Who's Caring for the L.A.'s Preschoolers?

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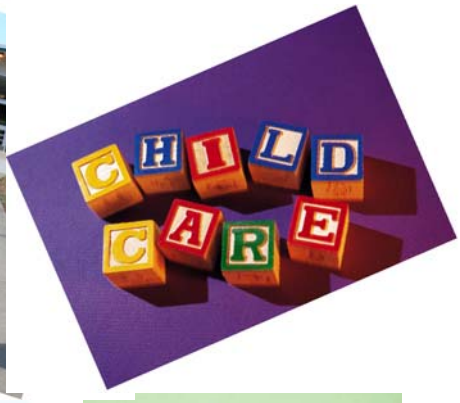

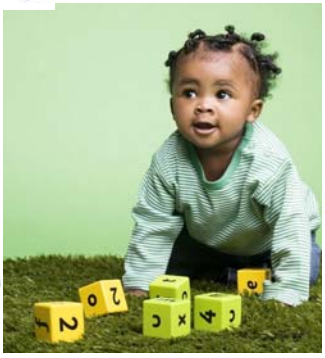

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Preface

The research described in this publication was conducted while the lead author was at RAND and at UCLA with funding from First 5 LA–RAND

This publication, which draws on information from L.A.FANS, is intended for a general audience interested in learning more about child care in Los Angeles County. It should also be of interest to community groups, health services agencies, and other groups that want to support children by improving child care. A more technical presentation of the results described here can be found in:

Laura Chyu, Anne R. Pebley, Sandraluz Lara-Cinisomo, *Patterns of Child Care Use in Los Angeles County*, Santa Monica, Calif.: RAND Corporation, DRU-3041-LAFANS, 2005. Online at http://www.rand.org/pubs/technical_reports/TR116/

Acknowledgments

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CHAPTER 1

Why Child Care Matters

Most American children are regularly cared for by someone other than their parents at some point during their first several years of life. National data from 2001 show that 61 percent of children under age 6 participated in some type of non-parental child care or early childhood education program.[1]

Strictly speaking, child care and early childhood education are two different things. "Child care" means any kind of arrangement in which adults to look after children. For example, Susan drops her child, Kristina, at Sunny Days Nursery when she goes off to work. The Sunny Days staff makes sure the Kristina is safe, fed, visits the bathroom as necessary, and takes a nap. They have swings and a jungle gym to play on and videos for kids to watch. On the other hand, "early childhood education programs" focus on learning, education, and helping kids develop the basic skills they need when they get to school. For example, Teresa drops her toddler, Josh, at an early childhood education program known as the Pre-School Learning Center (PSLC). The PSLC staff provides the same basic care that Sunny Days does. But their regular activities include drawing, reading stories, playing games, and learning letters and numbers. Josh's favorite thing is playing the games at PSLC, which are designed (though Josh doesn't know it) to build their motor and language skills.

In practice, it can be difficult to tell child care and early childhood programs apart. For example, child care centers and, to a lesser extent, family child-care homes, often include early child care education programs.[2] Quality and the amount of educational content can vary considerably[3] in both early childhood education programs and other types of child care. In this report, we use the term child care to refer to all types of child care. Because preschools and child care centers can offer similar types of programs, we group them together as "center-based care."

The quality of child care has an important effect on early childhood development.[4] Research shows that high quality child care increases children's language development, self-confidence and emotional security, and their ability to regulate their own behavior.[5] These skills are all essential for school readiness[6] and for other aspects of children's lives. For example, a child with poor self-confidence or very little impulse control may have problems getting along with family and developing friendships. Recent research shows that children's brain development depends not only on genetic inheritance but also on interaction with the social, cognitive, and physical environments in which children live – particularly in early childhood.[7] So one reason that child care matters is that, like family life, it can have important effects on children's brain, cognitive, and psychological development. These areas of development can affect a child's readiness for school and may have important implications for the rest of his or her life.

High quality child care seems to be especially important for children from disadvantaged backgrounds.[8] Children from poor families whose parents are poorly educated are particularly vulnerable to behavior problems and delayed development of basic skills necessary to start school.[9]

In an earlier report—*Are L.A.'s Children Ready for School*--we showed that a poor home environment can have negative effects on children's social and cognitive development--i.e., school readiness.[10] For example, poor maternal education and living in poor neighborhoods makes it less likely that children are read to by an adult or visit the library regularly.

High quality child care may help to remedy some (but not all) the negative effects of a disadvantaged home environment – this is sometimes known as the "compensatory education" theory. Many studies[11] suggest that "children from home environments with limited opportunities for cognitive stimulation will obtain more benefits from high-quality care than will children from more advantaged environments."[12] Studies show that among children from disadvantaged backgrounds, those who are in child care centers perform better than those not in child care centers on language and cognitive measures and on behavioral development.[13]

For example, a recent study of poor families in two California counties (neither is L.A. County) and one Florida county compared poor children cared for entirely by their parents with poor children in different types of child care. Kids who were cared for entirely by their parents and those who were cared for by other relatives, friends, or babysitters (sometimes called "kith and kin" care) did about equally well in terms of cognitive and skills development. On the other hand, children who went to child care centers did a lot better on developmental indicators than the other two groups.[14] Although research results are not always consistent, most studies show that children, especially those from disadvantaged backgrounds, do better in center care.[15]

Why would children cared for in centers do better than other children? The reason may be that the quantity of child care at centers may, on average, be higher than for other types of care – although the research evidence on this score is mixed. Several studies show that higher quality child care (e.g., the amount and appropriateness of cognitive stimulation, warmth and caring, etc.) is effective improving children's outcomes.[16] Compared to other types of child care, one study noted that "…children in centers are typically exposed to a more diverse array of language models, a richer language environment, and greater opportunities to encounter developmentally stimulating materials and events….[they are also more likely] to be exposed to same-age peers, and the group setting may make more demands on children to use language to meet their needs."[17] So a second reason that child care matters is that it can help to bridge the gap between children who grow up in disadvantaged homes and other children. High quality child care may help to give all children a "level playing field" as they grow and develop.

Improving Child Care

The growing demand for affordable, high quality child care plus new research on the importance of early childhood for brain development have focused policy makers' attention on child care and early childhood education. Presidents Bill Clinton and George W. Bush both launched major initiatives to expand child care. Many states provide child care subsidies[18] and programs to improve child care quality. In California, the Department of Education (CDE) provides child care funding for parents are poor, migrant farm workers, students, Native Americans, and parents who are moving from welfare to work.

Several states, counties, and cities have also tried to expand publicly-funded early childhood education programs, generally for 3 and 4 year olds.[19] For example, Georgia has made preschools available to all four year olds whose parents want to participate. By 2002, virtually all of Georgia's school districts were participating in the plan and more than 50% of eligible children were enrolled.[20]

In Los Angeles, the Los Angeles County First 5 Commission (known as First 5 LA) launched an initiative in 2002 to design a high quality, voluntary preschool program for all four year olds in the County. The plan led to the development of Los Angeles Universal Preschool (LAUP), an organization slaunched in 2005 which builds on current infrastructure, including child care centers, existing preschools, and other early childhood educational resources.[21] A core idea behind LAUP is that high quality child care, especially for poorer children, will help to equalize school readiness across socioeconomic groups. LAUP's goal is to provide voluntary universal preschool to all four year olds in Los Angeles by 2014.

To pursue this and other initiatives, it is important to know what the state of child care is, especially for poor children – specifically, how many 3-5 year olds attend center-based child care already? Looking at center-based care (which includes pre-schools) will help us make some guesses about which groups of kids are more or less likely to attend pre-school.

In this report, we examine patterns of child care use in 2000-2001 Los Angeles County. This is a time period prior to the more recent universal preschool initiatives in the County. Our goal is to provide a clear snapshot of child care patterns at that time which parents, community groups, and policy makers can use in planning and evaluating current and future initiatives to expand child care and early childhood education. Although child care patterns in Los Angeles County today are likely to be quite similar to those in 2000-2001, the child care "landscape" may be starting to change as a result of policy changes. This study captures a picture of child care availability and use before these changes got underway.

- In Chapter 2, we describe the overall patterns of child care use in Los Angeles County. We examine how common non-parental child care is and look at the type of child care being used by different social groups.
- In Chapter 3, we focus on the needs of children from disadvantaged backgrounds. We ask what proportion of kids who are most likely to benefit from high-quality, center-based care are actually getting it.

- In Chapter 4, we look at how access to child care varies across neighborhoods in L.A. County.
- In Chapter 5, we examine how access to child care affects the type of care used, how much care costs, and how families pay for it.
- In Chapter 6, we summarize our findings and explore their implications for policy initiatives such as Universal Preschool.

We conducted two types of analysis. First, we use tabulations to examine child care characteristics by each geographic, socioeconomic, and demographic characteristic. These results will be useful to organizations, groups, and individuals who are seeking information about child care use patterns among social groups in which they have a particular interest. For example, organizations working with immigrant families may be especially interested in knowing what types of child care immigrant parents use.

Second, we examined the relationship between child care and all the geographic, socioeconomic, and demographic characteristics combined, using statistical methods that allow us to see how each of these characteristics affects child care while holding constant the effects of all the other characteristics. In other words, these results show the association between child care and each characteristic, *net* of the effects of other characteristics. This kind of analysis can help identify potential policy levers available to decision-makers who want to find the highest payoff use of resources.

The data for our analyses come from the Los Angeles Family and Neighborhood Survey (L.A.FANS). In the remainder of this chapter, we provide a brief overview of L.A.FANS and outline the child care measures collected in that study.

The Los Angeles Family and Neighborhood Survey (L.A.FANS).

The information in this report comes from interviews conducted with families across Los Angeles County. The interviews are part of the Los Angeles Family and Neighborhood Survey, funded by the National Institute of Child Health and Human Development. The goal of L.A. FANS is to understand how children develop in the context of their families and neighborhoods. Appendix A describes L.A. FANS in more detail and provides demographic details about the neighborhoods included in the survey.

In 2000 and 2001, L.A. FANS interviewed families and children in a random sample of 3,010 households in 65 L.A. neighborhoods. The study team will reinterview these families in 2005 to learn more about how neighborhood characteristics shape kids' lives.

What We Measured

The L.A.FANS survey collected information about current child care arrangements for all sampled children who had not yet completed elementary school. In this report, we focus on preschoolers, that is, children age 5 and younger who were not yet in kindergarten and first. We asked mothers about the three most common non-parental child care arrangements that their child used in the four weeks before the survey. We did not include child care arrangements in which a parent was the care provider. The L.A.FANS questions about child care appear in Appendix B.

We examined multiple facets of child care, as described below.

Regular use of child care. Regular use of non-parental child care is child care (aside from occasional baby-sitters) not provided by the child's parents.

Type of child care. Non-parental child care is divided into three main categories: 1) relative care, 2) care, and 3) center-based care. These categories are based on those used in previous studies on child care.[22] "Relative care" is care provided by any relative other than the child's parents. "Non-relative care" is care provided by a regular babysitter, day care provider, maid, nanny, au pair, neighbor, or friend; it could take place in the child's or the provider's home. Center-based care includes day care centers, nursery schools, preschools, and Head Start programs.[23]

Amount of child care used. We asked mothers about the average number of hours that their child was in non-parental care per week during the four weeks before interview. We categorized care as full time (35 or more hours per week) or part time (less than 35 hours per week). This categorization was drawn from the NICHD Child Care Study.

Number of arrangements used. We asked mothers about the number of child care arrangements used. Eighty-five percent reported using only one type of care. [24]

Cost of care. We asked mothers how much each child care arrangement cost and whether they or someone else paid for care.

Child-adult ratios. Measuring the quality of child care is complex[25] and difficult to assess in a survey of parents. In this study, we measured one basic aspect of child care quality: the ratio of children to adult caretakers. In general, a lower ratio of children to caretakers is an indicator of higher quality child care. However, these ratios do not measure other aspects of child care quality that may be more important, such as whether child care includes stimulating environments and activities (e.g., recognizing numbers and letters) that help children develop cognitive, social, and academic skills.

In our discussion, we draw from an extensive literature in the field of childhood development. Key references for this literature, along with brief annotations, appear at the end of this report. Endnotes to each chapter provide additional references. Throughout the report, we use tables and graphs to present the findings. All tables and graphs are based on data from L.A.FANS. We also use information from L.A.FANS to construct vignettes of children. These vignettes illustrate the wide range of children's experiences in Los Angeles and give readers more concrete examples of children's lives. They are composites of real children in L.A.FANS, but they do not represent any particular child, in order to protect L.A.FANS participants' privacy.

