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***THE CHILD CARE CHALLENGE:  
WHAT PARENTS NEED AND WHAT IS  
AVAILABLE IN THREE METROPOLITAN AREAS***

***EXECUTIVE SUMMARY***

***February 9, 1989***

***Prepared by Mathematica Policy Research, Inc.  
for the U.S. Department of Health and Human Services***

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## **INTRODUCTION AND SUMMARY**

Nearly half of the 22 million preschool-age children in the United States have mothers who are in the labor force and, hence, spend significant amounts of time in nonmaternal care. The supply of child care available to meet the needs of these children includes an estimated 2 million licensed openings in day care centers and a half million openings in licensed family day care homes.<sup>1</sup> The remaining supply of child care includes unlicensed day care centers (primarily church-sponsored centers and part-day nursery school programs), unregulated family day care homes, and informal care arrangements with relatives. The result of parental needs and preferences for care and this configuration of available supply is a pattern of child care utilization with nearly half of the preschool-age children cared for by a relative and the remaining children being cared for primarily in **family day** care homes (22 percent), day care centers (23 percent), and unrelated caregivers in the child's home (6 percent) (U.S. Bureau of the Census, 1983). Hofferth (1988) estimates that on average, families spend 10 percent of total income on child care and nearly 25 percent of the mother's earnings on child care.

The common perception is that a child care crisis exists in this country, the dimensions of which include an inadequate supply of care,

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<sup>1</sup>The number of child care slots in licensed child care centers is based on estimation procedures proposed by Prosser (1986). The estimated number of licensed family day care homes is based on data collected by the National Association for the Education of Young Children (NAEYC) that show an estimated 105,000 operative licensed family day care homes in 1986 and on **estimates** from the National Day Care Home Study (Divine-Hawkins, 1981) that show an average of 4 to 4.3 children per day care home.

significant levels of poor quality care, and high costs for care. Public concern about these issues stems from the fact that, if confronted with inadequate or exceedingly expensive child care, parents (especially mothers) who want to work will be forced to decide against labor force participation. These decisions can then have adverse effects on the ability of the United States to meet its national labor force requirements and will certainly contribute to the perpetuation of economic impoverishment for many families. There may also be adverse consequences for children if they are reared in poverty and/or if they are placed in inadequate care settings as a result of these decisions.

The public debate over child care policies has been hampered by the lack of a clear understanding of the characteristics of the child care market. Is there a shortage of child care? If so, what is the nature of the shortage? What kinds of care are needed, and where should the additional care be located geographically? What other problems of access to care exist? Are **there** quality of care problems? Are quality problems concentrated in particular segments of the child care market? What are the costs of care, and how do **costs** affect access to care and quality of care?

Such questions took on increased importance in the Demonstration of Innovative Approaches to Reduce Long-Term AFDC Dependency Among Teenage Parents (the Teenage Parent Demonstration), a project jointly sponsored by the Assistant Secretary for Planning and Evaluation and the Office of Family Assistance in the U.S. Department of Health and Human Services to promote economic self-sufficiency among adolescent parents who are dependent on welfare. **Under this** demonstration, adolescent parents are required to engage in employment, training, and education services as a condition for receiving

AFDC. **Thus**, an adequate supply of affordable and acceptable child care *is* essential to the success of the program intervention.

This report presents the findings from a survey conducted by **Mathematica** Policy Research, Inc. to meet the informational needs of the Teenage Parent Demonstration and to address the broader issues **associated** with the nature of child care markets. The survey of child care providers and users was conducted in the three urban areas served by the Teenage Parent Demonstrationr Camden and Newark, New Jersey, and South Chicago, Illinois.

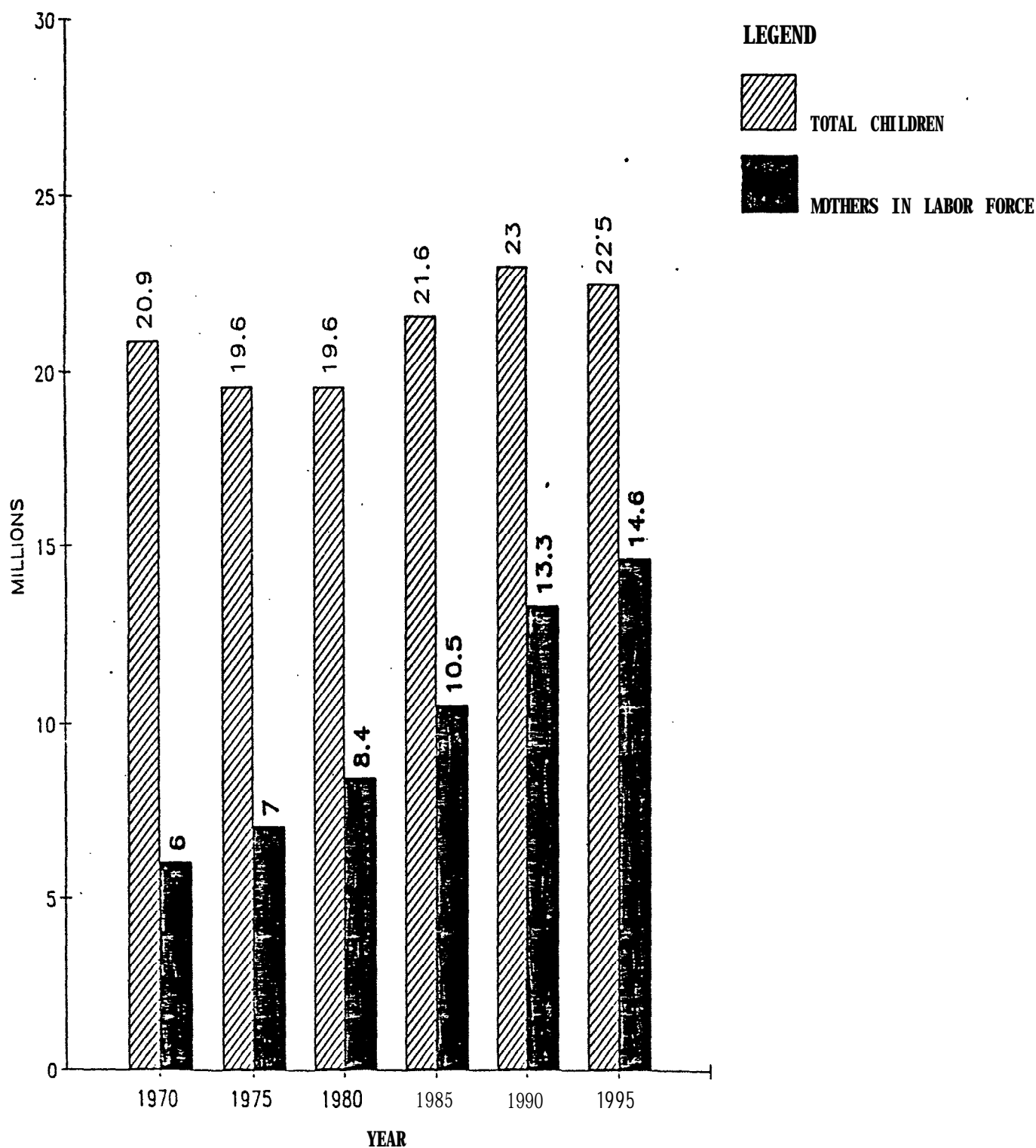
In the remainder **of** this executive summary, we outline the major policy issues underlying national and local concerns about child care. We then present a brief overview of the study design and summarize the most salient findings.

## **POLICY ISSUES**

Child care is 'a major national policy concern for several reasons. The first pertains to the significant increase in the demand for child care and the economic forces that promise to perpetuate that trend. The two key factors that determine the size of the demand for child care are the number of preschool-age children and the labor force participation of their mothers. Around 1980 the number of pre-school age children **in the** United States began increasing as children born during the post-world War II baby boom began having children of their own. At the same time, the increases in the labor force participation rates of mothers of preschool-age children that had begun in the 1970s continued (see Figure I.1).

In part, the growth in labor force participation rates is attributable to increases in the number of dual earner couples working to maintain or

FIGURE 1.1  
**PRESCHOOL CHILDREN WITH MOTHERS.  
 IN THE LABOR FORCE, 1970-1995**



SOURCE: HOFFERMAN, S. "THE CURRENT CHILD CARE DEBATE  
 IN CONTEXT", BETHESDA, MD: NICHD, MAY, 1988

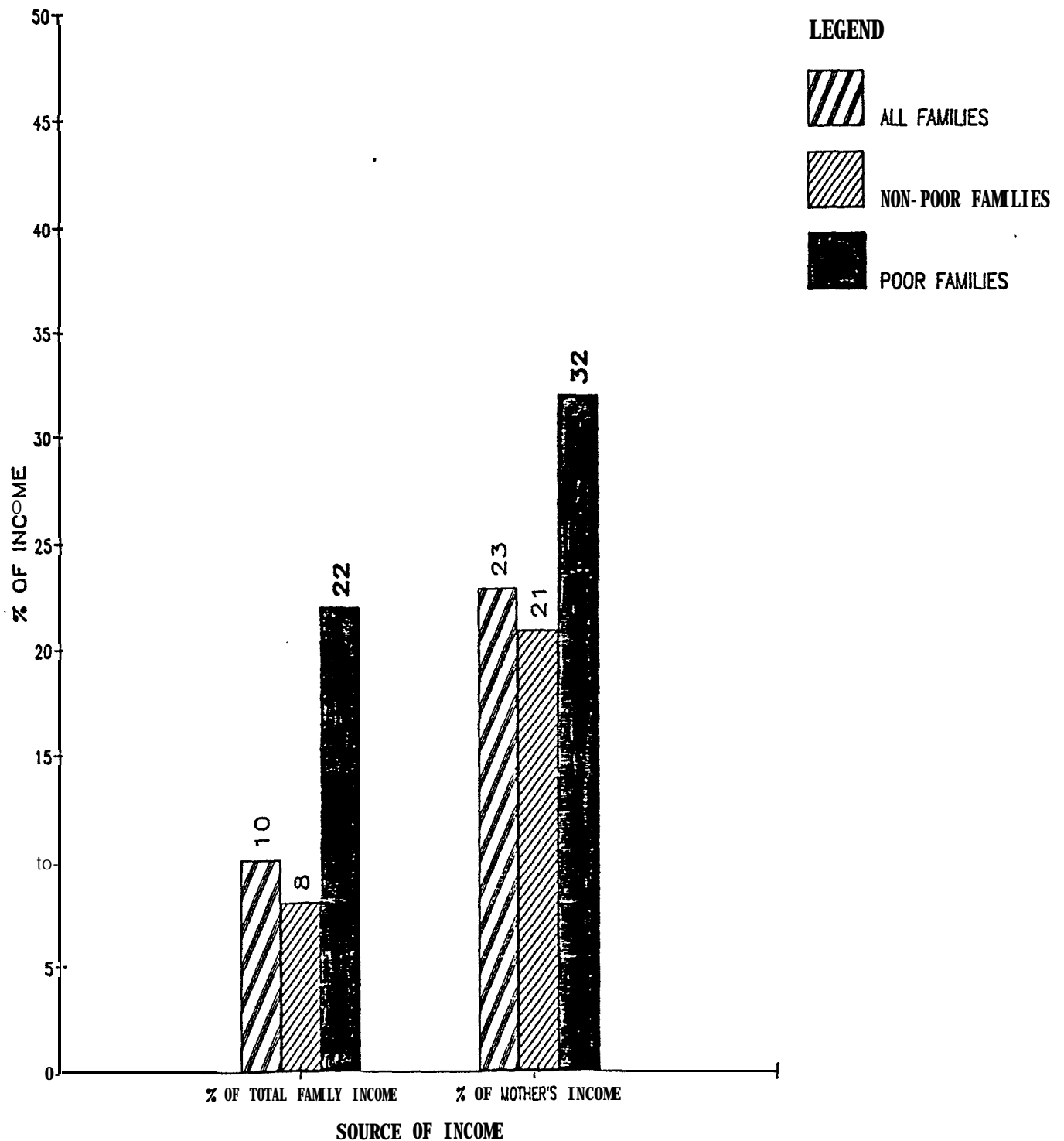
improve their standards of living. However, a major component of the trend is also the increase in the number of single parents who are working. These labor force trends have been facilitated by economic changes that significantly reduced the size the male-dominated manufacturing sector of the labor force and increased the size of the service sector.

While the size of the preschool-age population is not expected to increase significantly during the next decade, a continued increase in the employment rates of mothers of young children is likely, resulting in an estimated 40 percent **increase** in the number of children requiring nonmaternal child care. There is a strong policy focus **on** meeting this need in order to meet future labor force requirements, as well as to enable parents (especially single parents) to maintain economic self-sufficiency.

A second and major source of concern pertains to the national and state initiatives to reform welfare and promote **employment** among **welfare-**dependent mothers. Although the employment rates of low-income mothers of young children are increasing, they continue to be less than half the rates for the overall population of mothers of preschool-age children (O'Connell and **Bachu**, 1987). Three factors contribute to this employment differential. First, low-income mothers tend to have skill levels and employment opportunities that are limited primarily to low-wage jobs. Second, on average, child care expenses consume nearly one-third of the incomes of mothers in low-income families (see Figure X.2). Finally, low-income mothers have access to fewer **and/or** less adequate child care options (**Sonnenstein**, 1984; United States Bureau of the Census, 1983).

As states implement the Family Support Act of 1988, the availability and cost of child care may become important to the successful operation of the

FIGURE 1.2  
**AVERAGE WEEKLY EXPENDITURES ON CHILD CARE  
 'AS A PERCENT OF INCOME**



SOURCE: HOFFERTH, S. "THE CURRENT CHILD CARE DEBATE  
 IN CONTEXT", BETHESDA, MD: NICHD, MAY, 1988



work programs. One provision of the act requires that recipients of Aid to **Families with** Dependent Children (AFDC) whose youngest child is older than three years participate in employment, school, or training if child care is available. This could increase the number of children in nonmaternal care by as much as 10 percent.

A second provision of the legislation requires that **adolescent mothers** continue their education, further increasing the demand for nonmaternal care, particularly care for infants. Many states are now trying to determine whether the supply of care will be adequate to enable low-income mothersto participate in self-sufficiency-oriented activities.

Finally, a third source of the growing concern about child care is a renewed interest in the long-term outcomes of child care for the health, safety, and development of children. Now that a large number of children are in nonmaternal care for substantial proportions of their preschool years, the quality of **nonmaternal** child care has become a major focus 'of concern. Although research on what constitutes adequate care for children of different ages and with special needs is **limited,**<sup>2</sup> we do have evidence that the quality of child care matters (Phillips, 1987). Evidence **that** a significant number of children are cared for in settings that do not meet minimal standards (Waite et al., 1988) and the fact that the vast majority of family day care is unregulated have raised concerns about the quality of the current supply of child care.

Some research suggests that children from disadvantaged backgrounds are at especially high risk of poor social development and academic

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<sup>2</sup>See, for example, the debates on whether nonparental care is harmful to children (Belsky, 1986 and Phillips et al., 1988).

achievement, but also that early interventions may reduce these risks. Most notably, well-run Head Start programs have consistently been found to have positive effects on the cognitive and socio-emotional development of children from disadvantaged backgrounds (McKey et al., 1985). However, other intensive early interventions sponsored by schools, health departments, and community based organizations have also demonstrated significant effects on child outcomes (Berruett-Clement et al., 1984; Olds et al., 1983; and Ramey, 1988). With an increased number of children being cared for in child care centers and family day care homes, it is especially important that policymakers address questions about the adequacy of the care settings available to families, especially low-income families, to meet the child care needs of parents and the developmental needs of their children.

#### THE FOCUS AND DESIGN OF THIS ~~THREE-SITE~~ STUDY

Despite the growing recognition ~~that~~ the lack of available, affordable child care is an important barrier to employment, very little is known about the child care needs and available supply of care for low-income and welfare mothers. In particular, no major surveys of the child care needs, utilization, and supply among AFDC parents have been conducted since 1979. In light of recent welfare reform initiatives and the passage of the Family Support Act, it is critical that information on the child care market, especially the market facing low-income parents, be updated. In the Teenage Parent Demonstration, which has substantial similarities with the adolescent parent provisions of the Family Support Act, it became apparent that a survey of the local child care markets could substantially enhance the evaluation, as well as provide valuable information to inform ~~these~~ more general concerns.

### The Teenage Parent Demonstration

The Teenage Parent Demonstration is a six-year project that was initiated in 1986 by the U.S. Department of Health and Human Services (DHHS), Assistant Secretary for Planning and Evaluation and the Office of Family Assistance **(OFA)**, to address the policy issues associated with adolescent childbearing and welfare reform. As part of this initiative, demonstration programs are being operated in three sites--the south side of Chicago (Project Advance); Newark, New Jersey (TEEN PROGRESS); and Camden, New Jersey (TEEN PROGRESS)--to test innovative approaches for increasing the self-sufficiency of welfare-dependent adolescent parents. The demonstration programs emphasize both the obligation of teenage parents to engage in activities that are expected to promote their economic self-sufficiency and the responsibility of the welfare system to provide the social services and other forms of support necessary to enable these young parents to fulfill their participation obligations. Because participation in school, training, or employment for 30 hours a week is mandatory and all participants have young children, a primary support service of the demonstration is the provision of child care assistance. An important task of the demonstration project staff is to assess the child care needs of these parents and the characteristics of the local child care markets to determine how each participant's child care needs can be met.

### The Child Care Supply and Needs Study

The special study of Child Care Supply and Needs was undertaken in the spring and summer of 1988 to assess the local market for child care in each of the three demonstration sites. Among the questions to be addressed in the study were the following:

- o How large are the supply of and demand for child care in each site?
- o What is the nature of the supply of and demand for child care in each site (e.g., by age of child, full-time vs. part-time, preferred type of provider)?
- o Does an unmet demand for child care exist? What is the nature of the unmet demand?
- o What is the **"quality"** of the care that is used? Does quality vary by the age of the child or by the socio-economic characteristics of the parents?
- o How satisfied are the users of child care? What problems have they encountered with their current arrangements?
- o What problems are encountered by child care providers?
- o What supply and demand factors determine the observed utilization patterns?

In order to address these questions, **Mathematica** Policy Research, Inc. gathered information on a representative set of providers and users of all types of child care for preschool-age children in each of the three sites. The sample frames for the child care centers and **licensed** or registered family day care providers were state licensing lists: the sample frames for the unregulated family day care providers and child care users were developed primarily through a random digit dial telephone screening survey. In total, 167 child care centers, 160 regulated family day care providers, 294 unregulated family day care providers, and 989 child care users were interviewed in the three sites.

