Enhancing Family Friend and Neighbor Caregiving Quality: The Research Case for Public Engagement

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Summary

The quality of family friend and neighbor (FFN) caregiving of young children has been receiving increasing interest in both policy and research circles in recent years. Since federal funding emphasizing parental choice has created a large financial engagement with the FFN sector, the policy community is now considering whether to focus on the quality of such care. In this paper, we specify several criteria for determining whether this expanded policy attention is warranted and what form it should take. These criteria include the prevalence (how many children are in FFN compared to other settings) and salience (how many hours a week are children in FFN care), the number and share of the early care and education (ECE) workforce that is engaged in FFN caregiving, the quality of FFN care and the potential demand for voluntary training and support activities. We find that FFN care is both highly prevalent and salient to the developmental trajectory of young children. There is already a large public policy engagement to provide financial support for FFN care, rooted in supporting parental choice, but little engagement to promote its quality. While FFN care exhibits some positive structural measures of quality, the overall evidence on both structural and observational measures of quality raises issues of concern. Since FFN care is used disproportionately by the most vulnerable children who are at greatest risk of negative outcomes in education, employment and pro-social behavior – those from lower income, single-parent and minority cultural backgrounds – there is additional public value to promoting better quality. While there are some interesting efforts to provide FFN training and support, there have been no rigorous evaluations of the impact of training and support on the actual quality of care. We therefore conclude that policy makers should develop a coherent strategy to promote FFN caregiving quality, based on developing interventions specifically designed to meet the needs and circumstances of FFN caregivers and testing their acceptability and impact. It is an open question whether such interventions should be delivered as part of a comprehensive effort to improve non-parental caregiving, or linked with parent education and support efforts. The one available general population survey of FFN caregivers suggests that there is a strong potential demand for such voluntary training and support, but outreach and engagement strategies must be tested for different communities.

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Introduction

Family friend and neighbor (FFN) caregiving of young children has been receiving increasing interest in both policy and research circles in recent years. Major signs of this interest are the specification of FFN as a priority in the 2004 research agenda of the federal Child Care Bureau of the U.S. Department of Health and Human Services (ACF 2004), and the National Center for Education Statistics including questions in the most recent National Household Education Survey to estimate the number of FFN caregivers in the US (NCES 2005). Some of the policy areas where FFN caregiving is coming to the fore include workforce planning and skills enhancement, financing access to a wide range of high quality early care and education (ECE) settings, maintaining or expanding parental choice and promoting cultural congruence or consistency of caregivers. The greatest policy engagement has been in the realm of financing, reflecting the provision of subsidies to relatives as required by the parental choice provisions of the federal Child Care and Development Fund (CCDF). The purpose of this paper is to review the available research to indicate whether it would be appropriate to augment this financing oriented policy with policies to enhance quality of care on a large scale, and if so, to suggest the top priority areas for policy research, experimentation and evaluation. To do this, I will first specify a set of criteria for determining the appropriate basis of policy engagement with FFN care, then review the available evidence about each.

I am defining FFN caregiving as any non-parental care provided on a regular basis that is not provided in a licensed or registered center (including Head Start, nursery, preschool or child care center programs) or family child care (FCC) setting. [1] The caregiving settings other than FFN (center-based, FCC) are referred to here as "formal." The distinguishing characteristics for FFN care are that there is a relationship by family or proximity between the caregiver and child's family, and that the caregiver has not established a publicly recognized or sanctioned firm or organization to provide care. FFN care thus encompasses care by relatives and non-relatives, and may be paid or unpaid. Care by relatives or paid non-relatives may be delivered in the caregiver's home or the child's home. Care by paid non-relatives poses a definitional challenge

[1] I have used a definition that matches the definition used by HSPC for analysis of the National Household Education Survey (NHES). The definition for the conceptual discussion is therefore somewhat constrained by the data definitions in the NHES.

and is treated differently in various data sets. For purposes of this paper, I am assuming that if ECE is paid for, and provided by a non-relative in the caregiver's home, it belongs in the Family Child Care (FCC) category, even if it is unlicensed. If paid non-relative care is provided in the child's home, it is included in the FFN category, since it clearly does not meet the definition of FCC. There is no bright line between paid care by neighbors and FCC. Requirements for licensing family child care vary substantially across states, and in how they are perceived by parents. I therefore include all paid non-relative care in the caregiver's home as part of FCC, and treat as a secondary question whether the setting is licensed, registered or exempt. The FCC category thus encompasses a variety of arrangements, from licensed or registered family care, to license-exempt to unlicensed care.

Criteria for determining the public policy priority of FFN caregiving:

I believe that there are several critical criteria for determining the appropriate degree of public policy engagement with FFN caregiving.

- How much of young children's experience in non-parental care is accounted for by FFN caregiving? Are the children in FFN care also in formal arrangements where quality may be easier to track and enhance?
- What portion of the ECE workforce is comprised of FFN caregivers?
- Why do parents choose FFN care, and how stable are those patterns of choice likely to be if financial access to high quality formal ECE were to be substantially increased?
- Is FFN care a matter of 'casual' caregiving, unlikely to affect children's development, or is it a regular and substantial form of non-parental care? Is care of young children a "casual" activity or regular form of employment for FFN caregivers?
- What is the current level of financial engagement by parents and public agencies with FFN care?
- Is the quality of FFN care sufficiently high to assure children's appropriate development, or low enough to pose a developmental threat?
- Are FFN caregivers satisfied with their situation, or would they like training and support to improve their caregiving? How likely are they to participate in training and support activities?

In the next section, I review the evidence available to answer these questions.

Reviewing the evidence

How much of young children's experience in non-parental care is accounted for by FFN caregiving?

In order to understand the relative importance of different modes or settings of ECE, the Human Services Policy Center (HSPC) has analyzed several general population surveys that ask representative samples of parents questions about the type and amount of non-parental care arrangements used. These are the National Household Education Survey (NHES), the National Survey of American Families (NSAF) and a survey conducted by HSPC in five diverse states. Since each of these surveys collects somewhat different data, in this section I will draw upon each of them to respond to various questions. A challenge in considering the issue of FFN care is that as a newly emerging focus of policy and research, there is not a standard definition, and each survey measures it in a slightly different way. These differences cause small variations in the data, but do not change the big picture that I am attempting to draw in this paper. I will indicate the differences at appropriate times. As discussed in Brandon, Maher, Joesch & Doyle (2002), there are different ways to gauge the relative importance of ECE arrangements. When the concern is understanding parental choices and preferences, then it is the *primary arrangement* (most hours per week) that should be considered. If the concern is the children's experience and the impact of non-parental arrangements, then it is the total hours per week in *each type of arrangement* that should be considered, since one fifth of children are regularly in more than one type of arrangement, and the hours per week in each arrangement varies. I mostly use median hours per week to represent the "typical" situation.[2]

[2] I have used the median to describe the "typical" experience faced by children. Our examination of the data showed that the distribution is skewed; that is, a small number of children experience a very large or small number of hours in care. The relationship of the mean and median varies by type of ECE and age of child. For FFN care, using the median number of hours in care is greater than the mean; for center-based care, the median is greater than the mean for infants and toddlers, but less than the mean for preschoolers. Using the mean with a skewed distribution would distort what is experienced by the "middle child" or the greatest number of children. There are other purposes for which the mean would be a more appropriate measure of central tendency.

