000E-06		
Children's families' education	-0.073	-0.316	-0.014	0.009	-0.128	-0.034		
Extended family social capital	1.066 *	-0.047	1.231 *	0.192	-2.570	0.682		
Mothers' age	-0.156 ***	-0.122 *	-0.162 **	-0.156 **	-0.349 ^	-0.146 **		
Presence of parents ^{a.}								
Single mother	0.665	-0.441	0.638	-0.009	-1.460	0.141		
Single father	-1.665 ^	-2.624 *	-1.371	1.239	-1.367	1.398		
No parents	2.907	2.485	-0.447	2.968 ^	8.804 ^	1.415		
Primary caregivers' employment ^b .								
None	-0.161	-1.020	-0.220	1.174	5.208 *	0.624		
Low part-time (1-19 hrs/wk)	0.435	-1.262	1.105	0.342	3.067	-0.069		
High part-time (20-34 hrs/wk)	0.977	1.138	0.973	0.233	0.299	0.329		
Primary caregivers' health	1.158	0.805	2.243 *	-1.494	-4.358	0.868		
Number of children < 18 in family	-0.634 **	0.018	-0.906 **	-0.681 **	-1.217 ^	-0.227		
Program participation	-0.481	0.043	-0.173	1.402 ^	-0.357	1.121		
Children's Needs								
Child's age ^{c.}								
Infant/Toddler (0-3)	2.489 **	3.507 *	2.292 **	-0.822	-4.035	0.303		
Preschool (4-5)	0.291	-0.036	1.075	-0.103	-3.453	0.728		
Young school age (6-9)	-0.498	0.151	-0.274	0.038	-0.613	0.568		
General health status	0.043	0.214	-0.250	-0.242	0.659	-0.497		
Disability status	-1.332 *	-0.416	-1.347 ^	-0.829	-3.808 ^	-0.059		
Control Variables								
Relative-provided child care	1.295 *	0.971	1.575 *	-0.055	1.510	-0.007		
Race ^{d.}								
Black, non-Hispanic	-0.894	n/a	n/a	3.780 ***	n/a	n/a		
Hispanic	3.701	n/a	n/a	0.381	n/a	n/a		
Other	-0.130	n/a	n/a	-0.618	n/a	n/a		
Gender (Girl)	-0.215	0.590	-0.392	1.064 *	2.200 ^	0.863 *		
Constant	0.001 **	8.044 *	9.333 **	10.504 **	24.941 ***	8.063 *		
Adjusted R-square	0.091	0.084	0.087	0.061	0.086	0.029		
N	2,406	942	1,332	2,406	942	1,332		

a. Excluded category is two-parent family arrangements.

Significance is noted as follows: (<0.10), (<.05), (<.01), (<.01), (<.001).

b. Excluded category is full-time work.c. Excluded category is older school age children.

d. Excluded category is white, Non-Hispanic identified children.

Extended family. For the overall sample, certain predictors are significantly related to children spending more time with extended family members. Having a younger mother (p<.01), having no parents present in the household (p<0.10), having fewer children under 18 in the family (p<01), participating in a government subsidized program (p<0.10), being African-American (p<.001), and being a girl (p<.05) are all significantly related to spending more time with extended family members. When the model is run separately for African-American and white children, only a few new predictors emerge as significant for African-American children only. African-American children who: have unemployed primary caregivers (p<.05) and have fewer disabilities (p<0.10) are more likely to spend more time with extended family members than other African-American children (Table 6.5).

How are children spending their time with grandparents or other extended family? Descriptive Findings

As was discussed in Chapter 4, children's time in this study was divided according to the activities in which they were engaged: 1) cultural time (including activities such as reading books and attending social and religious events) and 2) functional time (including caregiving activities such as bathing or feeding). All activities in which the child was engaged with grandparents or extended family members were categorized accordingly. Table 6.6 presents descriptive findings about the quality of time in which children were engaged with extended family and grandparents.

Table 6.6: Percent who Spent Time with Grandparents and Other Extended Family in Cultural and Functional Activities by Selected Indices for Overall Sample (1997) (Weighted; Clustered; n = 2,584)

Selected marces for Overa	(1	Other Extended Family						
	None n = 1,586 ^a	Cultural n = 194	Functional n = 289	Cult. and Funct. n = 515	None n = 1,487 ^b	Cultural n = 263	Functional n = 173	Cult. and Funct. n = 661
TOTAL	62.2%	8.0%	10.0%	19.8%	64.4%	9.6%	6.3%	19.7%
Children's age								
Under 5	51.6%	9.9%	10.2%	28.3%	59.4%	12.7%	5.6%	22.3%
5 and older	69.0%	6.8%	9.9%	14.3%	67.6%	7.6%	6.7%	18.0%
Children's race								
White, non-Hispanic	62.3%	7.9%	9.2%	20.6%	68.0%	9.3%	4.8%	17.9%
Black, non-Hispanic	63.1%	8.6%	14.3%	14.1%	49.2%	12.0%	11.9%	27.0%
Children's family structure								
Single mother	57.0%	8.0%	14.2%	20.8%	56.5%	8.2%	9.1%	26.1%
Single father	74.7%	3.5%	6.3%	15.5%	54.2%	19.9%	6.4%	19.4%
No parents present	35.6%	5.4%	18.3%	40.7%	38.2%	16.3%	17.3%	28.2%
Two-parent family	65.0%	8.3%	8.1%	18.7%	68.9%	9.6%	4.7%	16.8%
Child coresides with grandparent No	64.4%	8.2%	9.3%	18.1%	65.8%	9.2%	5.9%	19.1%
Yes	12.4%	4.2%	24.6%	58.8%	32.8%	18.4%	15.1%	33.7%

 $^{^{}a}$. Ns for the race comparisons are: None (n = 1,498); Cultural (n = 184); Functional (n = 280); Cultural and Functional (n = 484) because the sample was restricted to white and black children only.

As reported in table 6.1, only a little over a third of all children reported spending some time with grandparents or extended family. Consequently, on Table 6.6, we see that 64.4% and 62.2% of all children spent no time with extended family and grandparents, respectively. Notably, children age 5 and older (69%) and children who resided with single fathers (74.7%) were least likely to report time spent with grandparents.

With respect to cultural activities, those most likely to be engaging in cultural activities with extended family were children who resided with a single father (19.9%) and those who coresided with a grandparent (18.4%). In the descriptive data, there were

b. Ns for the race comparisons are: None (n = 1,399); Cultural (n = 247); Functional (n = 162); Cultural and Functional (n = 638) because the sample was restricted to white and black children only.

no groups notably spending more time engaged with grandparents in cultural activities than others (Table 6.6).

Looking at functional activities, those most likely to be engaging in functional activities with extended family members and grandparents were children who had no parents present in the household (17.3% with extended family; 18.3% with grandparents) and those who coresided with grandparents (15.1% with extended family; 24.6% with grandparents). Considering that children with no parents present and those coresiding with grandparents are more likely to have family members other than parents acting in a parent-like role, it is not surprising that these children spend more time with extended family members and grandparents in functional and caregiving activities (Table 6.6).

Most children who spend time with grandparents and extended family members are engaged in both cultural and functional activities with them. Children who are black (27.0%) are more likely than white children to be engaged in cultural and functional activities with extended family members, while children under the age of 5 (28.3%) are more likely than older children to be engaged in cultural and functional activities with grandparents. Not surprisingly, children without parents present in the household and those coresiding with grandparents are more likely to engage with extended family members and grandparents in both cultural and functional activities (Table 6.6).

Overall Multivariate Model Findings

Functional Activities

Table 6.7 presents logistic regression models showing the likelihood of children spending time with grandparents and other extended family members engaged in functional activities. Models are run for the overall sample as well as for sub-samples of

African-American and white children. Overall, the model best explains functional time spent with grandparents (adjusted R-square of 0.146 for the overall sample) and is less successful in explaining functional time spent with other extended family members (adjusted R-square of 0.082 for the overall sample) (Table 6.7).