## **KEY FINDINGS AND CONCLUSIONS**

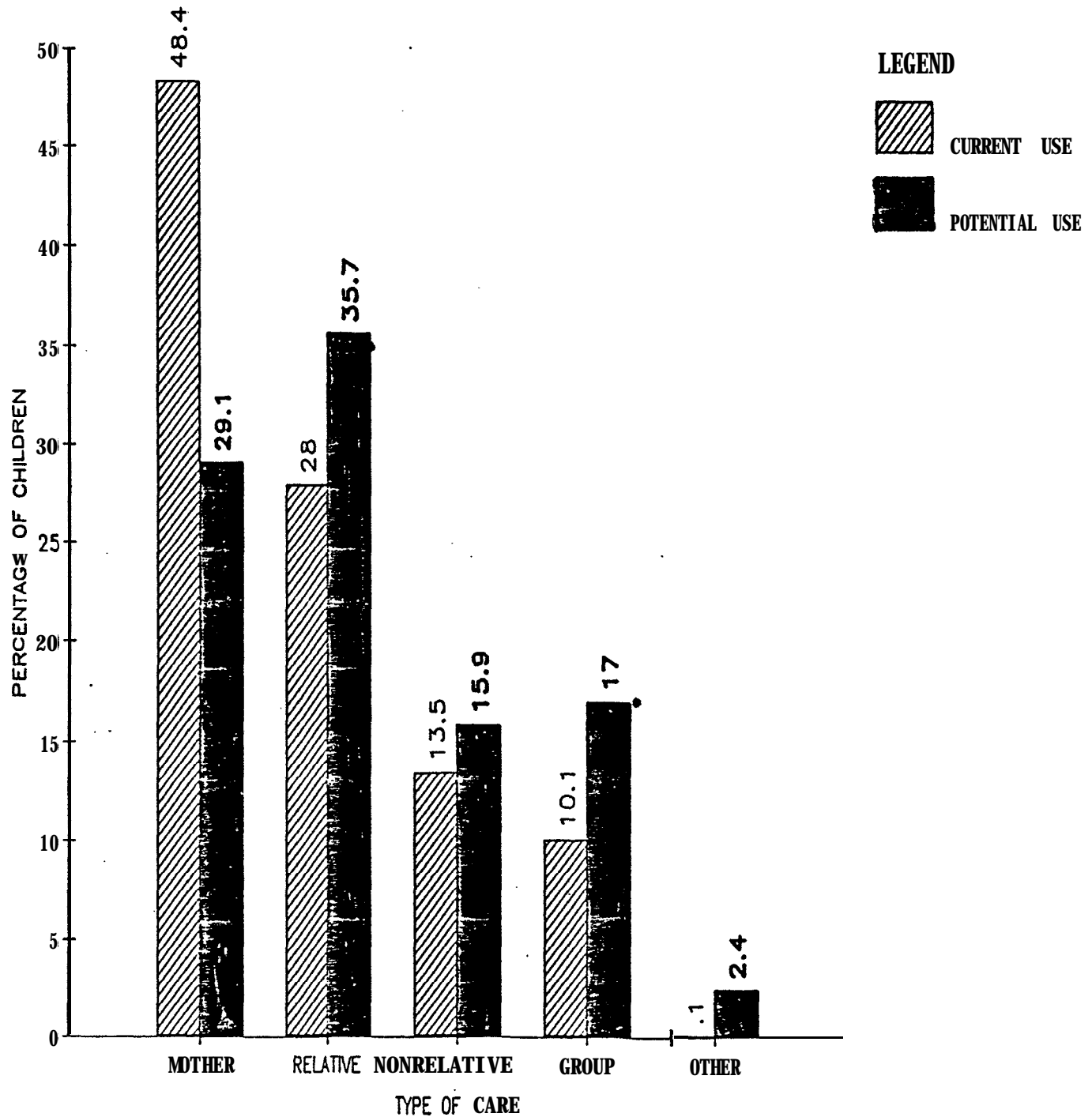
The findings from this study are remarkably consistent with available information on the national supply and utilization of child care. The percentage of mothers of preschool children who are working, the distribution

of preschool children in care across types of arrangements, the cost of care, and indicators of the quality of the child care available in the three metropolitan areas are all comparable to national estimates.

Although consistent with national estimates, the findings from this study suggest that the nature of the child care problem is somewhat different than expected. As seen in Figure **I.3**, the children in the three demonstration sites are cared for in ways that tend to mirror national patterns of child care: nearly half are cared for by their nonworking mothers; about 30 percent are cared for by a relative; about 15 percent are cared for in other home settings; and the remaining 11 percent attend child care centers. While mothers are generally satisfied with their care, about 30 percent indicated that they would prefer a different arrangement, primarily to provide their child with **more learning** experiences. Less than 5 percent indicated that they would prefer alternative care because of costs.

'Reported child care problems' pertain to the nature of the supply of care and the mechanisms for matching providers with potential users. As shown in Figure 1.3, a significant number of mothers of preschool-age children (19 percent) indicated that' they would seek employment if acceptable and affordable child care were available. However, their views about reasonable costs of child care were consistent with current market costs, suggesting that the barrier was not cost per se but access to providers. If the preferences of these mothers to work were realized and all found child care of the type they preferred, care by relatives and other family day care providers would each serve roughly an additional 10 percent of preschool children; child care centers would serve an additional 7 percent of the preschool population.

FIGURE 1.3  
CURRENT PATTERN OF CHILD CARE USE AND  
PATTERN OF POTENTIAL CHILD CARE USE IF  
CHILD CARE BARRIERS ELIMINATED \*\*



SOURCE: "SURVEYS OF CHILD CARE SUPPLY AND NEEDS",  
(MATHEMATICA POLICY RESEARCH, INC., 1988)

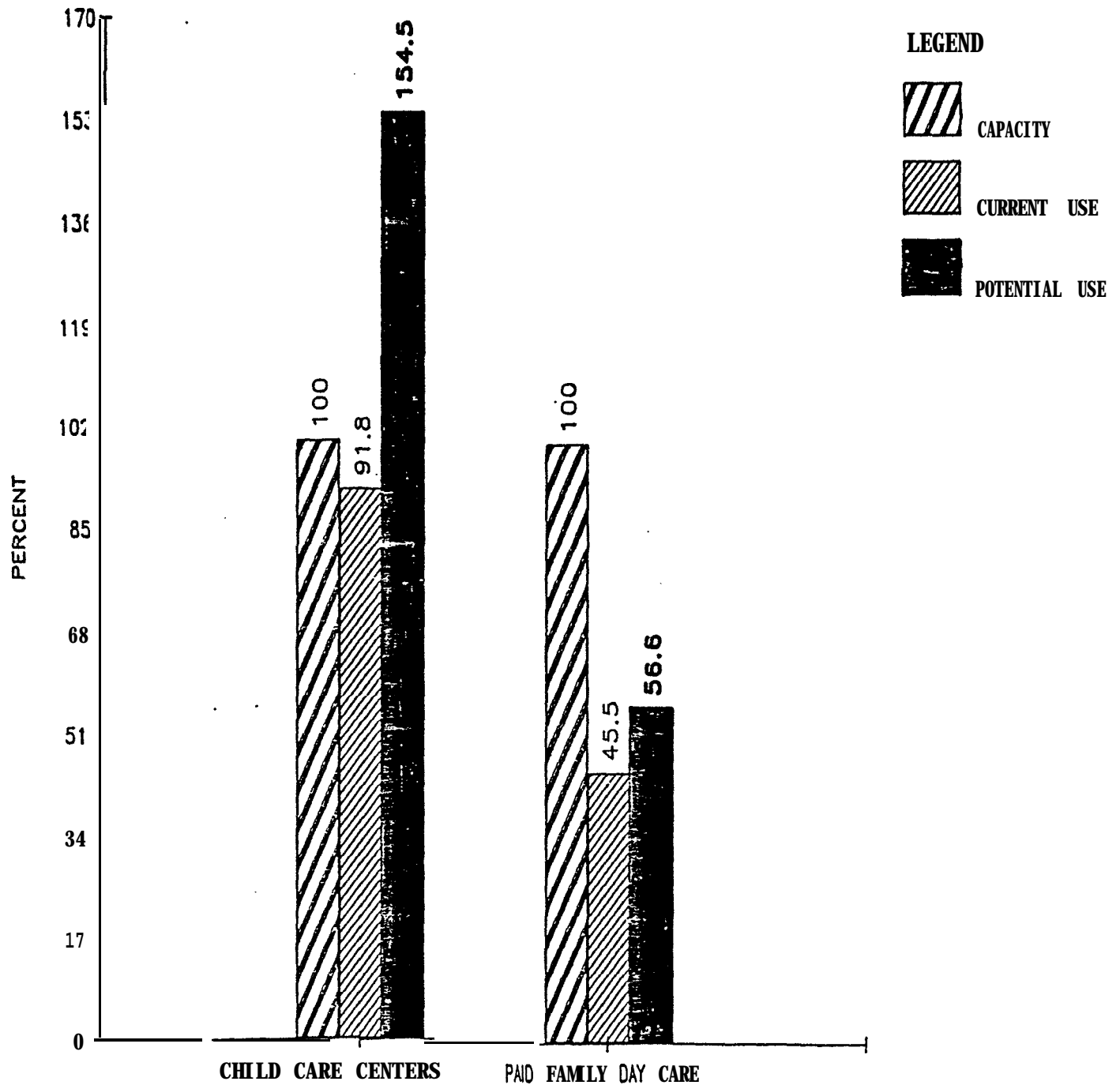
\*\* Potential use of different child care arrangements is defined as current use by working mothers plus the use of various arrangements that would occur if the needs and preferences of nonworking mothers who said they would go to work if satisfactory child care were available were met.

Figure I.4 shows that centers are currently operating at capacity, while family day care providers are operating substantially below reported capacity. As a group, those parents who would prefer center-based care really would not have their preferred option available to them unless the capacity of centers were expanded by as much as 50 percent. In contrast, the **current** supply of family day care (including openings that providers say are available) is nearly double the current use rate. This unused capacity is potentially large enough to meet the needs of those nonworking mothers who indicated a desire to enter the work force if acceptable family day care were available. However, this market operates on a very informal, word-of-mouth basis, and information about available openings in family day care settings (a necessary but not sufficient condition for filling the slots) is not readily accessible to the public at large. Thus, one major policy concern with the family day care market pertains to its organization and the expansion of information networks.

Other key questions addressed in the study of the child care **markets** in the three Teenage Parent Demonstration sites, and their answers are summarized below:

- o To **what** extent do **mothers** of preschool children need child care? The majority (55 percent) of mothers of preschool children in the three sites are employed, go to school, **and/or** attend job training programs and thus rely on some form of child care for an average of 35 hours per week. Roughly half of the children of these mothers, are cared for by relatives, frequently the other parent who also has a job. Mothers often seek nonstandard work schedules to enable them to rely on this care by relatives. The other children of working mothers generally require full-time care provided by nonrelatives or child care centers.

FIGURE 1.4  
CHILD CARE USE AND POTENTIAL USE  
RELATIVE TO CAPACITY IN CHILD CARE CENTERS  
AND PAID FAMILY DAY CARE



SOURCE: "SURVEYS OF CHILD CARE SUPPLY AND NEED!?",  
(MATHEMATICA POLICY RESEARCH, INC.. 1988)



- o **When is** child care available? Child care centers in the three demonstration sites generally provide full-day, **full-year** care. Centers are open for an average of about 50 hours per week, and nearly all centers are open for more than 40 hours per week. These hours are available exclusively on weekdays.

In contrast, paid family day care providers have shorter average work weeks (40 hours per week), and significant proportions of paid family providers offer only part-time care. Family day care providers are essentially the only source of paid care for children during evening and weekend hours.

- o How do working mothers select their child care providers? The child care market operates very informally. Most mothers of preschoolers were referred to their provider by friends, neighbors, and/or relatives; Mothers **of** only about half **of** preschool children in nonrelative care considered more than one provider before making their selection; The most common reasons cited by mothers for selecting their child's current arrangement were quality, location, and price, in that order.

The predominance of informal methods for finding nonrelative care. is consistent with the fact that paid family day care providers and, to a large extent, child care centers neither advertise their services nor actively recruit to fill empty slots. Most paid family day care providers get children through referrals from relatives, neighbors, or friends, word of mouth, or acquaintance with the-children's mothers. More than one-half-of paid family day care providers take no action themselves to fill an empty slot, and those who do attempt to fill empty slots use the various informal referral methods. Child care centers rely primarily on waiting lists to fill empty slots.

- o What types of **child care** arrangements do working mothers make for their **preschool** children? Most preschool children in the three sites are cared for in only one arrangement (about 75 percent). For approximately half of the children, their primary care arrangement is with relatives; about one-fourth are cared for by nonrelatives; and **one-fourth** are cared for in child care centers and preschools. Relatives generally provide secondary arrangements when multiple providers are used.

Younger children are more likely to be cared for in family day care settings and less likely to be cared for in formal group settings than are older preschool children. The age patterns of enrollment reported by child care centers and

paid family day care providers are consistent with these patterns. Most children enrolled in child care centers are between two and five years old, while larger proportions of children cared for by paid family day care providers are infants or school-age children. The availability of center-based infant care is very limited.

- o What is the cost of child care arrangements for preschool children? The mothers of approximately two-thirds of preschool children pay an average of \$1.38 per hour for care **in** the main arrangement, regardless of the age of the child. Secondary child care arrangements are less likely to be paid for but, when they are, they cost more per hour.

Child care **centers** in the three demonstration sites charge an average of \$35 to \$50 per week for moderate- **to high-**income toddlers and older preschool-aged children, the age groups constituting the largemajority of their enrollment, and somewhat higher fees for infant care. However, they also frequently reduce their fees significantly for **low-**income families.

Paid family providers in the three sites reported charging an average of \$1.40 to \$1.90 per hour for care. This is equivalent to \$56 to \$76 per 40-hour week. While family providers less frequently adjust their fees on the basis of family income, they tend to charge substantially higher **hourly** rates for part-time than for full-time care.'

The median total cost of **child care** for mothers paying for care is \$50 per week. This results in families spending approximately 10 percent of their income and about 25 percent of the mother's earnings on child care.

- o **What assistance** do mothers receive in paying for their **child care** arrangements? The mothers of about two-thirds of preschool children in paid arrangements reported that they **plan** to take an income tax credit for their child's main arrangement, but few reported receiving financial assistance from other sources. Virtually all free care for preschool children is provided by a relative or friend.
- o **What assistance** do providers receive? Government agencies subsidize some child care for low-income families. Between one-fourth and one-third of child care centers **in the** three sites receive government subsidies, largely through direct payments to the center but also through voucher payments. These subsidies benefit between 10 and 15 percent of all children in center-based care. The majority of centers, but only about 5 percent of family day care providers, participate in the USDA Child Care Food Program, which benefits all children in the care setting.

- o What **is** the 'quality\* of care available? In general, the quality of center-based care in the three sites exceeds state standards. The average group **size** in child care centers is about 15 children, and the average child-staff ratio **is** about **6:1**. For all age groups, average **child-staff** ratios are considerably smaller than required by state licensing regulations.

The average child-adult ratio in paid family day care settings is about **3:1**. Only **5** percent of all family day care providers care for more than 6 children.

Preschool teachers in child care centers generally have some postsecondary schooling, either in a Child Development Associate (**CDA**) program or in college. In contrast, less than 30 percent of family day care providers have some postsecondary schooling, and over a third have less than a high school education.

- o Are child care **settings** safe and health-promoting? Child care centers in the three sites are required by state licensing regulations to meet minimum health and safety standards, including keeping medical releases and emergency contact information. Another requirement is that they maintain isolation areas for sick children, which most do. However, few child care centers allow parents to leave sick children. Policies on the administration of medications vary among centers.

**Paid** family day care providers are much more willing than centers to provide care for sick children. Between **one-half** and three-quarters of paid family providers allow parents to leave sick children, and most are willing to administer medications at the request of the parent. However, only three-quarters of family providers have the phone numbers of the doctors of the children for whom they provide care and less than half of paid family providers consistently maintain medical releases for emergency medical treatment for each child.

- o To what extent are **mothers** satisfied with their **children's** primary arrangements? Mothers **generally report** that they are satisfied with their child care arrangements regardless of their child's age. Only one-third of the mothers in the three sites reported that they would change arrangements even if all types of care were available free of charge; most of these mothers would prefer center-based care for their child because the child would have better learning opportunities.

- o How stable **are child** care arrangements for preschool children? Child care arrangements tend to be reasonably stable. Only about 12 percent of preschool children had a change in their child care arrangement within the last year, most often because the provider stopped providing care. However, turnover in enrollment in centers and family day care is somewhat greater, with between **5** and 15 percent of the center-based slots turning over in a **three-month** period.
- o How reliable are preschool **children's** child care arrangements? Problems with child care arrangements are not uncommon in the three sites. Mothers of about 10 percent of preschool children in care in the three sites **reported** that they had missed a day of work in the previous month due to child care problems. In addition, the mothers of about 15 percent of preschool children in care reported that they had been late to work or had to leave early at least once within the last month. Mothers of nearly half of preschool children reported that their regular child care arrangements are always available, and nearly three quarters have relatives or neighbors they rely on to watch their children when the regular provider is unavailable.

Both **currently working** and nonworking mothers reported lost opportunities due to child care problems. Approximately one-third of mothers of preschool children reported that child care problems had at some time prevented them from working or led them to change jobs or work hours.

- o What arrangements do **mothers make when** their child is sick? Care of sick children is largely the mother's responsibility. Half of the time, sick preschool children are cared for by their mothers, a third of whom take leave without pay to provide this care. Only about 5 percent of sick children are cared for by their fathers or stepfathers.
- o To what extent are child care providers covered by liability insurance? All child care centers in the three sites are required by state licensing regulations to be covered by liability insurance and few centers reported having had difficulties in obtaining insurance. However, some (up to **25 percent**) reported that they had raised their fees to cover increased insurance premiums.

In contrast, about one-half of paid family day care providers reported that they are not covered by liability insurance, most because they have not tried to get it. Among those who are covered, the premiums of only **one-quarter** had increased within the last two years.

- o What are the most common operating problems reported by child care providers? The most common operating problems faced by child care centers in the three demonstration sites are late payments by parents (75 percent), late child pick-ups (50 percent), and parents\* unresponsiveness to staff concerns about their children.

Family day care providers reported that they had problems with late child pick-ups and payments (25 percent each). In addition, up to one-quarter of paid family providers reported that their own children resented the other children in their care and that they had other things they had to do while caring for children.

- o To what extent is there unmet demand for child care? As was noted previously, there are currently sizable numbers of "openings" with family day care providers in the three sites. However, access to these openings is limited due to the lack of information networks and possibly to other constraints imposed by the providers regarding the children for whom they will provide care. Child care centers have slightly more formal procedures for filling vacancies. However, they have little unutilized capacity. The result is that there is substantial unmet demand for child care in the survey areas of two types: demand by some parents to move their children from relative or family day care to center-based care and demand by nonworking mothers to place their preschool-age children in an acceptable care setting. Meeting this demand could involve both an expansion of the total supply of care, particularly center-based care, and improved information networks so as to more fully utilize available family day care positions.

## **AUTHORS:**

*Ellen Eliason Kisker  
Rebecca Maynard  
Anne Gordon  
Margaret Strain*

## **PROJECT OFFICERS:**

*William Prosser  
Reuben Snipper*

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Ellen Eliason **Kisker**  
Rebecca Maynard  
Anne Gordon  
Margaret Strain

Prepared for:

Department of Health and Human Services, OS  
Assistant Secretary For Planning  
and Evaluation  
Room **404E**, HHH Building  
200 Independence Avenue, **S.W.**  
Washington, D.C. 20201

Attention: William Prosser  
Reuben Snipper

Prepared by:

**Mathematica** Policy Research, Inc.  
P.O. Box 2393  
Princeton, N.J. 08543-2393  
**(609)** 799-3535

Principal Investigators:

Rebecca Maynard  
Denise Polit



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## I. INTRODUCTION

Nearly half of the 22 million preschool-age children in the United States have mothers who are in the labor force and, hence, spend significant amounts of time in nonmaternal care. The supply of child care available to meet the needs of these children includes an estimated 2 million licensed openings in day care centers and a half million openings in licensed family day care **homes**.<sup>1</sup> The remaining supply of child care includes unlicensed day care centers (primarily church-sponsored centers and part-day nursery school programs), unregulated family day care homes, and informal care arrangements with relatives. The result of parental needs and preferences for care and this configuration of available supply is a pattern of child care utilization with nearly half of the **preschool-**age children cared for by a relative and the remaining children being cared for primarily in family day care homes (22 **percent**), day care **centers** (23 percent), and unrelated caregivers in the child's home (6 percent) (U.S. Bureau of the Census, 1983). Hofferth (1988) estimates that on average, families spend 10 percent of total income on child care and nearly 25 percent of the mother's earnings on child care.

The **common** perception is that a child care crisis exists in this country, the dimensions of which include an inadequate supply of care, significant levels of poor quality care, and high costs for care. Public

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<sup>1</sup>The number of child care slots in licensed child care centers is based on estimation procedures proposed by Prosser (1986). The estimated number of licensed family day care homes is based on data collected by the National Association for the Education of Young Children (NAEYC) that show an estimated 105,000 operative licensed family day care homes in 1986 and on estimates from the National Day Care Home Study (Divine-Hawkins, 1981) that show an average of 4 to 4.5 children per day care home.

concern about these issues stems from the fact that, if confronted with inadequate or exceedingly expensive child care, parents (especially mothers) who want to work will be forced to decide against labor force participation. These decisions can then have adverse effects on the ability of the United States to meet its national labor force requirements and will certainly contribute to the perpetuation of economic impoverishment for many families. There may also be adverse consequences for children if they are reared in poverty and/or if they are placed in inadequate care settings as a result of these decisions.

The public debate over child care policies has been hampered by the lack of a clear understanding of the characteristics of the child care market. Is there a shortage of child care? If so, what is the nature of the shortage? What kinds of care are needed, and where should the additional care be located geographically? What **other problems** of access to care exist? Are there quality of care problems? Are quality problems concentrated in particular segments of the child care market? What are the costs of care, and how do costs affect access to care and quality of care?