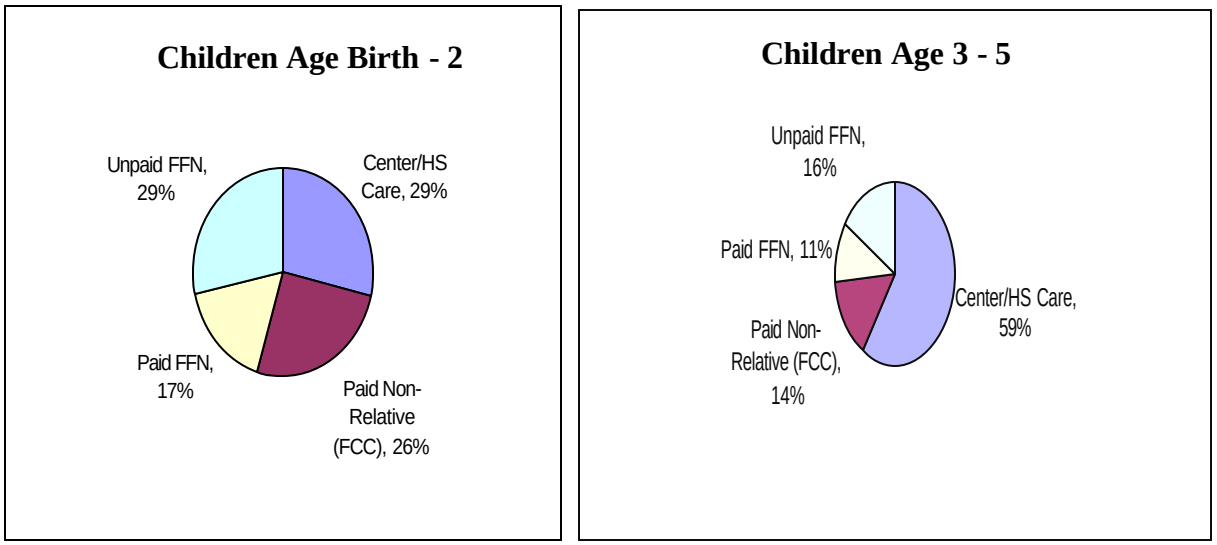
HSPC analysis of NHES 1999 data reveals that for the 48% of children age birth through 2 who are in any amount of non-parental care in a typical week, 46% of their total non-parental care hours are in FFN care, as shown in Figure 1 below.[3] Of this, 29% is with FFN caregivers who are not paid, and 17% with paid FFN caregivers. The pattern is quite different for children age 3 to 5, where FFN care accounts for a little more than a quarter of non-parental hours (27%) and 59% of non-parental care is in center-based settings. Of the 29% of hours in FFN care, 16% is for unpaid, and 11% is for paid care. Thus, while use of FFN care is significant for children of both age groups, it is the dominant mode for the youngest children. It is also significant in terms of developmental impact of the experience. Those young children whose primary mode of care is FFN average 32 hours per week in FFN care if it is paid, 25 hours a week if it is unpaid. Approximately 80% of young children are in only one type of care setting, so those mixing formal with FFN care, whose experience could potentially be affected by enhancing the quality of the more easily reached formal settings, represent only one fifth of the children in non-parental care.

The NHES is the best data source for considering the non-parental arrangements for children age birth through 5, since it has a large, nationally representative sample and allows identification of FFN caregiving. Data from another survey that is representative of U.S. households, the National Survey of America's Families (NSAF), indicates a roughly comparable picture for school-age children. However, the NSAF does not permit separate consideration of neighbors as caregivers. Therefore, rather than being combined with relatives to create a FFN category, they are distributed among FCC and other settings depending upon where the care is provided and whether they are paid. Similarly, as many U.S. school-age (ages 6 to 12) children have relatives as their primary caregiver (23%) as have either family child care (7%) or before- or after-school programs (15%) (Sonenstein et.al., 2002). When Brandon, Maher, Joesch & Doyle (2002) examined FFN care in a household survey carried out in Washington State conducted in 2001,

[3] I have used the percentage of aggregate hours in each type of care, rather than the more traditional percent of children in each type of care, because I am focusing on the nature of children's experience which affects their development. If the discussion were about parent choice, or the distribution of caregivers, the percent of children or the percent of caregivers would be the appropriate measures.

they found that it was the dominant form of non-parental care for school-aged children, accounting for 61% of non-parental, non-school hours for children age 6 to 12.[4]

Figure 1. Patterns of Non-Parental Care, US Children Birth through 5
(Source: HSPC 2004 from NHES-1999)



While FFN care is the dominant mode for infants and toddlers from all socio-economic groups, the percent of children in some or only relative care is greater for children from low-income, African American or Hispanic backgrounds. For example, considering children under age 3 with employed parents, Snyder & Adelman (2004) found that 36% of African American and 40% of Hispanic children used relative care, compared to 28% of white children.

It should be noted that the national patterns of early childhood care and education (ECE) utilization described above vary considerably across states (Capizzano and Adams, 2000). For example, Maher (2003) found that the percentage of children from birth to age 5 using some amount of relative care ranged from 27% to 40% across the 13 states surveyed in the NSAF (NSAF, 1999); the average hours per week in relative care varied from 14 to 22, and the average

[4] It should be noted that the various surveys reported in this section span several years from 1999 to 2002. Where the same survey has been repeated in multiple years, HSPC examination of the NHES and Urban Institute examination of the NSAF have found very little change over this time period. The more likely change is between these patterns and those reported in the major surveys conducted around 1990, when labor force participation of mothers was lower and child care subsidies were much less available.

number of children per adult varied from 1.5 to 2.0. Similarly wide ranges were found in the percent of children using center-based and family child care, and in the average hours per week children spent in those settings.

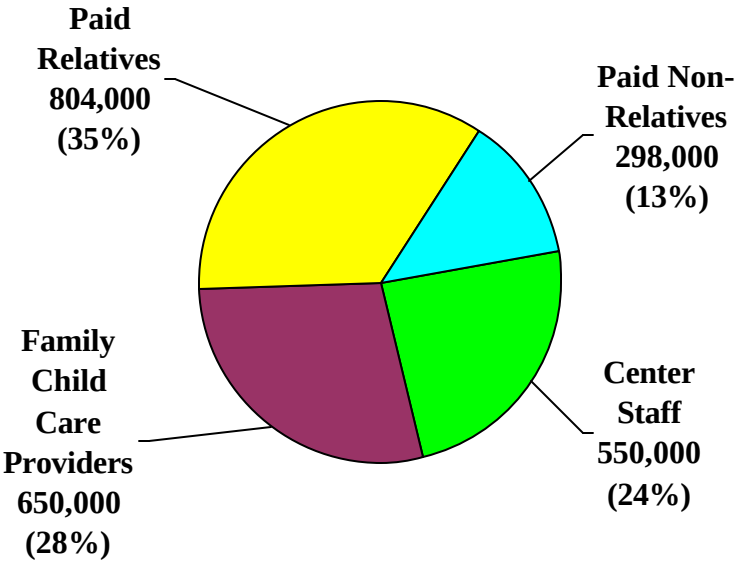
To understand the importance of FFN care, it is useful to consider whether it is the sole form of non-parental care. This is important both for understanding the developmental impact on children, and for policy makers considering the importance of improving the quality of ECE. If the same children in FFN care are also spending a large number of hours in more formal care settings, whose quality may be more easily monitored and enhanced, then it might be sufficient to concentrate only on enhancing formal ECE quality. HSPC analysis of the 1999 National Household Education Survey (NHES) data indicates that nationally, 81% of children between birth and age 5 use only one type of care in a given week; most of the remainder use two types (HSPC-NHES 2004). Since the vast majority of children are only in one type of ECE, quality enhancement strategies must engage appropriately all types of settings to be effective. Anderson, Ramsburg & Rothbaum (2003) examined utilization patterns over time for low income children receiving CCDF subsidies in Illinois. They found that while in the first quarter of participation in the subsidy program, 90% used only one provider, this decreased to 58% after four quarters and 37% over eight quarters of participation. The percent having used both licensed and licensed-exempt care grew from 4% in the first quarter, to 16% in the fourth and 27% by the eighth. However, this multiple usage is over the duration of subsidy participation, not necessarily in the same week. Further, some of this change reflects the fact that parents are more likely to use formal care as children get older within the birth to age 5 age group. Since such arrangements for 4 year olds as Head Start or pre-kindergarten are often part-day or part-year programs, working parents must supplement these with other arrangements. As noted above, however, this affects no more than one fifth of total children in non-parental care.