Table 6.7: Logistic regression models: Functional time children spent with grandparents and other extended family (1997) (Weighted; Clustered; n = 2,406 children not residing in grandparent-headed households)

Grandparents Other Extended Family Overall **African American** White Overall African American White Odds Odds Odds Odds Odds Odds Coefficient ratio Coefficient Coefficient Coefficient Coefficient Coefficient ratio ratio ratio ratio ratio Children's Families' Needs Children's families' income -2.930E-06 1.000 -5.510E-07 1.000 -3.520E-06 1.000 1.000 7.956E-06 1.000 1.000 -1.330E-06 -1.780E-06 Children's families' education 0.941 0.976 0.942 1.004 0.806 0.989 -0.060 -0.216 -0.012 -0.024 -0.059 0.004 Extended family social capital 1.250 0.355 ^ 0.223 1.250 1.678 1.225 0.223 0.129 1.138 1.427 0.518 0.203 -0.063 *** -0.069 *** -0.047 ** -0.049 ** Mothers' age 0.939 -0.064 * 0.938 0.933 0.954 -0.050 0.951 0.952 Presence of parentsa. Single mother 1.234 0.884 0.293 1.341 0.199 1.220 0.891 0.282 1.326 0.210 -0.124-0.115Single father -1.195 * -1.237 * 0.303 -0.9900.371 0.290 0.256 1.292 -0.8850.413 0.263 1.301 No parents 1.861 1.058 2.880 0.231 1.260 1.085 * 2.960 1.461 4.310 1.089 ^ 2.971 0.621 Primary caregivers' employment^{b.} None 0.020 1.020 -0.273 0.761 0.022 1.022 0.189 1.208 0.745 2.106 0.083 1.087 1.046 ** Low part-time (1-19 hrs/wk) 0.366 ^ 1.442 -0.854 0.426 0.486* 1.357 2.846 -0.004 0.996 1.626 0.305 High part-time (20-34 hrs/wk) 0.213 1.238 0.315 1.370 0.174 0.140 1.151 0.624 1.866 0.089 1.093 1.189 Primary caregivers' health 0.863*0.878 1.168 * 0.178 0.624 -0.267 2.370 2.406 3.216 1.195 0.766 1.866 Number of children < 18 in family -0.173 * -0.292 -0.162 -0.195-0.155 -0.101 0.851 0.822 0.857 0.841 0.747 0.904 -0.457 ** Program participation -0.067 -0.551* 0.001 -0.195-0.1830.633 0.936 0.576 1.001 0.822 0.833 Children's Needs Child's agec. 0.234 1.264 0.568 1.298 -0.380 ^ 0.684 -1.029 0.357 0.868 Infant/Toddler (0-3) 1.765 0.261 -0.141Preschool (4-5) 0.864 0.110 1.116 0.029 1.029 -0.357 0.700 0.565 -0.215 0.806 -0.146-0.571 Young school age (6-9) -0.104 0.901 -0.039 0.962 0.013 1.013 -0.139 0.870 -0.407 0.666 0.038 1.038 General health status 0.084 0.045 0.385 -0.092 -0.054 -0.127 1.088 1.046 1.039 0.912 0.948 0.881 Disability status -0.942 * 0.390 -0.986 ^ 0.373 -1.287 ** 0.276 -0.089 0.915 -1.561 0.210 -0.114 0.893

Control Variables												
Relative-provided child care	1.039 ***	2.826	-0.092	0.912	1.308 ***	3.699	0.019	1.020	0.086	1.089	-0.155	0.857
Race ^{d.}												
Black, non-Hispanic	-0.440 ^	0.644	n/a	n/a	n/a	n/a	0.649 ***	1.913	n/a	n/a	n/a	n/a
Hispanic	-0.172	0.842	n/a	n/a	n/a	n/a	-0.488	0.614	n/a	n/a	n/a	n/a
Other	-0.163	0.849	n/a	n/a	n/a	n/a	0.235	1.265	n/a	n/a	n/a	n/a
Gender (Girl)	0.076	1.079	-0.027	0.973	0.095	1.099	0.317 *	1.373	0.527 *	1.693	0.242 ^	1.274
Constant	0.869		3.033 *		0.096		0.722		1.996		0.122	
Adjusted R-square	0.146		0.196		0.159		0.082		0.170		0.052	
N	2,406		942		1,332		2,406		942		1,332	

a. Excluded category is two-parent family arrangements.
b. Excluded category is full-time work.
c. Excluded category is older school age children.
d. Excluded category is white, Non-Hispanic identified children.
Significance is noted as follows: ^ (<0.10), * (<.05), *** (<.01), ***(<.001).

Grandparents. Looking at children who are more likely to spend time engaged in functional activities with grandparents (Table 6.7), a number of significant factors emerge for the overall sample. Children who have younger mothers (p<.001), who live in two parent households rather than with single fathers (p<.05), whose primary caregivers work in low part-time paid work (p<0.10), who have primary caregivers in better health (p<.05), who are not participating in government subsidized programs (p<.01), who have fewer disabilities (p<.05), who receive care from relatives (p<.001), and are African-American (p<0.10) are all more likely to be engaging with grandparents in functional, caregiving activities (Table 6.7). This model indicates that high needs as well as preferences are associated with grandparents engaging in functional activities with grandchildren.

When the model is run separately for the African-American and white samples, some differences emerge (Table 6.7). In contrast to the overall sample, African-American children are more likely to engage with grandparents in functional, caregiving activities if their families have lower levels of education (p<.05), and if their parents work in full-time jobs rather than low part-time jobs (p<0.10). In examining results for the white sample of children, having more extended family social capital (p<0.10) is the only factor that emerges as significant for time spent with grandparents that is not significant in either the overall sample or sample of African-American children. One finding among the white children that is consistent with the overall sample (and is not significant among the African-American sample) is that having relative-provided care is significantly associated with spending time engaged in functional activities with grandparents (p<.001) (Table 6.7). These findings suggest that for white children and

their families, routine child care assistance is an important factor drawing grandparents into functional activities with children. When all of the samples are considered, from the overall sample to the African-American and white subsamples, it is important to note that need-based and non-need based factors emerge as significant predictors of grandparents engaging in functional caregiving time with grandchildren. These findings suggest that grandparents who perform these more functional and caregiving activities with grandchildren may be doing so because of family needs, as well as family preferences for such relationships. Not only do some grandparents prefer to enact a surrogate parenting role (Cherlin and Furstenberg 1986), but some of the children's parents may also prefer to use grandparents for such care over other child care options (Uttal 1999). These findings reflect the multiple and diverse factors that lead to grandparents' involvement in child care to grandchildren, echoing the conclusions of other researchers (Vandell et al. 2003).

Extended family. As shown on Table 6.7, children who are more likely to spend time engaged only in functional activities with *extended family* members other than grandparents are more likely to have younger mothers (p<.001), to have no parents present in the household (p<.05), to have fewer children under the age of 18 in the household (p<.05), to be Black (p<.001), and to be a girl (p<.05). Not surprisingly, children with no parents present in the household are nearly 3 times as likely to have extended family enacting functional caregiving duties in their time spent together (Table 6.7).

When the subsamples of African-American and white children are compared, the model is much better at explaining functional time spent with African-American children

(adjusted R-square of 0.170) than for white children (adjusted R-square of 0.052) (Table 6.7). For white children, the only significant factors predicting time spent with other extended family members in functional activities is having a younger mother (p<.01), having no parents present in the household (p<0.10), and being a girl (p<0.10). While these factors are also significant for African-American children, many other factors emerge as significant as well. For African-American children, having more extended family social capital (p<.05), having primary caregivers engaged in no paid employment (p<.05) or part-time employment (p<.01 for low and p<.05 for high part-time employment), having fewer children under 18 in the family (p<.01), not being an infant or toddler (p<.01), and having fewer disabilities (p<.05) are also significant factors (Table 6.7). These findings suggest that the high needs of parents and children, as well as family investments in social capital draw other extended family members into functional care for its youngest members, particularly among African-American families. It is curious that girls who do not coreside in grandparents' households are more likely to spend time with extended family in functional care. Perhaps this reflects cultural beliefs that boys are more unruly and disruptive by nature (Kimmel 2004) and that girls may be easier for caregivers to handle and a less burdensome task for extended family members to accept.

Cultural Activities

Table 6.8 presents logistic regression models showing the likelihood of children spending time with grandparents and other extended family members engaged in cultural activities for the sample of children not coresiding with grandparents both overall and by race. Overall, the model best explains cultural time spent with grandparents (adjusted R-

square of 0.169 for the overall sample) and is less successful in explaining cultural time spent with other extended family members (adjusted R-square of 0.073 for the overall sample).

Grandparents. With respect to children most likely to spend time engaged in cultural activities with grandparents, many factors emerge as significant (Table 6.8). Children are most likely to be engaging in cultural activities with grandparents when they: have more social capital available from extended family members (p<.001); have younger mothers (p<.001); do not live with a single father (p<0.05); have primary caregivers in better health (p<.05); are not participating in government subsidized programs (p<.01); have fewer disabilities (p<0.10); receive child care from relatives (p<.01); and are white rather than black (p<0.10).