Such questions took on increased importance in the Demonstration of Innovative Approaches to Reduce Long-Term AFDC Dependency Among Teenage Parents (the Teenage Parent Demonstration), a project jointly sponsored by the Assistant Secretary for Planning and Evaluation and the Office of Family Assistance in the U.S. Department of Health and Human Services to promote economic self-sufficiency among adolescent parents who are dependent on welfare. Under this demonstration, adolescent parents are required to engage in employment, training, and education services as a condition for receiving AFDC. Thus, an adequate supply of affordable and



acceptable child care is essential to the success of the program intervention.

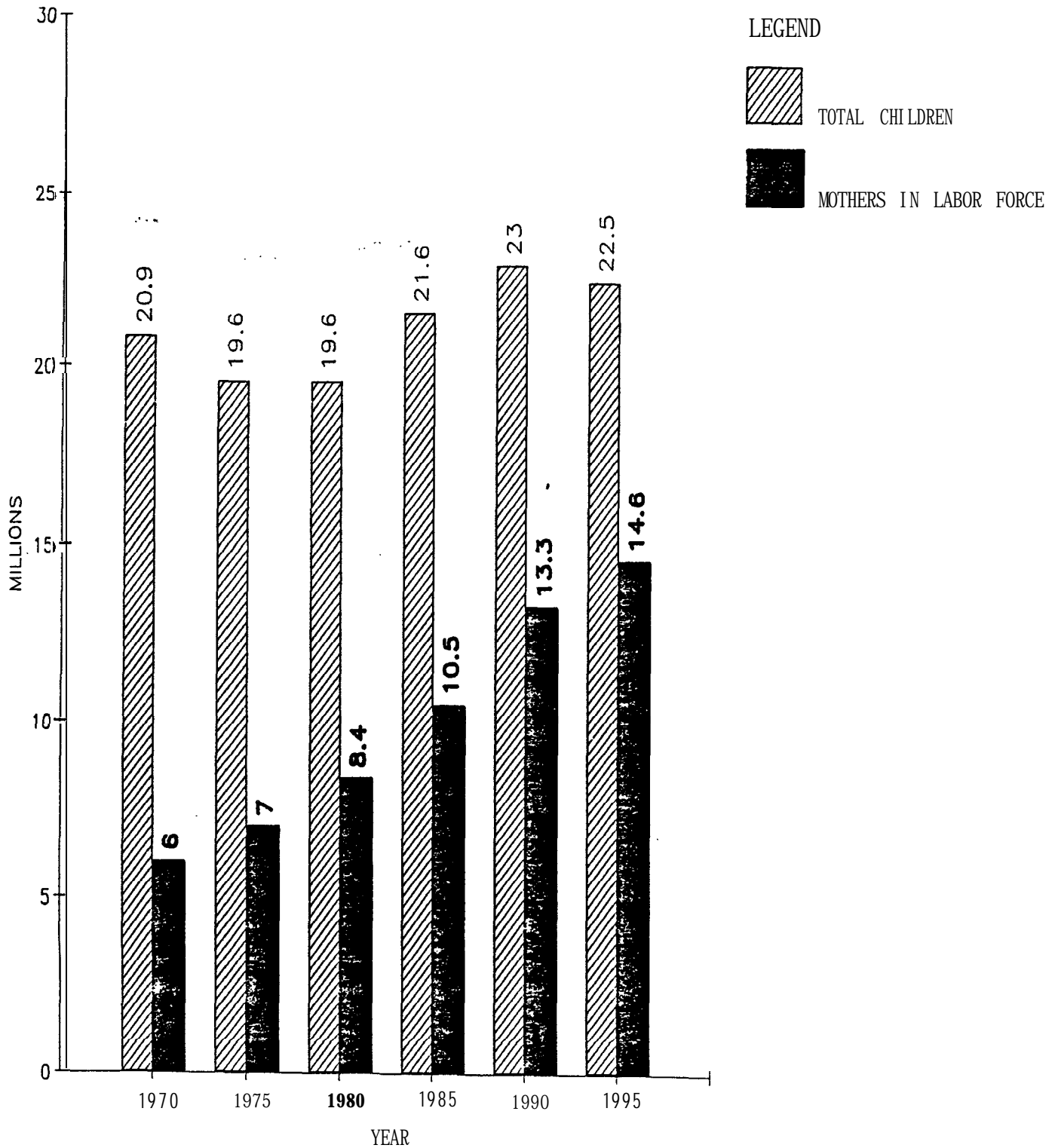
This report presents the findings from a survey conducted by **Mathematica** Policy Research, Inc. to meet the informational needs of the Teenage Parent Demonstration and to address the broader issues associated with the nature of child care markets. The survey of child care providers and users was conducted in the three urban areas served by the Teenage Parent Demonstration: Camden and Newark, New Jersey, and South Chicago, Illinois.

In the remainder of this chapter, we outline the major policy issues underlying national and local concerns about child care. We then present a brief overview of the study design and summarize the most salient findings.

#### **A. POLICY ISSUES**

Child care is a major national policy concern for several reasons. The first pertains to the significant increase in the demand for child care and the economic forces that promise to perpetuate that trend. The two key factors that determine the size of the demand for child care are the number of preschool-age children and the labor force participation of their mothers. Around 1980, the number of pre-school age children in the United States began increasing as children born during the post-World War II baby boom began having children of their own. At the same time, the increases in the labor force participation rates of mothers of preschool-age children that had begun in the 1970s continued (see Figure 1.1).

FIGURE 1.1  
PRESCHOOL CHILDREN WITH MOTHERS  
IN THE LABOR FORCE, 1970-1995

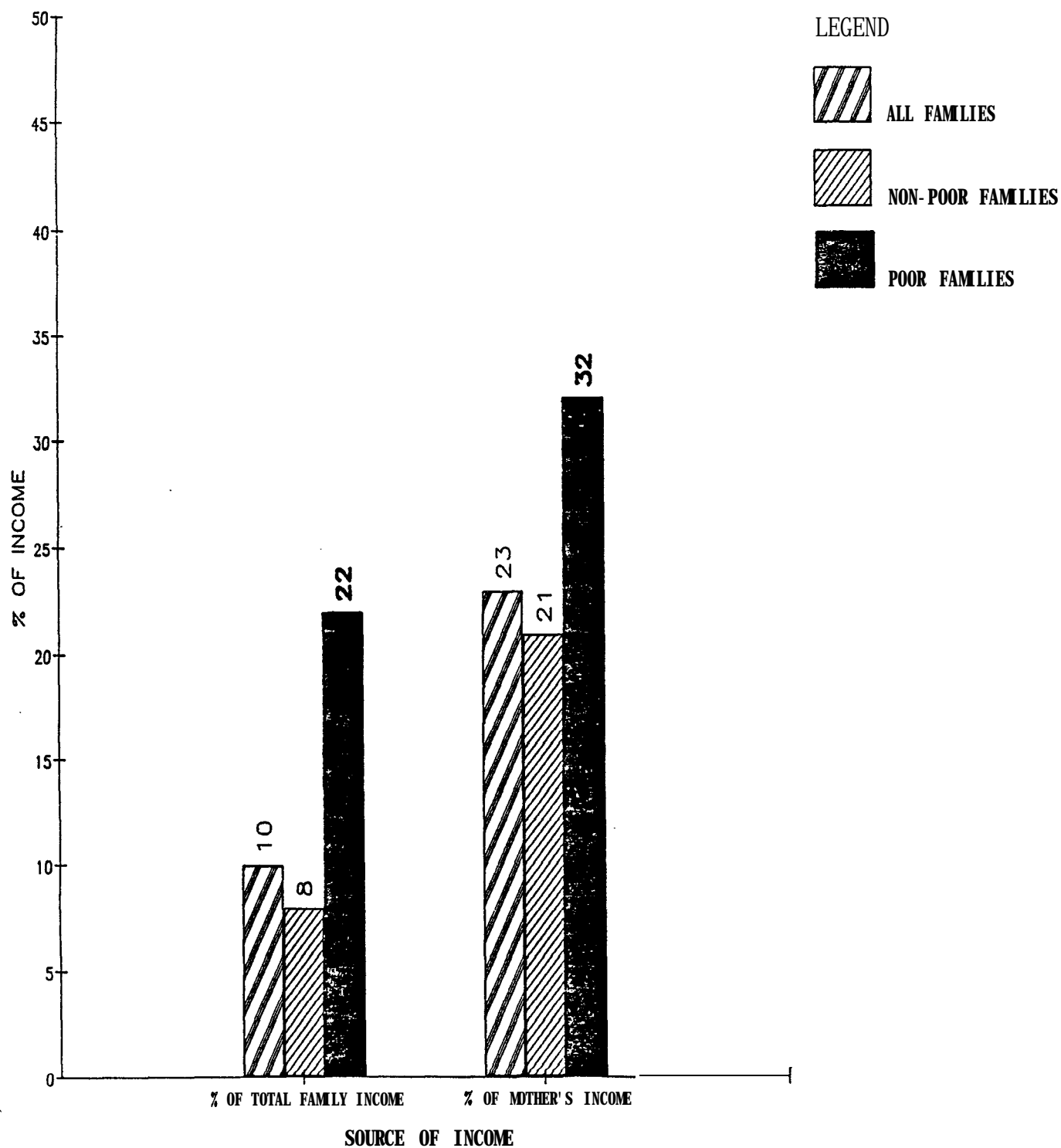


In part, the growth in labor force participation rates is attributable to increases in the number of dual earner couples working to maintain or improve their standards of living. However, a major component of the trend is also the increase in the number of single parents who are working. These labor force trends have been facilitated by economic changes that significantly reduced the size the male-dominated manufacturing sector of the labor force and increased the size of the service sector.

While the size of the preschool-age population is not expected to increase significantly during the next decade, a continued increase in the employment rates of mothers of young children is likely, resulting in an estimated 40 percent increase in the number of children requiring nonmaternal child care. There is a strong policy focus on meeting this need in order to meet future labor force requirements, as well as to enable parents (especially single parents) to maintain economic self-sufficiency.

A second and major source of concern pertains to the national and state initiatives to reform welfare and promote employment among **welfare-**dependent mothers. Although the employment rates of low-income mothers of young children are increasing, they continue to be less than half the rates for the overall population of mothers of preschool-age children (O'Connell and **Bachu**, 1987). Three factors contribute to this employment differential. First, low-income mothers tend to have skill levels and employment opportunities that are limited primarily to low-wage jobs. Second, on average, child care expenses consume nearly one-third of the incomes of mothers in low-income families (see Figure 1.2). Finally, low-

FIGURE 1.2  
AVERAGE WEEKLY EXPENDITURES ON CHILD CARE  
AS A PERCENT OF INCOME



income mothers have access to fewer and/or less adequate child care options (Sonnenstein, 1984: United States Bureau of the Census, 1983).

As states implement the Family Support Act of 1988, the availability and cost of child care may become important to the successful operation of the work programs. One provision of the act requires that recipients of Aid to Families with Dependent Children (AFDC) whose youngest child is older than three years participate in employment, school, or training, if child care is available. This could increase the number of children in nonmaternal care by as much as 10 percent.

A second provision of the legislation requires that adolescent mothers continue their education, further increasing the demand for nonmaternal care, particularly care for infants. Many states are now trying to determine whether the supply of care will be adequate to enable low-income mothers to participate in self-sufficiency-oriented activities.

Finally, a third source of the growing concern about child care is a renewed interest in the long-term outcomes of child care for the health, safety, and development of children. Now that a large number of children are in nonmaternal care for substantial proportions of their preschool years, the quality of nonmaternal child care has become a major focus of concern. Although research on what constitutes adequate care for children of different ages and with special needs is **limited,**<sup>2</sup> we do have evidence that the quality of child care matters (Phillips, 1987). Evidence that a significant number of children are cared for in settings that do not meet minimal standards (Waite et al., 1988) and the fact that the vast majority

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<sup>2</sup>See, for example, the debates on whether nonparental care is harmful to children (Belsky, 1986 and Phillips, 1987).

of family day care is unregulated have raised concerns about the quality of the current supply of child care.

Some research suggests that children from disadvantaged backgrounds are at especially high risk of poor social development and academic achievement, but also that early interventions may reduce these risks. Most notably, well-run Head Start programs have consistently been found to have positive effects on the cognitive and socio-emotional development of children from disadvantaged backgrounds (McKey et al., 1985). However, other intensive early interventions sponsored by schools, health departments, and community-based-organizations have also demonstrated significant effects on child outcomes (Berruett-Clement et al., 1984; Olds et al., 1983; and Ramey, 1988). With an increased number of children being cared for in child care centers and family day care homes, it is especially important that policymakers address questions about the adequacy of the care settings available to families, especially low-income families, to meet the child care needs of parents and the developmental needs of their children.

#### B. THE FOCUS AND DESIGN OF THIS THREE-SITE STUDY

Despite the growing recognition that the lack of available, affordable child care is an important barrier to employment, very little is known about the child care needs and available supply of care for low-income and welfare mothers. In particular, no major surveys of the child care needs, utilization, and supply among AFDC parents have been conducted since 1979. In light of recent welfare reform initiatives and the passage of the Family Support Act, it is critical that information on the child

care market, especially the market facing low-income parents, be updated. In the Teenage Parent Demonstration, which has substantial similarities with the adolescent parent, provisions of the Family Support Act, it became apparent that a survey of the local child care markets could substantially enhance the evaluation as well as provide valuable information to inform these more general concerns.

1. The Teenage Parent Demonstration

The Teenage Parent Demonstration is a six-year project that was initiated in 1986 by the U.S. Department of Health and Human Services (DHHS), Assistant Secretary for Planning and Evaluation and the Office of Family Assistance (OFA), to address the policy issues associated with adolescent childbearing and welfare reform. As part of this initiative, demonstration programs are being operated in three sites--the south side of Chicago (Project Advance); Newark, New **Jersey** (TEEN PROGRESS); and Camden, New Jersey (TEEN PROGRESS)--to test innovative approaches for increasing the self-sufficiency of welfare-dependent adolescent parents. The demonstration programs emphasize both the obligation of teenage parents to engage in activities that are expected to promote their economic **self-sufficiency** and the responsibility of the welfare system to provide the social services and other forms of support necessary to enable these young parents to fulfill their participation obligations. Because participation in school, training, or employment for 30 hours-a week is mandatory and all participants have young children, a primary support service of the demonstration is the provision of child care assistance. An important task of the demonstration project staff is to assess the child care needs of

these parents and the characteristics of the local child care markets to determine how each participant's child care needs can be met.

## 2. The Child Care Supply and Needs Study

The special study of Child Care Supply and Needs was undertaken in the spring and summer of 1988 to assess the local market for child care in each of the three demonstration sites. Among the questions to be addressed in the study were the following:

- o How large are the supply of and demand for child care in each site?
- o What is the nature of the supply of and demand for child care in each site (e.g., by age of child, full-time vs. part-time, preferred type of provider)?
- o Does an unmet demand for child care exist? What is the nature of the unmet demand?
- o What is the "quality" of the care that is used? Does quality vary by the age of the child or by the socio-economic characteristics of the parents?
- o How satisfied are the users of child care? What problems have they encountered with their current arrangements?
- o What problems are encountered by child care providers?
- o What supply and demand factors determine the observed utilization patterns?

In order to address these questions, **Mathematica** Policy Research, Inc. gathered information on a representative set of providers and users of all types of child care for preschool-age children in each of the three sites. The sample frames for the child care centers and licensed or registered family day care providers were state licensing lists: the sample frames for the unregulated family day care providers and child care users



were developed primarily through a random digit dial telephone screening survey. In total, 167 child care centers, 160 regulated family day care providers, 294 unregulated family day care providers, and 989 child care users were interviewed in the three sites.

#### C. KEY FINDINGS AND CONCLUSIONS

The findings from this study are remarkably consistent with available information on the national supply and utilization of child care. The percentage of mothers of preschool children who are working, the distribution of preschool children in care across types of arrangements, the cost of care, and indicators of the quality of the child care available in the three metropolitan areas are all comparable to national estimates.

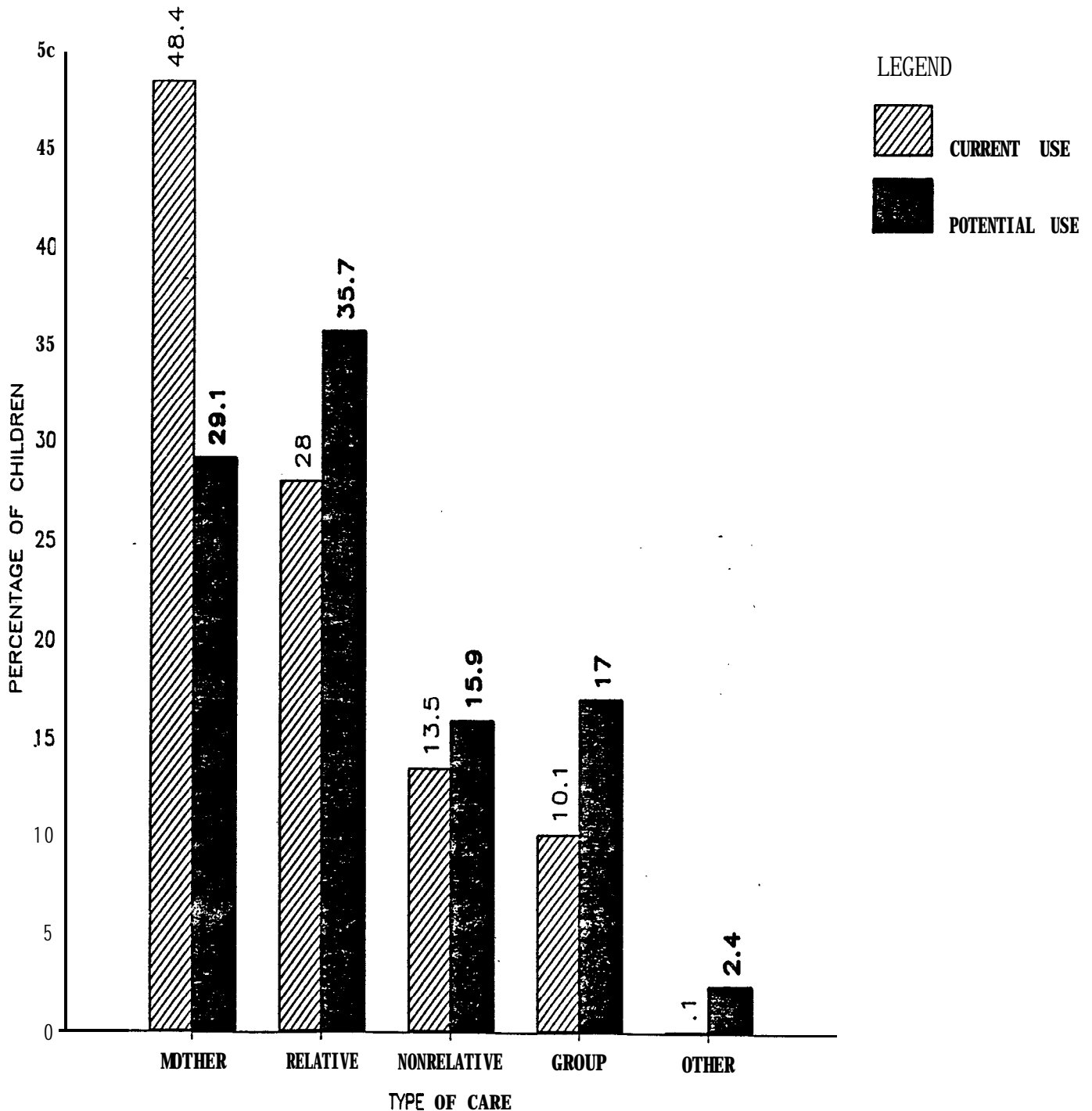
Although consistent with national estimates, the findings from this study suggest that the nature of the child care problem is somewhat different than expected. As seen in Figure 1.3, the children in the three demonstration sites are cared for in ways that tend to mirror national patterns of child care: nearly half are cared for by their nonworking mothers: about 30 percent are cared for by a relative; about 15 percent are cared for in other home settings: and the remaining 11 percent attend child care centers. While mothers are generally satisfied with their care, about 30 percent indicated that they would prefer a different arrangement, primarily to provide their child with more learning experiences. Less than 5 percent indicated that they would prefer alternative care because of costs.