In general, parent reports on several large-scale surveys consistently indicate that FFN is the predominant non-parental care arrangement for infants, toddlers and for school age children during non-school hours.

What portion of the ECE workforce is comprised of FFN caregivers?

There are no federal or state data systems that count or estimate the number of FFN caregivers. However, the Human Services Policy Center and the Center for the Child Care Workforce (2002) developed a method for estimating the number of caregivers in each setting from parent reports of utilization of each type of ECE and of the number of children and adults normally present in these settings. The results, shown below in Figure 2, indicate that almost half (48%) of all paid caregivers of children between birth and age 5 are in the FFN sector. The absolute numbers are impressive – about 1.1 million paid FFN caregivers. About three quarters (73%) of these are paid relatives and one quarter (27%) are paid non-relatives providing care in the child's home. In addition to these paid FFN caregivers, HSPC and CCW estimated that there are 2.4 million unpaid FFN caregivers.[5] For context, there are about 3.8 million elementary and secondary school instructional staff in the U.S. (U.S. Department of Education 2004). These estimates suggest that if one is considering policies about the ECE workforce – such as professional development or compensation policies – the FFN component is quite significant.

Figure 2.
Number of Paid ECE Workers in the US, for Children Age Birth-5, by Setting
(from CCW and HSPC, 2002)



[5] A source of uncertainty in this estimate is the potential overlap or confusion between FCC and FFN categories, where the distinction between the two may not be clear to parents, with some 'neighbors' actually fitting the FCC category, and some FCC providers not actually being licensed or registered, rendering them "neighbors."

Further, the absolute size of the FFN sector is quite large, and policies such as offering opportunities for improving caregiving knowledge and skills should take that scale into account. It seems important to note that these figures probably underestimate the numbers of FFN caregivers since many of those providers categorized as FCC providers could potentially meet the criteria for an FFN provider.

What types of parents choose FFN care, and why? How stable are those patterns of choice likely to be if financial access to high quality ECE were to be substantially increased?

It is important to start with two broad statements about selection of FFN care. First, FFN care is used widely across all social and economic groups – the differences reported below reflect statistically significant but small differences within this overall pattern. Second, different parents choose FFN for different – and multiple -- reasons. Those who choose it for reasons of cultural consistency are not necessarily the same parents who choose FFN because of working evening or weekend hours. Reasons for selecting FFN care for infants and toddlers may differ from those considered for school-aged children.

Maher et.al. (2003) used the NSAF to conduct a multivariate analysis of predictors of utilization of each ECE setting, considering characteristics of children and parents, as well as state population and policy variables. As noted above, the NSAF does not allow creation of a FFN category, so the authors differentiated between relatives (two thirds of FFN providers as suggested by Brandon, Maher, Joesch & Doyle, 2002) and "other non-relatives" (as opposed to center or FCC care, which includes non-relatives caring for children in the caregiver's house, as opposed to the child's house). While there are some consistent patterns for children of differing ages relating to mother's age and marital status, other factors were significant for some age groups and not for others. Since, as noted above, the NSAF does not allow specification of an FFN category, this analysis focused on relatives, who make up the bulk of FFN caregivers.

- For infants, the family characteristics significantly associated with the likelihood of using relative care were the number of children between birth and age 5 in the household. If there are more young children, there is less likelihood of using relative care. Single and younger mothers were much more likely to use relative care.

- For toddlers, single and younger mothers, and African-American families were more likely to use relative care. There was a curvilinear relationship with income, with lowest and highest income families more likely to use relative care.
- For preschool age children, single and younger mothers were again more likely to use relative care, as were Hispanic (but not African-American) parents. As for toddlers, there was a curvilinear relationship with household income.

Hofferth et.al. (1998) found from multivariate analysis of the 1995 National Household Education Survey that parents more concerned with the training and qualifications of staff were more likely to use center-based care, while those more concerned with a home-like environment were more likely to use other types. The Human Services Policy Center has designed and conducted surveys of ECE utilization and parent preferences in five states (Washington, Ohio, South Carolina, Illinois, Mississippi; HSPC 2002-2004), using categories of ECE arrangement that are comparable to those in NHES and allow identification of family, friend and neighbor caregiving. Analysis of these surveys found preference patterns that were consistent across states. Parents using FFN care are most concerned with having a known and trusted caregiver (about 50% in each state). Cost, low child:staff ratios and flexible and convenient hours are also moderately important factors cited by up to 20% of parents (HSPC 2002-2004 for Ohio, SC, Illinois and MS; Brandon, Maher, Joesch & Doyle 2002 for WA). The importance of flexible hours is seen in the fact that a higher percentage of FFN than other types of care is provided during 'non-standard' evenings and weekend hours. The importance to parents of non-standard hours and low child:adult ratios are of particular interest in the public policy context. It would be extremely costly either to make licensed facilities available evening, nights and weekends (even if parents were willing to use such facilities for evenings and nights). It would be similarly costly to reduce child:adult ratios in licensed care close to the 1.5 average for FFN care, from the 3.5 in FCC or 5-6 average ratios in center-based care (HSPC 2004). This suggests that even relatively generous public programs to improve access to licensed care are likely to leave many parents continuing to choose FFN care for these non-price reasons.

It is not clear to what extent cultural matching of children with caregivers is a factor in the choice to use FFN rather than more formal arrangements. On the one hand, only a small (1-3%) percent

of parents indicated on the 5 HSPC state surveys that the race, culture, religion or values of the caregiver are primary factors in their selection. On the other hand, the category "knowing and trusting the caregiver," which is the dominant selection criterion specified by about 50% of parents, may well implicitly incorporate congruence of race, culture, religion or values. If so, efforts to increase the professionalization of the ECE workforce, or encourage parents to use other forms of care, may face barriers of such desired congruence.

The characteristics of state populations and policies can also affect the percentage of children using FFN care. As shown by Maher et. al. (2003), if states have a higher percent of women with young children employed, the percent of preschool age children using FFN care is higher. For all age categories within the birth to age 5 age group, states with more mobile populations (percent of people living in a different county in the previous year), have a lower percent of children using FFN care. This may reflect a lower utilization of FFN care when there are fewer family members close by.

Maher et.al. also found that the higher the state reimbursement rate for subsidized center care (measured as the 75th percentile rate standardized by median family income for the state), the less likely children are to be in FFN care. However, it is difficult to determine whether more generous funding of center care makes parents more likely to select it, or if states where parents place a higher value on the attributes of center care pay higher rates as a reflection of that preference. Where total state spending on child care programs for low income children is higher, more young children use FFN care. These higher-spending states may be more open to subsidizing all settings and meeting the needs of lower-income, lower-education parents who are more likely to prefer FFN care for non-economic reasons. If full-day public kindergarten availability is higher, a smaller percent of children age 3 through 5 use FFN care. This is to be expected – parents tend to want a more formal, schooling-type setting for children in this age group, and if it is available at low or no cost, they will use it rather than FFN care. These correlations between financing policy and utilization patterns are greatest for the older children, who are less likely to be in FFN care than the younger ones. This suggests that economic factors may weigh less heavily than other values when parents consider the care of their youngest children.