When the model is run for subsamples of African-American and white children who do not live in a grandparent headed household, some differences emerge according to race and the likelihood of spending cultural time with *grandparents* (Table 6.8). For African-American children, living in a two-parent household increases the likelihood of spending cultural time with grandparents rather than living in a household with a single father (p<0.10). This means that children from two parent households are 6.32 times more likely to spend cultural time with grandparents than children living with single fathers. Unlike African-American children, for white children, having a caregiver in better health (p<.05), not participating in government subsidized programs (p<.05), and being an infant or toddler (p<0.10) are all significant factors associated with a greater likelihood of spending cultural time with grandparents. White children with primary

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¹⁷ Because the coefficient was negative in direction (-1.845), the odds ratio was calculated by taking the natural log of 1.845 and was found to be 6.32. This number was used for ease of interpretation rather than the odds ratio of the negative coefficient calculated by SAS and shown in Table 6.7.

caregivers in good health were nearly 4 times more likely to spend cultural time with grandparents compared to those with caregivers in poor health. While both white and African-American children spend more time with grandparents in cultural activities when they have high reports of social capital from extended family, this is of greater significance for white children (p<.001; 2 times more likely than children with less extended family social capital). Both the findings from the African-American and white samples suggest that it is children in more secure situations (two parent households, primary caregivers in good health, not being on government programs, having high social capital from extended family members) that spent more time in cultural activities with grandparents.

Extended Family. Looking at those children not coresiding with grandparents who are most likely to spend time engaged only in cultural activities with extended family other than grandparents, there are many significant predictors (Table 6.8). Children most likely to be engaging in cultural activities with extended family members include those with younger mothers (p<0.10), those with fewer children under 18 in the household (p<.01), those who receive child care from relatives (p<0.10), and those who are black (p<0.10) (Table 6.8).

Among African-American children not coresiding with grandparents, those most likely to spend cultural time with extended family members other than grandparents include those who have primary caregivers who are unemployed (p<0.10) or are employed in part-time jobs less than 20 hours a week (p<0.10), and those with fewer children under 18 in their household (p<.01) (Table 6.8). Looking at the sample of white children not coresiding with grandparents, those most likely to spend cultural time with

extended family members other than grandparents include those with more extended family social capital (p<.05), those with younger mothers (p<.05), infants (p<.05), young school age children (p<0.10), and girls (p<0.10) (Table 6.8). With respect to cultural time spent with extended family members other than grandparents, these findings suggest that the child's own and immediate family's needs are not necessarily promoting such interactions. Engagement in cultural activities are likely motivated by love, affection, and closeness felt toward the children and their parents, rather than resource-driven need.

Table 6.8: Logistic regression models: Cultural time children spent with grandparents and other extended family (1997) (Weighted; Clustered; n = 2,406 children not

residing in grandparent-headed households)

	Grandparents					Other Extended Family						
	Overall		African Amer	ican	White		Overall		African American		White	
	Coefficient	Odds ratio	Coefficient	Odds ratio	Coefficient	Odds ratio	Coefficient	Odds ratio	Coefficient	Odds ratio	Coefficient	Odds ratio
Children's Families' Needs												
Children's families' income	-2.700E-06	1.000	-1.000E-06	1.000	-1.900E-06	1.000	-2.980E-06	1.000	5.430E-06	1.000	-2.470E-06	1.000
Children's families' education	-0.001	0.999	-0.119	0.888	0.003	1.003	-0.066	0.936	-0.080	0.924	-0.048	0.953
Extended family social capital	0.650 ***	1.916	0.643 *	1.902	0.756 ***	2.130	0.239	1.270	-0.127	0.881	0.456 *	1.578
Mothers' age	-0.087 ***	0.917	-0.075 ***	0.927	-0.084 ***	0.919	-0.027 ^	0.974	-0.014	0.986	-0.042 *	0.959
Presence of parents ^a .												
Single mother	-0.060	0.942	-0.335	0.715	0.010	1.010	-0.109	0.897	0.024	1.024	-0.086	0.918
Single father	-0.934 *	0.393	-1.845 ^	0.158	-0.741	0.477	0.287	1.332	-0.343	0.710	0.387	1.473
No parents	0.247	1.280	0.331	1.393	-0.370	0.691	0.453	1.574	1.102	3.011	0.023	1.023
Primary caregivers' employment ^{b.}												
None	0.018	1.018	-0.147	0.864	-0.026	0.974	0.136	1.145	0.637 ^	1.891	0.073	1.076
Low part-time (1-19 hrs/wk)	0.173	1.189	-0.320	0.726	0.289	1.334	0.281	1.324	0.667 ^	1.948	0.175	1.191
High part-time (20-34 hrs/wk)	0.216	1.242	-0.330	0.719	0.280	1.323	0.117	1.124	0.264	1.302	0.177	1.194
Primary caregivers' health	0.866 *	2.378	0.692	1.997	1.375 *	3.955	0.324	1.383	0.476	1.610	0.468	1.596
Number of children < 18 in family	-0.108	0.897	0.099	1.104	-0.189	0.828	-0.203 **	0.817	-0.312 **	0.732	-0.085	0.918
Program participation	-0.503 **	0.604	0.116	1.123	-0.629 *	0.533	0.024	1.024	-0.159	0.853	0.052	1.054
Children's Needs												
Child's age ^{c.}												
Infant/Toddler (0-3)	0.287	1.333	0.068	1.071	0.444 ^	1.558	0.302	1.352	-0.261	0.770	0.582 *	1.790
Preschool (4-5)	-0.010	0.990	-0.461	0.631	0.286	1.331	0.178	1.195	-0.359	0.698	0.400	1.492
Young school age (6-9)	-0.055	0.946	-0.067	0.935	0.106	1.112	0.095	1.100	-0.448	0.639	0.395 ^	1.485
General health status	0.097	1.102	0.168	1.183	0.121	1.012	-0.085	0.918	-0.083	0.920	-0.168	0.845
Disability status	-0.722 ^	0.486	-1.195 *	0.303	-1.054 *	0.348	0.146	1.157	-0.118	0.888	-0.151	0.860

Control Variables												
Relative-provided child care	0.858 **	2.357	1.226 *	3.408	0.497 ^	1.644	0.440 ^	1.552	0.366	1.442	0.346	1.413
Race ^{d.}												
Black, non-Hispanic	-0.404 ^	0.668	n/a	n/a	n/a	n/a	0.413 ^	1.512	n/a	n/a	n/a	n/a
Hispanic	-0.205	0.815	n/a	n/a	n/a	n/a	-0.434	0.648	n/a	n/a	n/a	n/a
Other	0.182	1.199	n/a	n/a	n/a	n/a	-0.030	0.970	n/a	n/a	n/a	n/a
Gender (Girl)	0.083	1.086	0.182	1.200	0.148	1.159	0.141	1.151	0.076	1.079	0.238 ^	1.268
Constant	0.323		0.261		-0.134		0.789		1.442		0.501	
Adjusted R-square	0.169		0.180		0.179		0.073		0.089		0.089	
N	2,406		942		1,332		2,406		942		1,332	

a. Excluded category is two-parent family arrangements.
b. Excluded category is full-time work.
c. Excluded category is older school age children.
d. Excluded category is white, Non-Hispanic identified children.
Significance is noted as follows: ^ (<0.10), * (<.05), *** (<.01), ***(<.001).

Summary

Overall, the models in this chapter aim to answer three questions regarding the scope of children's time spent with extended family and grandparents. First, this chapter answers the question: Which children are most likely to spend time with extended family members and grandparents? In general, those with no parent present, those who coreside with grandparents, those who have younger mothers, and those whose primary caregivers have part-time jobs are all consistently among the likeliest to spend time with both grandparents and extended family members. What is interesting though, are the racial variations and who is more likely to spend time with extended family members versus grandparents when their primary caregivers work part-time. When primary caregivers work part-time jobs, African-American children are likely to spend time with extended family members, while white children are likely to spend time with grandparents. These findings suggest that grandparents and other extended family members are called upon in different ways by African-American and white parents to negotiate the demands of parttime work and family life. Future research should explore whether these differences by race are a consequence of the availability and willingness of family members to help each other out or reflect preferences of parents for some extended family members over others.

Second, this study explores the question: *How much time do children spend with extended family or grandparents?* Overall, most children spend very little time with extended family or grandparents relative to parents, friends, and even non-relatives (who are presumably teachers). But, some children spend more time than others with extended family members and grandparents. What is surprising, is that the model is not very successful at explaining variations in the amount of time spent with grandparents or

extended family members through the high needs of children and their families. This suggests that there are other important, yet unmeasured factors, encouraging grandparents and other extended family members to spend more time with children. Perhaps love and emotions are promoting more time spent with children, rather than the needs of children and their immediate families.

Comparing race differences, white children spend more time with grandparents when they report receiving routine child-care. In contrast, African-American children spend more time with grandparents, as evidenced in the bivariate descriptive statistics, when coresidence is a factor. Thus, grandparents are stepping in to fill a child-care need among white families with children, while grandparents are stepping in to fill a more parental role among black families with children.