Reported child care problems pertain to the nature of the supply of care and the mechanisms for matching providers with potential users. As

shown in Figure 1.3, a significant number of mothers of preschool-age children (19 percent) indicated that they would seek employment if acceptable and affordable child care were available. However, their views about reasonable costs of child care were consistent with current market **costs**, suggesting that the barrier was not cost per se but access to providers. If the preferences of these mothers to work were realized and all found child care of the type they preferred, care by relatives and other family day care providers would each serve roughly an additional 10 percent of preschool children; child care centers would serve an additional 7 percent of the preschool population.

Figure I.4 shows that centers are currently operating at capacity, while family day care providers are operating substantially below reported capacity. As a group, **those** parents who would prefer center-based care really would not have their preferred option available to them unless the capacity of centers were expanded by as much as 50 percent. In contrast, the current supply of family day care (including openings that providers say are available) is nearly double the current use rate. This unused capacity is potentially large enough to meet the needs of those nonworking mothers who indicated a desire to enter the work force if acceptable family day care were available. However, this market operates on a very informal, word-of-mouth basis, and information about available openings in family day care settings (a necessary but not sufficient condition for filling the slots) is not readily accessible to the public at large. Thus, one major policy concern with the family day care market pertains to its organization and the expansion of information networks.

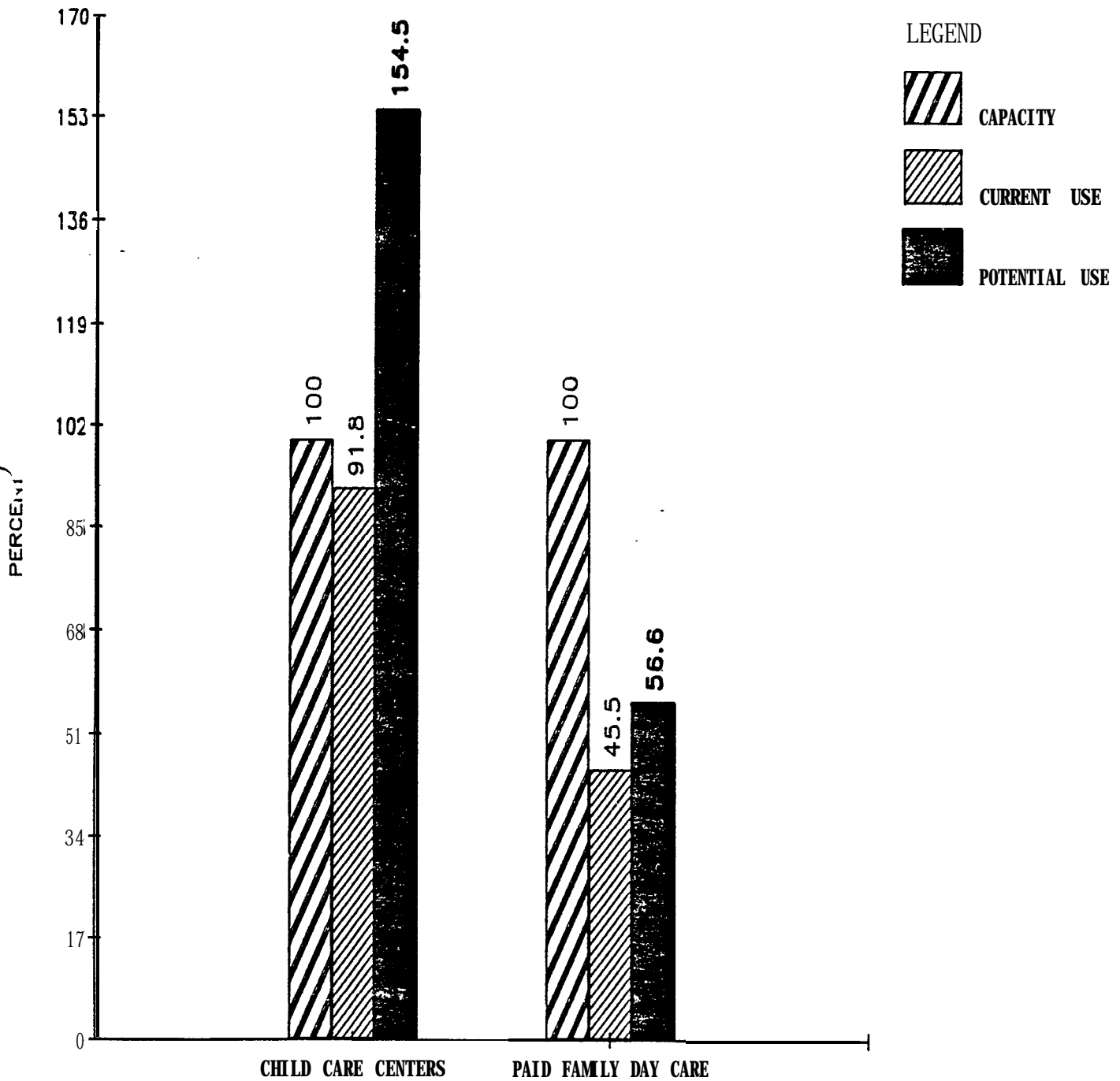
**FIGURE 1.3**  
CURRENT PATTERN OF CHILD CARE USE AND  
PATTERN OF POTENTIAL CHILD CARE USE IF  
CHILD CARE BARRIERS ELIMINATED \*\*



SOURCE: "SURVEYS OF CHILD CARE SUPPLY AND NEEDS",  
(MATHEMATICA POLICY RESEARCH, INC., 1988)

\*\* Potential use of different child care arrangements is defined as current use by working mothers plus the use of various arrangements that would occur if the needs and preferences of nonworking mothers who said they would go to work if satisfactory child care were available were met.

FIGURE 1.4  
CHILD CARE USE AND POTENTIAL USE  
RELATIVE TO CAPACITY IN CHILD CARE CENTERS  
AND PAID FAMILY DAY CARE



SOURCE: "SURVEYS OF CHILD CARE SUPPLY AND NEEDS",  
(MATHEMATICA POLICY RESEARCH, INC., 1988)

Other key questions addressed in the study of the child care markets in the three Teenage Parent Demonstration sites and their answers are summarized below:

- o To what extent do mothers of preschool children need child care? The majority (**55** percent) of mothers of preschool children in the three sites are employed, go to school, and/or attend job training programs and thus rely on some form of child care for an average of **35** hours per week. Roughly half of the children of these mothers are cared for by relatives, frequently the other parent who also has a job. Mothers often seek nonstandard work schedules to enable them to rely on this care by relatives. **The other** children of working mothers generally require full-time care provided by nonrelatives or child care centers.
- o When is child care available? Child care centers in the three demonstration sites generally provide full-day, **full-year** care. Centers are open for an average of about 50 hours per week, and nearly all centers are open for more than 40 hours per week. These hours are available exclusively on weekdays.

In contrast, paid family day care providers have shorter average work weeks (40 hours per week), and significant proportions of paid family providers offer only part-time care. Family day care providers are essentially the only source of paid care for children during evening and weekend hours.

- o **How** do working mothers select their child care providers? The child care market operates very informally. Most mothers of preschoolers were referred to their provider by friends, neighbors, and/or relatives. Mothers of only about half of preschool children in nonrelative care considered more than one provider before making their selection. The most common reasons cited by mothers for selecting their child's current arrangement were quality, location, **and price**, in that order..

The predominance of informal methods for finding nonrelative care is consistent with the fact that paid family day care providers and, to a large extent, child care centers neither advertise their services nor actively recruit to fill empty slots. Most paid family day care providers get children through referrals from relatives, neighbors, or friends, word of mouth, or acquaintance with

the children's mothers. More than one-half of paid family day care providers take no action themselves to fill an empty slot, and those who do attempt to fill empty slots use the various informal referral methods. Child care centers rely primarily on waiting lists to fill empty slots.

- o **What** types of child care arrangements do working mothers make for their preschool children? Most preschool children in the three sites are cared for in only one arrangement (about 75 percent). For approximately half of the children, their primary care arrangement is with relatives; about one-fourth are cared for by nonrelatives; and **one-fourth** are cared for in child care centers and preschools. Relatives generally provide secondary arrangements when multiple providers are used.

Younger children are more likely to be cared for in family day care settings and less likely to be cared for in formal group settings than are older preschool children. The age patterns of enrollment reported by child care centers and paid family day care providers are consistent with these patterns. Most children enrolled in **child care** centers are between two and five years old, while larger proportions of children cared for by paid family day care providers are infants or school-age children. The availability of center-based infant care is very limited.

- o What is the cost of child care arrangements for preschool children? The mothers of approximately two-thirds of preschool children pay an average of \$1.38 per hour for care in the main arrangement, regardless of the age of the child. Secondary child care arrangements are less **likely** to be paid for but, when they **are**, they cost more per hour.

Child care centers in the three demonstration sites charge an average of \$35 to \$50 per week for moderate- to **high-income** toddlers and older preschool-aged children, the age groups constituting the large majority of their enrollment, and somewhat higher fees for infant care. However, they also frequently reduce their fees significantly for **low-income** families.

Paid family providers in the three sites reported charging an average of \$1.40 to \$1.90 per hour for care. This is equivalent to \$56 to \$76 per 40-hour **week.** While family providers less frequently adjust their fees on the basis of family income, they tend to charge substantially higher hourly rates for part-time than for full-time care.

The median total cost of child care for mothers paying for care is \$50 per week. This results in families spending approximately 10 percent of their income and about 25 percent of the mother's earnings on child care.

- o What assistance do mothers receive in paying for their **child** care arrangements? The mothers of about two-thirds of preschool children in paid arrangements reported that they plan to take an income tax credit for their child's main arrangement, but few reported receiving financial assistance from other sources. Virtually all free care for preschool children is provided by a relative or friend.
- o What assistance do providers receive? Government agencies subsidize some child care for low-income families. Between one-fourth and one-third of child care centers in the three sites 'receive' **government** subsidies, largely through direct payments to the center but also through voucher payments. These subsidies benefit between 10 and 15 percent of all children in center-based care. The majority of centers, but only about 5 percent of family day care providers, participate in the USDA Child Care Food Program, which benefits all children in the care setting.
- o What is the 'quality' of care available? In general, the quality of center-based care in the three sites exceeds state standards. The average group size in child care Centers is about 15 children, and the average child-staff ratio is about **6:1**. For all age groups, average **child-staff** ratios are considerably smaller than required by state licensing regulations.

The average child-adult ratio in paid family day care settings is about **3:1**. Only 5 percent of all family day care providers care for more than 6 children.

Preschool teachers in child care centers generally have some postsecondary schooling, either in a Child Development Associate (CDA) program or in college. In contrast, less than 30 percent of family day care providers have some postsecondary schooling, and over a third have less than a high school education.

- o Are child care settings safe and health-promoting? Child care centers in the three sites are required by state licensing regulations to meet minimum health and safety standards, including keeping medical releases and emergency

contact information. Another requirement is that they maintain isolation areas for sick children, which most do. However, few child care centers allow parents to leave sick children. Policies on the administration of medications vary among centers.

Paid family day care providers are much more willing than centers to provide care for sick children. Between **one-half** and three-quarters of paid family providers allow parents to leave sick children, and most are willing to administer medications at the request of the parent. However, only three-quarters of family providers have the phone numbers of the doctors of the children for whom they provide care and less than half of paid family providers consistently maintain medical releases for emergency medical treatment for each child.

- o To **what** extent are mothers satisfied **with their** children's primary arrangements? Mothers generally report that they are satisfied with their child care arrangements regardless of their child's age. Only one-third of the mothers in the three sites reported that they would change arrangements even if all types of care were available free of charge; most of these mothers would prefer center-based care for their child because the child would have better learning opportunities.
- o How stable are child care arrangements for preschool children? Child care arrangements tend to be reasonably stable. Only about 12 percent of preschool children had a change in their child care arrangement within the last year, most often because the provider stopped providing care. However, turnover in enrollment in centers and family day care is somewhat greater, with between **5** and 15 percent of the center-based slots turning over in a **three-month** period.
- o How reliable are preschool children's child care arrangements? Problems with child care arrangements are not uncommon in the three sites. Mothers of about 10 percent of preschool children in care in the three sites reported that they had missed a day of work in the previous month due to child care problems. In addition, the mothers of about 15 percent of preschool children in care reported that they had been late to work or had to leave early at least once within the last month. Mothers of nearly half of preschool children reported that their regular **child** care arrangements are always available, and nearly three



quarters have relatives or neighbors they rely on to watch their children when the regular provider is unavailable.

Both currently working and nonworking mothers reported lost opportunities due to child care problems. Approximately one-third of mothers of preschool children reported that child care problems had at some time prevented them from working or led them to change jobs or work hours.

- o What arrangements do mothers make **when** their child is sick? Care of sick children is largely the mother's responsibility. Half of the time, sick preschool children are cared for by their mothers, a third of whom take leave without pay to provide this care. Only about 5 percent of **sick** children are cared for by their fathers or stepfathers.

- o **To what extent are child care providers** covered by liability insurance? All child care centers in the three sites are required by state licensing regulations to be covered by liability insurance and few centers reported having had difficulties in obtaining insurance. **However**, some (up to 25 percent) reported that they had raised their fees to cover increased insurance premiums.

In contrast, about one-half of paid family day care providers reported that they are not covered by liability insurance, most because they have not tried to get it. Among those who are covered, the premiums of only **one-quarter** had increased within the last two years.

- o What are the most **common** operating problems reported by child care providers? The most common operating problems faced by child care centers in the three demonstration sites are late payments by parents (75 percent), late child pick-ups (**50** percent), and parents' unresponsiveness to staff concerns about their children.

Family day care providers reported that they had problems with late child pick-ups and payments (25 percent each). In addition, up to one-quarter of paid family providers reported that their own children resented the other children in their care and that they had other things they had to do while caring for children.

- o To what extent is there unmet demand for child care? As was noted previously, there are currently sizable numbers of "openings" with family day care providers in the three

sites. However, very few of these openings are reported to be available for infants. Furthermore, access to these openings is limited due to the lack of information networks and possibly to other constraints imposed by the providers regarding the children for whom they will provide care. Child care **centers** have slightly more formal procedures for filling vacancies. However, they have little unutilized capacity. The result is that there is substantial unmet demand for child care in the survey areas of three types: the demand for infant care of any type, demand by some parents to move their children from relative or family day care to center-based care, and demand by nonworking mothers to place their preschool-age children in an acceptable care setting. Meeting this demand could involve both an expansion of the total supply of care, particularly **center-based** care, and improved information networks so as to more fully utilize available family day care positions.

#### D. ORGANIZATIONAL OF THE **REPORT**

The remainder of this report is organized into four chapters. Chapter 2 describes the sample design and survey results for the study. Chapter 3 and 4 then describe in detail the characteristics of the **supply**, and use of child care, in the Teenage Parent Demonstration catchment areas and present tabular data from the surveys. Finally, in Chapter 5, we present the results of some preliminary multivariate analyses that attempt to examine some of the behavioral relationships that predict the type of child care used and child care costs.

## 11. SAMPLE DESIGN

The overall research design for the study of Child Care Supply and Needs is based on the general conceptual framework describing the market for child care for working mothers shown in Figure 11.1. In this framework, the demand for child care is assumed to be the outcome of decisions by mothers of preschool children to work, participate in training, or attend school, while the supply of child care is the outcome of decisions by organizations or individuals to provide care for children other than their own. The intersection of demand and supply produces specific levels and patterns of actual child care use and, if there are market imbalances, the levels and patterns of unmet demand for and/or excess supply of child care for working mothers. The main objective of this study is to describe these market outcomes for the areas served by the Teenage Parent Demonstration programs currently being sponsored by the Assistant Secretary for Planning and Evaluation and the Office of Family Assistance in the U.S. Department of Health and Human Services (DHHS/OFA).

The general demographic characteristics of the areas served by the Teenage Parent Demonstration programs are described in Table 11.1. The areas range in size from a total of approximately 59,000 households in Camden to 459,000 households in South Chicago. The proportion of the total population that is under five years old is very similar in all three sites (about 8 percent). However, the sites differ along other dimensions. In Camden, only slightly more than one-quarter of the population is black and 10 percent is Hispanic: in Newark, nearly one-half of the population is

FIGURE II.1

CONCEPTUAL FRAMEWORK FOR SURVEYS OF CHILD CARE  
SUPPLY AND NEEDS

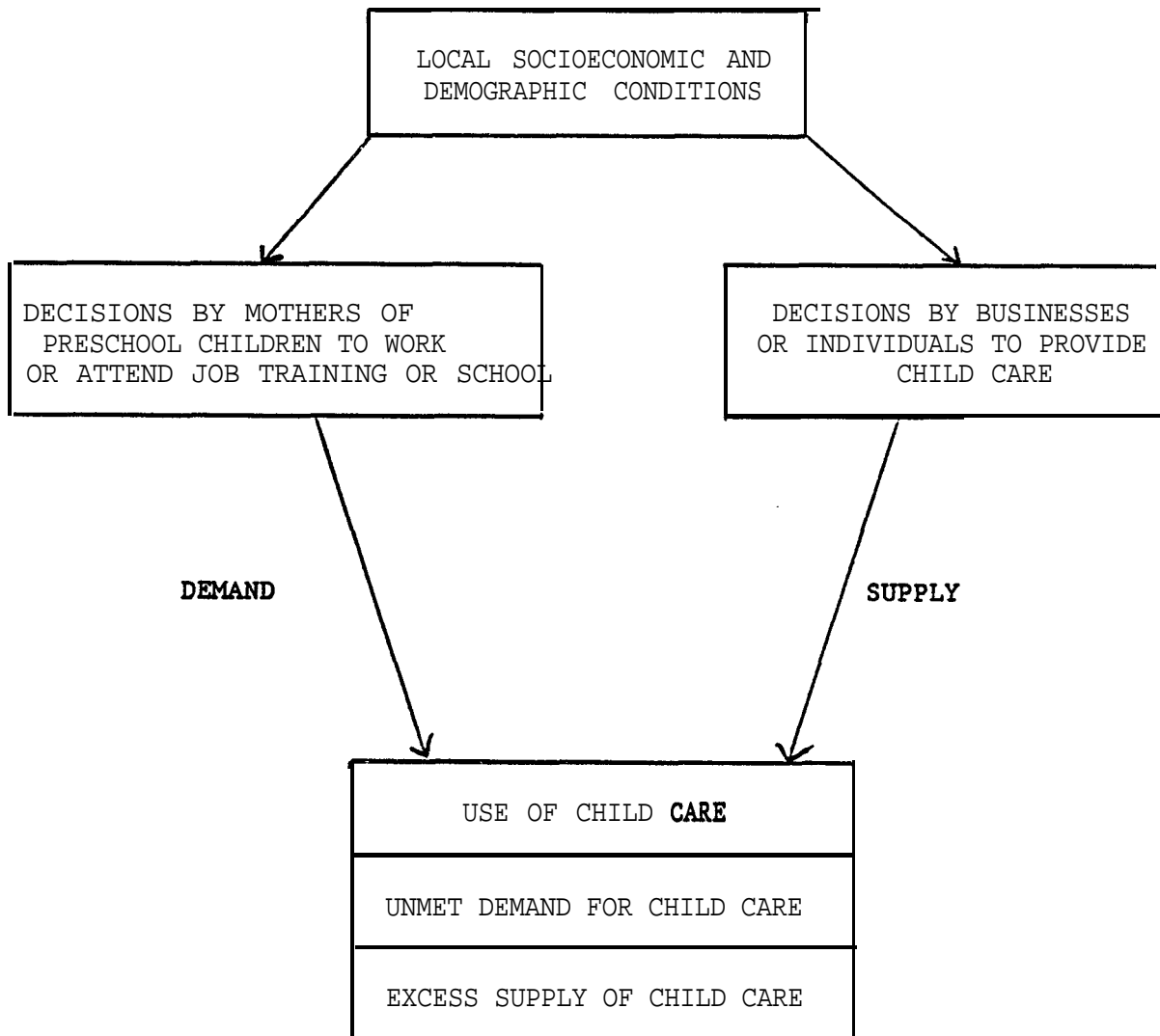


TABLE II.1

GENERAL DEMOGRAPHIC **CHARACTERISTICS** OF THE AREAS  
COVERED BY THE SURVEYS

	Camden	Newark	South Chicano
Total Number of Households	59,097	159,277	459,024
Total Population	167,830	455,117	<b>1,406,312</b>
Total Population Under 5	13,303	35,804	107,337
Percentage of the Population That Is:			
Black	28.2	46.8	37.8
Hispanic	10.3	15.0	4.4
Average Household Income	\$16,371	\$15,009	\$23,933

SOURCE: On-line database maintained by National Planning Data Corporation  
containing 1980 Census data by zip code.

black and 15 percent is Hispanic: and in South Chicago, just over **one-**third of the population is black and only 4 percent is Hispanic. Families in Camden and Newark have similar average income levels (\$15,000 to \$16,000). while those in South Chicago have average incomes over 50 percent higher.