The evidence presented above indicates a complex array of personal preferences, family situations, labor market conditions and public policy impacts all related to the rate at which parents select FFN care over other ECE options. This array of factors, many of which may interact, suggests that moderate changes in public policy are unlikely to make substantial changes in FFN utilization, particularly for infants and toddlers, for whom FFN care will continue to be a major or predominant mode of non-parental care.

A significant portion of children in FFN care have special physical and emotional needs that affect decisions about their care. Based on the definitions in the NHES, parents report that one in eight (12.7%) of children birth to 5 who use FFN care have special physical or emotional needs (HSPC-NHES 2004). While it has been observed that children with special needs are somewhat more likely to use center-based care (Hofferth et.al., 1998), having about 200,000 special needs children in FFN care suggests that we must consider this a major type of care for these children. It is not clear whether use of FFN care for children with special needs reflects a limited availability of center-based and FCC arrangements able to meet their needs, whether parents with certain preference patterns will choose FFN regardless of children's special needs, or if a low ratio and love of a relative, especially a grandparent, are considered by these parents as vital to their children's well-being.

Is FFN care 'casual' caregiving or is it a regular and substantial form of non-parental care likely to affect children's development? Is care of young children a "casual" activity or a regular form of employment for FFN caregivers?

For this section, we only discuss children between birth and age 5 and not in kindergarten, since for school-age children, the developmental impact of before and after school care is likely to be secondary to experiences during the school day. Examining the same 1999 NHES data that we used for percent of children in each type of care (HSPC 2004), we see a wide distribution of hours per week used for FFN care depending upon the circumstances. From the perspective of a child's development, the key determinants are how many hours a week a child is in FFN care, and whether this constitutes most non-parental hours. We noted above that 81% of young children are only in one form of ECE; we also find that the primary setting accounts for most of

their weekly hours. The potential impact of secondary settings is therefore only an issue for a small share of children in FFN care.

We next consider whether children are in FFN care sufficient hours a week to affect their development. To address this, we looked at the median number of hours per week children using FFN as the primary type of ECE (most hours per week, and greater than 5 hours per week) were in FFN care. We found that children between birth and age 5 typically spend 32 hours per week in FFN care if it is paid, and 25 hours per week if it is unpaid (figure 3a). This is similar to paid FCC, and for paid FFN care, greater than the typical hours per week in center-based care.

For center and FCC settings, the typical hours per week vary considerably by age of child; this does not hold true for children in FFN care. The smaller number of infants and toddlers who use formal care do so for more hours per week. Figure 3b shows the typical hours per week that children spend in their primary setting (*primary* equals the setting with the greatest number of hours and experienced at least 5 hours a week). Children between birth and age 2 spend about 35 hours a week in center-based settings, while those between ages 3 and 5 typically spend only 20 hours per week. Similarly, younger children spend 40 hours a week in FCC settings, while the older group spends 30. In contrast, there is hardly any difference between these age groups in hours per week spent in FFN care, either paid or unpaid. For paid FFN care, children birth through 2 experience 32 hours a week, compared to 30 for those age 3 to 5. Similarly, children birth through 2 typically spend 25 hours a week in unpaid FFN care, compared to 24 for 3 to 5 year olds.

We also found that for children whose primary setting is FFN care, the average hours in all non-parental settings is only 2 hours a week greater than the average in FFN care. FFN care therefore constitutes the bulk of non-parental care, and its effects on their development are unlikely to be substantially modified by their hours in other settings.

From these data it is clear that while there are some families for whom FFN care is 'casual' in the sense that it is only experienced a few hours a week, children typically spend as many hours a week in FFN care as in other settings.

Since the typical hours per week are substantially greater for paid rather than unpaid FFN care, it is important to consider what percent of children are in paid vs. unpaid arrangements. One third of the children in FFN care are in paid arrangements, for which the typical hours are close to full time care. The two thirds who are in unpaid FFN arrangements are typically spending about half a work week there.

An interesting issue is the degree to which FFN care is provided during "standard" work or school hours. Many analyses of child care focus on use during the hours of mother's employment, since they are conducted within a framework of welfare-work analysis. We do not restrict our analyses to children of employed mothers, since I believe that the prime consideration should be the impact of children's care experience on their development.

Figure 3: Typical Hours per Week in each Arrangement (US/NHES – 1999)