The third question explored in this chapter is: *How are children spending their time with extended family members and grandparents?* When considering the types of activities children engage in with grandparents and other extended family members, activities were classified as to whether they were cultural in nature (reading, playing, attending social, religious, or cultural activities outside of the home) or functional in nature (bathing, feeding, and other caregiving activities). Overall, when grandparents and other extended family members engaged with children in cultural activities, the children and their families were characterized by having fewer needs and a securer standing. Furthermore, reporting high levels of extended family social capital was also associated with a higher likelihood of engaging in cultural activities with grandparents and other extended family members. This suggests that cultural time may be motivated by love, affection, and family closeness rather than resource-driven need.

In contrast, functional activities were much likelier when children and their families had higher needs for assistance. But, there are also indications that there are other motivators at work, particularly for grandparental time spent in functional activities with children, as indicated by high levels of social capital, fewer disabilities among the children, and better primary caregiver health. This suggests that there may be many reasons why grandparents, in particular, spend time in a caregiving capacity to children rather than engaging simply in games, fun, and outings. Perhaps the child's own and family needs are driving greater grandparental involvement in functional caregiving, or perhaps these activities are driven by grandparents' and parents' preferences for such roles and relationships. Overall, however, the findings for all children suggest that grandparents and extended family may be more likely to fulfill functional caregiving (and accordingly, more parental roles) when parents rely upon family members for child care assistance.

Chapter 7: Analysis of Extended Family Investments in Children: Coresidence

In the overall safety net of assistance extended to children and their families, coresidence is often the last line of support: When donations of money and time from extended family members cannot keep children and their families afloat, coresidence may be the last resort. Because the model examined in this dissertation is needs-based and explores how the needs of children and their families drive extended family investments such as coresidence, we might anticipate that the dire situations in families that often lead up to coresidence would be explained well through the data and theory in this dissertation. Indeed, as will be discussed in this chapter, the needs-based theoretical and analytic models provide many insights as to why coresidence may be an outcome for children and their families.

It is important to note, however, that in the PSID-CDS and in the population at large, coresidence is an investment made primarily by the children's grandparents. Only 2% (n = 58) of the sample in this study lives in the household of an extended family member other than that of a grandparent. Coresidence in grandparent-headed households constitutes the bulk of living arrangements for children when they do not live in households headed by parents (n = 229; 7% of the total unweighted sample resides in a grandparent-headed household). So, the data used in this chapter will only examine coresidence in grandparent-headed households as an outcome.

Because of the multigenerational design of the PSID and PSID-CDS, there is a unique opportunity to study data from all three generations in a family (grandparents, parents, children), which may be particularly useful for understanding coresidence in grandparent-headed households. So, the sample to be used in these analyses also

includes data from grandparents (n = 2,242) in addition to data from children and their immediate families. As discussed in chapter 4, the reduced sample used in the coresidence analyses is the result of a lack of data from the children's grandparents due to either death or attrition from the main PSID study. As a result, the final sample used in this chapter is skewed toward children from families of higher socioeconomic backgrounds. But, this is to be expected. The PSID and panel studies in general routinely lose individuals of lower socioeconomic levels (Fitzgerald, Gottschalk, and Moffitt 1998), and such attrition in the PSID has neither produced notable biases in population-based outcomes (Lillard and Panis 1998) nor contributed to a loss of representativeness with the population at large (Fitzgerald, Gottschalk, and Moffitt 1998).

Of final note is the finding that the majority of children in this study who live with grandparents are ethnically identified as African-American or black (n = 179, or 78.2% of all children who coreside with grandparents). So, rather than running comparative analyses by race, multivariate models in this chapter are restricted to the overall sample (n = 2,242) and to African-American children who have grandparent data in the sample (n = 741) because of the low incidence of data from other ethnicities with respect to coresidence with grandparents.

Considering the above findings and restrictions to the data, this chapter explores one general question with the needs-based model: Which children are likeliest to live in grandparent-headed households?

Overall Descriptive and Multivariate Model Findings

Descriptive Findings

Table 7.1 presents weighted and clustered findings that describe the incidence of coresidence for the entire sample, and white and African-American children according to selected individual and family characteristics.

Table 7.1: Percent of Children who Coresided with Grandparents by Children's and their Families'

	Overall Sample	All African American and White Children	African American	White
	n = 2,242	n = 2,124	n = 741	n = 1,383
TOTAL	6.1%	6.0%	22.3%	3.2%
Grandparents' Characteristics				
Grandparents' income				
Less than \$15,000	14.2% ***	14.2% ***	36.3% ^	1.0%
\$15,000-\$29,999	5.8% **	6.0% ***	14.2%	3.4%
\$30,000-\$44,999	6.5% **	6.4% ***	11.7%	5.8% **
\$45,000-\$69,999	5.1% **	5.0% ***	32.2% **	3.6% *
\$70,000 or more ^a	1.3%	0.9%	6.0%	0.8%
Grandparents' education				
Less than high school	11.4% ***	11.8% ***	23.0%	4.5%
High school	6.3% ***	5.7% **	20.7%	3.9% *
Some college	6.0% **	6.1%*	25.5%	3.5%
College and post college ^a	1.7%	1.6%	11.2%	1.3%
Grandparents' age				
<50	24.3% ***	25.1% ***	49.1%	14.0% **
50-59	5.7%	5.9%	12.6%	4.5% *
60-69	1.8%	1.9%	5.5%	1.5%
70+ ^a	4.2%	3.9%	28.0%	0.9%
Grandparents' work hours	1,2,7	012,72		017 / 1
No employment	6.1%	6.2%	24.9%	2.6%
Low part-time (1-19 hrs/wk)	4.5%	3.1%	18.5%	1.5%
High part-time (20-34 hrs/wk)	5.3%	5.7%	14.4%	3.2%
Full-time (35+ hrs/wk) ^a	6.4%	6.2%	22.6%	3.7%
Grandparents' health (fair/poor)	8.5% ^	8.1%	19.7%	3.7%
Grandparents' health (exc/v.good/good)	5.0%	5.1%	25.9%	3.7%
Single grandmother	10.3% ****	10.0% *	24.9%	4.5%
Single grandfather/Two grandparents	4.1%	4.2%	19.1%	2.6%
Children's Families' Needs	1.170	1.2 70	19.170	2.070
Children's families' income				
Less than \$15,000	14.5% ***	14.7% ***	28.6% *	1.3%
\$15,000-\$29,999	8.7% ***	8.9% ***	19.5%	5.2%*
\$30,000-\$44,999	7.5% ***	7.6% ***	12.9%	7.0% **
\$45,000-\$69,999	4.1% **	4.1% ***	22.8% *	2.9%*
\$70,000 or more ^a	0.8%	0.5%	5.0%	0.4%
Children's families' education	0.0.1	0.00		01170
Less than high school	21.7% ***	24.5% ***	42.9% *	9.4% *
High school	7.3% ***	7.3% ***	13.9%	5.8% **
Some college	4.1% *	4.1% *	16.2% *	2.3%
College and post college ^a	1.5%	1.1%	4.3%	0.9%
Extended family social capital (no)	9.6%	9.1%	31.0%	5.0%
Extended family social capital (yes)	4.0% ***	4.2% **	16.6%	2.1%*
Mothers' age	1.0 /0	1.270	10.070	2,1 /0
14-19	54.5% ***	60.6% ***	81.1% ***	38.0% *