In the following sections we describe the sample design used for the surveys and the data collection procedures followed in conducting the surveys.

#### A. SAMPLE DESIGN

In order to gain information about the use of child care services and possible market imbalances, it was necessary to obtain information from both **child** care consumers and child care providers, including both child care **centers** and family day care providers. Thus, three different sample frames were required for each site--a sample frame for child care users, a sample frame for family day care providers, and a sample frame for child care centers. Below, we describe the sample design and interview completions for the surveys, the special random digit dialing effort used to generate portions of the sample frame, sample coverage, and the precision of the sample estimates.

##### 1. Sample Design and Interview Completion

The sample frames for child care centers were obtained from state licensing agencies in Illinois and New Jersey. A simple random sample of child care centers that are currently licensed and operating and that serve preschool children, the majority of whom are not handicapped, were

interviewed. Because the number of child care centers in Camden is small, all child care centers in that site were included in the sample.<sup>1</sup>

The sample frames for family day care providers were obtained from four sources: (1) registration and licensing lists; (2) Random Digit Dial (RDD) screening; (3) users identified through RDD screening who name their providers; and (4) participants in the Teenage Parent Demonstration programs. Lists of licensed and registered family day care providers were obtained from licensing and registration authorities in each site. In Illinois, where family day care providers caring for 3 or more children are required to be licensed, the list of licensed family day care providers was obtained from state licensing authorities. In New Jersey, where voluntary registration of family day care providers is practiced,<sup>2</sup> lists of registered family providers were obtained from the county agencies responsible for registering providers. All family providers who were registered or in the process of becoming registered were included in the sample frame. The family day care provider sample frames created through

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<sup>1</sup>**Although** Head Start programs are licensed in New Jersey, Head Start sponsors in Camden and Newark were unwilling to allow individual Head Start program directors' to cooperate with the survey. Therefore, the universe of child care centers described in this report excludes all Head Start programs in Camden and all but two Head Start programs in Newark. Footnotes to the tables report the small amount of information we obtained about these programs. Head Start programs are included in the sample of centers in South Chicago.

<sup>2</sup>**Family** day care providers who are registered are required to have their homes inspected for health and safety conditions once every three years but are not subject to other regulations.

the RDD telephone screening<sup>1</sup> consisted of two parts: all persons in the screened households who were currently caring for at least one preschool-age child for pay; and paid family day care providers who are caring for the preschool children of the child care users identified in the RDD screener.

The sample frame for child care consumers was also obtained through the RDD screening and includes all **working**<sup>2</sup> mothers of preschool children, regardless of whether the child care they used was paid for or not. Because this study of the local child care markets is part of the evaluation of child care utilization by participants in the Teenage Parent Demonstration programs and the child care needs and supply of care available to low-income working mothers are of special interest, households in low-income telephone exchange areas were oversampled.

Table II.2 summarizes the samples of child care providers and users interviewed and indicates the survey response rates. Survey response rates range from 82 to 96 percent for child care centers; from 71 to 86 percent for regulated family day care providers; from 59 to 87 percent for family day care providers identified through the RDD screening and child care users ; and from 87 to 93 percent for child care users. The response rates

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<sup>1</sup>The sample of random digit telephone numbers was purchased from Survey Sampling, Inc. for the telephone exchanges in the zip code areas served by the Teenage Parent Demonstration programs. In each site, the samples of telephone numbers are epsem samples in which all telephone households in the geographic area are given equal probability of selection. It should be noted that households without phones are excluded from the sample frame. In Chicago, an estimated 5.9 percent of households do not have phones; the corresponding estimates for Camden and Newark are 4.4 percent and 6.0 percent, respectively.

<sup>2</sup>Throughout this paper, "working" is defined to include working in a job, attending job training programs, or going to school.



TABLE II.2

## SAMPLE ALLOCATION OF CHILD CARE PROVIDERS BY TYPE OF PROVIDER

Type of Provider	Camden	Newark	South Chicano	Total
Total Number of Completed Interviews				
Child Care Centers	21a	52	94	167
Family Day Care Providers	119	85	250	454
Providers found through the Random Digit Dial screening	57	32	65	154
Providers named by child care users	32	36	42	110
Registered/licensed providers	12 <sup>a</sup>	5 <sup>a</sup>	143	160
Providers used by the Teenage Parent Demonstration	18 <sup>a</sup>	12 <sup>a</sup>	0	30
Child Care Users	304	313	372	989
Interview Response Rates <sup>b</sup>				
Child Care Centers	95.5	88.1	81.7	85.2
Family Day Care Providers				
Providers found through the Random Digit Dial screening	83.8	76.2	86.7	83.2
Providers named by child care users	68.3	59.3	75.0	71.2
Registered/licensed providers	85.7	71.4	71.1	72.1
Providers used by the Teenage Parent Demonstration	28.5	26.1	----	27.5
Child Care Users	90.7	86.5	93.0	90.2

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988)

<sup>a</sup> All providers in the sample frame for this type of provider were included in the sample.

<sup>b</sup> Interview response rates are calculated as the total number of respondents interviewed divided by the number of eligible respondents in the sample frame, times 100.

for family providers used by the Teenage Parent Demonstration programs in the New Jersey sites are around 28 percent, largely because a substantial proportion of the providers on the list could not be contacted.<sup>1</sup> A total of 167 child care centers, 454 family day care providers and 989 users were interviewed in the three sites.

## 2. The RDD Screening and Results

Table II.3 presents the results of the RDD screening to identify child care users and unregulated family day care providers. In Camden, we screened approximately 10 percent of all households; approximately 5.7 percent of these households included a working mother of at least one preschool child, and approximately 1.1 percent of these households included a paid family day care provider. **In Newark,** we screened approximately 3.5 percent of all households and found that 6.5 percent **included** a working mother of at least one preschool child and 0.6 percent included a paid family day care provider. Finally, in South Chicago we screened approximately 1.5 percent of all households: approximately 5.8 percent of households include a working mother of at least one preschool child and about 1.7 percent of households include a paid family day care provider.

## 3. Sample Coverage

Despite the relatively high response rates to the surveys by child care users and providers who were identified in the RDD screening, there is evidence that the RDD screening did not identify all child care users and providers. While precise information is not available for assessing the

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<sup>1</sup>**Some** providers could not be contacted because the telephone **number** provided on the program list was incorrect or because the list did not include a telephone number for the provider.

TABLE II.3

DESCRIPTION OF THE SAMPLES OF CHILD CARE USERS AND PROVIDERS  
OBTAINED THROUGH RANDOM DIGIT DIAL SCREENING

	Camden	Newark	South Chicago
Number of households in the area covered by the surveys	58,737	159,277	459,023
Number of households called	5,860	5,553	6,921
Number of child care users identified	335	362	400
Percentage of households including a child care user	5.7	6.5	5.8
Number of <b>child care</b> users interviewed	304	313	372
Number of paid family day care providers identified	62	36	75
Percentage of households including a paid family day care provider	1.1	0.6	1.7
Number of paid family day care providers <b>interviewed<sup>a</sup></b>	57	32	65

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988) .

<sup>a</sup> In addition to the paid family day care providers found directly through random digit dial screening, 32 providers in Camden, 36 providers in Newark, and 42 providers in South Chicago who were named by child care users identified in the random digit dial screening **were** interviewed.

degree to which the RDD screening was effective in identifying child care users and family day care providers and the extent to which the Survey of Child Care Centers covered all center-based care, 1980 Census data can be used to make a rough assessment of sample coverage. The second panel in Table II.4 shows that coverage in the Survey of Child Care Centers is reasonably good. Coverage in the New Jersey sites is estimated to be lower than 100 percent, but that could plausibly be due to the omission of Head Start programs from the survey and/or the fact that some children are cared for in centers that are outside of the area included in the survey. In South Chicago, where the coverage of child care center slots is greater than one, it appears that there are more children from outside of the survey area who are receiving care in the centers in the survey than there are children from the area who are cared for in centers outside of the area. The Chicago sample also includes Head Start programs which serve largely children of nonworking mothers who were not included in the Survey of Child Care Users.

The third, panel in Table II.4 suggests that sample coverage of paid family day care providers is low, ranging from an estimated 15 to 40 percent coverage. This low coverage is due to the failure of the RDD screening to identify a substantial proportion of paid family day care providers. This, in turn, is likely to be due to reluctance on the part of paid family day care providers to reveal that they are providing care, probably because they do not declare their income from child care for tax purposes.

Finally, the last panel in Table II.4 suggests that sample coverage of child care users is less than 100 percent but substantially greater than

TABLE II.4  
ESTIMATES OF SURVEY COVERAGE

	Camden	Newark	South Chicano	Total
(1) Number of Children Under 5 Whose Mothers Work <sup>a</sup>	6,292	20,551	59,465	86,309
-----				
(2) Number of Children in Center Care Based on (1) <sup>b</sup>	1,605	5,713	11,774	19,088
(3) Number of Children in Center Care Based on Center Survey	1,392	5,190	15,776	22,358
(4) Estimated Coverage of Child Care Center Slots in Center Survey [(3)/(2)]	.87 <sup>c</sup>	.91 <sup>c</sup>	1.34	1.17
-----				
(5) Number of Children in Paid Family Day Care Based on (1) <sup>d</sup>	2,387	9,536	20,337	32,254
(6) Number of Children in Paid Family Day Care Based on the Family Provider Survey	933	1,392	8,026	10,351
(7) Estimated Coverage of Paid Family Day Care Provider Slots in Family Provider Survey [(6)/(5)]	.39	.15	.40	.32
-----				
(8) Number of Children in Care So Their Mothers Can Work Based on User Survey	3,925	10,781	38,685	53,391
(9) Estimated Coverage of Children in Child Care So Their Mothers Can Work [(8)/(1)]	.62	.53	.65	.62

TABLE II.4 (Continued)

**SOURCE:** Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

- a** Based on the total number of children under age 5 from the 1980 Census and the percentage of children who have working mothers from the survey.
- b** Calculated by multiplying the percentage of children in center care from the child care user survey (including both main and secondary arrangements) by (1).
- c** The sample frame for the Center Survey in the New Jersey sites omitted Head Start programs. To the extent that mothers of children in Head Start are working, the undercount could be due to this omission.
- d** Calculated by multiplying the percentage of children in paid family day care from the child care user survey (including both main and secondary arrangements) by (1)

the coverage of paid family day care providers. Coverage in the Survey of Child Care Users is estimated to be between 53 and 65 percent. The possible reasons for the incomplete coverage of child care users are less obvious than those for family providers and may reflect a more general problem in obtaining accurate responses to the **RDD** screening questions.

Because the findings of this study are consistent with national estimates of child care supply and use and because of the internal consistency of the information obtained from child care users and child care providers, it appears that the lack of coverage in the surveys is to a large extent random.

#### 4. 'Precision of the Estimates

Our sampling procedures necessitate the use of weights to correct for nonuniform sampling rates across cells (see Appendix A for details of the construction of weights). The precision of the descriptive statistics and tabulations based on weighted data is summarized in Tables II.5 through 11.7.

The half-widths of the 95 percent confidence intervals for the sample of child care centers for estimated proportions range from 3 to 5 percentage points in Camden, from 4 to 7 percentage points in Newark, and 5 to 8 percentage points in South Chicago, depending on the level of the estimated proportion. The half.-width of the 95 percent confidence interval for the total sample of family day care providers in each site ranges from 6 to 8 percentage points for estimated proportions of 10 or 90 percent to 10 to 14 percentage points for estimated proportions of **50** percent. Finally, the half-width of the 95 percent confidence interval for the total sample of child care users in each site ranges from about 4 percentage

TABLE II.5

CONFIDENCE INTERVALS FOR ESTIMATED PROPORTIONS  
FROM THE CHILDCARE CENTER SURVEY

Estimated Proportion	Half-Width of Confidence Interval		
	Camden	Newark	South Chicago
0.1 or 0.9	0.027	0.040	0.049
0.2 or 0.8	0.036	0.053	0.065
0.3 or 0.7	0.042	0.060	0.074
0.4 or 0.6	0.044	0.065	0.079
0.5	0.045	0.066	0.081

SOURCE: Surveys of Child Care Needs and Supply (Mathematica Policy Research, Inc., 1988).

NOTE: Half of the width of the 95 percent confidence interval is computed as:

$$1.96 * \text{SQRT}[(p*(1-p)*(1-f))/n]$$

where p is the estimated proportion, (1-f) is a finite population correction factor, and n is the sample size.



TABLE II.6

CONFIDENCE INTERVALS FOR ESTIMATED PROPORTIONS  
FROM THE FAMILY DAY CARE PROVIDER SURVEY

Estimated Proportion	Half-Width of Confidence Interval			
	Total Sample	One-Half of Total Sample	One-Third of Total Sample	One-Fourth of Total Sample
<b>Camden</b>				
0.1 or 0.9	0.070	0.098	0.120	0.137
0.2 or 0.8	0.093	0.131	0.160	0.183
0.3 or 0.7	0.106	0.150	0.183	0.209
0.4 or 0.6	0.114	0.160	0.196	0.224
0.5	0.116	0.163	0.200	0.228
<b>Newark</b>				
0.1 or 0.9	0.084	0.118	0.144	0.158
0.2 or 0.8	0.112	0.158	0.192	0.211
0.3 or 0.7	0.128	<b>0.181</b>	0.220	0.242
0.4 or 0.6	0.137	0.193	0.235	0.259
0.5	0.140	0.197	0.240	0.264
<b>South Chicago</b>				
0.1 or 0.9	0.061	0.087	0.106	0.122
0.2 or 0.8	<b>0.082</b>	0.115	0.141	0.163
0.3 or 0.7	0.094	0.132	0.162	0.187
0.4 or 0.6	0.100	0.141	0.173	0.200
0.5	0.102	0.144	0.177	0.204

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

NOTE: Half of the width of the 95 percent confidence interval is computed as:

$$1.96 * \text{SQRT}[(p*(1-p)*\text{deff})/n]$$

where p is the estimated proportion, deff is the design effect, and n is the sample size.

TABLE II.7

CONFIDENCE INTERVALS FOR ESTIMATED PROPORTIONS  
FROM THE CHILD **CARE USERS** SURVEY

Estimated Proportion	Half-Width of Confidence Interval			
	Total Sample	One-Half of Total Sample	One-Third of Total Sample	One-Fourth of Total Sample
<b>Camden</b>				
0.1 or 0.9	0.040	0.057	0.069	0.080
0.2 or 0.8	0.053	0.076	0.093	0.107
0.3 or 0.7	0.061	0.087	0.106	0.122
0.4 or 0.6	0.063	0.092	0.113	0.131
0.5	0.067	0.094	0.116	0.133
<b>Newark</b>				
0.1 or 0.9	<b>0.039</b>	0.056	0.068	0.079
0.2 or 0.8	0.053	0.074	0.091	0.105
0.3 or 0.7	0.060	0.085	0.105	0.121
0.4 or 0.6	0.064	0.091	0.112	0.129
0.5	0.066	0.093	0.114	0.132
<b>South Chicago</b>				
0.1 or <b>0.9</b>	0.036	0.051	0.063	0.072
0.2 or 0.8	0.048	<b>0.068</b>	0.084	0.097
0.3 or 0.7	<b>0.055</b>	0.078	0.096	0.111
0.4 or 0.6	0.059	0.084	0.102	0.118
0.5	0.060	0.085	0.105	0.121

SOURCE: Surveys of Child **Care Supply** and Needs (**Mathematica** Policy Research, Inc., 1988).

NOTE: Half of the width of the 95 percent confidence interval is computed as:

$$1.96 * \text{SQRT}[(p*(1-p)*\text{deff})/n]$$

where p is the estimated proportion, deff is the design effect, and n is the sample size.

points for estimated proportions of 10 percent or 90 percent to approximately 7 percentage points for estimated proportions of 50 percent. The confidence intervals for subsamples of child care users are somewhat larger.

#### B. DATA COLLECTION METHOD AND RESULTS

All data were collected through telephone surveys conducted during the period from May through August, 1988. The Survey of Family Day Care Providers and the Survey of Child Care Users were conducted using computer-assisted telephone interviewing (CATI). The use of CATI made it possible for interviewers to follow complex skip patterns and permitted range and consistency checks to be conducted during the interview. The Survey of Child Care Centers, a much less complex instrument, was conducted off-line on paper questionnaires.

As noted above in Table 11.2, response rates to the Survey of Child Care Centers were generally high, ranging from 82 percent in South Chicago to 96 percent in Camden.<sup>1</sup> The response rates to the Survey of Family Day Care Providers are very consistent across sites at about 75 percent. The primary reason for the lower response rates in the Survey of Family Day Care Providers relative to the Survey of Child Care Centers is the relatively poorer contact information obtained in both the list sample frame for registered or licensed family day care providers and in the sample frame derived from the RDD screening, particularly for providers

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<sup>1</sup>The response rates reported for Camden and Newark do not take into account the refusal of the major sponsor of Head Start programs in each site to allow individual program directors to cooperate with the survey. If the refusals for individual Head Start programs in the sample are included in the response rate, the response rate for Camden is 55 percent and the response rate for Newark is 61 percent.

named by child care users. Refusal rates to both the Survey of Child Care **Centers and** the Survey of Family Day Care Providers were quite comparable. Finally, response rates **to** the Survey of Child Care Users were also high, ranging from 87 percent in Newark to 93 percent in South **Chicago**.

### III. THE SUPPLY OF CHILD CARE

This chapter addresses questions related to the supply of child care in the three sites of the Teenage Parent Demonstration (Camden, New Jersey; Newark, New Jersey; and South Chicago, Illinois). The first few sections examine the magnitude of the current supply of child care in licensed child care centers and paid family day care providers, the extent to which the care available from these providers is being utilized, turnover in enrollment, and methods used by these providers to fill empty slots. The following sections examine selected characteristics of the supply of care from these providers that are related to the quality of care provided, including group sizes, child-staff ratios, staff qualifications, and health and safety conditions. Finally, the last sections in this chapter describe the fees charged by child care centers and paid family day care providers and discuss the operating experiences **reported** by these providers.

#### A. TOTAL SUPPLY OF CHILD CARE

The total supply of child care available from child care centers and paid family day care providers for preschool children is **summarized** in Table 111.1. In Camden, the smallest of the three sites, there are an estimated 22 child care **centers<sup>1</sup>** and approximately 1,400 paid family day

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<sup>1</sup>**These** centers exclude Head Start programs because Head Start grantee staff were unwilling to allow individual Head Start directors to respond to the survey. There are 16 Head Start programs licensed to serve 597 preschool children in Camden.

TABLE III.1

ESTIMATED ~~NUMBER~~ OF CHILD CARE PROVIDERS AND CHILD CARE SLOTS  
AVAILABLE FOR PRESCHOOL CHILDREN

	Camden	Newark	South Chicago
Total Number of:			
Child Care <b>Centers<sup>a</sup></b>	22	68	<b>235</b>
Paid Family Day Care <b>Providers<sup>b</sup></b>	<b>1,355</b>	6,123	13,005
Total Number of Slots Available in:			
Child Care Centers	1,689	<b>5,635</b>	14,280
Paid Family Day Care	5,233	18,699	36,841
Total	6,922	24,334	51,121
Total Number of Slots Per 1,000 Children Age 0-4 in:			
Child Care Centers	127	<b>157</b>	133
Paid Family Day Care	393	<b>522</b>	343
Total	<b>520</b>	679	476

SOURCE : Surveys of Child Care Supply and Needs (~~Mathematica~~ Policy Research, Inc., 1988).

NOTE : The total number of slots in child care centers reported in the table are the numbers of licensed slots available in each site. Since some center directors indicated that they accept fewer children (i.e., they have a lower 'quality control' number), the actual number of slots available is slightly lower (1,592 in Camden, 5,605 in Newark, and **13,576** in South Chicago). The total number of slots available from family day care providers consists of the total number of **preschool** children currently in family day care plus extra full-time slots reported by family day care providers.