Figure 3a: Median Hours per Week, B-5

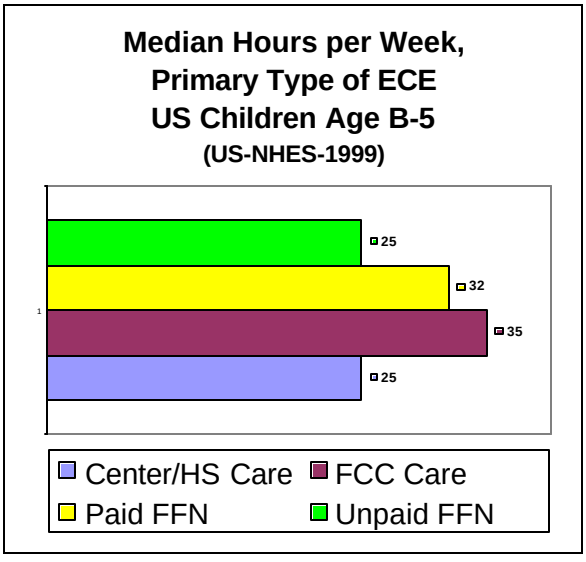


Figure 3b: Median Hours per Week, B-2 vs. 3-5

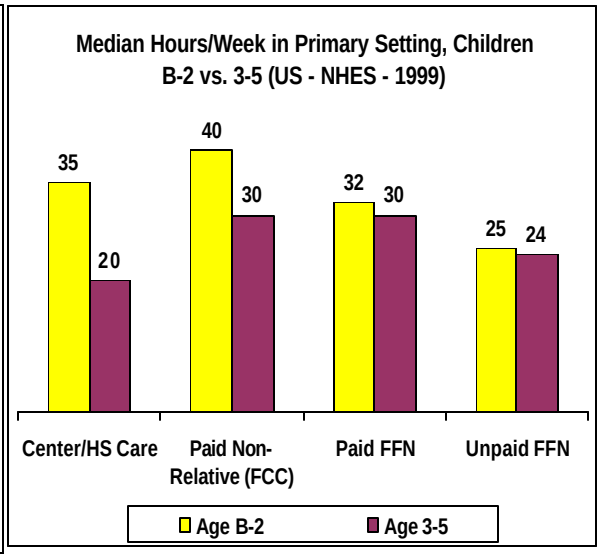
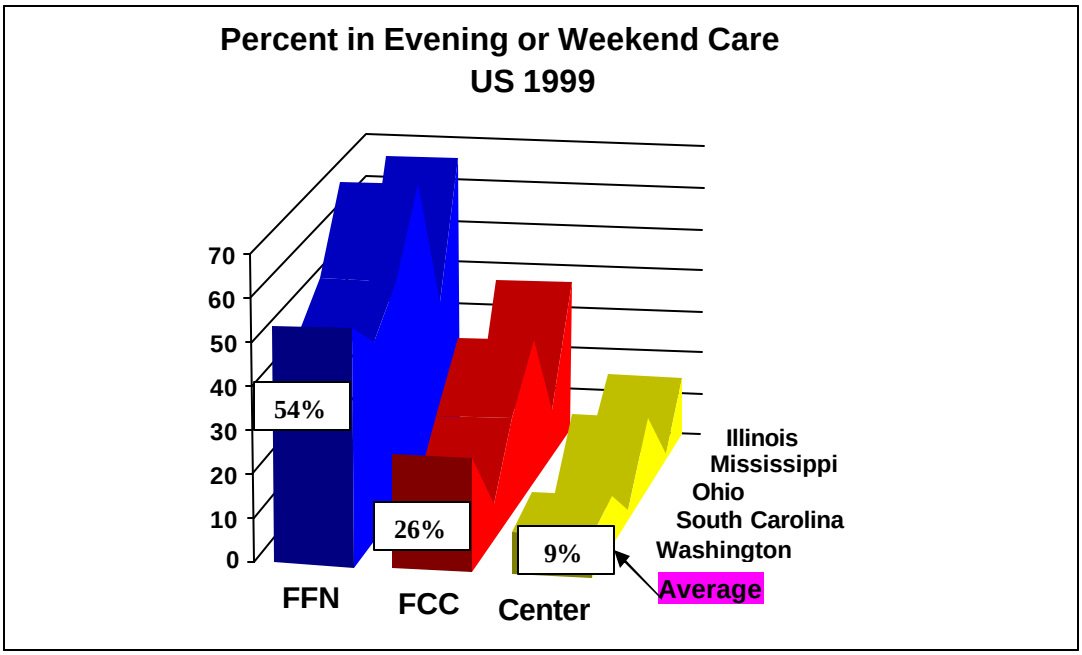


Figure 4.



About one third of non-employed mothers use non-parental care on a regular basis. However, when we are considering the role of FFN care, it is appropriate to ask whether it is provided in those hours usually considered standard for employment, which are also the normal hours of operation for centers and formal family child care.

While the NHES data do not contain this information, HSPC has conducted representative general population surveys in five diverse states which do address this issue. Data from these surveys reveal a consistent picture: a substantial amount of FFN care occurs in evenings and weekends. As seen in Figure 4, while the percent of children using evening or weekend ECE varies greatly by state, the pattern is consistent. The share of children using FFN care evenings and weekends averages 54%, considerably higher than the 26% for FCC or 9% for center-based care (HSPC 2002-2004 for OH, SC, IL, MS; Brandon, Maher, Joesch & Doyle, 2002 for WA). However, there is no particular reason to consider such care 'casual' because it occurs in 'non-standard' hours. From the standpoint of children's developmental experience, it is every hour of interaction that counts, and 20-30 hours a week is sufficient to affect their development, regardless of the time of day (see discussion below re sleep time). As summarized in Shonkoff & Phillips (2002), early childhood development is essentially a matter of relationships. And as Gottman & DeClaire (2001, p.6) emphasize, "Complex, fulfilling relationships don't suddenly

appear in our lives full formed. Rather, they develop one encounter at a time." It might be thought that some of the FFN care hours after 6 p.m. are spent sleeping, making it more "casual," or its quality less important. However, it should be noted that young children in center-based or FCC care spend a substantial amount of time napping. If a toddler naps for 2-3 hours a day, that would reduce a typical 35 hour week in a center to 20-25 waking hours. How children are treated while preparing for or waking from sleep can be as developmentally important as other transitions. And having a secure relationship with a caregiver and a regular place for care might improve children's ability to get adequate sleep when their parents are working or attending classes in the nights or evenings (Zaslow, 2005). Adequate sleep then affects their behavior and interactions the following day. Thus, having some FFN care occur in the evening does not per se make it "casual," or its quality less important. But there is more we should know to fully understand its impact. Evening and weekend FNN care is also not necessarily less significant in economic terms, since many parents use FFN arrangements because their paid employment occurs during evening and weekend hours, when only FFN care is widely available. This finding also suggests that quality enhancement efforts for FFN caregivers should have a sizeable component regarding sleep-related issues.

Is care of young children a "casual" activity for FFN caregivers?

While the primary consideration from a developmental perspective is the number of hours a week the child is experiencing FFN care, from a public policy or workforce perspective, it is also important to consider how many hours a week FFN caregivers are engaged in this activity and whether they are paid. The Washington FFN study (Brandon, Maher, Joesch & Doyle 2002) found that a majority of those who provide FFN care do so for more than 10 hours a week, and 25% provide more than 30 hours a week, making it the equivalent of a full time job. While the majority said they were providing care to help the parent of the child, 40% reported that they are paid. Looking across these different responses, it seems reasonable to conclude that for between one third and one half of FFN caregivers, the combination of significant hours of engagement and receipt of payment makes this a serious employment activity, as opposed to a 'casual' occurrence. From a public policy perspective, it therefore seems reasonable to treat this

substantial portion of FFN caregivers as part of the ECE workforce and worth investing in quality improvement.

A second issue that has been raised is the stability of FFN caregiving, and whether FFN caregivers will be engaged long enough to merit an investment in training and supporting them. The HSPC Washington state survey addressed this issue. We found that for FFN's caring for children age birth through 5, 69% had been providing this care for the same child for 12-48 months, 51% for 24-48 months. These were minimum estimates, since many of the providers would continue to provide this care past the date of the survey. That likelihood is supported by the fact that the mean duration of caring for randomly selected individual children age birth through 5 was 23 months, and for children age 6 to 12 was 35 months. In addition, since we asked this question for a randomly selected child currently in care, many of the FFN's had probably cared for another child previous to the one selected in the survey (Maher, 2002). Compared to the level of turnover estimated for center-based child care workers -- 76% of the 1996 teaching staff no longer in the same job in 2000 (Whitebook, Sakai, Gerber. & Howes, 2001, p.*v*)[6] -- FFN caregivers appear relatively stable, allowing a durable return for investments in quality improvement.

What is the current level of financial engagement by parents and public agencies with FFN care?

As noted above, about one third of U.S. children in FFN care (HSPC 2004) are in a paid arrangement, two thirds in unpaid. Our data from Washington state suggest that parents using FFN arrangements pay at similar hourly rates to center-based or formal family child care (Brandon, Maher, Joesch & Doyle 2002), but we do not know the degree to which this reflects the national situation. An important topic for further research is how FFN payment rates are set, and how they should be set. Most states pay for relative care at a fixed percentage of FCC rates, usually 50% or 75%. There is some rational basis for this payment policy in the recognition that 25-50% of FCC payments may be for business expenses not borne by FFN caregivers (Helburn, Morris & Modigliani, 2002). I have not been able to find a clear, objective basis on which to set

[6] The multi-site studies of job and occupational turnover of center staff by Whitebook et.al. are not necessarily representative of the nation or other states, but they are the best currently available in the field.

FFN payment rates, since they are some mixture of a market service and an interfamilial transfer, often with aspects of barter (trading of services or other considerations). A combination of ethnographic and economic investigation should be pursued to determine the current basis of determining what parents pay relatives, and what would be an appropriate basis for establishing public reimbursement rates. One interesting approach to this issue was suggested by the Illinois Universal Financing Project Team convened as part of the *Universal Financing of ECE for American's Children* project. The Illinois team suggested a differential payment scale, with FFN rates at 50% of the FCC rate with no conditions, but at 75% if the caregiver participated in training or in enrichment activities for the children in their care (Brandon, Maher, Li & Joesch, 2004).