20-24	18.6% ***	18.7% ***	41.1% ***	12.1% **
25-29	9.1% **	9.3% **	17.2%	7.1%
30-34	3.8%	3.7%	22.6%	0.2%
35-39	1.6%	1.7%	4.0%	1.5%
40+ ^a				
	1.9%	2.0%	7.3%	1.3%
Single mother (no)	3.4%	3.1%	21.2%	1.7%
Single mother (yes)	14.3% ****	15.3% ***	23.0%	10.2% **
Primary caregivers' employment	*	*	^	
No employment	3.9% *	3.6% *	14.9%	1.7%
Low part-time (1-19 hrs/wk)	4.1% ***	4.1% ***	28.0% **	0.5%
High part-time (20-34 hrs/wk)	15.6% ***	15.1% ***	46.3% ***	9.7% ***
Full-time (35+ hrs/wk) ^a	0.9%	1.0%	5.0%	0.2%
Primary caregivers' health (fair/poor)	16.8%*	14.5% *	24.1%	8.9%
Primary caregivers' health	5.4%	5.4%	22.0%	2.9%
(exc/v.good/good)				
Number of children < 18 in family	0.00	0.20	20.20	= = ~
One	9.9%	9.3%	20.3%	7.5%
Two	4.3%*	$4.4\%^*_{*}$	18.4%	2.7%
Three	3.3%*	3.3% *	18.7%	0.8%
Four or more ^a	15.0%	15.9%	31.7%	4.5%
Program participation (no)	4.6%	4.2%	24.9%	2.5%
Program participation (yes)	11.1% ***	12.5% ***	20.6%	7.0% *
Children's Needs				
Child's age				
Infant/Toddler (0-3)	8.9% **	9.1% ***	39.4% *	4.2% **
Preschool (4-5)	7.6% *	7.6% **	25.9% ^	$4.8\%^{\ ^{\ast}}$
Young school age (6-9)	4.8%	4.7% ^	14.3%	2.8% ^
Older school age (10-12) ^a	2.9%	2.2%	9.6%	0.9%
Special education (never)	6.2%	6.1%	23.5% *	3.0%
Special education (now/ever)	4.9%	5.3%	6.5%	5.1%
Child health status (fair/poor)	11.2%	11.3%	12.7%	10.7%
Child health status (excel/v.good/good)	6.0%	5.9%	22.7%	3.1%
Disability status (no)	5.8%	5.7%	22.3%	2.8%
Disability status (yes)	11.6%	13.2%	22.3%	11.0%
Behavior problems (internal/external)				
First and second quartile (low) (0-5)	5.8%	5.7%	23.4%	3.0%
Third quartile (5-10)	5.0%	4.7%	17.1%	2.2%
Fourth quartile (high) (11+) ^a	8.2%	8.3%	27.3%	4.9%
Control Variables	0.270	0.570	21.370	7.770
Gender				
Boys	6.6%	6.5%	22.0%	3.3%
Girls	5.6%		22.0%	
Race/ethnicity	3.0%	5.4%	44.070	3.0%
White, non-Hispanic ^a	2.20	. I.	I .	
Black, non-Hispanic	3.2%	n/a	n/a	n/a
•	22.3% ****	n/a	n/a	n/a
Hispanic	7.9%	n/a	n/a	n/a
Other	7.1%	n/a	n/a	n/a

a. Reference category for chi-square significance tests. b. Significance is noted as follows: $^{\wedge}$ (<0.10), * (<.05), ** (<.01), *** (<.001).

Consistent with the model of family investments from which the hypotheses in this study are derived, coresidence in grandparent-headed households is associated with greater needs among children and their families. Specifically, the hypotheses are supported in the descriptive data by findings showing that the highest proportions of children who coreside with grandparents: have families with less income; have families with lower education levels; have younger mothers; have primary caregivers in poorer health; have single mothers; participate in government programs (WIC and free lunch); are younger (particularly if they are infants, toddlers, or preschoolers); and are identified as African-American (Table 7.1). Of additional note is the finding that the grandparents who provide a home to their grandchildren are themselves on less secure footing, being of a lower socioeconomic standing, in poorer health, and more often than not, single women. Such findings reflect how highly needs-based coresidence may be for children and their families, as well as the somewhat tenuous standing of the grandparent generation.

When examining descriptive findings for African-American and white children and proportions who coresided with grandparents, the biggest difference that emerges is the higher proportion of African-American children who coreside with grandparents (22.3% of all African-American children, n = 179) compared to white children (3.2% of all white children, n = 40) or children of other ethnic backgrounds (n = 10). As previously discussed, because of the high proportion of African-American children who coreside with grandparents in this study, sub-sample analyses will focus on African-American children.

Multivariate Model Findings: Coresidence with Grandparents

Looking at the logistic regression model, where coresidence with grandparents in 1997 is regressed on various child and family measures, the needs-based model tested in this dissertation is quite good at explaining coresidence with grandparents (Table 7.2). Model 1, which tests grandparents' own characteristics as predictors of coresidential situations, has an adjusted R-square of 0.180, suggesting that the explanatory power of these characteristics is fair. However, when the children's families' characteristics are introduced to the needs-based model (Model 2), the explanatory power of the model is greatly improved and quite good (adjusted R-square of 0.608) (Table 7.2). The model fit is further improved by restricting the sample to African American children only (adjusted R-square of 0.674) (Table 7.2).

Table 7.2: Logistic regression model: Child lived with grandparent (1997) (Weighted; Clustered)

Table 7.2: Logistic regression model:	2: Logistic regression model: Child lived with grandparent (1997) (Weighted; Clustered)									
	Model 1 Grandpar		Model 2 Grandparents & Childr	, Family en	Model 3 - African American Children					
	Coefficient	Odds ratio	Coefficient	Odds ratio	Coefficient	Odds ratio				
Grandparents' Characteristics										
Grandparents' income	-1.000E-05 *	1.000	-7.980E-06	1.000	-4.000E-05	1.000				
Grandparents' education	-0.108 ^	0.898	0.066	1.068	0.321 **	1.378				
Grandparents' age	-0.091 ***	0.913	-0.003	0.997	0.016	1.016				
Grandparents' work hours	-0.009 ^	0.991	-0.015 ^	0.985	-0.010	0.990				
Grandparents' physical health	-0.050	0.951	0.374	1.453	-0.045	0.956				
Single grandmother	0.269	1.309	0.084	1.087	-0.040	0.961				
Children's Families' Needs	0.20	1.507	0.00	11007	0.0.0	0.701				
Children's families' income			9.927E-06 ***	1.000	8.000E-05 ***	1.000				
Children's families' education			-0.249 *	0.780	-0.691 ***	0.501				
Extended family social capital			-0.828*	0.437	-0.501	0.606				
Mothers' age			-0.143 **	0.867	-0.228 ***	0.796				
Two parents not present			3.433 ***	30.965	6.057 ***	427.047				
Primary caregivers' employment ^a .										
None			0.960	2.611	0.065	1.067				
Low part-time (1-19 hrs/wk)			0.841	2.318	1.279 *	3.592				
High part-time (20-34 hrs/wk)			3.232 ***	25.324	2.164 ***	8.705				
Primary caregivers' physical health			-1.405 **	0.245	-1.094	0.335				
Number of children < 18 in family			-0.014	0.986	0.392 *	1.479				
Program participation			-0.410	0.664	0.296	1.344				
Children's Needs										
Child's age ^{b.}										
Infant/Toddler (0-3)			0.592	1.808	1.178 ^	3.246				
Preschool (4-5)			0.417	1.518	0.752	2.122				
Young school age (6-9)			0.050	1.051	0.572	1.771				
General health status			-0.083	0.920	-0.238	0.788				
Disability status			0.948	2.581	-0.111	0.895				
Control Variables										
Race/ethnicity ^{c.}			**			_				
Black, non-Hispanic			1.095 **	2.990	n/a	n/a				
Hispanic			-0.335	0.715	n/a	n/a				
Other			0.694	2.002	n/a	n/a				
Gender (Girl)			-0.003	0.997	0.222	1.248				
Constant	4.649 ***		1.538		1.706					
Adjusted R-square	0.180		0.608		0.674					
N	2242		2242		741					

a. Excluded category is two-parent family arrangements.
b. Excluded category is full-time work.
c. Excluded category is older school age children.
d. Excluded category is non-Hispanic, white children.
e. Significance is noted as follows: ^(<0.10), *(<.05), **(<.01), ***(<.001).

The first finding of note from the overall logistic regression model is that the characteristics of grandparents are explained away with the introduction of variables from children and their families. Grandparents' income, education, age, and work hours are all significant in Model 1, which introduces grandparents' characteristics independently. However, when children's characteristics and those of their immediate families are introduced in Model 2, working fewer hours remains minimally significant for grandparents. Also notable in Model 2 is the non-significance of the children's own characteristics for the overall sample: characteristics of children's families are the most significant predictors of coresidence with grandparents.

Among the most significant findings with respect to the needs of children's families are the importance of the presence of children's parents in the household and the employment status of the children's primary caregivers. Children were more likely to be living in a grandparent-headed household if they did not live with both of their parents (p<.001). Families where children were not living with two parents were nearly 31 times more likely to coreside with grandparents than children who lived in two parent families.

Furthermore, the part-time work status of the children's primary caregivers was another important predictor of living in a grandparent-headed household. Children with primary caregivers who worked in high part-time jobs (20-34 hours per week) were 25 times more likely to coreside with grandparents (p<.001) compared to those with primary caregivers who worked in full-time jobs. Of course, we cannot determine with these data if the part-time work status of the children's primary caregivers is a determinant of coresidence (for example, stemming from a need for child care assistance) or if it is merely a consequence of the limited job market available to individuals with tenuous

economic and housing status. But, the association of part-time employment and coresidence suggests a somewhat insecure existence in children's families.

Other factors in children's families significantly associated with children living in grandparent-headed households and consistent with the needs-based model include: having lower levels of education (p<.05); having younger mothers (p<.01); and having primary caregivers in poorer health (p<.01). Finally, as other studies have found, children who live in grandparent-headed households are more likely to be African-American (Bryson and Casper 1999). In this study, African-American children were 3 times more likely than white children to be living with grandparents (p<.01).