CHAPTER 2

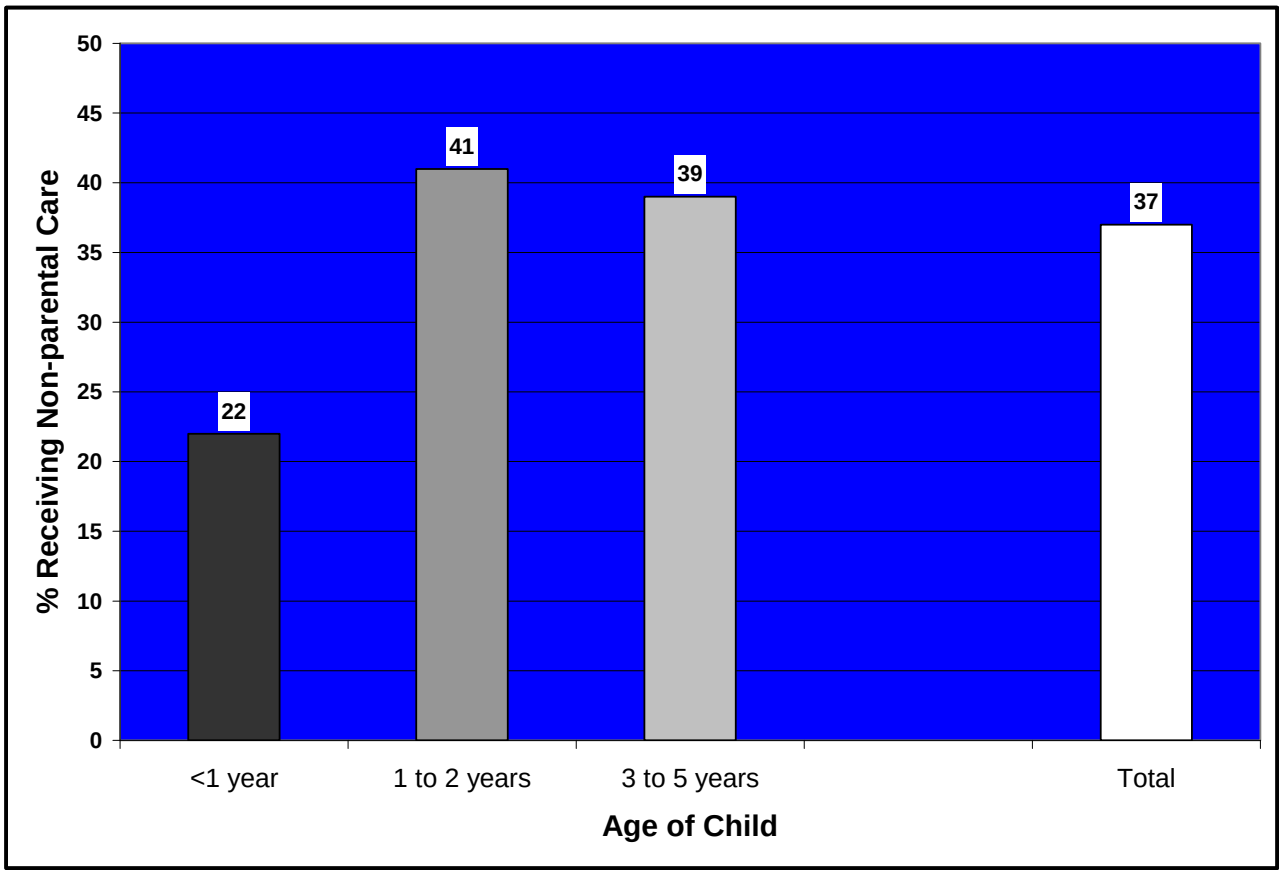
Profile of Child Care Use in Los Angeles County

To understand child care use in L.A. County, we looked at the proportion of children who received regular non-parental care during the 4 weeks preceding the L.A. FANS survey and the type of care they received. We also looked at how use of child care varied across families, neighborhoods, and different types of children.

Which Children Are in Child Care?

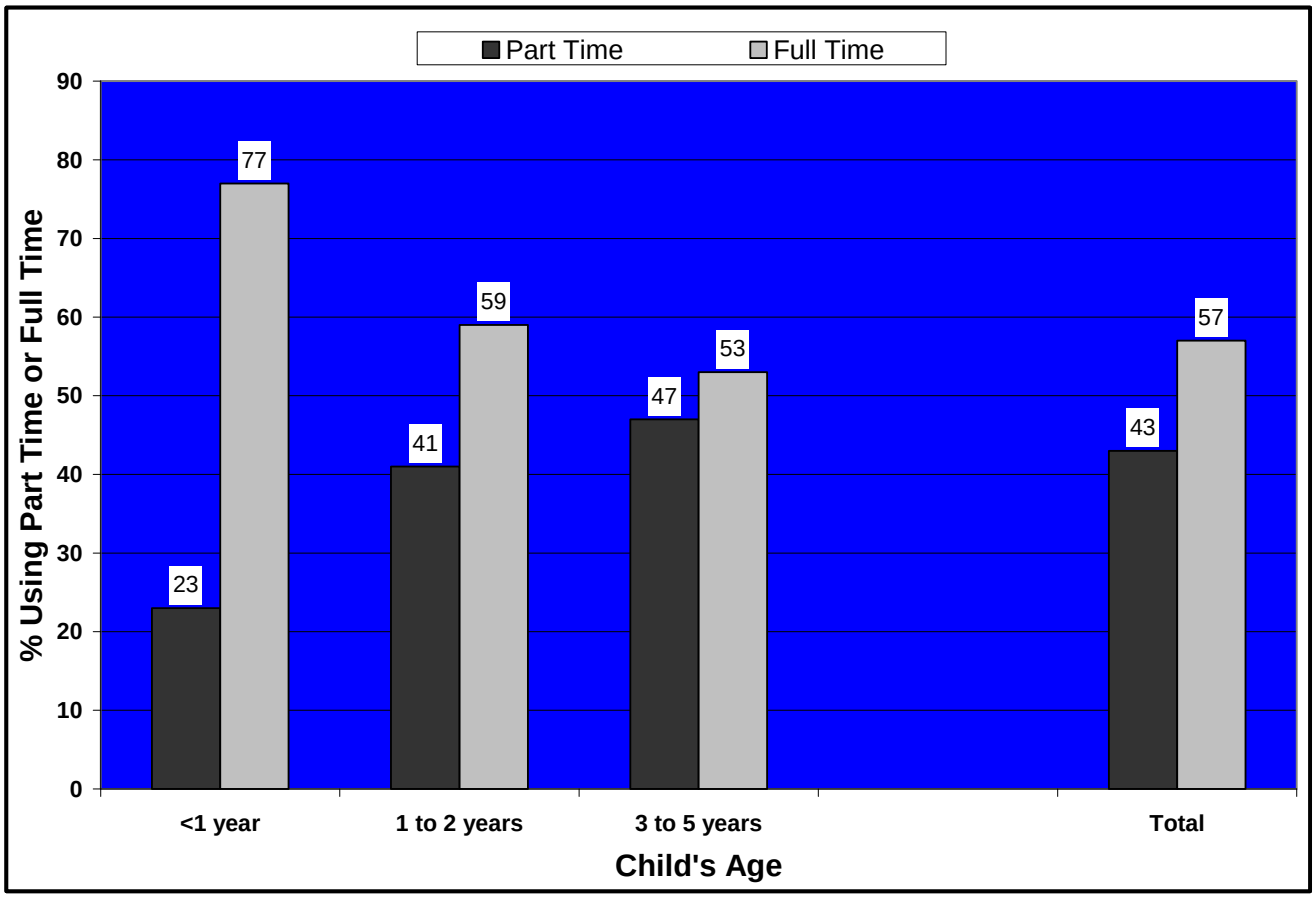
More than one third of all preschoolers ages 0 to 5 years had some non-parental child care, as shown in Figure 2.1a.. This proportion varies by how old the child was. During the first year of life, only 22 percent of children were cared for by someone other than their parents. After the first year of life, the proportion was about 40 percent for both 1 to 2 year olds and 3 to 5 year olds.

Figure 2.1a. Percent of Children Receiving Non-parental Child Care in Past Four Weeks



For kids who are in non-parental childcare, how much of their day do they spend in child care? Figure 2.1b shows that a majority of these children are in full time child care. Although children under one year old are the least likely to receive non-parental child care (Figure 2.1a), if they do more than three quarters of them have full time child care arrangements (Figure 2.1b).

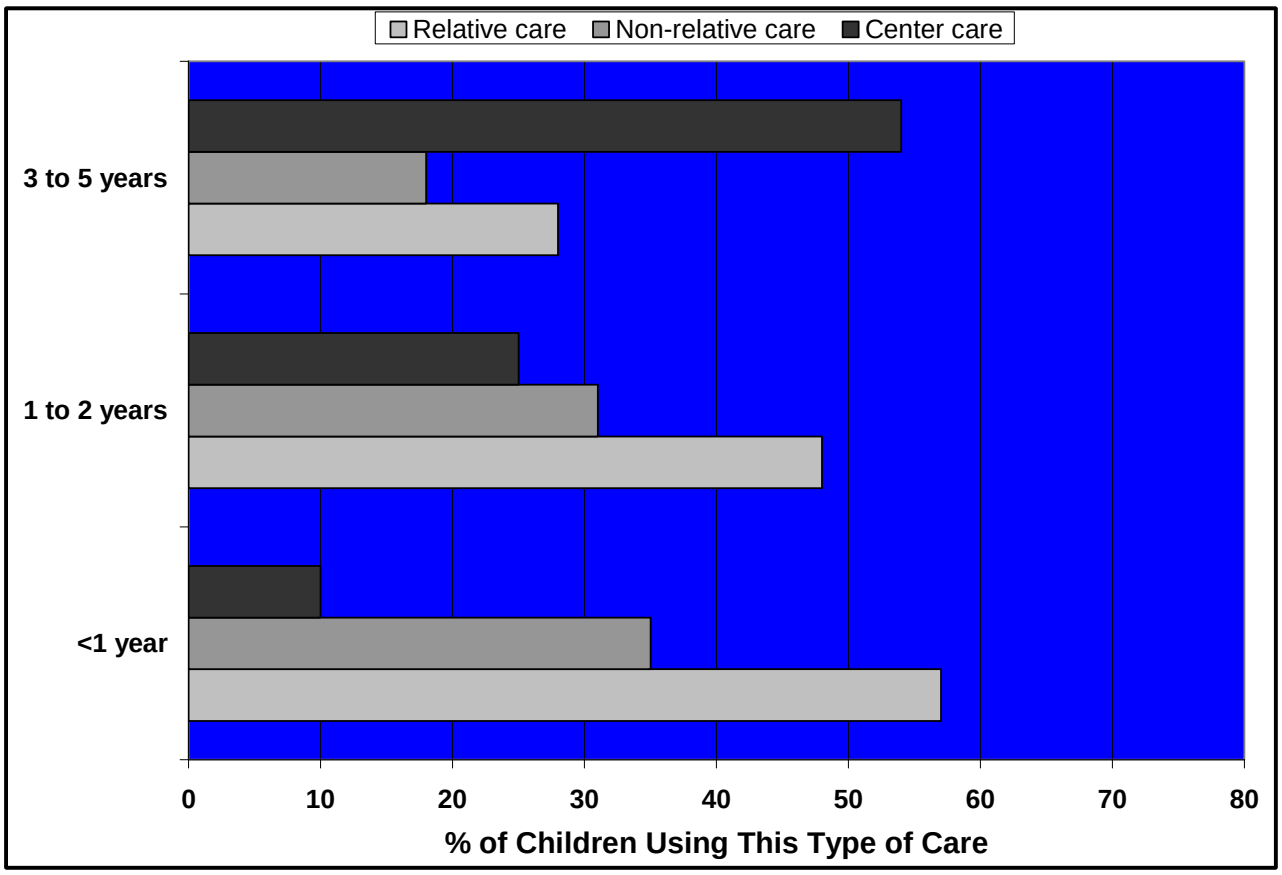
Figure 2.1b Part Time vs Full Time Care



What Kind of Care Are Children Getting?

Most kids in the study had only one non-parental child care arrangement. There were very few children, for example, who attended two different child care programs or who were cared for sometimes by their grandmother and sometimes by a babysitter. As we described in the last chapter, we looked at whether the primary child care provider was a relative (other than parents), a non-relative (babysitters, nannies, family child-care homes), or a child care center (including preschool).[26] As Figure 2.2 highlights, most children who received non-parental child care during their first year of life were cared for by relatives. Non-relative care was the next most common for this age group; center care was relatively uncommon. Center care was more common as children grew older. For 3 to 5 year olds, center care was by far the most common type of non-parental child care. For all ages combined, relative care and center care were about equally common and non-relative care was less common.

Fig 2.2 Center Care Is More Important as Children Grow Older



Who Uses Child Care?

Use of non-parental child care depended on the characteristics of families, neighborhoods, and the children themselves. We used simple tabulations to explore the relationship between use of child care and each characteristic, one at a time. Table 2.1 shows some of these relationships.

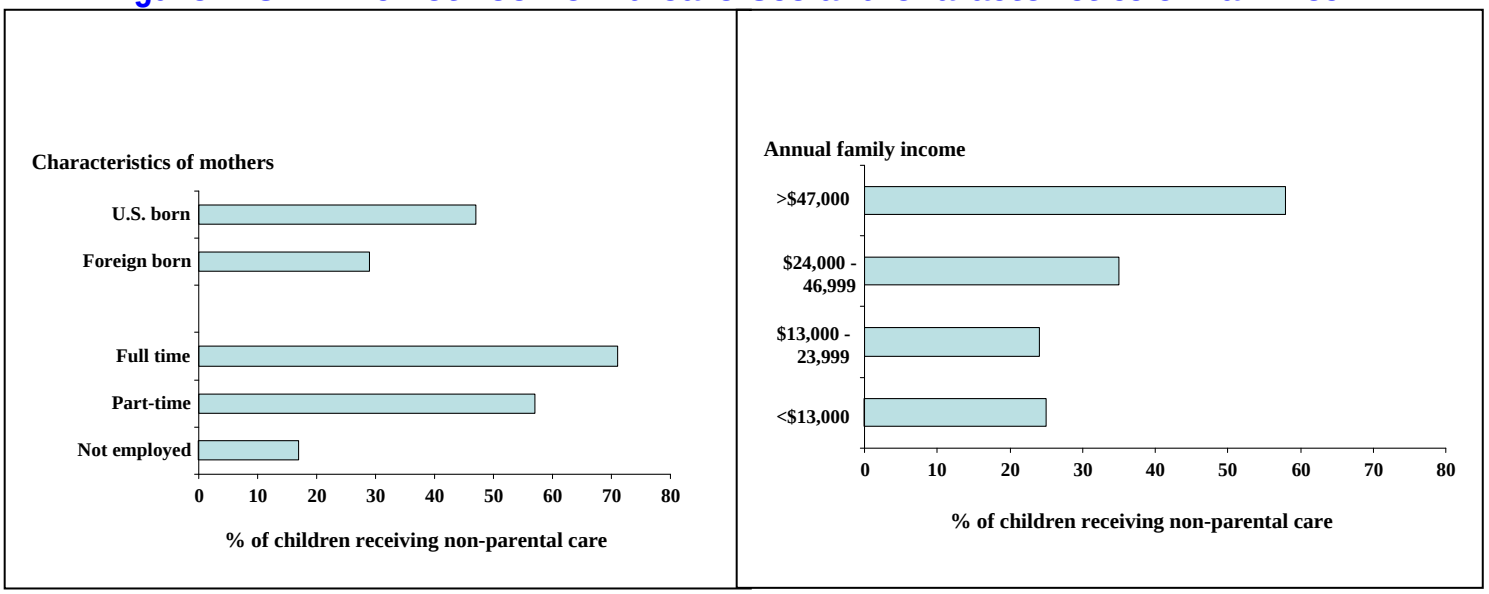
Table 2.1 Relationship Between Child Care Use and Characteristics of Mothers, Families, and Children

	Percent of Children Receiving Non-Parental Care
Annual Family Income	
Less than $13,000	29
$13,000 to $23,999	31
$24,000 to $46,999	39
$47,000 or higher	59
Maternal Education	
Less than high school	31
High school graduate	29
Beyond high school	56
College graduate	51
Beyond college	53
Employment Status	
Not employed	22
Part-time	57
Full-time	72
Ethnicity	
White	52
Latino	33
Black	53
Asian/Pacific Islander	47
Immigration status	
Foreign-born	34
US born	50
Marital status	
Married	39
Single (not married/not cohabitating)	57
Cohabitating (not married)	26
Teenage mother	
Yes	57
No	40
Child's gender	
Male	39
Female	42

[1] Part-time employment is defined as working 34 hours per week or less. Full-time employment is defined as working 35 hours or more per week.
[1] Teenage mothers are defined as those who were seventeen or younger at the time their child was born.