The numbers in the table for Camden do not include Head Start programs because the sponsor of all Head Start programs in Camden was unwilling to allow individual Head Start directors to cooperate with the survey. However, it is known that there are 16 Head Start programs licensed to serve **597** preschool children in Camden. A similar situation was encountered in Newark, where the sponsor of all but two Head Start programs in the sample refused

Table III.1 (Continued)

to allow individual directors to respond to the survey. This sponsor accounts for 49 Head Start programs licensed to serve 1,653 preschool children in Newark.

- a** Head Start programs have not been analyzed as a separate category for this report; however, subsequent analyses will investigate the level and characteristics of care provided by these programs.
- b** These numbers are adjusted for estimated survey undercount and for that reason should be taken only as rough estimates of the actual supply; Estimated coverage of paid family day care providers is approximately 32 percent. See Chapter II for a discussion of survey undercount.

care providers,<sup>1</sup> who together provide approximately 6,900 child care slots. Most of these child care slots are available from family day care providers, with about 75 percent of the slots in family day care and 25 percent available from child care centers. To put these numbers in perspective, there are approximately 520 child care slots available per 1,000 children under five years old living in Camden.

In Newark, there are 68 child care centers<sup>2</sup> and approximately 6,100 paid family day care providers. As was the case in Camden, about 75 percent of the child care slots available are in family day care settings. A total of approximately 24,300 child care slots are available from these providers, representing about 680 child care slots per 1,000 children under five years old living in Newark.

In terms of population and child care supply, South Chicago is 'by far the largest of the three demonstration sites, with 235 child care centers and over 13,000 paid family day care providers. Together, these child care providers supply about 51,000 child care slots (30 percent in centers and 70 percent in paid family day care). However, relative to the population, the supply of child care in South Chicago is somewhat smaller than the supply in the two New Jersey sites: there are approximately 475

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<sup>1</sup>This estimate and subsequent estimates of the numbers of family day care providers and numbers of slots in family day care discussed in this section are based on survey results adjusted for estimated survey undercount.

<sup>2</sup>These centers do not include Head Start programs sponsored by the Newark Preschool Council, Inc. because staff were unwilling to allow individual Head Start directors in the sample to cooperate with the survey. The Newark Preschool Council, Inc. sponsors 49 Head Start programs licensed to serve 1,653 preschool children in Newark. Because some Head Start programs operate double sessions, the number of preschool children actually enrolled in Head Start programs in Newark is estimated to be approximately 2,500.



child care slots available per 1,000 children under five years old **living** in South Chicago.

B. ORGANIZATION AND SCHEDULES

The organization and sponsorship of child care centers in the three sites' are summarized in Table 111.2. The distribution of centers by legal status is similar in the two New Jersey sites: approximately one-half of all centers reported that they are private, nonprofit organizations, and the large majority of the remaining centers reported that they are public **programs.**<sup>1</sup> Only about 5 percent of centers are private, for-profit businesses. Approximately one-half of all child care centers in South Chicago also reported that they are private, nonprofit centers; but, in contrast to the New Jersey sites, nearly one-third of all centers in South Chicago reported that they are private, for-profit child care centers.

Very few of the paid family day care providers are registered or licensed and hence, part of the formal regulated child care market. This is not surprising in the New Jersey sites, where registration of family day care providers is voluntary and only recently **established.**<sup>2</sup> Only 3 percent of paid family day care providers in Camden are registered with the state, **and less** than 1 percent of paid family providers in Newark are registered.

In South Chicago, approximately 7 percent of **paid** family day care providers are licensed and an additional 5 percent of paid providers

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<sup>1</sup>**According** to Terry Castro, New Jersey Division of Youth and Family Services, it is likely that many of the centers that reported that they are public programs are in fact private, nonprofit centers that receive state, county, or municipal funding.

<sup>2</sup>**In** order to be registered in New Jersey, family day care providers are required to have their homes inspected once every 3 years but are not subject to other regulations or requirements.

TABLE III.2

## CHARACTERISTICS OF CHILD CARE PROVIDERS

	Camden	Newark	South Chicago
<b><u>Child Care Centers</u></b>			
Percentage of Child Care Centers That Are:			
Public	45.5	38.2	19.2
Private, For-Profit	4.5	<b>5.9</b>	33.6
Private, Nonprofit	50.0	<b>55.9</b>	47.2
Percentage of Private, Nonprofit Child Care Centers That <b>Are:<sup>a</sup></b>			
Independent	54.5	47.4	51.1
Sponsored by Head Start	0.0	2.6	8.9
Sponsored by a religious group	18.2	21.1	24.4
<b>Sponsored</b> by an individual or private company	9.1	10.5	<b>8.9</b>
Sponsored by a community organization	9.1	<b>7.9</b>	7.4
Sponsored by the government	0.0	10.5	11.1
Sponsored through Social Service Block Grant (SSBG)	9.1	10.5	<b>0.0</b>
<b><u>Family Day Care Providers</u></b>			
Percentage of Providers Who Are Registered or Licensed	2.6	0.8	7.3

**SOURCE:** Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

**NOTE:** The percentage distributions for Camden and Newark do not include the Head Start programs that refused the survey. If all Head Start programs are included, 71 percent of centers in Camden and 75 percent of centers in Newark are private, nonprofit organizations, and 59 percent of private, nonprofit centers in Camden are sponsored by Head Start, while 57 percent of private, nonprofit centers in Newark are sponsored by Head Start.

<sup>a</sup> Centers may have multiple sponsors, so percentages may add up to more than one hundred percent.

reported that they are in the process of becoming licensed. In Illinois, only family day care providers who care for more than three children are required to be licensed. Thus, it is not surprising that many of the providers who are not licensed reported that they haven't applied to be licensed because they are not required to be licensed. Among the remaining unlicensed paid family day care providers, most of whom said that they haven't applied for a license because they never thought about becoming licensed, only 17 percent reported that they expected to apply for a license in the future and only about one-third said they were interested in receiving information on licensing.

Child care in centers is available for an average of about 50 hours per week (Table 111.3). A substantial majority of child care centers are open 50 or more hours per week. Most of the remaining centers are open more than 40 hours per week. This is true even in South Chicago, where Head Start programs are included in the sample. No child care centers care for children on weekends. Child care centers are generally open all year, with the average number of weeks open ranging from 49 weeks in South Chicago to 51 weeks in the New Jersey sites.

There is much greater variation in the schedules of **paid** family day care providers. While approximately one-quarter of paid family providers care for children 50 or more hours per week, substantial proportions of providers care for children less than 30 hours per week. **The** average hours per week ranges from 35 hours per week in South Chicago to 43 hours per week in Newark. Like child care centers, most paid family day care providers care for children all year, and the average number of weeks per

TABLE III.3

## OPERATING SCHEDULES BY TYPE OF PROVIDER

	Camden	Newark	South Chicago
<u>Child Care Centers</u>			
Average Hours Per Week in Operation	51.5	50.2	53.3
Median Hours <b>Per</b> Week in Operation	50	<b>50</b>	57.5
Percentage-of <b>Centers</b> That Are Open:			
Less than 30 hours per week	<b>0.0</b>	<b>0.0</b>	7.4
30 to 39 hours per week	<b>0.0</b>	3.8	8.4
40 hours per week	0.0	0.0	<b>1.1</b>
41 to 49 hours per week	14.3	25.0	2.1
<b>50</b> or more hours per week	85.7	71.2	81.1
Average Weeks Open Per Year	50.6	51.2	49.4
<u>Family Day Care Providers</u>			
Average Hours Per Week in Operation	<b>39.3</b>	42.8	35.2
Median Hours Per Week in Operation	40	40	50
Percentage of Providers Caring For Children:			
-Less than 30 hours per week	33.2	21.7	42.6
30 to 39 hours per week	14.6	6.6	9.2
40 hours per week	12.1	22.7	9.3
41 to 49 hours per week	15.6	23.1	13.3
<b>50</b> or <b>more</b> hours per week	24.6	25.8	25.7
Average Weeks Open Per Year	47.8	48.8	47.7

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

year spent caring for children is approximately 48 weeks in all three sites.

#### C. ENROLLMENT AND VACANCIES

Table III.4 presents estimates of enrollment and numbers of unfilled **slots**<sup>1</sup> for preschool children in each site. In Camden, an estimated 1,388 preschool children are enrolled full-time<sup>2</sup> and 4 preschool children are enrolled part-time in child care centers. Center directors in Camden reported that they had 70 unfilled slots for preschool children. In Newark, 5,177 children are enrolled full-time, 13 children are enrolled part-time in child care centers, and **415** slots for preschool children are unfilled. Center directors in South Chicago reported that 13,110 preschool children are enrolled full-time and 2,666 preschool children are enrolled part-time, and there are approximately 1,259 unfilled slots for preschool children.

Corresponding numbers for paid family day care providers are also presented in Table III.4. Full-time enrollment in paid family day care is estimated to be less than full-time enrollment in child care centers in Camden and South Chicago but slightly higher than full-time enrollment in centers in Newark. However, there are many more full-time vacancies in paid family day care than in center care. Part-time enrollment in child care is much higher in paid family day care than in child care centers in all three sites.

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<sup>1</sup>**Unfilled** slots are vacant slots that providers reported that they were able and willing to fill with another child.

<sup>2</sup>**By** full-time, we mean enrollment for five days per week for the hours in the center's full program.

TABLE III.4

## ENROLLMENT AND EXTRA CAPACITY FOR PRESCHOOL CHILDREN

	Camden	Newark	South Chicago
<b>Full-Time<sup>a</sup></b> Enrollment of Preschool Children in:			
Child Care Centers	1,388	5,177	13,110
Family Day <b>Care<sup>b</sup></b>	1,046	6,945	8,005
Total	2,434	12,122	21,115
Part-Time Enrollment of Preschool Children in:			
Child Care Centers	4	13	2,666
Family Day Care	1,340	2,589	12,314
Total	1,344	2,602	14,980
Unfilled Full-Time Slots in:			
Child Care Centers	70	41s	1,259
Family Day Care	2,844	9,164	16,252
Total	2,914	9,579	17,781
Unfilled Part-Time Slots in:			
Child Care Centers	---	---	---
Family Day Care	3,133	8,836	38,724
Total	3,133	8,836	38,724

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

**a** For child, care centers, full-time is defined as 5 days a week for the hours in their full program. For family day care **providers, full-time** is defined as 40 hours per week.

**b** The numbers for family day care providers are adjusted for estimated survey undercount and for that reason should be taken as rough estimates of actual enrollment and extra capacity. Estimated coverage of paid family day care providers is approximately 32 percent. See Chapter II for a discussion of survey undercount.

Table III.5 presents similar numbers for school-age children. In Camden, child care centers care for 28 children before school and 150 children after school and would accept 5 more children before school and 31 more children after school. In Newark, centers currently care for 266 school-age children before school and 542 children after school; they could accept 31 more children before school and 194 children after school. Finally, in South Chicago, child care centers care for 773 children before school and 1,296 children after school, and they could accept 503 more children before school and 523 children after school.

#### 1. Utilization Rates

Assessing enrollment numbers in relation to a measure of center capacity is not straightforward. There are several issues that must be considered in measuring utilization **rates** in this study: (1) what measure of capacity to use, (2) whether to incorporate a measure of absenteeism into the measure of capacity, and (3) how to convert part-time enrollment and enrollment of school-age children into full-time equivalents. In terms of measuring center capacity, the two primary options are to use the licensed capacity (the measure adopted in the 1976-77 National Day Care Study) or to use the sum of filled and unfilled slots as reported by center directors. The first measure reflects capacity as dictated by state licensing regulations and is probably a maximum capacity; the use of this measure of capacity is **most appropriate** when assessing the utilization of the potential supply of child care. The second measure of capacity takes into account the possibility that centers may choose to enroll fewer children than they are licensed to care for: thus, the use of this measure

TABLE 111.5

ENROLLMENT AND EXTRA CAPACITY FOR SCHOOL-AGE CHILDREN  
IN CENTERS AND FAMILY PROVIDERS THAT SERVE PRESCHOOL CHILDREN

	Camden	Newark	South Chicago
<u>Child Care Centers</u>			
Total Number of Children Enrolled:			
Before School	28	266	773
After School	150	542	1,296
Total Number of Unfilled Slots for School-Age Children:			
Before School	<b>5</b>	31	503
After School	31	194	523
<u>Family Day Care Providers<sup>a</sup></u>			
Total Number of Children In Care:			
Before school only	66	<b>219</b>	<b>496</b>
After <b>school only</b>	483	1,582	3,200
Before and after school	194	747	3,139
Weekends only	20	219	587
School holidays only	a	48	<b>56</b>
Total Number of Unfilled Slots That Could Be Filled By School-Age Children			
Before school	1,839	6,295	15,246
After school	2,463	8,651	24,529

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> These numbers are adjusted for estimated survey undercount and for that reason should be taken as rough estimates of actual enrollment and extra capacity. Estimated coverage of paid family day care providers is approximately 32 percent. See Chapter II for a discussion of survey undercount.



of capacity is appropriate for assessing the utilization of the actual supply of care.

The related issue of whether or not to incorporate an allowance for absenteeism in the calculation of utilization rates must also be considered. In New Jersey, licensing regulations specifically state that centers may enroll up to ten percent more children than they are licensed to care for.<sup>1</sup> Thus, in New Jersey, an alternative measure of center capacity is 110 percent of the licensed capacity. The Illinois licensing regulations state that licensed capacity **refers** to the maximum number of children permitted in the facility at any one time, so actual enrollment may exceed the licensed number of children in that state also. Therefore, an alternative measure of capacity used in calculating utilization rates for this study is 110 percent of the licensed capacity.

Finally, assumptions must be made about how to convert part-time and school-age enrollment into full-time-equivalent enrollment. In the 1976-77 National Day Care Study, full-time-equivalent enrollment was calculated on the basis of hours of care scheduled per week and 40 hour weeks: however, comparable information about hours of care scheduled was not collected in the current study. Thus, another method for computing full-time-equivalent enrollment must be adopted for measuring utilization rates in the three demonstration sites. In our calculations, we assume that the average child enrolled part-time attends the center for half a day and that two children enrolled part-time are equivalent to one child enrolled full-time. Further, for utilization rates calculated on the basis

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<sup>1</sup> New Jersey licensing regulations are being changed and in the future, centers will not be allowed to overenroll to offset absences.

of licensed capacity (which includes children of all ages), we assume that the average child enrolled in **before-** and/or after-school programs **is** enrolled part-time and thus, two school-age children are equivalent to one child enrolled full-time.

Table III.6 shows that utilization rates range from 79 percent in Camden when 110 percent of licensed capacity is used as a capacity measure to 106 percent in South Chicago when capacity is defined to be licensed capacity. These utilization rates are generally higher than the 80 percent utilization rate calculated for all full-day child care centers in the 1976-77 National Day Care Study.<sup>1</sup> Utilization rates are most similar across sites when measured as enrollment plus unfilled slots as reported by center directors (91 percent in South Chicago and Newark and 95 percent in Camden). Utilization rates measured in this way are slightly higher with respect to slots for preschool children, and lower for school-age children, ranging from 71 to 83 percent. The differences between measures of utilization rates reflect the fact that many child care centers in all three sites are willing to enroll fewer children than they are licensed to care **for.**<sup>2</sup> Because slots are not really available unless centers are willing to fill them, the utilization rates calculated with capacity measured as the sum of filled and unfilled slots may be the most realistic indicator of the tightness of supply.

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<sup>1</sup>The difference may reflect the differences- in the way the two studies computed utilization rates, the differences in the types of centers included in the two studies, or the fact that the current study is not a national study, as well as real differences in utilization in the **1980's.**

<sup>2</sup>This is consistent with direct reports by many center directors that the maximum number of children they feel that they should care for, based on the current age distribution of children in care, is less than the number of children they are licensed to care for.

TABLE III.6  
UTILIZATION RATES FOR CHILD CARE CENTERS

	Camden	Newark	-South Chicano
Enrollment			
Full-time preschool	1,388	5,177	13,110
Part-time preschool	4	13	2,666
Part-time school age <sup>a</sup>	150	542	1,296
Full-Time Equivalent <sup>b</sup> Enrollment	1,465	5,455	15,091
Unfilled Slots			
Preschool	70	415	1,259
School-age <sup>a</sup>	31	194	523
Full-Time Equivalent Unfilled Slots	86	512	1,521
Total Full-Time Equivalent Slots	1,551	5,967	16,612
Utilization Rate <sup>c</sup>	94.5	91.4	90.8
Preschool children only	95.2	92.6	91.2
School-age children only	82.9	73.6	71.2
Full-Time Equivalent Enrollment/ Licensed Capacity	86.7	96.8	105.7
Full-Time Equivalent Enrollment/ 110% of Licensed Capacity <sup>d</sup>	78.9	88.0	96.1

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> Maximum of before- and after-school enrollment,.

<sup>b</sup> Full-time equivalent slots are calculated as full-time slots plus one-half of the number of part-time and school-age slots.

<sup>c</sup> The utilization rates are calculated as (full-time equivalent enrollment/total full-time equivalent slots)\*100

<sup>d</sup> 110 percent of licensed capacity is used because state regulations allow centers to enroll up to 10 percent more children than they are licensed to serve to allow for absenteeism.

Since the vast majority of the paid family day care providers in the three sites are not licensed, it is not possible to calculate utilization rates for paid family day care providers under the **same** alternative assumptions about capacity that were used in the calculations for child care centers. The utilization rates presented in Table III.7 are calculated with capacity measured as the sum of filled and unfilled slots, and range from 34 to 41 **percent**.<sup>1</sup> The utilization rates of slots for preschool-age children are slightly higher, ranging from 38 to 47 percent, while the utilization of slots for school-age children is lower, ranging from 21 to 22 percent. These utilization rates suggest that a considerable amount of paid family day care may be available but unused in the three sites. It should be noted, however, that the unfilled slots in **family day care may** be available only to a small, restricted set of preschool children. As subsequent tables will show, information about available slots in family day care may be unavailable to most mothers of preschool children because many family day care providers make no efforts to fill empty slots.

## 2. Age Patterns of Enrollment and Vacancies

The distribution of enrollment in child care centers and paid family day care by the age of the children is summarized in Table III.8. The age distribution of children in care is considerably different in child care centers and family day care homes in all three sites. Only very small percentages of children enrolled in centers are infants or toddlers under

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<sup>1</sup>Because it appears that in reporting the numbers of additional children they could accept part-time and full-time, family day care providers were not providing mutually exclusive numbers, we counted only unfilled full-time slots in calculating utilization rates.

TABLE III.7  
UTILIZATION RATES FOR FAMILY DAY CARE

	Camden	Newark	South Chicago
<b>Enrollment<sup>a</sup></b>			
Full-time preschool	1,046	<b>6,945</b>	8,005
Part-time preschool	1,340	2,589	12,314
Part-time school age <sup>b</sup>	678	2,329	6,339
Full-Time Equivalent <sup>c</sup> Enrollment	2,055	9,404	17,332
Unfilled Slots			
Preschool full-time	2,844	9,164	16,522
School-age <sup>b</sup>	2,463	8,651	24,529
Full-Time Equivalent Unfilled Slots	4,077	13,493	28,787
Total Full-Time Equivalent Slots	6,133	<b>22,897</b>	46,119
<b>Utilization Rate<sup>d</sup></b>			
Preschool children only	33.5	41.1	37.6
School-age children only	37.6	47.3	46.2
	21.6	21.2	20.5

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

- a** These estimates of actual enrollment and numbers of vacancies are adjusted for survey undercount.
- b** Maximum of before- and after-school enrollment.
- c** Full-time equivalent slots are calculated as full-time slots plus **one-**half of the number of part-time and school-age slots. Full-time is defined as 40 hours per week.
- d** The utilization rates are calculated as (full-time equivalent enrollment/total full-time equivalent slots)\*100

TABLE III.8

## AGE DISTRIBUTION OF CHILDREN CURRENTLY IN CARE AND UNFILLED SLOTS

	Camden	Newark	South Chicago
<u>Child Care Centers</u>			
Percentage of Children <b>Enrolled</b> <b>Who</b> Are Age:			
Newborns to under 6 months	0.5	0.5	0.2
6 months to under 12 months	1.7	1.1	0.5
12 months to under 18 months	2.3	2.3	0.8
<b>18</b> months to under 2 years	3.7	2.8	1.0
2 years to under 3 years	21.6	17.0	10.8
3 years to under 4 years	29.6	27.7	32.0
4 years to under 5 years	29.6	30.2	38.0
5 years and older	11.0	18.3	16.9
Percentage of Unfilled Slots That Could Be Filled <b>With</b> a Child Age:			
12 months and under	13.4	3.4	12.0
13 months to under 2 years	13.4	<b>3.4</b>	16.3
2 years to under 3 years	22.4	65.8	58.7
3 years to under 4 years	85.1	86.0	85.6
4 years to under 5 years	79.1	74.9	84.2
5 years and older	55.2	43.0	58.5
<u>Family Day Care Providers</u>			
Percentage of Children Enrolled <b>Who</b> Are Age:			
Newborns to under 6 months	4.8	4.1	4.8
6 months to under 12 months	8.4	8.6	9.3
12 months to under 18 months	9.6	<b>12.9</b>	8.9
18 months to under 2 years	3.2	2.4	5.1
2 years to under 3 years	14.5	12.2	11.0
3 years to under 4 years	9.9	15.9	11.9
4 years to under 5 years	10.6	13.6	12.8
5 years and older	39.0	30.3	35.7

TABLE III.8 (continued)

	Camden	Newark	South Chicago
Percentage of Unfilled Slots That Could Be Filled With a Child Age:			
12 months and under	0.8	4.1	4.4
13 months to under 2 years	88.2	99.0	93.8
2 years under 3 years	100.0	100.0	100.0
3 years to under 4 years	100.0	100.0	100.0
4 years under 5 years	100.0	100.0	100.0
5 years and older	100.0	100.0	100.0

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

two years old, while approximately 25 to 30 percent of children in family day care are in these age groups. Larger proportions of children enrolled in family day care are five years old and above. In contrast, relative to children in family day care, a greater proportion of children in centers are two to four years old (48 to 81 percent in centers versus 35 to 41 percent in family day care settings). Centers enroll relatively more preschool-age children, while family day care providers care for relatively more infants and toddlers and school-age children.