Looking at Model 3, which is restricted to African-American children only, different factors emerge as significant. Most notably, for the African-American children, characteristics of grandparents and the children themselves emerge as significant. This differs from Model 2 among the overall sample, where the needs of children's families were the only significant factors. For example, for African-American children, grandparents with higher levels of education and those with lower incomes were significantly more likely to have grandchildren in their households (p<.01 for both). The African-American children who lived in grandparent-headed households were also more likely to be younger: Infants and toddlers were 3.2 times more likely (p<0.10) to live in grandparent-headed households than older school age children.

However, as was the case with the overall sample, most of the factors of significance for African-American children originated with the needs of the children's families. Consistent with the needs-based hypotheses, African-American children were more likely to have coresided with a grandparent in 1997 if: their immediate families

reported lower levels of education (p<.001); they had younger mothers (p<.001); they did not live with both parents (p<.001); they had primary caregivers who worked part-time (p<.05 for low part-time and p<.001 for high part-time) compared to those with primary caregivers employed full-time; and they had more children under 18 in their families (p<.05). Again, not having two parents in the household was a significant factor associated with coresidence with grandparents: Children who did not have both parents present in the household were 427 times more likely to coreside with grandparents than children living in two parent families. Similarly, part-time work status of the primary caregivers was also a significant factor associated with coresidence of grandparents: Children with primary caregivers who worked in low part-time jobs (1-19 hours per week) were 3.6 times more likely to coreside with grandparents, and children with primary caregivers who worked in high part-time jobs (20-34 hours per week) were 8.7 times more likely to coreside with grandparents compared to those with primary caregivers who worked in full-time jobs. Again, these findings point to the marginalized position in society in which children who coreside with their grandparents face: they are less likely to be living with both of their parents and are less likely to have caregivers working in jobs where paying for their own housing and child care is possible.

Summary

Overall, the findings indicate that the needs-based model explored in this dissertation is quite good at explaining coresidence with grandparents. This is particularly the case for African-American children who constitute the majority of children who live in households headed by grandparents. The needs-based model indicates that coresidence is an option available to the most disadvantaged children and

their families, and may be the last resort available to keep such families with young children afloat. In particular, the characteristics of the children's families that indicate high needs such as the absence of one or both parents from the child's immediate household and the part-time work status of caregivers are significantly associated with coresidence with grandparents.

Interestingly, the characteristics of grandparents and the children themselves do not exert an independent effect on the likelihood of coresidence when the needs of the children's own families are introduced into the model. The story is slightly different when the sample is restricted to African-American children. Among the African-American sample, multigenerational factors emerge as significant in the data. The data reveal that African-American grandparents with higher levels of education and lower incomes are more likely to coreside, as are the youngest children, in addition to the high needs of the children's immediate families. Thus, with the African-American sample, factors in each of the generations have independent effects on the likelihood of children coresiding in a grandparent-headed household.

Chapter 8: Conclusions

Theories of social exchange and social capital suggest that extended family members have a strong interest in assisting the younger generations. Consistent with these theoretical bodies of literature, the findings from this study illustrate that families are interconnected and that extended family members are indeed assisting children and their immediate families. In other words, there is much more dependence upon extended family members to support young children than is normally recognized per the ideology of the nuclear family. However, the findings in this study also illustrate that family interdependence varies by degree, by need, and by choice. In this final chapter, each of the five research questions outlined at the beginning of this dissertation will be addressed with respect to the findings and the ways in which such family interdependence varies.

First, do children who have high individual and family needs receive the most help from extended family members through transfers of money, time, and coresidence? The evidence in this study demonstrates that the needs of children and their families do indeed matter for the donation of support from extended family members. However, the forms of support provided (money, time, and coresidence) vary by the degree of need experienced by children and their families. With respect to donations of money, the likelihood is higher when children and their families are in need, but the amounts of money provided are lower for those with the greatest needs. The implications for this finding is that families do what they can (and do respond to need) but poor kin cannot do much to reduce the overall inequalities that already exist in society.

Looking at time donations, when the sample is restricted to those children who do not live with their grandparents, needs are not really important factors for increasing

the likelihood of time spent with grandparents, but may be more relevant for time spent with other extended family members. This finding likely reflects grandparents' desire to spend time with grandchildren by choice, rather than doing so in response to children's high needs (at least among children who do not coreside with their grandparents).

Among children who coreside with grandparents, this study reveals that their immediate families and their grandparents are all facing particularly high needs and constraints.

Second, how do the needs and constraints of different generations of family members (children, parents and grandparents) affect extended family donations of money, time, and coresidence? Looking at how the different generations' needs and constraints may or may not be related to transfers of money, time, and coresidence to children and their families, it becomes quite clear that the needs of children's immediate families matter the most for such transfers. As Aldous (1995) asserts in her review of literature on grandparents and intergenerational ties, grandparents seem particularly likely to help out their kin when the family member is a close tie (i.e. a child) and when the child's parents have high needs (i.e. single mothers or unwed parents) (p. 109). This dissertation supports Aldous's conclusions from the literature. In this study, extended family members, including grandparents, are most likely to help children out when the children's parents are particularly needy. In particular, children who have low family incomes, young mothers, one or no parents present in the household, caregivers employed in part-time work, and are government program participants are all more likely than others to receive assistance from extended family members. Even when the needs of children and the limitations of the grandparent generation (for coresidence only) were introduced in the model, it was the needs of the middle generation that pulled in the most

assistance from extended family members. This is perhaps the most conclusive finding of the study; the needs of the children's immediate families are the most likely to be associated with support from extended family members. Given the strength of this finding, future studies should explore this relationship as well, perhaps with data that measure children's needs and extended family members' abilities to help in a more comprehensive way than the PSID does.

Third, do the same patterns of need prompt the three forms of extended family support (money, time, coresidence) similarly? As previously stated, the one consistent pattern across the three forms of extended family support explored in this dissertation is that the needs of the middle generation (or the children's parents) present the clearest reasons why grandparents and other extended family members are providing support to children. However, for each form of support, the individual predictors matter in different ways. Looking at donations of money to children and their immediate families, the needs that emerge as important for children to receive support all reflect financial constraints in direct and indirect ways: having single parents, having less healthy caregivers, participating in government subsidized programs, and being an infant or toddler. Time spent with grandparents, among children who did not coreside with grandparents, was more likely when the children's parents had work-family needs: in particular, such families were likely to have caregivers employed part-time and relatives who provided child care. Time spent with extended family members other than grandparents reflected a pattern of general need including children with less family education, younger mothers, an absence of parents in the household, and the part-time employment of their caregivers. Finally, coresidence reflected the most dire pattern of need among children, including the

absence of one or both parents, part-time employment of their immediate caregivers, having less healthy caregivers, and having very young mothers or being very young themselves.

Fourth, if the immediate needs of children and their parents are not motivating extended family transfers, are other determinants involved (such as social capital investments or unmeasured factors such as love and emotions)? Looking at the time that non-coresidential children spent with grandparents and extended family members, it is clear that there are non-need based motivators involved with this transfer. Compared to money and coresidence, time was the only extended family investment for which social capital, as measured here, is an important and significant predictor. When the children's primary caregivers perceived more social capital to be available from kin, children were more likely to be spending time engaged with extended family members, particularly grandparents. Does this reflect the importance of developing social capital (Astone, Nathanson, Schoen, and Kim 1999; Hofferth, Boisjoly, and Duncan 1999) by enhancing family ties through time spent with children (more so than other forms)? Perhaps grandparents are willing to spend time with grandchildren to reinforce family bonds, whereas money may be viewed as a fringe extra and coresidence may be viewed as an act of dire necessity.

Furthermore, in the models where time is a dependent variable, the direction of the significant predictors suggests that children were more likely to spend time with grandparents and other extended family members when they *did not have* high individual or family needs. While this is counter to the needs-based argument presented in this dissertation, it suggests that there are other unmeasured explanations that may be

associated with children spending time with grandparents and other extended family members. Grandparents could be spending time with grandchildren because of love or a desire to do so, or they could be spending time with grandchildren because of a sense of obligation and duty. This study cannot measure love, emotional ties, or feelings of obligation to family members because the variables are not within the scope of the PSID. But, the non-needs based relationship of the predictive variables suggests that there are unmeasured phenomena regarding how extended family members "choose" to be involved in children's lives that should be explored in future studies.