Some of the relationships shown in Table 2.1 are "real" ones—what researchers call statistically significant. This means the chance that the differences are a coincidence is very low (five percent or less). For example, we found that more educated, U.S. born, employed mothers, and mothers from higher income families were significantly more likely to use non-parental child care for their young children. In other words, the differences in child care use by these characteristics are not likely to be due to chance alone. Figures 2.3A and 2.3B highlight child care use by mother's place of birth, maternal employment, and family income. U.S. born mothers, mothers who are working (especially full time) and higher income families were more likely to use non-parental child care.

Figure 2.3—Links Between Child Care Use and Characteristics of Families



There were also some ethnic differences in child care use. In particular, Latino mothers were significantly less likely to use non-parental child care than other mothers. [27] We also found that single mothers – those who were neither married nor cohabiting -- were significantly more likely to use non-parental care compared with other mothers. [28]

Child Care Use Stems From Parents' Needs

Our tabulations tell us about the relationship between use of child care and specific characteristics of families, neighborhoods, and children, considering each pair of relationships one at a time. For example, we found that U.S. born mothers were more likely than immigrant mothers to use non-parental child care. However, if we want to know the *relative importance* of each neighborhood, family, and child characteristic as a predictor of child care use, we have to use a statistical approach that includes all of the characteristics shown in Table 2.1 simultaneously. This type of analysis highlights the effect of each characteristic *net* of the other characteristics. For example, it lets us examine the effects of maternal education once differences in employment status and income between poorly educated mothers and well-educated mothers are taken into account.

Our analysis showed that, when other characteristics are held constant, children whose parents were U.S. and foreign born, children in each ethnic group, and children in poor and well-off families were about equally likely to use non-parental child care.[29] This finding suggests that cultural or ethnic preferences about the use of child care were not a major factor in child care use. Rather, observed ethnic and nativity differences were really the result of socioeconomic status and employment differences among these groups.

Use of child care did vary significantly between other groups. For example, working mothers were much more likely to use child care. Those who worked part time were nearly seven times as likely as non-employed mothers to use non-parental child care. Mothers who worked full time were more than ten times as likely to use non-parental care—they were also more likely to use relative care rather than center-based care. However, it is important to note that a substantial proportion (17%) of non-working mothers also used child care, suggesting that demand for child care and/or early childhood education was not entirely determined by maternal employment.

Compared with other mothers, mothers who were under the age of 17 when they gave birth were more than three and a half times as likely to use non-parental care. Teen moms tend to be single and less educated, but even after these characteristics were taken into account, these young mothers continued to have higher odds of using child care.

Mothers who were single—not married and not cohabitating--were more than twice as likely as married or cohabitating mothers to use child care. Single moms were more likely to have to work to support their child or children than mothers who have spouses or partners. Furthermore, not having a partner in the household may increase the need for non-parental child care. Support for this idea comes from our finding that cohabiting mothers and married mothers were about equally likely to use non-parental child care. In other words, it is having a spouse or partner in the household that influenced use of child care, rather than whether or not the mother was legally married.

CHAPTER 3

The Child Care Needs of Children from Disadvantaged Backgrounds

Poor children and children whose parents are poorly educated are particularly vulnerable to behavior problems and delayed development of basic skills.[30] Many studies suggest that high quality child care is especially important for these children.[31] In addition, it may be particularly important for these children to have access to center-based care: children in centers perform better on language and cognitive measures and on behavioral development than children in other types of child care.[32]

Of the children who have the most to gain from high-quality, center-based care, how many were getting it? Put another way, how many children from disadvantaged homes were getting the kind of child care that can potentially equalize school readiness across socioeconomic groups?

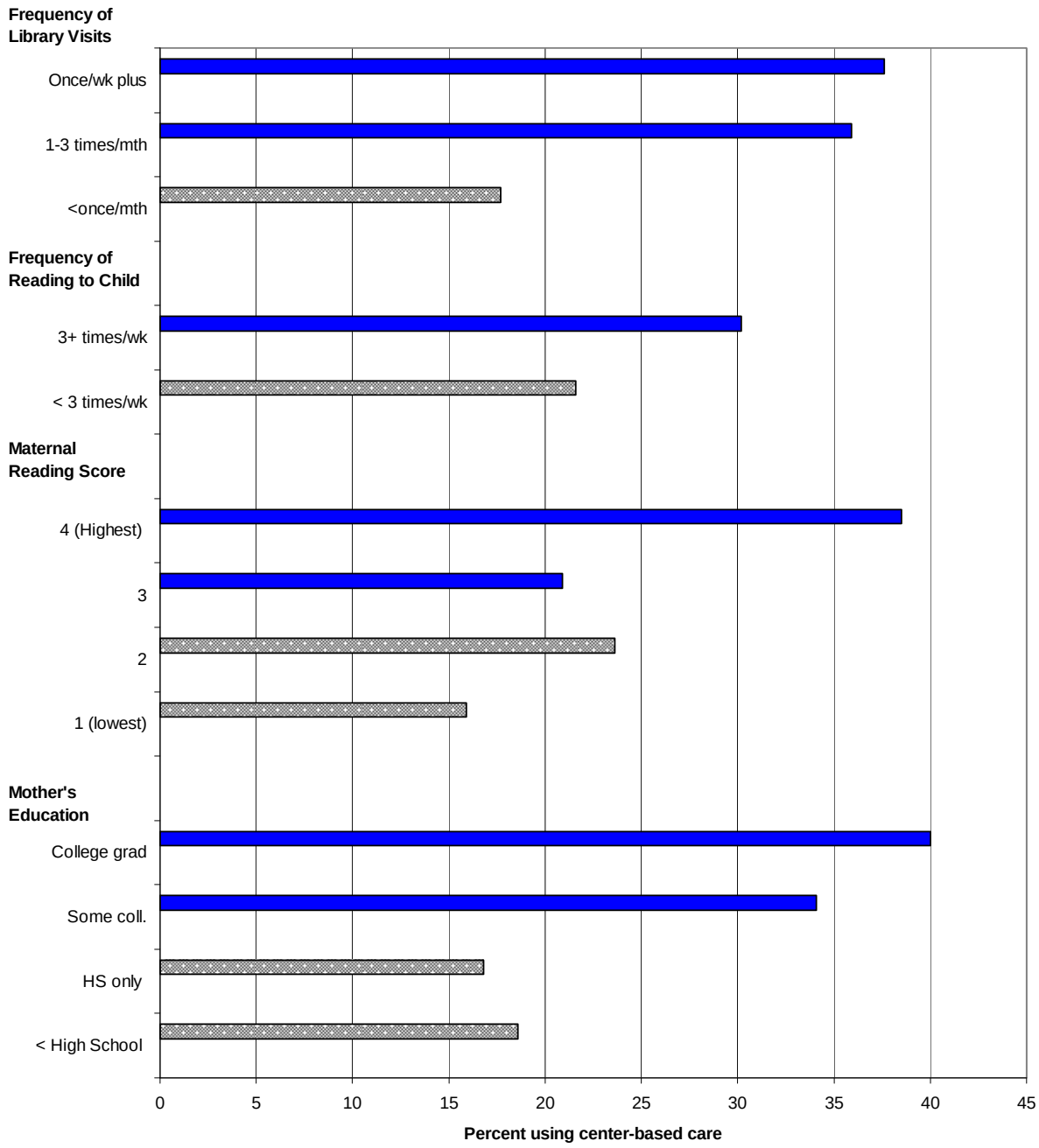
We define "disadvantaged" home environments as those we showed in our earlier study to be associated with lower levels of school readiness in children.[33] In that report, we found that maternal education, maternal reading skills, reading to children, and taking children regularly to visit the library had significant positive influences on children's school readiness skills, holding constant socioeconomic status and other factors. We also found that higher levels of parental warmth and lower levels of discipline were associated with fewer behavior problems, once socioeconomic status and other factors were held constant.

We examined whether children from disadvantaged home environments were more or less likely to receive center-based care. We focused primarily on 3-5 year olds for two reasons: (a) a relatively small proportion of children 2 and younger use child care centers, and (b) efforts to expand early childhood education, such as the Los Angeles Universal Preschool Program (LAUP), are focused on children in this age range.

Figure 3.1 shows what proportion of 3-5 year olds from different types of home environments were in center-based care (as opposed to exclusively parental care or another type of child care). We focus on characteristics that were related to school readiness in our earlier study. The gray bars show the group of kids who had the least stimulating home environment. These are the children who may had most to gain from center-based child care, so we would like to see a large proportion of them in this kind of care.

Unfortunately, in almost every case, children with the poorest home environments were least likely to receive center-based child care. For example, only about 18% of kids whose mothers had less than a high school education attended child care centers, compared with 40% of kids of college grads.

Figure 3.1. Title will be changed to "The Children Most Likely to Benefit from Center-Based Care Are the Least Likely to Get It"



Note: Bars in gray indicate groups of children in disadvantaged home environments, which our previous study showed to do more poorly in reading and math skills. The length of the bars indicates the proportion of children in this group who are in center-based care.

We know from our previous study that households with poorer home literacy environments are more likely to be in poor neighborhoods, to have mothers with lower educational attainment, and to have foreign born parents. The graph in Figure 3.1 shows that children from disadvantaged home environments were *least* likely to attend center-based care, although they may be most likely to benefit from it.

CHAPTER 4

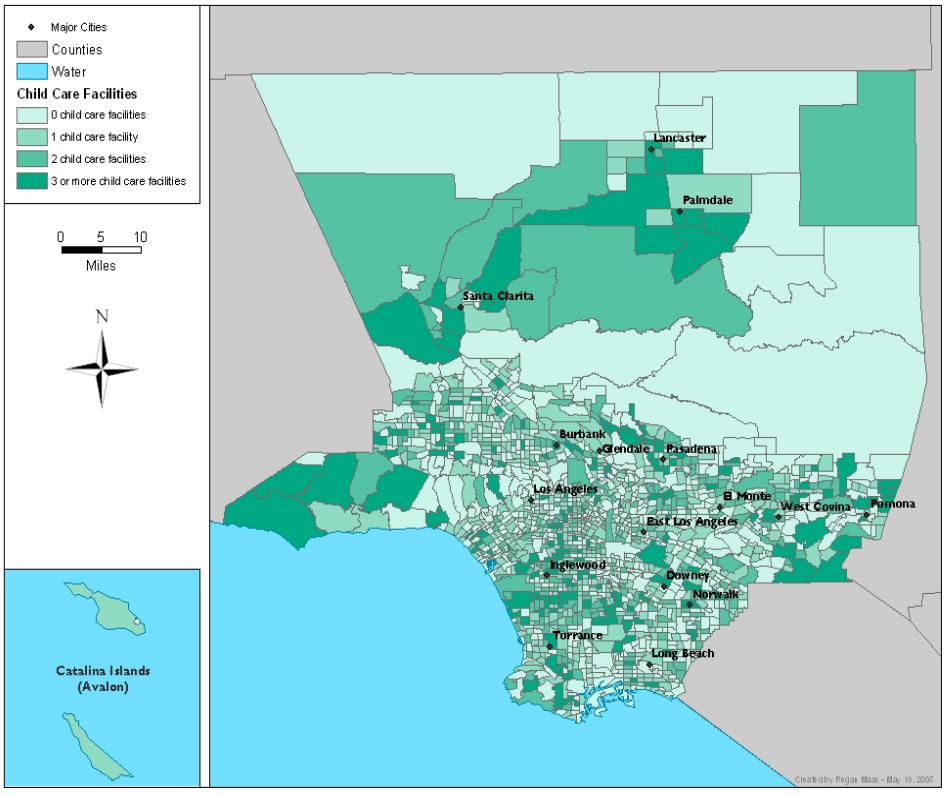
Access to Child Care

We have seen that children from disadvantaged households, who could profit most from center-based child care, are the least likely to have it. One reason might be that center-based care is less available in their neighborhoods.

To explore this issue, we looked at the number of child care providers in each census tract in L.A. County in 2000. Census tracts are small, relatively permanent statistical subdivisions of a county. They have been created for metropolitan areas and for other densely populated counties by local census statistical areas committees following Census Bureau guidelines. Census tracts usually have between 2,500 and 8,000 persons and, when first delineated, are designed to be homogeneous in population characteristics, economic status, and living conditions. The size of census tracts varies widely depending on the density of settlement.

We used data from an organization that gathers information for businesses, mostly for marketing purposes.[34] The child care providers most likely to be included in these files are "formal" providers – child care centers, because a person who simply takes care of several children in her home or a babysitter working on her own is unlikely to be included in the types of business or nonprofit listings they examine. However, nanny and sitter referral agencies would most likely be included.