The overall prevalence of FFN arrangements is paralleled by its substantial prevalence in subsidized care. While federal law requires that CCDF subsidies be available for payments to relatives without licensing, states vary greatly in how much their policies regarding safety requirements, referral and reimbursement promote utilization of FFN care and what percent of subsidized children are in such arrangements (Collins et.al., 2002; Fuller & Kagan, 2000). Nationally, in FY2001, 27% of children receiving subsidies under CCDF were served in license-exempt settings (ACF 2005). This indicates that a significant share of public ECE resources are invested in FFN caregiving. However, since FFN care is used by families at all income levels, most of whom are not eligible for subsidies, most paid FFN care is unsubsidized. Parents and FFN providers may be unaware of the availability of subsidies, or reluctant to participate in a system oriented to low income families. In the Washington survey, where we could address this directly, we found that one in eleven (9%) children with FFN care as the primary arrangement were receiving financial assistance, compared to 17% of children of similar family income in formal primary arrangements.

Is the quality of FFN care sufficiently high to promote children's development, or low enough to pose a developmental threat?

There are two types of evidence to consider regarding the quality of FFN care. The best is direct observation of caregiver behavior and its effect on children. Second best are structural measures, such as caregivers' levels of general education and specific training in child development

concepts and skills, which have been found to correlate with quality of caregiving (Zaslow et.al. 2004). There are limited amounts of each type of evidence available, none of it fully representative of the FFN caregiver population. However, each type of evidence available raises concerns about FFN quality.

a. Characteristics and Motivations of FFN Caregivers

One structural measure for which we have data both nationally and from many states is child:adult ratio. It is consistently lower (usually better) for FFN than other types of ECE. For example, our analysis of NHES 1999 data shows that for children between birth and age 5, center-based ECE has an average child:adult ratio of 6.5:1, formal family child care of 3.5:1 and FFN care an average of 1.5:1. While ratios in centers increase greatly as children go from infant, to toddler, to preschool age, they increase only slightly for children in FFN care. Maher et.al. (2003) found a comparatively narrow range of variation in ratios for relative care[7] across states sampled for the NSAF: 1.5-2.0 for relative care, as opposed to 1.6-3.2 for family child care and 5.4-6.7 for center-based ECE. These consistently low child:adult ratios are a measure of quality that is highly visible and important to many parents.

Three states – Washington, Illinois and Minnesota -- have commissioned surveys which can provide information on the education and early childhood training level of FFN caregivers. Findings are only available to date from the first of these. The Washington survey by Brandon, Maher, Joesch & Doyle (2002) sampled all individuals in the general population who cared for other people's children on a regular basis but did not work in centers, then differentiated those working in licensed FCC settings from FFN caregivers. The Illinois survey sampled FFN caregivers who receive subsidies to care for low income children. The Minnesota survey will be similar to that done in Washington, covering the general population of children and caregivers. Results from the surveys in Illinois and Minnesota are expected to be available later in 2005.

The Washington survey revealed that the overall general education level for FFN providers was somewhat lower than that of the general adult population, with only 15% having bachelor's level degrees. This appears to be substantially less than for center-based teachers and at the low end

[7] We note again that inclusion of license-exempt, non-relative caregivers is not possible using NSAF data

reported for formal family childcare providers (Brandon & Martinez-Beck, 2005). A substantial majority (61%) reported no specific training in child care, child development or parenting. About one in five had participated in each of the following types of enrichment activities focusing on early childhood care or development: workshops, video training, courses in child psychology, courses in child development, courses in early care and education and parenting training. However, since fewer than 40% participated in any of these, the limited number of trained caregivers must have received multiple forms of enrichment. Almost half of all FFN caregivers were grandparents, so they had experience raising children. A vital issue related to the low level of training is the finding that one in five (18%) FFN caregivers reported caring for a child with special physical or emotional needs (Brandon, Maher, Joesch & Doyle 2002). Care of children with special needs can be greatly enhanced by appropriate training, and the demands it places on caregivers add to the need for supportive environments and resources.[8]

FFN caregivers reported a wide range of ages and incomes, with their overall income distribution somewhat lower than that of the overall state population. Their racial-ethnic distribution approximated that of the state's adult population (but with a slightly lower percent non-white than the population of young children). Thus, while FFN caregivers appear culturally representative of the adult population, there is not necessarily full cultural congruence between caregivers and children in their care (Brandon, Maher, Joesch & Doyle, 2002).

Motivation of caregivers has also been associated with the quality of caregiving. Brandon, Maher, Joesch & Doyle (2002) found that helping out the family or a friend was the primary motivation for a majority of FFN caregivers and a quarter said they were motivated by enjoying spending time with the children. Only a small percent said that earning money was their primary reason for caregiving, though 40% were paid, with average payments approximating market rates for licensed ECE.

[8] The estimate of about 18% of FFN caregivers in Washington State caring for children with special needs is consistent with national demand estimates that 12.7% of children birth to 5 have special needs. If parents report that 12.7% of children in FFN care have special needs (HSPC 2004), and there is an average child:adult ratio of 1.5 children per adult in FFN care, then we would expect 1.5 times 12.7%, or somewhat less than 19% of FFN caregivers, to be caring for a child with special needs, since a few would be caring for more than one child with special needs.

b. Observational Studies of Quality

Several studies have suggested that the overall quality of FFN caregiving is not high. Raikes (2003) and colleagues conducted observational measures of caregiver quality using several standard scales in a sample of center-based, FCC and license-exempt home care in four mid-western states. These observational measures indicated that license-exempt home (FFN) care had lower quality than centers or licensed homes. Fuller & Kagan (2000) compared quality of different arrangements using the Early Childhood Environment Rating Scale and the Family Day Care Rating Scale, and rated more than two thirds of FFN and licensed family child care providers at no more than the minimal level of quality. Less than half of childcare centers were rated as minimal quality or worse. Similarly, Galinsky, Howes, Kontos, & Shimm (1994) assigned inadequate quality ratings to more than two thirds of relative caregivers, and to half of unregulated family child caregivers, compared to only 13% of the regulated family child care caregivers. Several other researchers have also concluded that home-based programs provide lower quality care than center-based programs and unregulated programs provide lower quality care than regulated programs (Fischer 1989; Goelman & Pence 1987; Hofferth 1995; Peth-Pierce 1998). It should be noted that concerns have been raised regarding the applicability of these rating scales, which were developed for more formal child care settings, to FFN care. However, the preponderance of low ratings suggests a cause for concern and a need to develop appropriate scales.

Are FFN caregivers satisfied with their situation, or would they like training and support to improve their caregiving? How likely are they to participate in training and support activities?

Many policy proposals for improving the quality of ECE depend upon a regulatory underpinning to assure caregiver qualifications, as is done in many professional fields. However, the family, friend and neighbor sector is currently exempt from licensing or similar regulatory requirements, and this sector is likely to remain exempt for the foreseeable future (though see Porter & Kearns 2005 for requirements in some states for the small percentage of FFN caregivers who receive subsidies). It is therefore critical to consider the potential for voluntary participation in training and support activities.

We addressed this in the Washington study by asking FFN caregivers whether they were experiencing problems in their caregiving, whether they would like to participate in voluntary training and support activities, and in what locations. The results were striking. A strong majority (58%) reported at least one caregiving problem. These ranged from challenges with children's behavior (children misbehaving, withdrawn) to dissatisfaction with their arrangements (not enough time to self, long or irregular work hours, not enough space or toys) or challenges with parents (insufficient interaction with parents, inadequate pay).