Fifth, do white and black families respond differently to the needs of children and their parents for assistance? With respect to race differences, there are interesting findings that both confirm the existing literature and raise questions for future exploration. Certainly with respect to money, these data confirm previous findings showing that white children are receiving money in greater frequency and in greater amounts than black children are (Hogan, Eggebeen, and Clogg 1993; Lee and Aytac 1998; Shapiro 2004). However, when coresidence rates are considered, black children are far more likely to be living with extended family than white children, also confirming prior studies of grandparent-grandchild coresidence (Bryson and Casper 1999; Casper and Bryson 1998; Fuller-Thomson and Minkler 2001; Minkler and Fuller-Thomson 2000; Minkler and Roe 1996; Szinovacz 1996). The inequality in the type of resources that children receive by race is indicative of larger issues of inequality in society; in this study, the children least likely to be receiving money from outside extended family were also the children living with their grandparents: African-American children living with grandparents as primary caregivers were least likely to be receiving money from other

relatives outside of the household. One could argue that this finding is tied to the survey question itself: the question assessed monetary donations from relatives outside of the household rather than monetary donations from relatives within the household as coresiding grandparents would be. However, the finding still stands that these children, who the coresidence data showed to have the highest needs for resources, were still receiving the least monetary support from relatives, apart from their coresidential grandparents. In other words, children with the most disadvantages were receiving kin support through basic shelter, but were resource poor with respect to money transfers from other kin outside of the household. This reflects a common theme in the social capital research: the inequalities already present in society are replicated in the capital available to individuals (Bourdieu 1986; Furstenberg 2005; Lin 2000). However, another explanation could also be the notion of overburdening and taking too much from the existing social capital of a family (Furstenberg 2005). Without "paying back" into the system, the neediest of children and their families could have diminished support from extended family members over time. Perhaps coresidence is seen as the most taxing burden that can be drawn from the social capital reserves of a family, yet for families with few resources, it is often a non-negotiable last resort for children.

Some have also suggested that in African-American families, there is an expectation that money will be transferred upward (to elders in the family) rather than downward (to young families and children) (Shapiro 2004). This might offer another explanation as to why African-American children and their families receive lower amounts of money and money less frequently than white children and their families.

Perhaps African-American children and their immediate families are expected to transfer

money to the elders in their families and are not receiving money in return. While this study does not examine upward transfers (to grandparents and other kin), exploring such race differences with the PSID may be an interesting avenue for future study.

While coresidence and money transfers anchor two opposite extremes and reflect notable differences according to race, time transfers hint at greater complexity in the arrangements families make. For one, grandparents may have different roles with respect to the time they spend with grandchildren in both African American and white families. On the extreme end of functional caregiving and time investments that grandparents make in their grandchildren's lives, African American grandparents are more often serving as surrogate parents to their grandchildren, while white grandparents are serving as caregivers while the parent generation is employed. In black families, *children* may benefit the most from grandparents' time investments, compared to white families where the children's *parents* may benefit the most from grandparents' time investments.

There are also interesting differences in how children spend time with extended family members other than grandparents. First, African-American children are significantly more likely spend time with extended family members other than grandparents compared to white children. Also, African-American children are far more likely to spend time with other extended family members in both cultural and functional activities when they are older and when they have primary caregivers employed part-time. Finally, the needs-based model is much better at explaining functional time that children spent with extended family members other than grandparents for African-American compared to white children. These findings all suggest that extended family members may be a particularly important resource for African-American children and

their immediate families than is the case for white children, particularly in caregiving and replacement parenting roles. More so than in white families, extended family members such as aunts, uncles, and cousins in African-American families are responding to the needs of their youngest kin by making significant time investments.

Finally, for both white and African-American children, both grandparents and other extended family members are more likely to be spending time engaged in cultural activities with those children who have the fewest individual and family needs, and as previously mentioned, high social capital. Such findings mirror the arguments of those who theorize that cultural capital transmissions in families matter for later achievement and reflect existing inequalities in families (Bourdieu 1984; Bourdieu 1986). Those families who have the most need for an extra set of hands to read their children books or to take them to religious events, the library, or the museum are not receiving such assistance. Although it is debatable how much these early cultural activities matter for later achievement, such early childhood household cultural inequalities may put children on very different trajectories later in life (Lareau 2002).

Summary. Overall, this study illustrates that grandparents and other extended family members are contributing much more to the well being of children and their immediate families than is normally recognized in our society. However, it is important to note that we still know very little about the motivations of extended family members to help children and their immediate families when such needs arise. Grandparents and other extended family members may be eager to help their youngest family members, particularly if they feel close to the particular family members involved. Conversely, grandparents and other extended family members may feel burdened by the needs of such

family members and forced into providing more assistance than they truly desire. Future studies should be directed at understanding the complexity of these family arrangements and exploring the motivations and feelings of attachment or burden that may accompany such assistance across nuclear family lines. All in all though, this study suggests that the white picket fence surrounding the nuclear family ideal in our society is more of an illusion than a reality: children and their immediate families, particularly when they are in need, have a safety net of extended family members upon which they can rely.

Appendix I: Creation of the grandparent sample

First, the sample was drawn from the CDS-I data file, or data collected from the CDS children and their primary caregivers in 1997. This data file is publicly available through the PSID website portal to data downloads: (http://simba.isr.umich.edu/ALL/). In addition to the CDS-I data file, the more detailed Time Diary file for the CDS children is used in this study. By including all children and their families who were interviewed for the CDS in 1997, the baseline sample size was 3,563 (Table 4.1).

Second, grandparents were matched to the birth and adoptive parents of children in the CDS by using the "Parent Indentification File" (also available through the PSID website portal to data downloads). The parent identification file includes identifiers for all of the birth and adoptive parents of all members of the PSID study dating back to 1968. By using the parent identification file, generational links were made by sequentially matching the family identifiers and person numbers ¹⁸ of each grandparent to the listed parent family and person number identifiers of the mothers and fathers for each CDS child. Once the matching was complete, the person numbers of each grandparent were merged back onto the CDS data file.

Third, prior to downloading individual level data for the grandparents in the study, eligibility was determined by removing CDS children who were a part of the new immigrant sample, and thus did not have any family history data in the study. 329 children were members of the new immigrant sample, and were determined ineligible, bringing the sample down to 3,234 (Table 4.1). Finally, another 259 children had PSID

researchers to match data to families and individuals over the years of the panel study.

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¹⁸ The PSID and CDS identification number system consists of two identifiers: a family identification number and an individual's own identification number within a family (referred to in the PSID and in this dissertation as the "person number".) These identification numbers are consistent over time, allowing

grandparents who had passed away prior to 1997 and 151 children had grandparents who were not true members of the PSID survey (defined by the PSID as having person numbers ranging from 900-996). With the deletion of these ineligible cases, the total sample for the grandparent analyses was further reduced (n = 2,824) (Table 4.1). Another 24 children were excluded because their PSID grandparents were not the heads or spouses of heads of households and therefore were not responsible for sharing their place of residence with their grandchild. This resulted in a total sample size of 2,800 eligible children (Table 4.1). The remaining 558 CDS children with no grandparent data and no explicable reason for missing grandparent data were deemed as having had grandparents missing due to attrition (Table 4.1), resulting in a final sample size for this study of 2,242 (Table 4.1).

The attrition rate for this study was determined by dividing the total sample size of this study (2,242) by the base sample prior to attrition (2,800). The resulting attrition rate for this study is 20%, and conversely, the participation rate of grandparents and grandchildren in this study is 80%.

Finally, once the final sample of CDS children who had eligible grandparents participating in the PSID survey in 1997 was identified, PSID data were downloaded for the individual grandparents and were merged back onto the CDS records for each child resulting in a multigenerational data file for 2,242 children, their immediate families, and their grandparents.

Appendix II: Bivariate sample comparisons for coresidence analysis

Bivariate Analysis: Sample Selection Comparison for Inclusion in Analyses of Grandparent Coresidence (1997) (Weighted)

	Total percentages and means	Not in Sample	In Sample	Sig.	
INDEPENDENT VARIABLES	n = 3,234	n = 992	n = 2,242	~-8*	
Children's Families' Needs			,		
Children's families' income	\$54,563	\$47,059	\$56,509	***	
Children's families' education	13.69	13.51	13.74	*	
Extended family social capital (yes)	60%	53%	62%	***	
Mothers' age	33.61	35.59	33.10	***	
Single mother (yes)	28%	40%	25%	***	
Primary caregivers' employment					
None	22%	21%	22%	**	
Low part-time (1-19 hrs/wk)	21	21	21		
High part-time (20-34 hrs/wk)	26	26	26		
Full-time (35+ hrs/wk)	31	33	31		
Primary caregivers' physical health (poor)	7%	8%	6%	***	
Number of children < 18 in family	2.33	2.33	2.33	n.s.	
Program participation (yes)	25%	34%	23%	***	
Children's Needs					
Child's age					
Infant/Toddler (0-3)	30%	23%	31%	***	
Preschool (4-5)	16	15	16		
Young school age (6-9)	31	33	31		
Older school age (10-12)	23	30	22		
Special education (ever) (n = 1936)	13%	16%	12%	***	
General health status	4.38	4.31	4.40	**	
Disability status (yes)	5%	4%	5%	**	
Behavior problems	8.06	7.93	8.10	n.s.	
CONTROL VARIABLES					
Race					
White, non-Hispanic	74%	55%	79%	***	
Black, non-Hispanic	18	36	14		
Hispanic	3	2	3		
Other	5	7	4		
Gender					
Boys	51%	52%	51%	*	
Girls	49	48	49		

¹⁾ Significance tests for means are based upon t-test results and significance tests for frequencies are based upon chi-square results; 2) Significant differences are denoted in the following way: n.s. (not significant), * (<.05), ** (<.01), ***(<.001).