Figure 4.1—Child Care Facilities Available in the Census Tracts in L.A. County



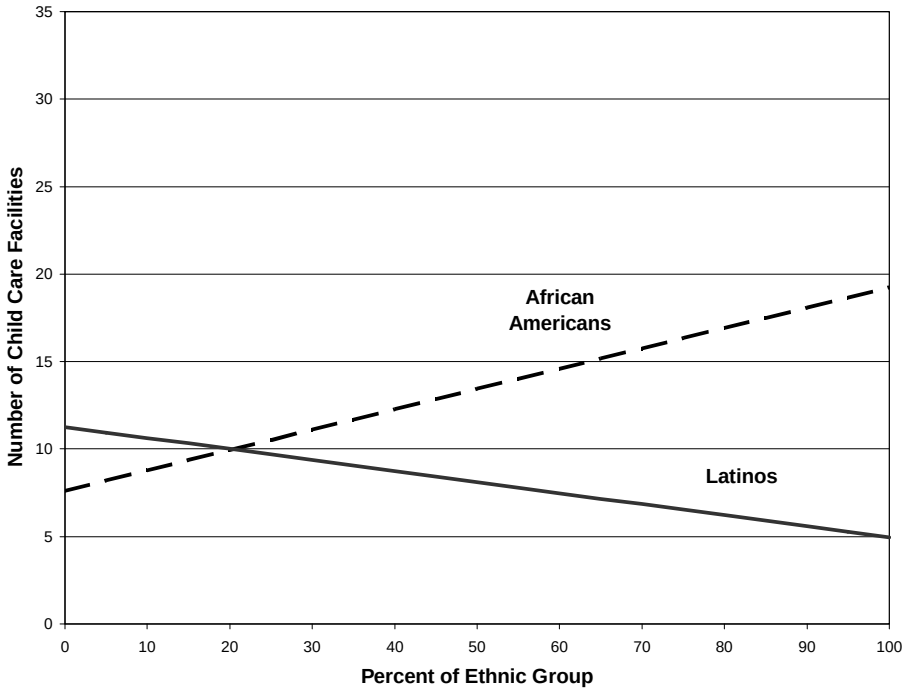
Certain Kinds of Neighborhoods Are More Likely to Have Child Care Providers

In Figure 41, we have mapped the number of child care facilities available in each census tract in Los Angeles County. We can see from this figure that accessibility of child care providers varies considerably across census tracts. Policymakers and community groups attempting to make child care more widely available need to know if certain kinds of neighborhoods are more likely than others to have child care providers.

To answer this question, we examined the interaction between the availability of child care and five basic neighborhood characteristics in Los Angeles: the percent of each major ethnic group (black, white, Asian, Latino), 1995 median household income,[35] the Service Planning Area,[36] the percent of the population who are ages 0 to 5, and the physical size (in square miles) of the neighborhood. As before, we use a statistical procedure which allows us to examine the relationship between each variable and the number of child care centers, net of the effect of other neighborhood characteristics. The results presented below all come from this statistical analysis in which all characteristics – except the one we are examining – are held constant.

We found that many neighborhood characteristics are, in fact, associated with availability of child care. Figures 4.2, 4.3, and 4.4 highlight the statistically significant relationship between the number of child care providers and key neighborhood characteristics. [37]

Figure 4.2 Relation Between Neighborhood Ethnic Composition and Child Care Facilities Middle Income (1995 Household Income=$25k)



The ethnic composition of a neighborhood is the percent of people in the neighborhood who are African American, Latino, white, Asian, or come from another ethnic background. Neighborhoods with a higher proportion of African American families have more child care

facilities than other neighborhoods, even holding income, SPA, and other neighborhood characteristics constant. Conversely, neighborhoods with a higher proportion of Latinos have fewer child care facilities.

The reasons for these relationships are probably a complex mix of supply and demand.

- Latino mothers are more likely to stay home with their young children than mothers in other ethnic groups; thus there may be less demand for formal child care facilities in Latino neighborhoods. However, Latino mothers may also be more likely to stay home with their young children *because* they have a harder time finding child care in neighborhoods where they live.

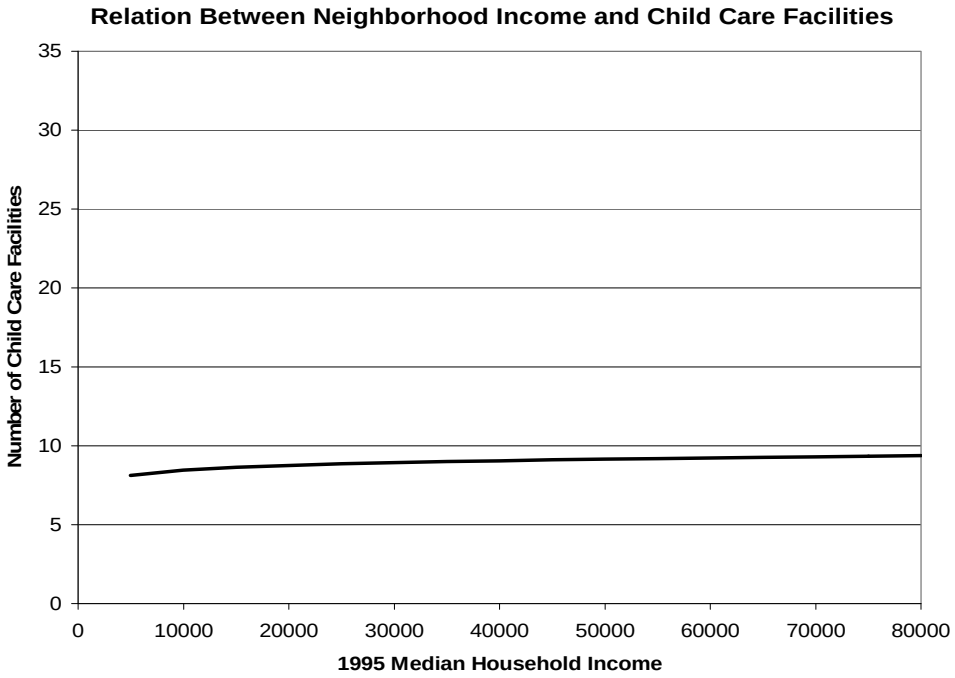
- Neighborhoods with a higher proportion of African American families may be more likely to have child care facilities for several reasons: African American mothers are more likely to work and to be single mothers than white or Latino mothers (and working and being a single mother increases the probability that a mother will seek child care). Well-established African American neighborhoods may also benefit from previous efforts to increase the availability of child care and Head Start programs for working class families.

Neither the proportion of Asian and Pacific Islander families nor the proportion of white families in a neighborhood is significantly related to the number of child care facilities in the area.

We also found that the number of child care facilities significantly increases with neighborhood income and the proportion of the neighborhood population who are 0 to 5 years old. One would expect both factors to affect the number of child care facilities in a neighborhood. Higher income neighborhoods can better afford formal child care, and both parents in higher income families are more likely to be employed. The proportion of 0 to 5 year olds in the neighborhood has a direct effect on demand for child care: child care providers would clearly prefer to locate where there are potential customers--young children and their families.

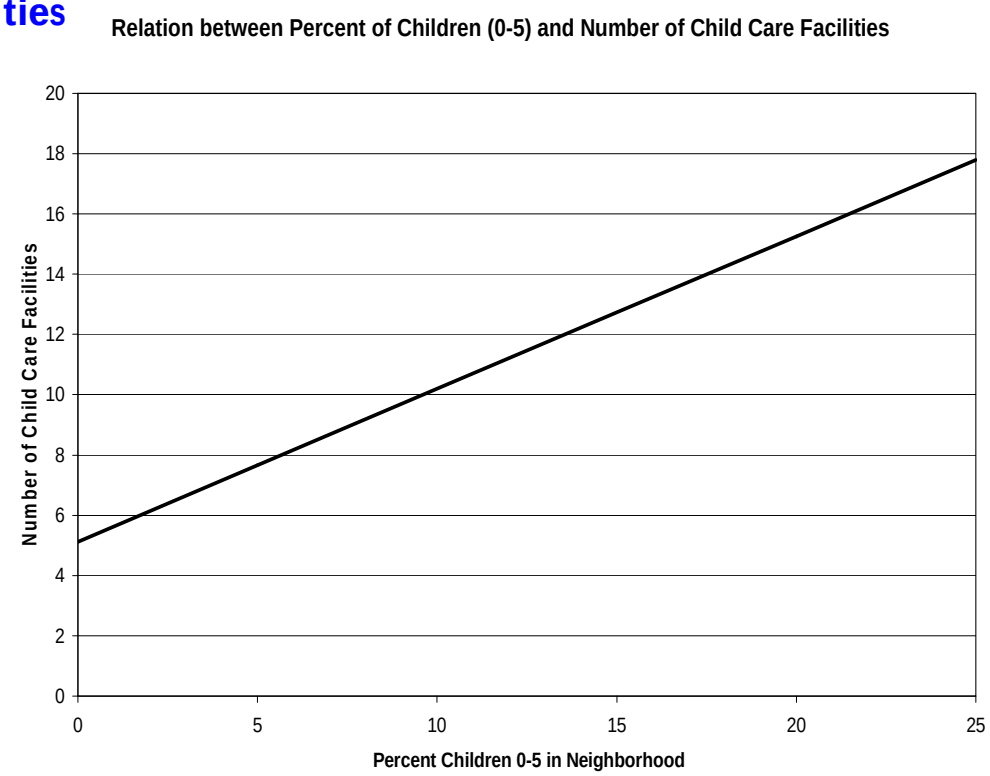
Fig 4.3 shows the relationship between 1995 median family income (a measure of the mid-point of the income distribution) for the neighborhood and child care facilities. This relationship is statistically significant, even when the effects of ethnicity and other characteristics are held constant. However, the increase in facilities with each $10k increase in median income is modest.

Figure 4.3 The Number of Child Care Facilities Increases Modestly with Increases in Family Income



On the other hand, child care facilities increase dramatically with the proportion of the population who are 0 to 5 years old in the neighborhood, suggesting that families who live in areas with lots of other young children are likely to have more options for formal child care (Figure 4.4).

Figure 4.4 Neighborhoods with More Children Ages 0-5 Have More Child Care Facilities



Does Availability of Child Care Affect Use?

It seems likely that the availability of child care facilities would significantly affect both whether a family uses child care and the type of child care they use. When we examined this issue, we found that the number of formal child care facilities near respondents' homes was significantly associated with only one child care variable: parents were significantly more likely to use centers, rather than non-relative day care (babysitters, nannies, neighbors) in neighborhoods that have more child care centers.

However, when we examined this link "net" of the effect of family income, we found that the number of child care facilities was no longer a significant influence. The reason may be that our measure of child care facilities is limited. Or it may be that family income and education is much more important in determining access to child care than the number of facilities that are nearby.

CHAPTER 5

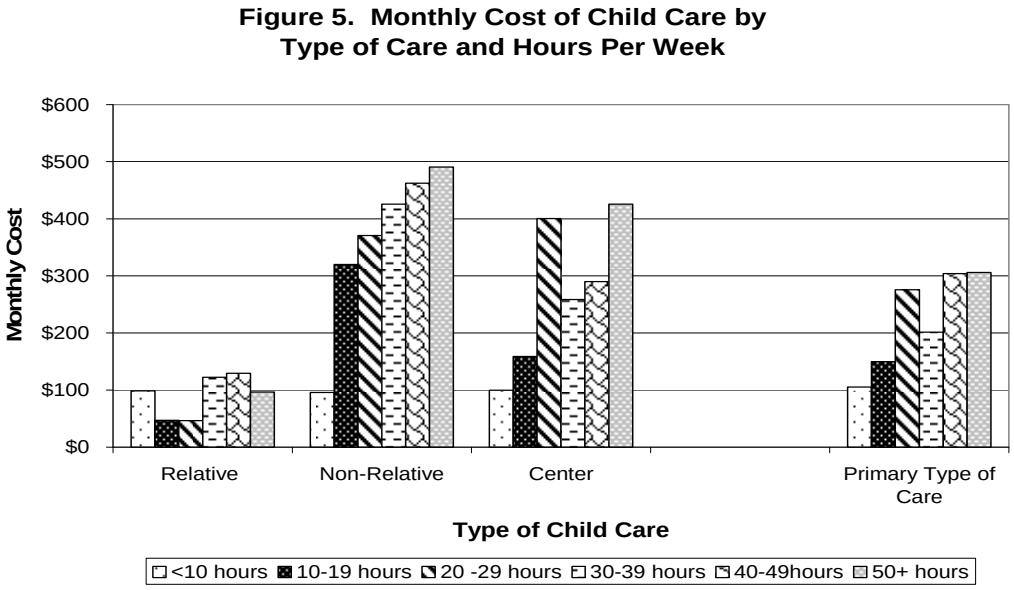
Paying for Child Care in L.A. County

How much did child care cost in L.A. County, and who paid for it?

The cost of child care should depend in part on the number of hours that a child is in a care arrangement. In Figures 5.1 and 5.2, we present information on the cost of child care in two ways. Figure 5.1 shows the total *monthly* cost of child care reported by the number of hours that child care was used per week. This figure gives an idea of how much child care costs families each month.

Figure 5.2 shows the cost *per hour* of child care calculated in another way. We divided the total monthly costs of each type of child care by the number of hours of care used in the preceding month to get an hourly rate. This figure provides a more direct comparison of the cost of each type of child care.