Nearly two thirds (65%) said they would like to participate in a training or support activity. For the nearly two thirds desiring training and support, there was a desire for an average of four types of activity. The most desired activities were opportunities to meet with other caregivers, both for gaining information and for companionship. Also highly desired were newsletters, booklets and tip sheets; phone support and in-home help to deal with difficult situations; resources ranging from activity kits to a mobile toy or book lending library; and short term respite care. Most said paying a fee to receive training and support was not a major factor in whether they would choose to participate. Locations most preferred for training and support were a place of worship or a neighborhood school. A neighborhood library or community center were the next most desirable. Thus, FFN caregivers indicate that they want training and support, not in a formal class or workshop setting, but in circumstances where they can break out of the isolation of caring for children alone in their home, or get direct one-on-one assistance with difficult situations as they occur.

The potential need and demand for quality improvement are quite large. Nationally, we estimated over two million caregivers. The preponderance of evidence on structural and observational measures of quality suggests that a high percentage of FFN caregivers are below a desirable level of quality. The Washington state survey suggests that a high percentage of this large number of caregivers would like voluntary training and support. However, while state efforts have been growing in recent years, they are currently still small in scale. As recently reported by Porter & Kearns (2005), current state efforts designed specifically to reach FFN caregivers numbers only in the tens or hundreds. Additional FFN caregivers may be reached as part of general quality improvement programs, but not on a scale commensurate with the need.

A particular challenge for the policy community is that while there appear to be both substantial need and potential demand for voluntary training and support for FFN caregivers, there is no robust evaluation literature documenting either the conditions under which FFN caregivers will actually participate, or the degree to which various training or support activities can improve the quality of their interaction with children. Conducting pilot interventions in carefully controlled circumstances with observational evaluations of changes in caregiving behavior, knowledge and attitudes is therefore a critical priority for the early childhood policy agenda.

Conclusion

The available evidence consistently supports the criteria laid out here for a substantial public policy engagement with improving the quality of family, friend and neighbor caregiving for young children. Not only does this type of care affect the development of a large number of children – over 1.5 million age birth through 5 at any one time -- FFN care is the dominant non-parental care setting for the children below age 3.

Similarly, almost half of the paid workforce caring for children between birth and age 5 is in the FFN sector. The size of this workforce is noteworthy, with 1.1 million paid and 2.4 million unpaid FFN caregivers. Policies must therefore be designed to be cost-effective in reaching large numbers of caregivers of many ages, cultural backgrounds and economic characteristics.

The typical (median) number of hours young children spend in FFN settings is substantial, with children between birth and age 5 typically experiencing 32 hours per week in paid FFN care. This is greater than the average hours in center-based care and close to the hours experienced in FCC. FFN care is therefore not 'occasional' or 'casual' in its potential developmental impact on children. Nor is the engagement of caregivers casual or transitory. About 40% are paid, 25% devote more than 30 ours per week to the task, and a minimum estimate of average duration of caregiving is almost 2 years.

There is already a significant public policy engagement with financing FFN care, with 27% of children receiving federal/state subsidies under the CCDF program enrolled in FFN care. The

key question, therefore, is whether the existing financial policy engagement should be expanded to include substantial efforts to enhance the quality of FFN care.

Evidence based on both structural and observational measures indicates that the quality of FFN caregiving is not sufficiently high that we can be comfortable with the potential developmental impact on the large number of children in FFN settings. Utilization of FFN care affects children from all social and economic groups, but it is of disproportionate concern to children from low income and minority backgrounds. Since these children are at heightened developmental risk in their early years, and more likely to experience negative outcomes later in school, work and family life, the quality of their caregivers is of vital public concern.

Some of the structural characteristics of FFN care are positive, such as the low child:adult ratio, which is both highly visible and important to many parents. The caring and consistency which comes from the trusting relationship of the parent and caregiver is a plus. These factors are not likely to be duplicated in "formal" settings within a reasonable range of public policy options. This suggests that many parents will continue to select FFN setting for their children, particularly the youngest.

However, there are negative offsetting features of FFN quality. The levels of general education and specific early childhood skills and knowledge are below those associated with high quality care. Observational studies of FFN caregiving quality have yielded average scores in the low to mediocre range.

It might be argued that since quality of FFN care appears to be lower than that of center-based or formal family child care, appropriate public policy would be to encourage the use of the higher quality settings by a combination of financial incentives and parent education. However, I believe the efficacy of such an approach would be limited. Economic analysis suggests that parents' child care choices are price sensitive, and that subsidy policies that make the relative price of center and FCC options less expensive would produce a marginal shift of utilization for the minority of parents who currently pay for FFN care (Blau & Hagy, 1998). An Illinois policy team convened for the Financing Universal Early Care and Education project proposed an

incentive whereby FFN caregivers would receive a higher reimbursement rate if they participated in training and enriching activities offered for the children in their care (Brandon, Maher, Li & Joesch, 2004). It would be valuable to experiment with such policies. However, price is only one of several factors affecting parent choice, and the review in this paper suggests that such factors as low child:adult ratio and knowing and trusting the caregiver are likely to continue to be very important to parents, particularly for very young children. Indeed, in the Maher et. al. (2003) analysis, such policy variables as the level of investment in pre-K programs and full day kindergarten are associated with a lower percentage of children in FFN care only for preschool aged children. For this age group, other aspects of quality, such as trained staff and enriching program are more salient for parents. More generous subsidy rates for center care were associated with a lower likelihood of children in FFN care. It is also important to remember that most FFN care is unpaid, making financial incentives largely irrelevant. When one focuses on the developmental needs of children, and recognizes that regardless of public financing policy a high percentage of children are likely to be cared for by family, friends or neighbors, then improving the quality of the care seems a more viable policy than trying to move people away from it.

Indications for potential policy engagement are positive from the provider perspective. For a sizeable minority of the paid FFN sector, caregiving constitutes regular employment, taking the bulk of the work week and paying a market-rate wage. Most importantly, in the one general population survey available, a strong majority of FFN caregivers thought they were having problems and two thirds indicated they would like to participate in voluntary training or support activities.

While there are many interesting FFN training and support programs being piloted around the U.S. (Porter & Kearns, 2005), there has been no rigorous evaluation of the impact of such efforts on caregiving quality. It is therefore important that as policy makers experiment with offering training and support to family, friend and neighbor caregivers they conduct controlled evaluations of the impact on observed caregiving. Such evaluations must recognize that reaching and enrolling FFN caregivers in a voluntary effort is the first issue to be considered. The effectiveness of differing strategies of outreach and for training of different types with respect to

enrollment should be examined. Second, researchers should focus on whether interventions should be modified or adapted for different cultural groups and for caregivers of different age, gender and relationship to the child. It would be useful to explore the potential for financial incentives to influence the rate of participation in training and support activities, and the relationship of such activities to caregiver quality. Finally, it must be recognized that FFN caregiving, even more so than other non-parental caregiving, is a three-way relationship among child, caregiver and parent. Changes of attitudes, skills and behaviors of both parents and caregivers may therefore be necessary to improve child outcomes, and this may in turn require addressing differing perspectives and interactions of the parent and the caregiving relative.

The different education levels, self-perceptions, life circumstances, relationship to parents and predominant age of children in care suggest that appropriate interventions must be tailored to meet the needs of FFN caregivers. It is an open question whether delivery of such interventions would be most effective if it were made as part of a comprehensive quality improvement effort for all caregivers, or separate.