The age pattern of unfilled slots in child care centers reflects the age pattern of enrollment, with many available slots that can be filled only by children age two to four years old. There are very few unfilled slots available in centers for infants and toddlers under two years old in any of the sites. The age pattern of unfilled slots in family day care homes suggests that paid family day care providers are less restrictive in determining the ages of children they will care for. The only age group for which a substantial proportion of unfilled slots in family day care are unavailable is infants under one year old. Thus, open slots for infants are scarce in both child care centers and family day care settings.

### 3. Turnover in Enrollment

One reason that some unfilled child care slots are always likely to exist is turnover of children in care. The turnover of children in care, which is calculated as the total number of children who left the provider and were replaced divided by enrollment, also provides an indication of the stability of care in various child care settings. Table III.9 presents estimates of the rate of turnover in child care centers and family day care homes in the three sites during the first quarter of 1988. The overall



TABLE III.9

NUMBER OF CHILDREN STARTING AND ENDING CARE DURING  
THE FIRST QUARTER OF 1988

	Camden	Newark	South Chicano
<u>Child Care Centers</u>			
Total Number of Children Who:			
Left Center Permanently	131	263	929
Started Care With Center	149	413	1,360
Overall Rate of Turnover in Child Care Slots <sup>a</sup>	<b>9.4</b>	5.1	5.9
Average Rate of <b>Turnover</b> Among <b>Centers<sup>b</sup></b>	10.6	5.2	6.6
<u>Family Day Care Providers</u>			
Total Number of Children <b>Who:<sup>c</sup></b>			
Left Provider Permanently	417	870	3,051
Started Care With Provider	903	788	<b>7,261</b>
Overall Rate of Turnover in <b>Child Care</b> Slots	13.2	6.4	15.0

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> The overall rate of turnover in child care slots is calculated as ((total number of children who left and were **replaced**)/(total number of children enrolled))\*100

<sup>b</sup> The average rate of turnover is calculated as the mean of the turnover rates for individual providers.

<sup>c</sup> These estimates of the number of children starting or ending care are adjusted for survey undercount. Estimated coverage of paid family day care providers is approximately 32 percent. See Chapter II for a discussion of survey undercount.

rate of turnover of child care slots in centers ranges from 5 percent in Newark to 9 percent in Camden. The overall rate of turnover of child care slots in family day care homes ranges from 6 percent in Newark to 15 percent in South Chicago, suggesting that care in family day care homes in these sites tends to be slightly less stable than care in centers.

The experience of individual child care providers with child turnover during the first quarter of 1988 varies from no turnover to approximately **50** percent turnover among child care centers and from no turnover to 100 percent turnover among family day care providers. The average child care center in each site had a turnover rate that was very similar to the overall turnover rate in that site.

#### 4. Methods Used and Time Required to Fill Vacancies

The methods used by child care centers to fill empty slots, summarized in Table 111.10, vary across sites; In Camden, the most commonly used method for filling empty slots is to use a waiting list. In addition, **.45** percent of centers attempt to fill empty slots by getting referrals from welfare or social service caseworkers, 30 percent use formal advertising, 25 percent advertise on bulletin boards, and 20 percent rely on word-of-mouth advertising. In Newark, the most commonly used method for filling empty slots is also to use a waiting list, but proportionately fewer centers use **other methods for filling slots**. Finally, in South Chicago, the most commonly used **methods for filling empty slots are formal advertising, word-of-mouth advertising, and using a waiting list**. Only a few centers use other methods for filling slots.

Consistent with these findings, substantial proportions of child care centers in the New Jersey sites report that they maintain a waiting

TABLE 111.10

METHODS USED AND TIME USUALLY REQUIRED TO FILL EMPTY SLOTS  
BY CHILD CARE CENTERS

	Camden	Newark	South Chicago
Percentage of Centers That Attempt to Fill <b>Empty</b> Slots By:			
Advertising in newspapers, yellow pages	30.0	15.4	<b>55.9</b>
Getting referrals from welfare or social service caseworkers	44.9	30.8	3.2
Getting referrals from community agencies	15.0	7.7	7.4
Using child care information and referral program	0.0	<b>3.9</b>	<b>0.0</b>
Using a waiting list	79.8	77.1	48.5
Sharing a waiting list	0.0	0.0	1.1
Word of mouth	20.0	13.5	52.7
Bulletin board advertising	25.0	7.7	10.5
Other methods	0.0	7.7	2.1
Percentage of Centers That:			
Maintain a waiting list	81.0	88.5	<b>58.9</b>
Maintain a waiting list and regularly purge it	66.7	75.0	35.8
Average Number of Names on the Waiting Lists of Centers That Maintain Them			
	77	65	26
Usual Number of Business Days to Fill an Open Slot, On Average, For a Child Age:			
Under 12 months	4.4	5.6	<u>      </u> <sup>a</sup>
1 or 2 years	3.4	7.8	14.2
3 or 4 years	3.3	7.5	15.0

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1388).

<sup>a</sup> Very few centers in South Chicago serve infants (see Table 111.8).

list and purge it regularly, while **only** slightly more than half of the centers in South Chicago maintain lists and relatively fewer of the South Chicago centers that maintain a waiting list regularly purge their list. The usual length of time required by child care centers to fill an empty slot is quite short in all three sites, ranging from 3 to 15 business days, depending on the age of child and the site. While the majority of centers require very few business days to fill an empty slot, there is a wide range of experience among individual child care centers. In all cases, the shortest time required to fill an empty slot is one business **day**.<sup>1</sup>

Child care centers that maintain a waiting list tend to have fewer empty slots, on average. However, as seen in Table 111.11, there appears to be no consistent relationship between the number of names **on** the waiting list and the number of business days required to fill an empty slot. In Camden, centers are able, on average, to **fill** an empty slot quite quickly, **regardless of** whether or not they maintain a waiting list and how long their list is. In Newark and South Chicago, although centers with the longest waiting lists tend to require the fewest business days to fill an empty slot **on average**, this pattern is not consistent across age groups.

In contrast to **centers**, which do have procedures to market their **services**, over half of all paid family day care providers in each site reported that they take **no** action to fill empty slots (see Table 111.12).

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<sup>1</sup>In Camden, the longest time required to fill an empty slot in any age, **group is** ten business days. The maximum time required by any child care center to fill an empty slot in Newark is 108 business days (5 months) to fill a slot for a preschool child. The maximum time required by any child care center in Newark to fill a slot for an infant is only 22 business days. In South Chicago, the maximum time required by any child care center to fill an empty slot is 43 weeks (10 months) to fill a slot for a toddler and 22 weeks to fill a slot for a preschool child.

TABLE III.11

AVERAGE NUMBER OF DAYS TO FILL EMPTY SLOTS  
AND AVERAGE NUMBER OF EMPTY SLOTS FOR PRESCHOOL CHILDREN  
BY LENGTH OF WAITING LIST

Length of Waiting List	Camden	Newark	South Chicago
<u>Average Number of Empty Preschool Slots</u>			
No waiting list	20.3	15.1	13.2
1 to 50 names	5.0	12.5	6.7
More than 50 names	<b>1.0</b>	17.3	5.0
<u>Average Number of Days to Fill Slot</u>			
Infant			
No waiting list	3.0	10.0	_____ a
1 to <b>50</b> names	----- b	9.2	_____ a
More than 50 names	4.8	1.8	_____ a
Toddler			
No waiting list	2.0	6.5	23.9
1 to <b>50</b> names	3.0	12.8	4.7
More than 50 names	4.2	1.9	3.0
Preschooler			
No waiting list	2.7	6.5	19.6
1 to 50 names	2.5	10.9	12.0
More than <b>50</b> names	4.1	3.2	15.0

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

**a** Very few centers in South Chicago serve infants.

**b** Very few centers that serve infants in Camden have lists of this length.

TABLE III.12

## METHODS USED BY FAMILY DAY CARE PROVIDERS TO FILL EMPTY SLOTS

	Camden	Newark	South Chicago
Percentage of Family Providers Who Attempt to Fill Empty Slots <b>By:<sup>a</sup></b>			
Advertising in newspapers, yellow pages	17.5	<b>9.0</b>	4.7
Getting referrals from welfare or social service caseworkers	0.2	1.5	0.4
Getting referrals from community agencies	1.2	<b>0.0</b>	4.1
Getting referrals from family and friends	17.4	19.4	18.3
Word of mouth	1.9	6.0	2.5
Bulletin board advertising	2.1	2.5	3.9
Other methods	4.5	0.2	0.6
Percentage of Providers Who Take No Action to Fill Empty Slots			
	53.2	54.7	54.1
Percentage of Providers Who Maintain a Waiting List			
	3.4	4.4	3.4
Percentage of Family Providers Whose Clients Learned That They Take Care of Children <b>From:<sup>a</sup></b>			
Advertising in newspapers, yellow pages	7.7	8.0	7.2
Welfare/social service caseworkers	4.1	0.4	2.6
Community agencies ,	4.1	1.3	5.7
Family and friends	57.1	54.1	57.8
Word of mouth	15.5	13.0	19.6
Acquaintance with provider	13.2	11.0	18.8
Relation to provider	14.8	17.6	13.7
Other methods	6.6	1.8	6.7

SOURCE: Surveys of Child Care Supply and Needs (Mathematics Policy Research, Inc., 1988).

<sup>a</sup> Percentages may sum to more than 100 percent because multiple responses were possible.

This finding suggests that even though family providers said that they could take care of more children, those "slots" are not readily accessible to all mothers needing care for their children, because information about those slots is not available to most mothers. The primary method used by providers who do take action to fill empty slots is getting referrals from family and friends. Since family and friends are likely to know about only a restricted set of mothers needing child care, information about the slots available from these providers is also unlikely to be readily accessible to many mothers in need of care. Although paid family providers who take some step(s) to fill empty slots report that they could, on average, care for a smaller number of additional preschool children than providers who take no steps to get more children, the differences are very small. Fewer than 5 percent of paid family day care providers maintain a waiting list.

The fact that most paid family day care providers take no action to fill \*unfilled **slots**\* suggests that the low utilization rates for family providers reported earlier in this section are likely to be due in part to the lack of information available to mothers about the availability of care from family day care providers, rather than any lack of demand for care provided by these providers. It is also possible that some family day care providers do not consider providing child care a business but rather consider it a service for relatives or neighbors and thus, do not necessarily want to fill their "unfilled slots."

## 5. Enrollment of and Vacancies Available to Children With Particular Characteristics

Table III.13 examines the extent to which children currently enrolled in care have particular characteristics that may have affected the availability of care for them. It also describes the admission policies of centers and paid family day care providers with regard to these characteristics in terms of the percentages of child care slots that are available from providers who accept children with each **characteristic**.<sup>1</sup> Only between 3 to 5 percent of children **in** child care centers and from 3 to 9 percent of those in family day care have special needs because they are physically, emotionally, or developmentally handicapped. Yet, there is substantial capacity to serve such children. From one-half to two-thirds of all slots available in centers are in centers that accept children with special needs. In addition, 19 to 26 percent of centers in the three sites have staff on call to help with children with special needs. Family day care providers are slightly less likely to accept children with special needs--**35** to 46 percent of slots available from family day care providers are available from providers who will accept children with special needs.

Less than 1 percent of all children enrolled in centers in each site do not speak English, although 43 to 78 percent of all slots are available in centers that accept children who do not speak English. Smaller percentages of slots in family day care are available to children who do not speak English, ranging from 20 percent in South Chicago to 43 percent in Camden. Nearly half of all centers in Camden and Newark have bilingual staff, compared with only one-quarter of centers in South

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<sup>1</sup>It is likely, however, that not all of these slots could be simultaneously filled by children with these characteristics.



TABLE III.13

AVAILABILITY OF CHILD CARE SLOTS TO CHILDREN  
WITH SPECIFIC CHARACTERISTICS

	Camden	Newark	South Chicago
<u>Child Care Centers .</u>			
Percentage of Children Currently Enrolled Who:			
Do not speak English	0.8	<b>0.9</b>	0.3
Have special needs	5.3	3.6	3.2
Have fees paid for by agency such as welfare	8.7	25.3	21.1
Have fees paid for with vouchers	1.8	0.4	7.8
Percentage of Available Slots That Are in Centers That Accept <b>Children Who:</b>			
Speak a <b>language</b> not understood by staff	92.1	92.5	67.4
Do not speak English	66.8	78.0	42.5
Have special needs	55.9	65.7	58.8
Are not toilet trained	37.3	37.4	40.8
Have fees paid by welfare	85.0	82.9	78.0
Percentage of Centers That Have Bilingual Staff	47.6	48.1	25.3
Percentage of <b>Centers</b> That Have Staff on Call to Help With Children With Special Needs	19.0	25.0	26.3
<u>Family Day Care Providers</u>			
Percentage of Children Currently Enrolled Who:			
Have special needs	5.2	8.7	3.4
Have fees paid by an agency such as welfare	18.2	5.4	7.3
<b>Have</b> fees paid for with vouchers	___ <sup>a</sup>	___ <sup>a</sup>	___ <sup>a</sup>

TABLE III.13 (continued)

	Camden	Newark	South Chicago
Percentage of Available Slots That Are With Family Providers Who Accept Children Who:			
...Do not-speak English	43.2	32.3	20.3
Have special needs	42.6	46.4	34.8
Are not toilet trained	95.3	96.8	93.2

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> 11.6 percent of family providers in Camden, none of the family providers in Newark, and 0.4 percent of family providers in South Chicago have children paid for with vouchers.

Chicago. This difference between the sites is not surprising, given the lower percentage of the population in South Chicago that is Hispanic (see Table **II.1 above**).

Approximately one-quarter of children currently enrolled in centers in Newark and South Chicago and 10 percent of children currently enrolled in centers in Camden are low-income children whose fees are paid for by agencies such as welfare or are paid for with vouchers. In contrast, less than 10 percent of children enrolled in family day care in Newark and South Chicago are low-income children whose fees are paid by agencies such as welfare, but **nearly** 20 percent of children enrolled in family day care in Camden have fees paid for by agencies. In combination with the distribution of enrollment across the two types of settings, these data suggest that in Camden, low-income children in care are slightly more likely to **be** cared for in family day care settings, while in Newark and South Chicago, nearly all low-income children in care are cared for in child care centers.

Finally, it should be noted that only about 40 percent of all **available** slots in centers are open to children who are not toilet-trained, while nearly all family day care providers accept children who are not toilet-trained.

In summary, the data suggest that family day care providers are more flexible in their policies with respect to caring for children who are not toilet-trained but are less flexible relative to child care centers in accepting children with special needs or children who do not speak English.

#### D. AVERAGE ENROLLMENT AND GROUP SIZES

Centers range in size from 14 to 115 children in Camden, 20 to 252 children in Newark, and 15 to 500 children in South Chicago (Table 111.14). The average enrollment of preschool children **per center** is very similar in the three sites, ranging from 63 preschool children per center in Camden to 72 preschool children per center in Newark. The average enrollment of school-age children in centers that serve preschool children is much smaller, ranging from only 2 school-age children per center in Camden to 9 school-age children per center in South Chicago. The average total enrollment in child care centers in these three sites is slightly larger than the average enrollment of centers nationwide ten years ago (65 to 76 children versus 49 children for centers in the 1976-77 National Day Care Study).

The average enrollment of children in specific age groups is highest for **three-** and four-year-old children. Centers care for an average of **19 to** 26 children in each of these age groups. With regard to children in other age groups, centers enroll an average of 1 **infant,**<sup>1</sup> 1 to 4 **one-** year-olds, 7 to 14 two year-olds, and 7 to 13 children five years old and above.

By definition, family day care providers have much smaller enrollments. The average paid family day care provider in all three sites cares for two children, 1.5 of whom are preschool children and **.5** of whom are school-age children. Licensed family day care providers in South Chicago care for greater numbers of children than unlicensed providers (on average, 5.4 children vs. 2.1 children). These children are presumably

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<sup>1</sup>**This** number is especially small because **few** centers enroll infants.

TABLE III.14

## AVERAGE ENROLLMENT AND AVERAGE GROUP SIZES

	Camden	Newark	South Chicago
<u>Child Care Centers</u>			
Average Enrollment Per Provider:			
Preschool children	63.3	71.6	67.1
School-age children	1.6	4.0	8.7
Total	64.9	75.6	75.8
Average Enrollment By Age			
Under 12 months <sup>a</sup>	1.4	1.2	0.4
1 year to under 2 years <sup>a</sup>	3.8	3.7	1.2
2 years to under 3 years	13.7	12.2	7.3
3 years to under 4 years	18.7	19.9	21.5
4 years to under 5 years	18.7	21.7	25.5
5 years and older	7.0	13.1	11.3
Average Group Size	14.6	15.9	14.6
Average Group Size by Age: <sup>b</sup>			
Under 12 months <sup>a</sup>	10.8	14.1	5.0
1 year to under 2 years <sup>a</sup>	10.0	13.6	13.0
2 years to under 3 years	13.4	14.2	12.0
3 years to under 4 years	15.6	16.6	16.0
4 years to under 5 years	15.7	17.8	16.2
5 years and older	14.4	18.2	15.8
Percentage Distribution of Groups by Age Range of Children:			
Less than 2 years	95.2	98.6	92.0
2 years or more	4.8	1.4	8.0
<u>Family Day Care Providers</u>			
Average Enrollment:			
Preschool children	1.6	1.5	1.6
School-age children	0.7	0.5	0.7
Total	2.3	2.0	2.3

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> Small numbers of centers serve children in this age group.

<sup>b</sup> When groups include more than one age group, they are counted in all age groups significantly represented.

cared for together in one group; thus, group sizes for children in family day care are small relative to the group sizes experienced by children in child care centers in these sites.

The average group size experienced by children cared for in child care centers is approximately 15 in all **three** sites. Table III.14 also examines group sizes for children in different age groups at child care centers in the three sites. Maximum group sizes by age are regulated in Illinois but not in New **Jersey**.<sup>1</sup> The average group sizes observed in South Chicago are well below the state standards, especially for infants and toddlers. They range from 5 for infants, 12 to 13 for toddlers, and 16 for preschool-age children.. The average group sizes in the two New Jersey sites are roughly similar to those observed in South Chicago except for infants where the group size is 11 in Camden and 14 in Newark. These average group sizes are slightly lower than those measured in the 1976-77 National Day Care Study, which found average group sizes ranging from 14 children for two-year-olds to 20 children for five-year-olds.

#### **E. STAFFING**

The average number of full-time<sup>2</sup> teachers employed by child care centers in the three sites ranges from 4 teachers in South Chicago to 6 teachers in Camden (Table III. 15). In addition to the full-time teachers, an average of 1 to 4 full-time aides are employed by these centers. In the case of both teachers and aides, there are relatively few part-time staff

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<sup>1</sup> Group size will be regulated in the revised state licensing regulations.