Figure 5.1—Relative Care Is the Least Expensive



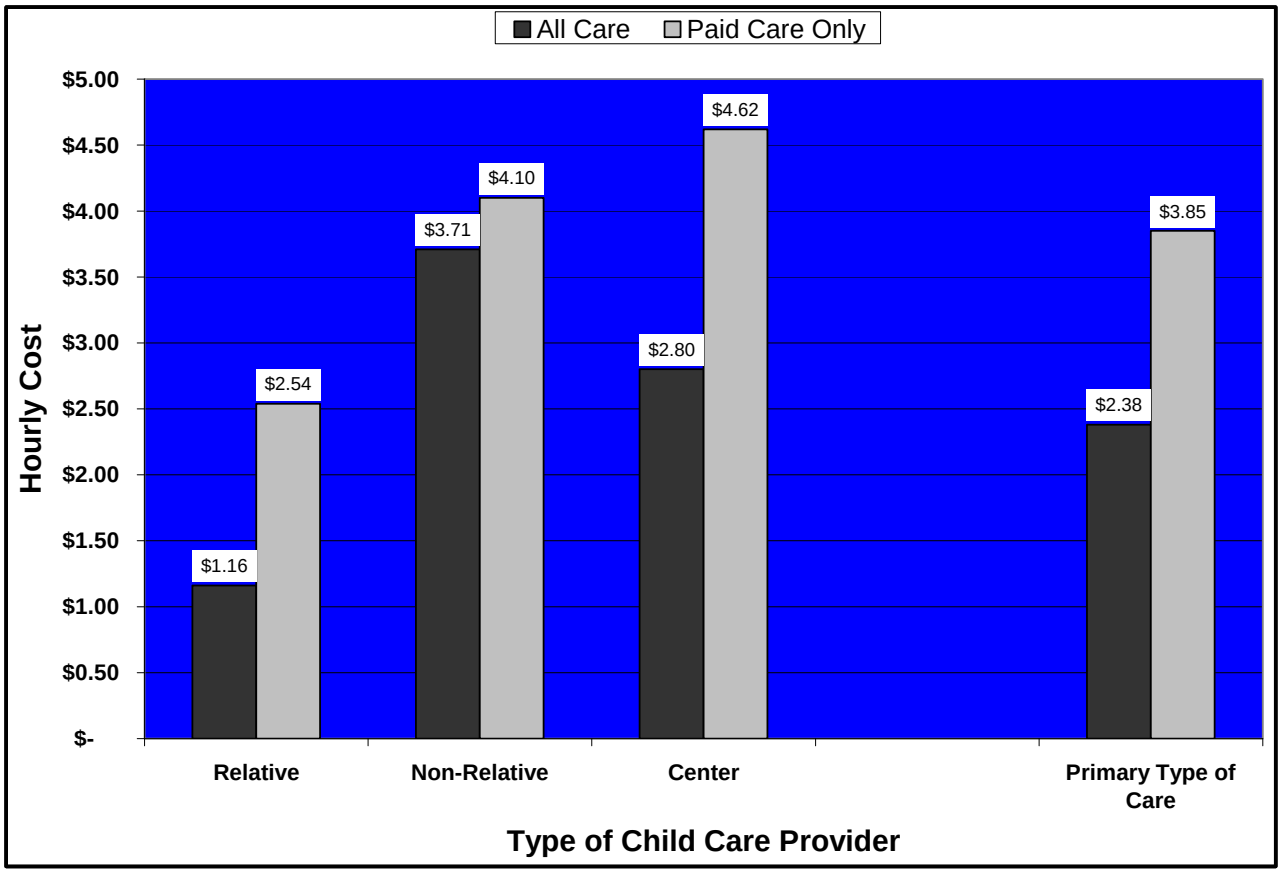
Relative care was by far the least expensive arrangement. In part this was because more than half of relatives provided child care for free. When relatives were paid, the amount was generally small--on average, $239 per month.

In contrast, baby sitters, nannies, neighbors, and other non-relative care providers were the most expensive. On average, the monthly cost of a full time (30 hours or more) non-relative provider was between $460 and $480 per month. Only about 14 percent of non-relative providers provided care for free. If we look only at full time care from non-relative providers who charged for care, the average monthly cost was $531 per month.

The costs of center care fall between those for relative and non-relative care. Forty-four percent of parents using center care reported that the child care was provided for free. As shown in Figure 5.1,

full time center care costs averaged between $260 and $450 per month. Families who had to pay for center care and use center care full time payed an average of $446 per month.

Figure 5.2 If We Exclude Free Care, Center-Based Care Is More Expensive per Hour Than Non-Relative Care



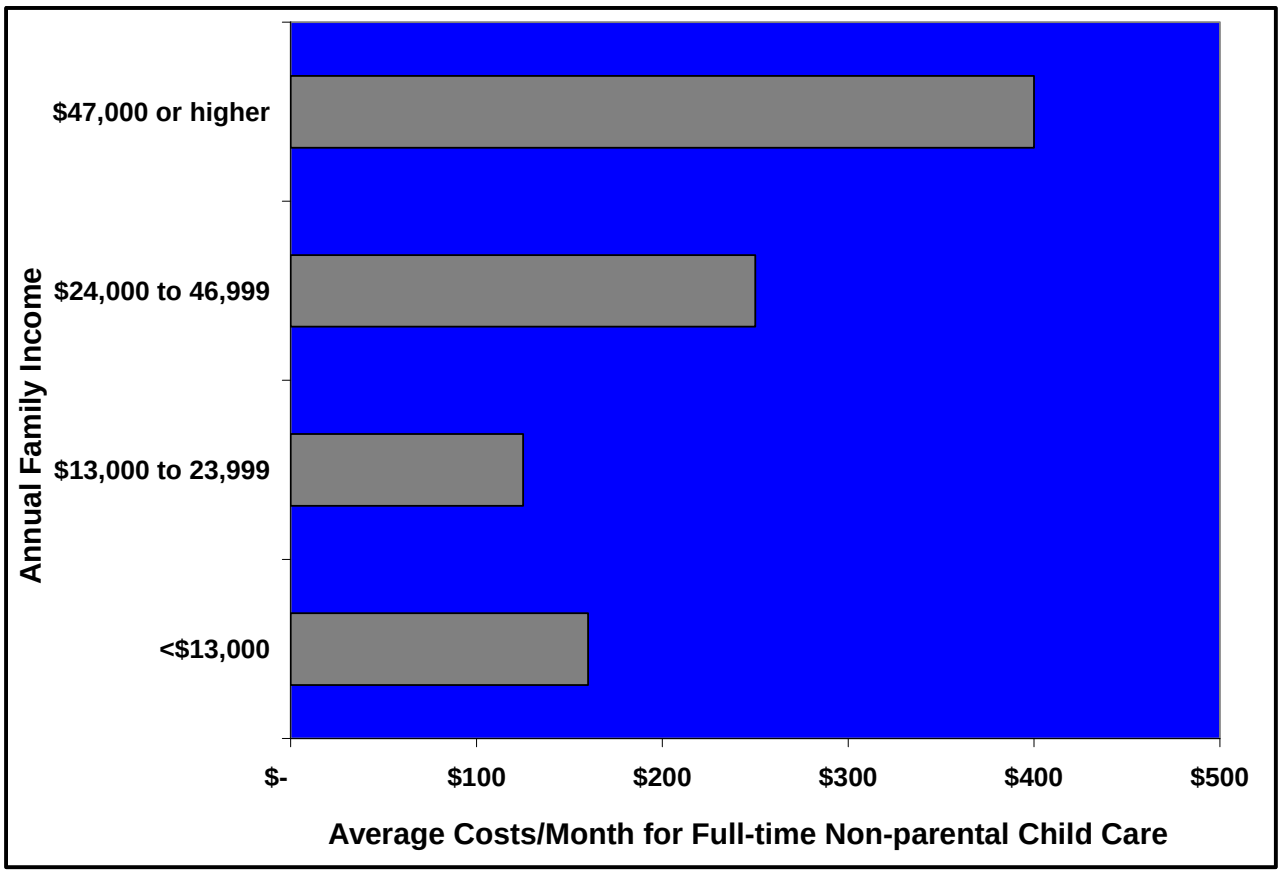
In Figure 5.2, we show the hourly cost of each type of child care. The first bar in each pair shows the average hourly cost including free care (i.e., care for which the family payed nothing). The second bar shows the hourly cost for families who payed for care. Families who paid for care paid an average of $3.85 an hour. If we exclude free care, center care was actually more expensive per hour than non-relative care. Care provided by relatives remained the cheapest alternative.

The hourly cost of child care was significantly associated with the mother's employment status, whether the mother was native born, the type of care, and whether the child care was full or part time. This result may be related to the characteristics associated with maternal work status or to greater difficulty in finding part time child care for children.

This latter speculation is supported by the results for full and part time child care. We found that full time child care was significantly less expensive on an hourly basis than part time child care. U.S. born mothers paid significantly more for child care than immigrant mothers, perhaps because they were more likely to have the means to do so and because they were more likely to value developmentally-oriented child care. Finally, even when other characteristics were held constant, non-relative and center-based child care was significantly more expensive than relative care.

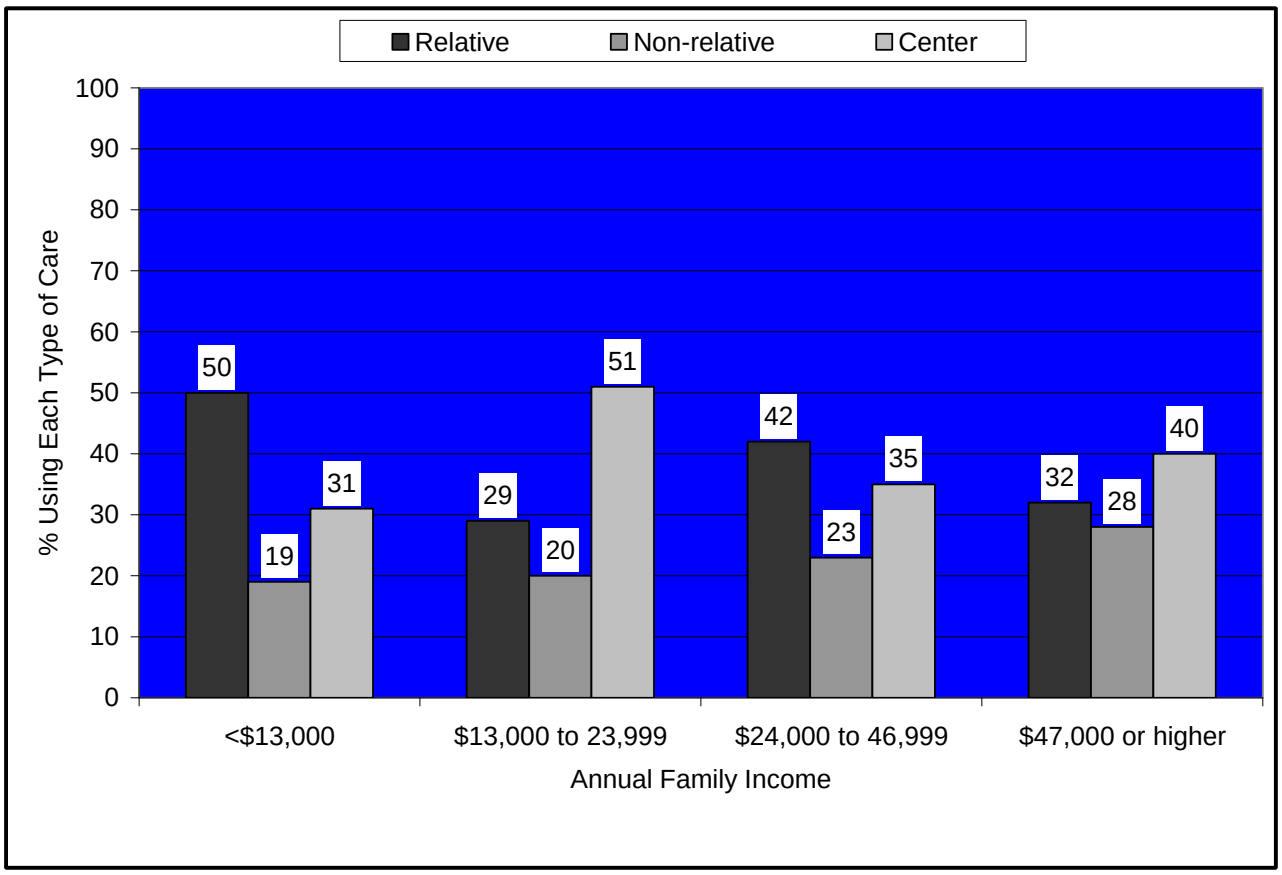
In Figure 5.3, we look at the costs of child care for families at different income levels. We have divided family income into four categories. Families with an annual income of $13,000 or less who used full-time non-parental child care pay an average of $155 per month in child care costs. The comparable average monthly cost was $118 for families with incomes of $13,000 to $23,999, $241 for families with incomes of $24,000 to $46,999, and $396 for families with incomes of $47,000 and higher. It is not clear why families who earned less than $13,000 per year payed slightly more than those earning between $13,000 and 23,999 per year. In general, however, higher income families paid more than lower income families for child care.

Figure 5.3 Average Monthly Costs of Child Care Vary with Family Income Levels



The average costs shown in Figure 5.3 would have been considerably higher, except that a substantial proportion of families, particularly in the lower income groups, received child care for free. In addition, families with lower incomes relied more on relative care than did families with higher incomes (see figure 5.4).