Appendix III: Correlation Matrix of Key Independent Variables

Correlation matrix of independent variables

Correlation matrix of inde	Dendent	variable	•	1		1		1			1
	Child's family inc.	Child's family educ.	Child's family social cap.	Moth.	Single parent hh	Pcg work	Pcg hlth	# Child. <18	Rel care	Child age	Special educ.
Children's Families' Needs											
Family income	1.00	0.47	0.00	0.28	-0.31	0.04	0.13	0.00	-0.04	0.05	-0.09
Family education	0.47	1.00	0.10	0.32	-0.37	0.04	0.17	-0.09	-0.04	-0.01	-0.10
Family social capital	0.00	0.10	1.00	0.03	-0.07	-0.01	0.07	-0.03	0.02	-0.03	-0.05
Mothers' age	0.28	0.32	0.03	1.00	-0.17	0.07	0.01	0.13	0.08	0.54	-0.01
Single parent household	-0.31	-0.37	-0.07	-0.17	1.00	0.08	-0.06	0.06	0.15	0.07	0.08
Primary caregivers' work	0.04	0.04	-0.01	0.07	0.08	1.00	0.10	-0.10	0.16	0.08	0.02
Primary caregivers' health	0.13	0.17	0.07	0.01	-0.06	0.10	1.00	-0.05	0.02	-0.04	0.02
Number of children <18	0.00	-0.09	-0.03	0.13	0.06	-0.10	-0.05	1.00	0.07	0.15	0.04
Relative care	-0.04	-0.04	0.02	0.08	0.15	0.16	0.02	0.07	1.00	0.22	0.07
Children's Needs											
Child's age	0.05	-0.01	-0.03	0.54	0.07	0.08	-0.04	0.15	0.22	1.00	0.10
Special education needs	-0.09	-0.10	-0.05	-0.01	0.08	0.02	0.02	0.04	0.07	0.10	1.00
General health status	0.20	0.20	0.05	0.09	-0.17	0.03	0.17	-0.10	-0.05	0.01	-0.09
Disability status	-0.03	-0.03	0.00	0.02	0.01	0.02	-0.10	0.03	0.04	0.08	0.17
Behavior problems	-0.15	-0.16	-0.07	-0.11	0.13	-0.02	-0.10	0.00	0.06	0.04	0.19
Program participation	-0.31	-0.38	-0.05	-0.11	0.31	-0.05	-0.18	0.17	0.18	0.12	0.13
Grandparent Resources											
Grandparents' income	0.16	0.28	0.03	-0.03	-0.12	0.00	0.04	-0.13	-0.04	-0.12	-0.05
Grandparents' education	0.26	0.47	0.02	0.07	-0.22	-0.01	0.08	-0.13	-0.10	-0.09	-0.02
Grandparents' age	0.25	0.28	0.02	0.72	-0.21	0.00	0.06	0.12	0.06	0.37	-0.09
Grandparents' work hours	-0.04	-0.04	-0.10	-0.41	0.01	0.03	-0.01	-0.14	-0.06	-0.24	0.07
Grandparents' health	0.11	0.19	-0.02	0.03	-0.11	-0.01	0.12	-0.08	-0.06	-0.04	0.02
Grandparent is primary caregiver	-0.07	-0.11	-0.06	-0.09	-0.04	-0.06	-0.17	0.04	0.00	0.04	-0.05

Note: The child and family correlations have an n size of 3,234, while the grandparent correlations have an n size of 2,242. The variables for primary caregiver's work status and child's age are continuous, reflecting total weekly work hours and age in years, respectively.

Correlation matrix of independent variables (continued)										
	Child hlth	Child disab.	Child behav.	Child prgm part.	Gpnt inc.	Gpnt	Gpnt age	Gpnt work	Gpnt hlth	Gpnt is pcg
Children's Families' Needs										
Family income	0.20	-0.03	-0.15	-0.31	0.16	0.26	0.25	-0.04	0.11	-0.07
Family education	0.20	-0.03	-0.16	-0.38	0.28	0.47	0.28	-0.04	0.19	-0.11
Family social capital	0.05	0.00	-0.07	-0.05	0.03	0.02	0.02	-0.10	-0.02	-0.06
Mothers' age	0.09	0.02	-0.11	-0.11	-0.03	0.07	0.72	-0.41	0.03	-0.09
Single parent household	-0.17	0.01	0.13	0.31	-0.12	-0.22	-0.21	0.01	-0.11	-0.04
Primary caregivers' work	0.03	0.02	-0.02	-0.05	0.00	-0.01	0.00	0.03	-0.01	-0.06
Primary caregivers' health	0.17	-0.10	-0.10	-0.18	0.04	0.08	0.06	-0.01	0.12	-0.17
Number of children <18	-0.10	0.03	0.00	0.17	-0.13	-0.13	0.12	-0.14	-0.08	0.04
Relative care	-0.05	0.04	0.06	0.18	-0.04	-0.10	0.06	-0.06	-0.06	0.00
Children's Needs										
Child's age	0.01	0.08	0.04	0.12	-0.12	-0.09	0.37	-0.24	-0.04	0.04
Special education needs	-0.09	0.17	0.19	0.13	-0.05	-0.02	-0.09	0.07	0.02	-0.05
General health status	1.00	-0.22	-0.20	-0.19	0.06	0.14	0.11	-0.01	0.10	-0.10
Disability status	-0.22	1.00	0.17	0.09	-0.03	-0.02	-0.01	-0.02	-0.04	0.06
Behavior problems	-0.20	0.17	1.00	0.13	-0.04	-0.03	-0.07	-0.01	-0.08	0.10
Program participation	-0.19	0.09	0.13	1.00	-0.17	-0.25	-0.14	-0.04	-0.17	0.10
Grandparent Resources										
Grandparents' income	0.06	-0.03	-0.04	-0.17	1.00	0.41	-0.11	0.32	0.21	-0.06
Grandparents' education	0.14	-0.02	-0.03	-0.25	0.41	1.00	0.01	0.18	0.34	-0.06
Grandparents' age	0.11	-0.01	-0.07	-0.14	-0.11	0.01	1.00	-0.56	-0.04	-0.07
Grandparents' work hours	-0.01	-0.02	-0.01	-0.04	0.32	0.18	-0.56	1.00	0.22	-0.02
Grandparents' health	0.10	-0.04	-0.08	-0.17	0.21	0.34	-0.04	0.22	1.00	-0.03
Grandparent is primary caregiver	-0.10	0.06	0.10	0.10	-0.06	-0.06	-0.07		-0.03	1.00

Note: The child and family correlations have an n size of 3,234, while the grandparent correlations have an n size of 2,242. The variables for primary caregiver's work status and child's age are continuous, reflecting total weekly work hours and age in years, respectively.

Appendix IV: Comparison of Independent Variables across Samples

Percentages and means of independent variables by the sample for money, time, and coresidence analyses (Weighted)

	Money	Time	Coresidence
	n = 3,218	n = 2,584	n = 2,242
Children's Families' Needs			·
Children's families' income	\$54,669	\$53,161	\$56,509
Children's families' education (years)	13.70	13.76	13.74
Children's families' social capital (yes)	60%	68%	62%
Mothers' age (years)	33.61	33.72	33.10
Presence of parents			
Two parents	67%	68%	70%
Single mother	28	27	25
Single father	2	2	2
No parents	3	3	3
Primary caregivers' employment			
None	22%	22%	22%
Low part-time	21	22	21
High part-time	26	26	26
Full-time	31	31	31
Primary caregivers' health (fair/poor)	7%	6%	6%
Number of children <18 in family	2.33	2.32	2.33
Relative care (yes)	11%	11%	11%
Children's Needs			
Child's age			
Infant/toddler	30%	30%	31%
Preschool	16	16	16
Young school age	31	32	31
Older school age	23	23	22
Special education needs (yes)	8%	7%	7%
General health status (1=poor, 5=excellent)	4.38	4.38	4.40
Disability status (yes)	5%	4%	5%
Behavior problems (high = more problems)	8.07	8.08	8.10
Program participation (yes)	25%	25%	23%

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