Policy makers have an opportunity and responsibility to assure that the developmental opportunities of all children are met to the greatest degree possible, and taking steps to enhance the quality of family, friend and neighbor caregiving can help to achieve this objective for a large number of our most vulnerable children.

References

Administration for Children and Families (1998). US Department of Health and Human Services, 45 CFR Parts 98 and 99. Child Care and Development Fund: Final Rule. (http://www.acf.dhhs.gov/programs/ccb/research/01acf800/regvsno4.htm).

Administration for Children and Families (ACF) (2004), Administration on Children, Youth, and Families (ACYF), Child Care Bureau (CCB). Funding Opportunity Title: Field Initiated Child Funding Opportunity Number: HHS-2004-ACF-ACYF-YE-0020

Administration for Children and Families (1998). US Department of Health and Human Services (2005). FFY2001 CCDF Data Tables and Charts. Accessed at http://www.acf.hhs.gov/programs/ccb/research/01acf800/regvsno4.htm.

Anderson, S. & Ramsburg, D & Rothbaum, B. (2003), Illinois Study of License-Exempt Child Care: Interim Report. University of Illinois at Urbana-Champaign for the Illinois Department of Human Services.

Blau, D.M. & Hagy, A.P. (1998), The demand for quality in child care. *Journal of Political Economy*. 106(1). 104-46.

Brandon, R. N., Maher, E. J., Joesch, J. M., & Doyle, S. (2002). *Understanding Family, Friend, and Neighbor Care in Washington State: Developing Appropriate Training and Support*. Seattle, WA: Human Services Policy Center, Evans School of Public Affairs, University of Washington.

Brandon, R.N., Maher, E.J., Li, G. & Joesch, J.M. (2004). Financing Access to High Quality Early Care and Education for All of Illinois' Children: Public Report of the Illinois Universal Financing Project Team. Seattle: Human Services Policy Center, University of Washington. At www.hspc.org.

Brandon, R.N. & Martinez-Beck, I. (2005), Estimating the Size and Characteristics of the US Early Care and Education Workforce. In M. Zaslow & I. Martinez-Beck, eds., Critical Issues in Early Childhood Professional Development. Brooks Publishing Company.

Capizzano, J. & Adams, G. (March 2000). "The Number of Child Care Arrangements Used by Children under Five: Variation Across States; B-12." Washington, DC: Urban Institute.

Center for the Child Care Workforce and The Human Services Policy Center (2002). *Estimating the Size and Components of the US Child Care Workforce and Caregiving Population*. Washington, DC and Seattle, WA.

Collins, A.M., Layzer, J.I., Kreader, J.L, Werner, A.& Glantz F.B (2000), "National Study of Child Care for Low Income Families: State and Community Substudy Interim Report." Cambridge, MA: Abt Associates. Prepared for U.S. Department of Health and Human Services, Administration for Children and Families. November 2, 2000.

Fischer, J.L. (1989). "Family Day Care: Factors Influencing the Quality of Caring Practices." Diss.Urbana-Champaign, IL: University of Illinois, Urbana-Champaign.

Fuller, B., & Kagan, S. L. (2000). *Remember the Children: Mothers Balance Work and Child Care under Welfare Reform Growing Up in Poverty Project 2000, Wave 1 Findings*. California, Connecticut, Florida: University of California, Berkeley and Yale University.

Galinsky, E., Howes, C., Kontos, S., & Shimm, M. (1994). *The Study of Children in Family Child Care and Relative Care: Highlights of Findings*. New York: Families and Work Institute.

Goelman, H. & Pence, A. (1987). "Some Aspects of the Relationship Between Family Structure and Child Language in Three Types of Day Care." In: D. Peters & S. Kontos (Eds.), *Annual Advances in Applied Developmental Psychology*, Vol. II, pp. 129-146. Norwood, NJ: Ablex.

Gottman, J. & DeClaire, J (2001), *The Relationship Cure*. New York: Crown Publishers.

Helburn, S. W., Morris, J.R. & Modigliani, K. (2002), "Family child care finances and their effect on quality and incentives." *Early Childhood Research Quarterly* 17, 512-538.

Hofferth, S.L. (1995). Caring for Children at the Poverty Line. *Children and Youth Services Review*, 17(1-2), 1-31.

Hofferth, S.L., Shauman, K.A., Henke, R.R. & West, J. (1998). *Characteristics of Children's Early Care and Education Programs: Data from the 1995 National Household Education Survey*. NCES 98-128. Washington, DC: U.S. Dept. of Education, National Center for Education Statistics.

Human Services Policy Center (2002-2004): summaries of state ECE utilization surveys conducted and analyzed by HSPC, available at www.hspc.org:
Highlights of the Ohio Child Care Survey;
Highlights of the South Carolina Child Care Survey;
Highlights of the Illinois and Chicago Child Care Surveys;
Highlights of the Mississippi Child Care Survey.

Human Services Policy Center. (2004). Analysis of the National Household Education Survey: Parent Interview 1999. Seattle, WA.

(Maher et.al). Human Services Policy Center and the Center for the Child Care Workforce. (2003). Determinants of State Child Care Utilization Patterns for Estimating the Size of the Child Care Workforce at the State Level. Seattle, WA.

Maher, E.J. (2002), unpublished descriptive statistics from the Washington State Survey of Family, Friend and Neighbor Caregivers, described in Brandon, Maher, Joesch & Doyle, 2002, op.cit.

National Center for Health Statistics(2005), U.S. Department of Education; Chris Chapman, personal communication.

Peth-Pierce, R. (1998). *The NICHD Study of Early Child Care*. Washington, DC: National Institute of Child Health and Human Development, Public Information and Communications Branch.

Porter, T. & Kearns, S. (2005), "Supporting Family, Friend and Neighbor Caregivers: Findings From A Survey of State Policies." New York, NY: Institute for a Child Care Continuum, Bank Street College of Education. Produced in collaboration with Child Trends and the National Association of State Child Care Administrators, an affiliate of the American Public Human Services Association.

Raikes, H. (2003). *Child Care Quality and Workforce Characteristics in Four Midwestern States*. Lincoln, NE: The Gallup Organization and The Center on Children, Families, and the Law.

Snyder, K. & Adelman, S.(2004), "The Use of Relative Care While Parents Work: Findings from the 1999 National Survey of American Families." Washington, D.C., The Urban Institute (Discussion Paper 04-09).

Shonkoff, J.P. & Phillips, D.A. (Eds.). (2000). *From neurons to neighborhoods: The science of early child development.* Washington, D.C.: National Academy Press.

Sonenstein, F., Gates, G., Schmidt, S, & Bolshun, N. (2002). "Primary Child Care Arrangements of Employed Parents: Findings from the 1999 National Survey of America's Families. Washington, D.C. The Urban Institute (Occasional Paper)

U.S. Department of Education (2004), National Center for Education Statistics, Digest of Educational Statistics, 2002. Accessed at http://www.nces.ed.gov/programs/digest/d02/tables/dt036.asp

Whitebook, M, Sakai, L., Gerber, E. & Howes, C., *Then and Now: Changes in Child Care Staffing, 1994-2000 – Technical Report* (2001). Washington, DC. Center for the Child Care Workforce and Institute of Industrial Relations, University of California, Berkeley.

Zaslow, M., Tout, K., Maxwell, K. & Clifford, R. (2004), "The Role of Professional Development in Creating High Quality Preschool Education." Paper prepared for The Brookings-University of North Carolina Conference on "Creating a National Plan for the Education of 4-Year-Olds." Washington, D.C.: The Brookings Institution.

Zaslow, M. (2005). Personal communication.