Figure 5.4 Families with Lower Incomes Are More Reliant on Relative Care



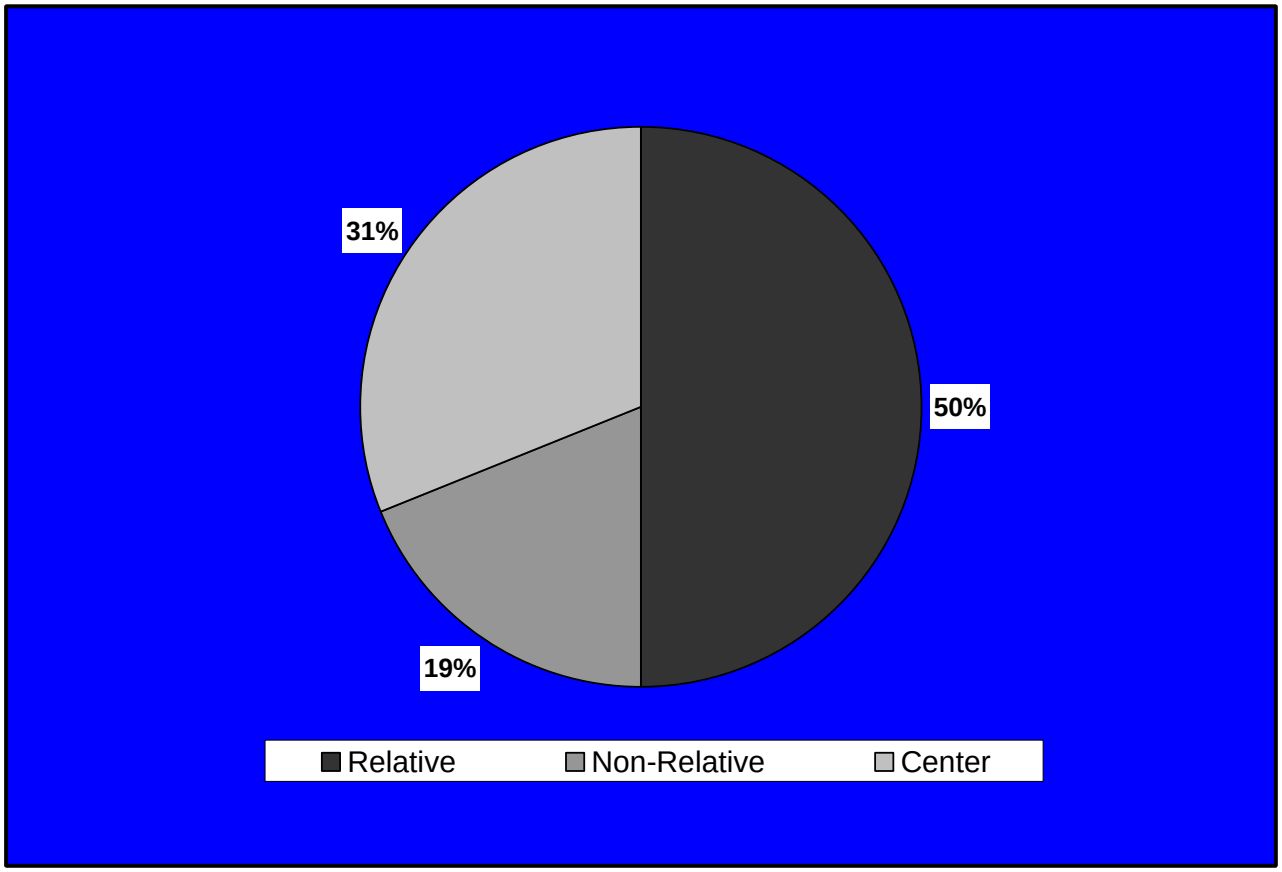
How Do Low Income Families Pay for Child Care?

Of particular importance for any program to increase access to quality child care is providing access for children from disadvantaged backgrounds. We have seen that these are the children who could most benefit from good center-based care.

How do L.A.'s low income families (those who earn less than $24,000 per year) pay for child care? One important difference between lower and higher income families is that mothers in lower income families are considerably less likely to work. Approximately three-quarters of mothers in families with incomes less than $24,000 were not employed; the comparable percentage for families with incomes above $47,000 is 34%.

The relationship between family income and maternal work is complex. In some families, parents may decide to forego the mother's income so that she can stay home and care for the children. In other families, mothers may choose not to work because the cost of child care is so high relative to their potential earnings that it would not be worthwhile. Or they may have trouble finding child care of acceptable quality. In any event, most low income mothers with preschool children in L.A.FANS did not work and therefore were able to provide their own child care.

Figure 5.5 Poorer Families Primarily Use Relative Care

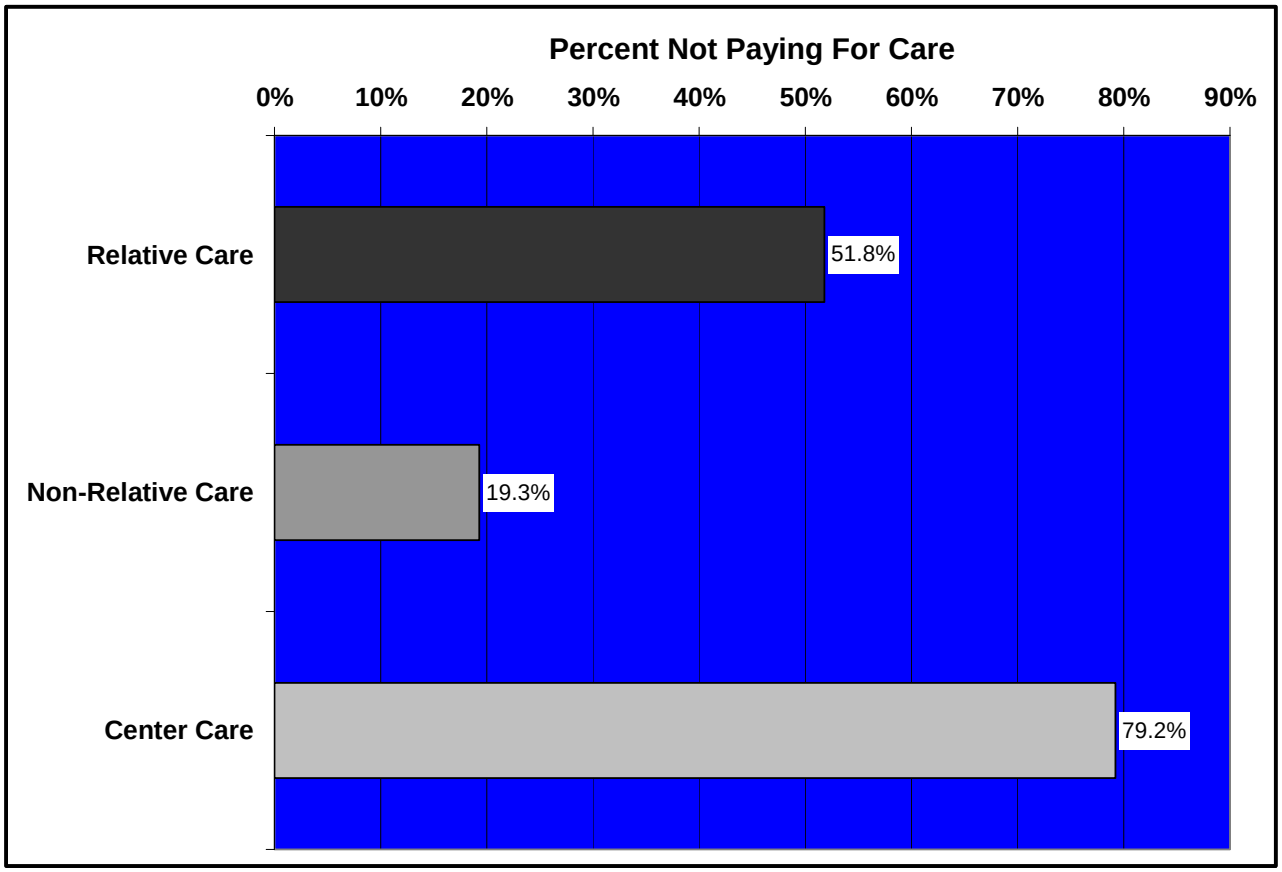


In poorer families who did use child care, half relied on relative care. More than half of relative caretakers provided care for free (see Figure 5.6), but those who charged for care were paid considerably less than non-relatives and centers.

For low income families who did not use relatives for child care, nearly 70% used center-based care, and about three quarters of these families reported paying nothing for this care. Those who did pay for center care paid an average of $1.95 per hour, which was considerably lower than the average cost of center-based care ($4.62 per hour). The difference suggests that lower income families who paid for center care often did so at a subsidized cost.

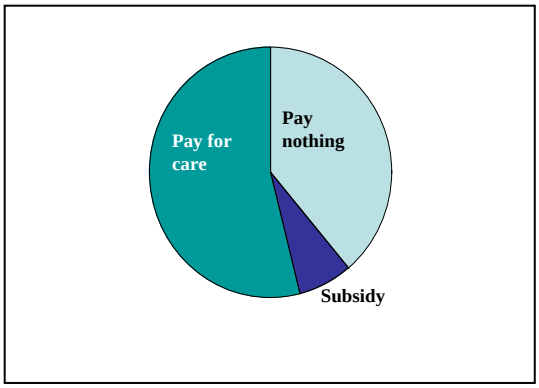
The remaining 30% of low income families using child care used non-relative care. Only about 20% of these low income families paid nothing for non-relative care. Those who had to pay for it paid an average of $2.75 per hour. As in the case of center-based care, this hourly rate was well below the average rate for non-relative care of $4.10.

Figure 5.6 Percent of Lower Income Families Who Do Not Pay for Child Care



L.A.FANS asked all parents using child care if anyone outside their household helped to pay for child care. Among low income families, 22% reported that they received some assistance, the most common source of which was a social service or welfare agency. By comparison, only 7% of families with incomes of $47,000 or greater reported receiving outside assistance. When information on the cost of care and receipt of subsidies is combined, the picture is as follows: among families with annual incomes less than $24,000 who used child care, slightly more than one-third paid nothing for child care, 7% reported paying but receiving a subsidy, and more than half reported paying the full price of child care (Figure 5.7)

Figure 5.7-- More Than Half of Low Income Families Paid the Full Cost of Child Care



Summing up what we learned about the cost of child care in L.A. County in 2000-2001: Many poor families did not use child care because mothers stayed home. Those who did use child care relied heavily on relatives who provided care for free or at low cost. Low income families also depended on free or subsidized care for their children. However, more than half of poor families reported paying for care and not receiving any subsidy. Clearly, lower income families who had relatives able to care for children close by or who were able to obtain subsidized child care had a clear advantage over other lower income families seeking child care.

For low income families who did not have access to free or low cost care from relatives or centers, child care could be expensive. Families in the L.A.FANS study with an annual income of less than $24,000 who paid for care paid an average of $243 per month for full time care.

What Can We Say About the Quality of Child Care?

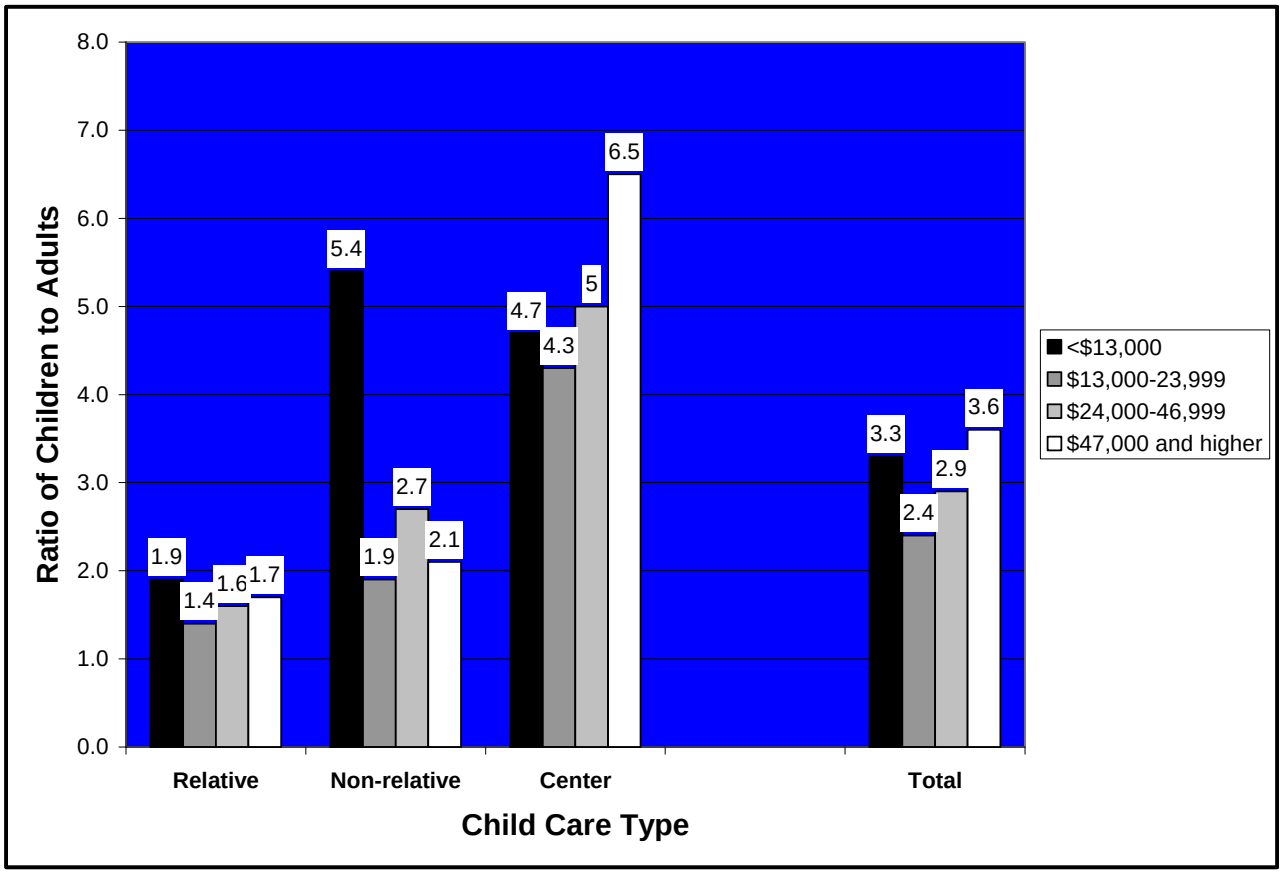
Obviously, not all child care, even of the same type, is equally good. One measure of child care quality assessed in L.A.FANS was the ratio of children to adults in child care arrangements. These ratios have considerable limitations as indicators of child care quality. They do not take into account many aspects of quality, including whether child care activities include stimulating environments and activities that help children develop cognitive, social, and academic skills (e.g., number and letter recognition). For example, the ratios of children to adults are generally higher in high quality child care centers than in almost relative care arrangements (since relative care ratios are so low). Yet studies suggest that high quality child care may provide significant care, socialization, and learning advantages, especially for older preschoolers, over the average relative care arrangement (Howes and Hamilton, 1993; Currie 2000).

However, our analysis of these ratios produced several interesting results. On average, child-adult ratios were substantially higher for center-based care than for relative care. Non-relative care ratios were also higher than those for relative arrangements, but considerably below ratios for centers.

Figure 5.8 illustrates the diversity in the care environments within each type of care. Child-adult ratios were about the same for relative care, regardless of family income. But for other types of care, the ratio varied with family income. For example, for non-relative care, children from the poorest families were in arrangements with an average of 5.4 children per adult caretaker, whereas children from families earning more than $47,000 per year were in arrangements with ratios of 2.1. We speculate that non-relative arrangements used by poor families were more likely to be neighbors or other adults who took care of multiple children in their home while non-relative arrangements for higher income families were more likely to be nannies or baby sitters responsible only for one or two children.

On the other hand, child care centers used by the highest income group had higher child-adult ratios than those used by the lowest income group. The reason may be that higher income families may place their children in more formal preschool settings while poorer families may have relied on smaller, local centers.

Figure 5.8 Child-Adult Ratios in Care Arrangements Vary by Family Income Level



CHAPTER 6
Conclusions

We have presented a profile of child care use among children 0-5 years olds in Los Angeles, including the frequency, type, and amount of child care used, access to child care facilities, the cost of care, and child-to-adult ratios in child care settings. We also examine how these aspects of child care vary among families and neighborhoods in Los Angeles..

Our goal has been to provide information about the state of child care in Los Angeles in 2000-2001, prior to the beginning of the universal preschool initiative in 2002. We hope that policy makers and community groups can draw on this information when implementing, and evaluating policies and programs connected with current and future child care initiatives.. In 2007-2008, we will reinterview families in L.A.FANS and talk to a new sample of families in Los Angeles to determine how child care use and availability has changed.

The most striking finding of this study is that the preschoolers who could benefit the most from center-based child care were *less* likely than other children to participate in this type of child care (Figure 3.1). As described in Chapter 1, high quality center-based child care may help to remedy some of the negative effects of a disadvantaged home environment on children. In an earlier study, we found that maternal education, maternal reading skills, reading to children, and taking children regularly to visit the library had significant positive influences on children's school readiness skills, holding constant socioeconomic status and other factors. Based on these findings, we defined children's background as disadvantaged if their mothers did not continue beyond high school or had low reading scores or if children were not read to regularly or did not go to the library regularly. Our results show that children from disadvantaged backgrounds are significantly *less* likely to attend center-based child care programs than other children, even though they might benefit more from these programs.

Why are children from disadvantaged backgrounds less likely to receive center-based child care? Although L.A.FANS did not ask families how they chose whether or not to use child care and what type to use, we can piece together a partial explanation for this finding. Based on what we know, we believe that there may be three reasons: (1) cost, (2) accessibility, and (3) personal and language and cultural preferences.

In terms of cost, the high price of center-based care (an average of $446/month) and the high proportion (79%) of low income families using center care who received it for free suggests that cost was a major barrier to use of center based care for low income children. Instead, low income families were more likely to use relative care which was often free and, if not free, was the least expensive form of care.

High quality center based care may also be less accessible in lower income and Latino communities. Although we have no information on the *quality* of available child care centers in each neighborhood, we found that the *number* of centers decreases as the proportion of Latinos in the neighborhood increases.[38] The number of child care centers is also larger in neighborhoods with higher incomes and those with a higher concentration of 0 to 5 year olds. As described in Chapter 4, the number of child care centers in each neighborhood may be due to lower demand in poorer and Latino neighborhoods. Whatever the reason, these findings mean that families in poor and Latino neighborhoods who do want to send their children to child care centers have a harder time finding them close by. Finding a convenient child care center is especially important for the poorest families because they are less likely to have access to a car and more likely to rely on public transit.

Other studies suggest that language and cultural barriers can also play a role. For example, one study found that, even when family income, parents' employment and education, and parenting practices were taken into account, Latino parents were less likely to send their children to preschool than other parents.[39] The authors suggested that Latino parents often see center-based child care as "foreign turf" because centers may lack bilingual or Latino teachers and parents may find it harder to develop close relationships with non-Latino teachers. If these findings hold true for families in Los Angeles, they suggest that recruitment of Latino early childhood education teachers, involvement of the Latino community in developing child care centers, and outreach to Latino communities may be important ways to increase Latino families' use of center-based care.

In summary, our results show that there is a lot of work to be done in Los Angeles, as elsewhere in the United States, on providing high quality, readily accessible child care at a reasonable cost to families at all income levels.

APPENDIX A

Los Angeles Family and Neighborhood Survey (L.A.FANS).

Los Angeles Family and Neighborhood Survey (L.A.FANS). is a study of how neighborhood social conditions and family life affect children's growth and development of children. The L.A.FANS data are designed for multilevel analyses, including neighborhood level and family level analyses. The project is a collaboration of a multidisciplinary team of researchers at RAND, UCLA, and several other universities nationwide. Funding was provided primarily the National Institute of Child Health and Human Development.

L.A.FANS is based on a sample of 65 neighborhoods (defined in L.A.FANS as census tracts) selected from the 1,652 census tracts in Los Angeles County. The sample was based on a stratified sampling design in which poor neighborhoods and households with children were oversampled relative to their proportion in the population. When the results are adjusted for the oversampling, the L.A.FANS sample is representative of the population of Los Angeles County.

Within each of the 65 neighborhoods, households were sampled randomly (with the oversamples noted above). For each household, one adult was chosen at random by computer to provide basic social and demographic information on household members. One resident child (age 0 to 17) was selected at random by computer to participate in the study. If the sampled child had siblings under age 18 living in the household, one of them was also randomly sampled.[1] Each child's primary caregiver (generally his/her mother) was also interviewed.

This report is based only on households with children 0-5 years old who are not yet enrolled in school. Of the 3,010 households included in L.A.FANS, a total of 1,720 included at least one child in that age range. Data were collected for 1,086 children ages 0 to 5. Of those, 714 (66%) were main sampled child respondents (known in L.A.FANS as randomly sampled children or RSCs) and 372 (34%) were sampled siblings of the RSCs. All results in this report have been adjusted for oversampling. The response rates were 89 percent for mothers and 87 percent for children. These response rates are equal to or better than response rates in high quality national sample surveys (Sastry et al., 2003). The report is based on the 886 children 0 to 5 who were not yet enrolled in school.

Table A1 provides basic characteristics of L.A.FANS neighborhoods from the 2000 census data for very poor (ranked in the top 10% of the poverty distribution as set by the Los Angeles County's Urban Research Division)[2], poor (tracts in the 60-89th percentiles), and non-poor neighborhoods (those in the bottom 60 % of the distribution),[3] included in the L.A.FANS

[1] In this report, we include both the sampled child (RSC) and his/her randomly sampled sibling (SIB) if two children were chosen as respondents within the household. The use of sampling weights and statistical procedures with robust standard errors correct for any potential bias.

[2] See Sastry, Ghosh-Dastidar, Adams and Pebley (2003) for further details.

[3] Census tracts in Los Angeles County were divided into these three groups based on the percent of the population in poverty in 1997. The percent in poverty was an estimate made by the L.A. County Urban Research Division. Very poor tracts are those in the highest 10% of the distribution. Poor tracts are those in the next highest 30%, and nonpoor tracts are those in the lowest 60% of the poverty distribution. For more details, see Sastry et al. (2003).

sample. The final column shows results for all Los Angeles County census tracts combined. When compared with the numbers in the second-to-last column, the numbers in the last column show that the L.A. FANS data, when adjusted for oversampling, closely matches the figures for Los Angeles County as a whole. However, the percent white and the median household income in the L.A.FANS sample is slightly higher than the comparable figures for Los Angeles County.

Table A1. Characteristics of Neighborhoods Included in L.A.FANS

	Very Poor Neighbor-hoods	Poor Neighbor-hoods	Non-poor Neighbor-hoods	Total for All L.A.FANS Tracts[4]	Total for All L.A. County Tracts
Characteristic					
Number of Census tracts	20	20	25	65	1,652
% Population foreign-born	49	49	26	34	35
% Population who are recent immigrants (since 1990)	21	18	7	11	12
Residential stability (% Population in same house five years ago)	48	49	53	52	53
% households with income <$15k	35	21	11	16	17
% households with income >=$75k	7	13	35	27	25
Median household income	$23,391	$33,854	$55,378	$46,981	$42,189
%Families who are poor (below the federal poverty line)	39	24	10	16	17
% Female-headed single-parent households	16	10	6	8	8
% White	4	14	48	36	31
% African American	16	6	7	7	9
% Latino	69	64	24	38	45
% Asian and Pacific Islanders	4	9	16	13	12
% Other ethnic groups	6	7	5	6	3
% of L.A. County Neighborhoods in this category	9	34	56	--	--

Source: All data come from the 2000 U.S. Census.

[4] These averages were weighted to correct for over sampling and thus represent L.A. County as a whole.

As shown in Table A1, about half of the population of very poor and poor neighborhoods and about a third of the population of all L.A.FANS neighborhoods were born outside the United States, reflecting the demographic composition of Los Angeles County. However, the majority of foreign-born residents came to the United States before 1990.

Table A1 also shows the residential stability, or the degree to which residents move in and out, of each neighborhood. Residential stability appears to be important for the development of stable and healthy communities for children (Sampson, Morenoff, and Gannon-Rowley, 2002). Residential stability is only slightly higher in non-poor neighborhoods than in the poorer ones: roughly half of residents in each group of neighborhoods lived in the same dwelling unit in 1995 that they were occupying in 2000.

The three groups of neighborhoods differ dramatically in median household income and in the proportion of households who are very poor (defined here as having incomes below $15,000 per year) or relatively well-off (defined here as having incomes of $75,000 per year or more). We also show the proportion of households in each group of neighborhoods who are below the federal poverty line. This proportion varies from 39 percent in very poor neighborhoods to 10 percent in non-poor neighborhoods.

Female-headed single parent families are more likely to be poor and to face greater time constraints than families with two parents (McLanahan and Sandefur, 1994). Table A1 shows that female-headed single parent-families are more common in very poor than non-poor neighborhoods in Los Angeles County.

The ethnic composition of neighborhoods varies considerably by poverty status. Very poor neighborhoods are predominantly Latino and African American. Non-poor neighborhoods are predominantly white, Latino, and Asian. Residents in the "other" ethnic groups include Native Americans, multiethnic individuals, and those who preferred not to report ethnicity. This sample did not have sufficient numbers of Native American or multiethnic respondents for us to analyze them separately, and thus were not included in the analysis.

Table A2 describes the sample distribution by neighborhood, family and child characteristics, for three age groups of children and for the total sample.

Table A2. Sample Distribution by Characteristics (Weighted Percentages)

	Under 1 Year	1 to 2 Years	3 to 5 Years	Total
Service Planning Area (SPA)				
Antelope Valley (SPA 1)	9	11	8	9
San Fernando (SPA 2)	10	16	20	17
San Gabriel (SPA 3)	15	21	16	18
Metro (SPA 4)	12	6	11	9
West (SPA 5)	5	5	3	4
South (SPA 6)	9	8	9	8
East (SPA 7)	18	19	17	18
South Bay (SPA 8)	22	14	17	16
Neighborhood Poverty Level				
Very Poor	19	14	15	15
Poor	36	36	35	36
Non-Poor	45	50	51	50
Family Income[5]				
First (lowest) quartile	23	25	19	22
Second quartile	20	23	25	24
Third quartile	29	25	28	27
Fourth (highest) quartile	28	27	27	27
Maternal Education				
Less than High School	37	34	37	36
High School Graduate	21	21	20	21
Beyond High School	21	29	25	26
College Graduate	11	11	12	11
Beyond College	10	5	5	6

[5] This panel excludes 13 cases with missing income information.

	Under 1 Year	1 to 2 Years	3 to 5 Years	Total
Employment Status[6]				
Not employed	58	62	57	59
Part-Time	16	11	14	13
Full-Time	26	27	29	28
Ethnicity				
White	19	23	19	21
Latino	61	55	60	58
Black	10	9	11	10
Asian/Pacific Islander	10	13	10	11
Immigration Status				
U.S. born	66	57	55	57
Foreign-born	34	43	45	43
Marital Status				
Married	65	62	64	63
Single (Not Married/Not Cohabitating)	9	22	22	20
Cohabitating (Not Married)	26	16	15	17
Teenage Mother[7]				
Yes	2	4	2	3
No	98	96	98	97
Child's Gender				
Male	51	45	53	49
Female	49	55	47	51
Unweighted Number of Cases	**166**	**341**	**380**	**887**

[6] Part-Time employment is defined as those working 34 hours per week or less. Full-time employment status includes those working 35 hours or more.
[7] Teen aged mothers are defined as those seventeen and under at the time their child was born.

APPENDIX B

Primary Child Care Questions in L.A. FANS

1. I'd like to talk with you about all child care your child has received on a regular basis during the past 4 weeks from someone other than you and his/her other parent. This does not include occasional babysitting or backup care providers, but does include any nursery school or pre-school that your child may attend.

> Has your child received care from someone other than you or his/her other parent on a regular basis during the past 4 weeks? [Yes/No]

2. How many different regular child care arrangements have you had for your child in the past 4 weeks?

3. Let's start with the person or center that provided the most care during the past 4 weeks. Who provided this care for your child? Who provided the next most common care? Who provided the next most common care? [*Asked about up to a maximum of three arrangements*.]

4. *[If Head Start is not already among the three most common arrangements mentioned*]: In the last 4 weeks, did your child attend Head Start?

For child care arrangements involving relatives:

- Does this relative who provides child care live in this household?
- Does this relative care for your child in your home or another home?
- When did this relative first start taking care of your child? What month and year?
- In the past 4 weeks, how many days has this relative taken care of your child?
- Think about the days in the past 4 weeks when this relative took care of your child. About how many hours per day, on average, did this relative care for your child on these days?
- Is this relative paid to take care of your child?
- How much is this relative paid to take care of your child?
- Including your child, how many children in total does this relative usually care for at one time?
- Does this relative care for your child/these children by (herself/himself) usually, or are there others that help?
- How many people usually care for your child/these children at a time, including this relative?

For child care arrangements involving non-relatives:

- Does this non-relative who provides child care live in this household?
- Does this non-relative care for your child in your home or another home?
- When did this non-relative first start taking care of your child? What month and year?
- In the past 4 weeks, how many days has this non-relative taken care of your child?
- Think about the days in the past 4 weeks when this non-relative took care of your child. About how many hours per day, on average, did this non-relative care for your child on these days?
- Is this non-relative paid to take care of your child?
- How much is this non-relative paid to take care of your child?
- Including your child, how many children in total does this non-relative usually care for at one time?
- Does this non-relative care for your child/these children by (herself/himself) usually, or are there others that help?
- How many people usually care for your child/these children at a time, including this non-relative?

For center-based child care (including Head Start):

- Where is this center located? Is it in a church or synagogue, a school, a community center, its own building, or some other place?
- When did your child first start attending this center? In what month and year?
- In the past 4 weeks, how many days did your child attend this center?
- Think about the days in the past 4 weeks when your child went to this center. About how many hours per day, on average, did your child spend at this center on these days?
- Is there a charge or fee for this center, paid either by you or someone else?
- How much is the fee or charge?
- Including your child, how many children at the same time are usually in your child's room or group at this center?
- How many adults are usually in your child's room or group at the same time, at this center?

Appendix C

Regular Use of Child Care: Results of Multivariate Analysis

Because the child care variable in this case is whether or not the child received any non-parental child care (i.e., it has two categories), we use a binomial logistic regression. The results of this multivariate analysis are shown in Table C.1. This table presents odds-ratios which are the odds of using child care compared to others in the sample. All characteristics in the model except family income are categorical. For these variables, the odds-ratio shows the odds of using non-parental child care compared to the reference category (also known as the omitted category) for the variable. For example, the reference category for neighborhood poverty level is "very poor." In Table C.1, the odds-ratio for children in non-poor neighborhoods shows that they are 1.08 times as likely to use non-parental child care as children in very poor neighborhoods. The odds-ratio for family income shows how much the likelihood of using non-parental child care increases for each additional dollar of income the family makes. Family income is included as a continuous variable. To make it clear that the odds-ratios are all relative to the reference category, we have included a value of 1.00 in the table for the reference category. Statistically significant coefficients and odds-ratios are shown in bold.

Table C.1 Regular Use of Child Care: Odds-Ratios from Binomial Logistic Regression

Variable	Odds-Ratios
Service Planning Area (SPA)	
Antelope Valley (SPA 1)	0.93
San Fernando (SPA 2)	1.24
San Gabriel (SPA 3)	0.84
Metro (SPA 4)	0.93
West (SPA 5)	1.43
South (SPA 6) *Reference category*	*1.00*
East (SPA 7)	1.14
South Bay (SPA 8)	1.02
Neighborhood Poverty Level	
Very Poor *Reference Category*	*1.00*
Poor	0.90
Non-Poor	0.95
Family Income (in $10,000s)	1.01
Maternal Education	
Less than High School *Reference Category*	*1.00*
High School Graduate	0.64
Beyond High School	1.41
College Graduate	1.05
Beyond College	0.98
Employment Status	
Not employed *Reference category*	*1.00*
Part-Time	**5.11**
Full-Time	**9.67**
Ethnicity	
White *Reference category*	*1.00*
Latino	**0.57**
Black	1.20
Asian/Pacific Islander	0.74
Maternal Nativity Status	
U.S. born	0.99
Foreign-born *Reference category*	*1.00*
Marital Status	
Married *Reference category*	*1.00*
Single (Not Married/Not Cohabitating)	**2.98**
Cohabitating (Not Married)	0.74
Teenage Mother	
Yes	**2.98**
No *Reference category*	*1.00*
Child's Age	
Under 1 year *Reference category*	*1.00*
1 to 2 years	**3.69**
3 to 5 years	**4.27**
Child's Gender	
Male	1.21
Female *Reference category*	*1.00*
Unweighted Number of cases	**855**

* Statistically significant results (at p<.05) in bold. Reference categories in italics. Standard errors are adjusted for cluster by neighborhood.

APPENDIX D

The Number of Child Care Facilities per Census Track

Our analysis used information on the number of child care facilities in each census track fromInfoUSA (www.infousa.com) for 2000. Child care facilities listed in InfoUSA are generally child care centers and Head Start programs. They gather data from the following sources for their data base:

- 5,200 Yellow Page and Business White Page Directories
- 17 Million phone calls to verify information. Every business is called one to four times a year
- County Courthouse and Secretary of State Data
- Leading business magazines and newspapers
- Annual Reports
- 10Ks and other SEC filings
- New business registration and incorporations
- Postal service information including National Change of Address, ZIP+4 carrier route and Delivery Sequence Files

Bibliography

Bradley, RH and RF Corwyn (2002) "Socioeconomic Status and Child Development" *Annual Review of Psychology*, 53:371-399.

Broberg, H.W., M.E. Lamb, and C.P. Hwang (1997). "Effects of Day Care on the Development of Cognitive Abilities in 8-Year-Olds: A Longitudinal Study." Anders G. *Developmental Psychology*, 33(1): 62-68, Jan. 1997.

Brooks-Gunn J, G Duncan. (1997) The effects of poverty on children. The *Future of Children*, 7:55-71.

Currie, J (2000) Early Childhood Intervention Programs: What Do We Know? At: www.jcpr.org/wpfiles/currie_EARLY_CHILDHOOD.PDF.

Currie, J. (2001). "Early Childhood Education Programs." *Journal of Economic Perspectives*, 15: 213-238.

Caughy, M., J .DiPietro, and D.Strobino (1994). "Day-Care Participation As a Protective Factor in the Cognitive Development of Low-Income Children." *Child Development*, 65: 457-471

Clarke-Steward, K.A., C.P. Gruber, and L.M. Fitzgerald (1994). *Children at Home and In Day Care*. Hillsdale, NJ: Erlbaum.

Desai, S., P.L. Chase-Lansdale, and R.T. Michael (1989). "Mother or Market? Effects of Maternal Employment on the Intellectual Ability of 4-Year-Old Children." *Demography*, 26: 545-561.

Duncan, GJ et al. (2003) Modeling the impacts of child care quality on children's preschool cognitive development. *Child Development*, 74 (5): 1454-1475.

Gordon, Rachel A., & Chase-Lansdale, P.L. (2001). Availability of Child Care in the United States: A Description and Analysis of Data Sources. *Demography* 38(2), 299-316.

Hofferth, Sandra L (1996). Child Care in the United States Today. *The Future of Children* 6(2), 41-61.

Hofferth, Sandra L., and Wissoker, D.A. (1992). Price, Quality, and Income in Child Care Choice. *The Journal of Human Resources* 27: 70-111.

Howes, C., and Hamilton, C.E. (1993) Child care for young children. In *Handreport of research on the education of young children,* B. Spodek, ed. New York: Macmillan.

Howes, C and James, J (2002) Children's social development within the socialization context of childcare and early childhood education. In: Smith, Peter K. (Ed); Hart, Craig H. (Ed). (2002). Blackwell handreport of childhood social development. Blackwell handreports of developmental psychology (pp. 137-155). Malden, MA, US: Blackwell Publishers.

Lara-Cinisomo, S. and A.R. Pebley (2003) "Los Angeles County Young Children's Literacy Experiences, Emotional Well-Being and Skills Acquisition: Results for the Los Angeles Family and Neighborhood Survey" RAND Labor and Population Working Paper Series 03-19, DRU-3041-LAFANS. RAND, Santa Monica.

Lara-Cinisomo S, Pebley AR, Vaiana ME, Maggio E. Are L.A.'s Children Ready for School? RAND, MR-145-FFLA, 2004.

Loeb, S., B. Fuller, S. Kagan, and B. Carroll (2004). "Child Care in Poor Communities: Early Learning Effects of Type, Quality, and Stability." *Child Development*, 75(1): 47-65.

McLanahan, S. and Sandefur, G. (1994). *Growing up with a single parent: What hurts, what helps*. Cambridge, MA: Harvard University Press.

National Research Council. (2001) *Eager to Learn: Educating Our Preschoolers.* Edited by Barbara T. Bowman, M.Suzanne Donovan, and M.Susan Burns. Commission on Behavioral and Social Sciences and Education. Washington, DC: National Academy Press. Available online at: www.nap.edu/reports/0309068363/html/

NICHD Early Child Care Research Network (1997). Familial Factors Associated with the Characteristics of Nonmaternal Care for Infants. *Journal of Marriage and the Family* 59: 3

NICHD Early Childhood Resource Network (2000). "The Relation of Child Care to Cognitive and Language Development." *Child Development*, 71(4): 960.

Peth-Pierce, R. (1998). The NICHD Study of Early Child Care. NICHD Health Information and Media Publications. [Online]. Available: www.nichd.nih.gov/publications/pubs/early_child_care.htm

Phillips, DA, M Voran, E Kisker, C Howes et al. (1994) Child Care for Children in Poverty: Opportunity or Inequity? *Child Development*, 65(2): 472-492.

Sampson, R.J., Morenoff, J.D., & Gannon-Rowley, T. (2002) Assessing 'Neighborhood Effects:' Social Processes and New Directions in Research. *Annual Review of Sociology*, 2002, 28: 1-51.

Sastry, N. Ghosh-Dastidar, B., Adams, J., & Pebley, A. R. (2003). *The Design of a Multilevel Longitudinal Survey of Children, Families, and Communities: The Los Angeles Family and Neighborhoods Survey*. DRU-2400/1-LAFANS. RAND publication found at www.rand.org/labor/DRU/DRU2400.1.pdf.

Smith, Kristin (2000) Who's Minding the Kids? Child Care Arrangements. *Current Population Reports*, P70-70. Washington, D.C.: U.S. Bureau of the Census.

Votruba-Drzal, E., R.L. Coley, and P.L. Chase-Lansdale (2004). "Child Care and Low-Income Children's Development: Direct and Moderated Effects." *Child Development*, 75(1): 296-312.

ENDNOTES

[1] Federal Interagency Forum on Child and Family Statistics, 2004.
[2] Malaske-Samu, 2000; Jacobson et al, 2001, Loeb et al., 2004.
[3]Loeb et al., 2004.
[4]Howes and Hamilton, 1993; Howes and James, 2002; Duncan et al., 2003.
[5]Howes and Hamilton, 1993; Currie 2000.
[6]National Research Council, 2001.
[7] Shonkoff and Phillips, 2000..
[8] Phillips et al., 1994; Howes and James, 2002.
[9] Brooks-Gunn and Duncan, 1997; Bradley and Corwyn, 2002.
[10] Lara-Cinisomo et al., 2003; 2004.
[11] Caughy et al., 1994; Desai et al., 1989; Currie, 2001.
[12] NICHD 2000.
[13] NICHD 2000, Loeb et al 2004, Clark-Stewart et al, 1994, Broberg et al, 1997.
[14] Loeb et al, 2004
[15]NICHD 2000
[16]Votruba-Drzal et al. 2004.
[17] NICHD, 2000.
[18] Loeb et al., 2004; Blau, 2001.
[19] Fuller and Huang, 2003; Herszenhorn, 2004; McCrary and Condrey, 2004; Andrade, 2002.
[20]Andrade, 2002.
[21] More information on the LAUP plan is available at: http://www.laup.net/.
[22] NICHD 1997; Hofferth and Wissoker, 1992; Gordon & Chase-Lansdale, 2001.
[23] Head Start is a nationwide early childhood education program. Because only approximately 5% of the sample reported participation in Head Start programs, they were included in the general center care category. It is possible that some parents reported participation in Head Start as a center-based child care arrangement rather than specifying Head Start per se.
[24] A 1995 nation-wide study showed that a large proportion of the sample used multiple child care arrangements (Smith, 2000); the difference from our study is primarily due to the fact that it included parent care as a separate child care arrangement while we focus exclusively on non-parental care.
[25] Howes and James, 2002.
[26] For this analysis, kindergarten is considered as part of "school." Children who were already in kindergarten, first grade, or other grades are excluded from this analysis.
3 Both the F-test for all categories of ethnicity combined and the t-test for the individual coefficient for Latinos was statistically significantly different from zero (with whites as the reference category). No other ethnic differences were statistically significant in this bivariate analysis.
[28] Both the F-test for all categories of marital/cohabitation status and the t-test for the individual coefficient for not married/not cohabiting were statistically significant
[29] The results of this multivariate analysis appear in Appendix C.
[30] Brooks-Gunn and Duncan, 1997; Bradley and Corwyn, 2002.
[31] Phillips et al., 1994; Howes and James, 2002.
[32] NICHD 2000, Loeb et al 2004, Clark-Steward et al, 1994, Broberg et al, 1997.
[33]Lara-Cinisomo et al. 2004.
[34] InfoUSA collects information on businesses, social service organizations, non-[profits, and other types of organizations. The sources of their data are described in Appendix D.
[35] We used 1995 median income because there is presumably some lag time between the market research that potential child care providers do, or should do, and actually setting up a child care facility.
[36] The Children's Planning Council has helped to create a system of councils known as the Service Planning Area or SPA Councils that represent each of the eight geographic regions of the county, along with a ninth council known as the American Indian Children's (AIC) Council. The SPA/AIC Councils represent and are linked to community-based organizations, neighborhood groups, cities, schools, county and city government agencies, and many other entities. The eight SPAs are Antelope Valley (SPA 1), San Fernando (SPA 2), San Gabriel (SPA 3), Metro (SPA 4),

West (SPA 5), South (SPA 6), East (SPA 7), and South Bay (SPA 8). For more information about SPAs and a map, see www.childpc.org.

[37] The results shown in Figs 4-2--4.4 are all based on this regression model and thus control for all of the other variables listed, aside from the variable shown in the graph. Only statistically significant relationships are shown. The complete regression results appear in Appendix E.

[38] Conversely, the number of child care facilities increases with the proportion of African Americans in the neighborhood. See Chapter 4.

[39] Fuller, Bruce, Costanza Eggers-Pierola, Susan Holloway and Xiaoyan Liang (1996) "Rich Culture, Poor Markets: Why Do Latino Parents Forgo Preschool?" *Teachers College Record*, 97: 400-418.