<sup>2</sup> **"Full-time"** was defined by the centers. In all three sites, the average time considered full-time was only slightly less than eight hours per day.

TABLE III.15

TOTAL NUMBER OF STAFF AND AVERAGE NUMBER OF STAFF PER CHILD CARE CENTER

	Camden	Newark	South Chicano
Total Number of Staff:			
Teachers	143	359	1,196
<b>Full-time<sup>a</sup></b>	136	344	941
Part-time	7	15	255
Aides (Paid)	102	382	562
Full-time	80	322	307
Part-time	22	60	255
Volunteers	22	292	1,569
Full-time	5	<b>55</b>	76
Part-time	17	237	1,493
Average Number of Staff Per Provider:			
Teachers	6.5	5.0	5.0
Full-time	6.2	4.8	4.0
Part-time	0.3	0.2	1.0
Aides (Paid)	4.6	5.2	2.4
Full-time	3.6	4.4	1.3
Part-time	1.0	0.8	1.1
Volunteers	1.0	4.3	3.1
Full-time	0.2	0.8	0.3
Part-time	0.8	3.5	2.8

**SOURCE:** Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

<sup>a</sup> "Full-time" was defined by the centers. In all three sites, the average time considered full-time was only slightly less than eight hours per day.

in any of the sites, although, on average, centers in South Chicago employ more part-time teachers than centers in the New Jersey sites. The average total number of full-time staff employed by centers ranges from 10 staff in each of the New **Jersey** sites to only 6 staff in South Chicago centers. Table III.15 also suggests that child care centers in South Chicago and Newark make greater use of volunteers, although no information is available about the number of hours part-time volunteers spend at the centers. The site differences in average numbers of staff members per center are the opposite of what we might expect based on average enrollment levels in the three sites, but differences in the age distribution of enrolled children may account for at least part of these differences.

The average number of helpers working with paid family day care providers is the same in all three sites and implies that every third family provider has a helper. Nearly all of these helpers work part-time and the majority are relatives of the provider. These helpers primarily assist the family providers with child care, but substantial proportions of helpers also assist with cooking and cleaning. Table III.16 shows that fewer than half of these helpers are paid for their help. In Camden, 46 percent of helpers are paid an average of only \$1.84 per hour for their help. In Newark, 44 percent of helpers are paid, but they receive nearly twice as much per hour, on average, for their help (\$3.57). Finally, in South Chicago, only 30 percent of helpers are paid: those who are paid receive an hourly wage comparable to that received by family day care helpers in Newark. Relatively few family day care helpers are paid in kind, and the form of the in-kind payment varies across sites.



TABLE III.16

## NUMBERS AND CHARACTERISTICS OF FAMILY DAY CARE HELPERS

	Camden	Newark	South Chicago
Total Number of <b>Helpers<sup>a</sup></b>	373	1,603	3,362
Average Number of Helpers Per Provider	0.3	0.3	0.3
Percentages of Helpers Who Are:			
Relatives of provider	58.3	78.2	63.5
Friends of provider	29.0	5.6	35.0
Other	12.7	16.2	1.4
Percentages of Helpers Who- Help With:			
Child care	80.8	<b>97.4</b>	83.5
Cooking	55.5	15.0	34.8
Cleaning	50.7	24.8	13.2
Transportation	13.7	0.0	14.7
Financial recordkeeping	11.6	0.0	5.9
Other help	10.3	0.0	2.3
Percentage of Helpers Who Are Paid:			
Cash	46.1	43.7	<b>29.7</b>
<b>Noncash</b>	7.1	16.4	26.0
Nothing	46.8	39.9	44.2
<b>Average Cash Payment Per Hour of Helpers Who Are Paid<sup>b</sup></b>	\$1.84	\$3.57	\$3.57
Percentage of Helpers Paid in Kind Who Receive:			
Meals	<b>89.3</b>	<b>0.0</b>	1.3
Room	66.2	7.6	1.3
Transportation	33.8	85.1	0.3
Child Care	22.5	0.0	67.3
Other	61.3	7.3	7.8

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> These numbers are adjusted for survey undercount.

<sup>b</sup> **This** average is based on a small number of cases.

The educational requirements and qualifications of child care center staff are described in Tables III.17 and III.18. The most prevalent educational requirement for preschool teachers is an early education and/or child development course. Eighty-one (81) percent of centers in Camden require preschool teachers to have completed an early education course and 14.3 percent of centers require preschool teachers to have completed a child development course. The corresponding percentages in Newark are 52 and 10 percent, and in South Chicago they are 35 and 46 percent. Other common requirements include a college degree or some college work, state certification or Child Development Associate (CDA) training, and experience with children. The qualifications required for teachers of school-age children are generally similar, although in Camden, 17 percent of centers require no special training, and no centers require general college education.

Table III.17 shows that the preschool teachers currently working in child care centers in the three sites are well-qualified in terms of their educational attainment. A substantial proportion of preschool teachers in each site have at least an associate's degree (49 percent in Camden, 63 percent in Newark, and 73 percent in South Chicago). Most of the remaining preschool teachers have either attended college or received CDA training. The school-age **teachers** currently working in child care centers are similarly qualified, although proportionately fewer have college **credentials in all three** sites and in Camden approximately 29 percent of school-age teachers have only a high school diploma.

The educational qualifications of paid family day care providers are presented in Table III.19. In striking contrast to preschool teachers

TABLE III.17

EDUCATIONAL REQUIREMENTS AND QUALIFICATIONS OF PRESCHOOL  
TEACHERS IN CHILD CARE CENTERS

	Camden	Newark	South Chicago
Percentage of Centers That Require Teachers to Have:			
State certification	19.0	<b>28.8</b>	12.6
Child Development Associate training	<b>19.0</b>	13.5	29.5
College degree	19.0	25.0	22.1
<b>Some</b> college	0.0	5.8	17.9
Early childhood education <b>course</b>	81.0	51.9	34.7
Child development course	14.3	9.6	46.3
Psychology course	0.0	1.9	1.1
Education course	4.8	3.8	3.2
Health course	4.8	0.0	1.1
Other education training	0.0	7.7	2.1
Other social service training	9.5	1.9	0.0
Experience with children	<b>23.8</b>	26.9	17.9
No special training	0.0	7.7	1.1
Percentage, of Preschool Teachers With:			
College degree	28.6	41.4	38.7
Associate's degree	20.5	21.7	34.6
Some college	35.6	24.5	22.8
Child development associate training	13.1	8.8	3.7
High school diploma	2.2	1.2	0.2
Less than high school	0.0	0.0	0.0
<b>Unknown</b>	0.0	2.4	0.0
Percentage of Teachers Who Have Children of Their <b>Own</b>			
	<b>95.2</b>	<b>93.8</b>	98.9
Percentage of Centers That Considered Experience Caring For <b>Own</b> Children Important in Hiring Decisions			
	25.0	28.8	32.3

**SOURCE:** Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

TABLE III.18

EDUCATIONAL REQUIREMENTS AND QUALIFICATIONS OF SCHOOL-AGE  
TEACHERS IN CHILD CARE CENTERS

	Camden	Newark	South Chicago
Percentage of Centers That Require Teachers to Have:			
State certification	<b>0.0</b>	16.7	6.4
Child Development Associate training	<b>0.0</b>	11.1	14.9
College degree	<b>0.0</b>	16.7	19.1
Some college	<b>0.0</b>	5.6	23.4
Early childhood education course	<b>50.0</b>	16.7	23.4
Child development course	33.3	88.9	38.3
Psychology course	0.0	0.0	6.4
Education course	0.0	0.0	0.0
Health course	0.0	5.6	0.0
Other education training	<b>16.7</b>	0.0	8.5
Other social service training	0.0	0.0	0.0
Experience with children	33.3	27.8	17.0
No special training	16.7	<b>5.6</b>	2.1
Percentage of School-Age Teachers With:			
College degree	<b>42.9</b>	<b>50.0</b>	42.7
Associate's degree	<b>0.0</b>	11.5	34.7
Some college	7.2	26.9	16.0
Child development associate training	21.4	<b>7.7</b>	4.0
High <b>school</b> diploma	28.6	3.8	1.3
Less than high school	0.0	0.0	1.3
Unknown	0.0	0.0	0.0

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

TABLE III.19

## EDUCATIONAL QUALIFICATIONS OF FAMILY DAY CARE PROVIDERS

	Camden	Newark	South Chicago
Percentage of Family Providers Whose Highest Educational Credential Is:			
College degree	<b>5.9</b>	3.7	4.6
Associate's degree	2.1	0.0	3.1
Some college	11.9	16.7	19.3
Vocational training	6.0	1.4	0.1
High school diploma	32.0	31.9	38.8
Less than high school	42.0	46.3	34.1
Percentage of Family Providers With Specific Child Care Training:			
	44.3	33.2	42.8
Courses in child development or early education	<b>35.9</b>	22.8	37.8
Child development associate training	1.1	1.6	3.6
Teacher training	2.8	2.0	5.2
<b>Nurse's/health</b> training.	8.3	4.0	5.9
Training by referral or government agency	4.0	3.4	0.6
Child care courses	3.8	2.8	4.8
Other training	10.9	5.7	7.5

SOURCE : Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

in child care centers, substantial percentages of family providers are not high school graduates. Approximately one-third of family providers in South Chicago and nearly one-half of family providers in each of the New Jersey sites do not have a high school diploma. Very few (less than 10 percent) paid family day care providers have any college credentials. A surprisingly high number (30 to 44 percent) of family providers reported, however, that they had received some specific child care training, most often courses in child development or early education, but the extensiveness and content of those courses is **unknown**.<sup>1</sup>

#### F. CHILD-STAFF RATIOS

An important structural feature of child care settings that is widely believed to be related to quality of care in terms of developmental outcomes and safety for children is the **child-staff** ratio. As was the case for utilization rates, there are a number of measurement issues that must be considered in calculating child-staff ratios. Among these issues are (1) whether to include nonclassroom staff; (2) the time of day that the child-staff ratio will be measured or, alternatively, whether hours per day of staff and children in care will be taken into account; and (3) whether child absences will be taken into account. The first two issues were resolved in the design phase of the project, when it was decided that **only** classroom staff would be included in the child-staff ratio and that child-staff ratios would be measured for children in specific age groups during a

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<sup>1</sup>In South Chicago, licensed family providers are more likely than unlicensed **providers** to have at least a high school diploma, but even 20 percent of licensed family providers do not have a high school diploma. However, licensed family providers were much more likely than unlicensed providers to have had some child care training.

typical morning activity period. The option of adjusting child-staff ratios to reflect absence rates remains, although because we don't have specific information on absence rates, we have opted to make no adjustment for absences in our calculations of child-staff ratios.

Table 111.20 describes overall child-staff and child-teacher ratios for child care **centers in** each site. These overall child-staff and **child-**teacher ratios were calculated by dividing the total number of children enrolled in the center by the total number of classroom staff (or teachers) employed in each center. These ratios **are** not standardized for the age composition of enrollment in the centers or adjusted to account for the hours worked by the staff or the hours enrolled children are in care and, thus, are rough measures. However, since most teachers work full-time and most children are enrolled full-time in the centers, the ratios are likely to be reasonable **summary** measures of this dimension of quality of care. The average child-staff and child-teacher ratios in centers in the three sites are similar, with child-staff ratios ranging from 5.4 to 7.0 and child-teacher ratios ranging from 12.5 **to** 14.6. The majority of centers in each site have child-staff ratios between 3 and 6 children per staff member, but one-fourth of all centers in each site have child-staff ratios greater than 6.

Because **child-staff** ratios can be strongly affected by the age composition **of** children enrolled in the center, it is important to examine child-staff ratios separately for children in different age groups. Table III.21 presents child-staff ratios assembled from information collected about specific groups of children in each center during a typical morning activity period. Average child-staff ratios for each age group

TABLE 111.20

## CHILD-STAFF AND CHILD-TEACHER RATIOS IN CHILD CARE CENTERS

	Camden	Newark	South Chicano
Child-Staff Ratio: <sup>a</sup>			
Average	5.5	5.4	7.0
Median	5.6	5.4	6.3
Minimum	1.6	0.8	1.7
<b>Maximum</b>	10.0	10.0	14.3
Child-Teacher Ratio:			
Average	12.5	14.6	14.4
Median.	13.4	15.0	10.1
<b>Minimum</b>	2.8	4.8	5.0
<b>Maximum</b>	26.7	32.3	40.0
Percentage Distribution of Centers by Child-Staff Ratio:			
1-2 children per staff member	<b>9.5</b>	12.0	10.6
3-4 children per staff member	33.3	28.0	20.2
5-6 children per staff member	33.3	36.0	28.7
7-9 children per staff member	19.0	20.0	25.5
10 or more children per staff member	4.8	4.0	14.9
Percentage Distribution of Centers by Child-Teacher Ratio:			
1-2 children per teacher	4.8	0.0	0.0
3-4 children per teacher	4.8	2.0	0.0
5-6 children per teacher	9.5	8.0	16.0
7-9 children per teacher	19.0	16.0	24.5
10 or more children per teacher	61.9	74.0	59.6

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

- <sup>a</sup> The overall child-staff and child-teacher ratios were calculated by dividing the total number of children enrolled in the center by the total number of classroom staff (or teachers) employed in each center.



were calculated on the basis of all groups of children that included children in the specific age group. As expected, the child-staff ratios increase with the child's age from about 3 children per caregiver for infants, to 7 or, 8 **children per caregiver** for 5 year olds. The pattern of child-staff ratios by age of child is very similar across sites.

Table III.21 also presents the maximum child-staff ratios permitted by state regulations in each site. Average child-staff ratios are well below the maximum child-staff ratios permitted by regulations in nearly all cases. The only exception is the average child-staff ratio for **16-** to **23-** month-old children in South Chicago. In several age groups there are centers that reported child-staff ratios that exceed licensing regulations. However, caution must be exercised in interpreting these comparisons, because the licensing regulations are not adjusted for age-mixed classrooms and many groups include children in **more. than** one age group.

The child-staff ratios experienced by children in family day care settings range from less than 1 child per adult to' 20 children per adult (Table 111.22). However, the typical child-staff ratio in family day care settings is approximately 2 to 3 children per adult. Nearly one-half of all family day care providers maintain a child-adult ratio of 2 **or** less.

#### G. TRANSPORTATION AND MEAL SERVICES

Approximately one-fourth of all child care centers in the New Jersey sites offer transportation services, while only 8 percent of child care centers in South Chicago provide transportation for the children in their care. However, as Table III.23 demonstrates, only small percentages of children enrolled in child care centers in each site receive transportation services (4 percent in Camden, 12 percent in Newark, and 13

TABLE III.21

CHILD-STAFF RATIOS FOR CHILDREN IN SPECIFIC AGE GROUPS  
IN CHILD CARE CENTERS

Ane of Children	Child-Staff Ratios				Regulations
	Mean	Median	Minimum	Maximum	
Camden					
0 to 18 months old	3.1	3.2	1.7	4.0	4.0
18 to 30 months old	5.2	3.5	2.3	14.0	7.0
30 to 48 months old	4.0	3.5	2.1	8.0	10.0
4 years old	6.9	6.0	2.4	12.0	15.0
5 years old and above	8.5	9.0	2.9	12.5	15.0
Newark					
0 to 18 months old	2.7	2.6	0.5	4.5	4.0
18 to 30 months old	4.0	3.5	0.7	9.5	7.0
30 to 48 months old	3.9	3.7	0.7	9.0	10.0
4 years old	7.6	7.5	1.0	20.0	15.0
5 years old and above	7.2	8.0	0.8	15.0	15.0
South Chicago					
3 to 15 months old <sup>a</sup>	2.7	1.9	1.1	6.7	4.0
16 to 23 months old <sup>a</sup>	5.4	5.0	1.7	10.0	5.0
2 years old	5.5	5.2	1.2	13.0	8.0
3 years old	5.9	5.2	1.2	20.0	10.0
4 years old	6.2	5.0	1.2	19.0	10.0
5 years old and above	8.6	8.0	1.8	20.0	20.0

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

NOTE: Groups in which children in the given age group are represented are included in the calculation of the child-staff ratio for each age group.

<sup>a</sup> There are very few centers that serve children in this age group.

TABLE III.22

## CHILD-STAFF RATIOS IN FAMILY DAY CARE

	Camden	Newark	South Chicago
Child-Staff Ratio: <sup>a</sup>			
Average	3.1	2.9	3.4
Median	3.0	3.0	4.0
Minimum	0.5	0.7	1.0
<b>Maximum</b>	10.0	7.0	20.0
Percentage Distribution of Providers by Child-Staff Ratio:			
1-2 children per staff member	48.3	48.1	39.2
3-4 children per staff member	33.4	40.5	34.2
5-6 children per staff member	11.3	10.0	19.6
7-9 children per staff member	2.9	1.4	6.9
10 or more children per staff member	4.1	0.0	0.1

SOURCE: Surveys of Child Care Supply<sup>1</sup> and Needs (**Mathematica** Policy Research, Inc., 1988).

- <sup>a</sup> The child-adult ratio is calculated by dividing the total number of children cared for by the provider by the number of adults who help care for children.

TABLE III.23

## MEAL AND TRANSPORTATION SERVICES PROVIDED BY CHILD CARE CENTERS

	Camden	Newark	South Chicago
<u>Transportation</u>			
Percentage of Centers That Provide Transportation	28.6	25.0	8.4
Percentage of Enrolled Children Who Use Transportation	4.4	11.5	12.5
Average Price Per Week For Transportation When Not Included in Regular Fees	---	\$11.35 <sup>a</sup>	\$23.40 <sup>1</sup>
<u>Meals</u>			
Percentage of Centers That Prepare and Serve:			
Any meal	<b>90.5</b>	<b>90.4</b>	<b>94.7</b>
Breakfast	<b>90.5</b>	86.5	61.1
Lunch	<b>90.5</b>	90.4	88.4
Dinner	<b>0.0</b>	3.8	1.1
All three meals	<b>0.0</b>	3.8	0.0
Percentage of Centers That Follow a Prescribed Meal Pattern	<b>90.5</b>	88.5	88.4
Percentage of Centers That Participate in the Child Care Food Program	81.0	73.1	45.3
Percentage of Centers That Receive Free Food or Government Surplus Food	23.8	36.5	23.2
Percentage of Centers That Receive Other Meal Subsidies	28.6	19.2	7.4

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> These numbers are based on small sample sizes.

percent in South Chicago). In the case of most centers that provide transportation, the cost of transportation is included in their regular fee. Based on the few centers that charge extra for transportation, the average additional fee in Newark is \$11.35 and in South Chicago is \$23.40 per week.

A large majority of all child care centers in all three sites serve at least one meal per day. Nearly all centers that provide at least one meal prepare and serve lunch to children in their care. Substantial percentages of centers also serve breakfast, but very few centers prepare and serve dinner. Nearly all centers that serve meals reported that they follow a prescribed meal pattern in preparing meals.

Table III.23 also shows that approximately three-fourths of all centers in the two New Jersey sites participate in the Child Care Food Program (CCFP), while about one-half of centers in South Chicago participate in the CCFP. Child care centers are eligible to participate in the CCFP if they are nonprofit institutions or if they receive compensation for child care under Title XX for at least one-fourth of the children enrolled in the center. Participating centers receive reimbursement for meals and snacks served, with reimbursement rates based on the family incomes of children enrolled. In addition to participation in the CCFP, nearly one-quarter of all centers in Camden and South Chicago and more than one-third of centers in Newark receive free food or government surplus food. Other meal subsidies are received by 29 percent of centers in Camden, 19 percent of centers in Newark, and 7 percent of centers in South Chicago.

Fewer paid family day care providers prepare and serve meals for the children in their care. Table III.24 shows that 67 percent of family providers in Camden, 53 percent of family providers in Newark, and 45 percent of family providers in South Chicago prepare and serve at least one meal per day. Relative to child care centers, however, there is greater variation in the proportion of family providers serving specific meals. In particular, a much higher percentage of family providers prepare and serve dinner to children in their care, and higher percentages of family providers in all three sites prepare and serve three meals per day.

Only small percentages of family day care providers participate in the CCFP (less than 1 percent of all paid family day care providers in Newark, 4 percent in Camden, and nearly 6 percent in South Chicago). Family day care providers are eligible to participate in the CCFP if they meet state licensing requirements where they are imposed or are approved by a state or local agency and if they are sponsored by an organization that will assume responsibility for ensuring compliance with federal and state regulations and act as a conduit for meal service reimbursements. Given the eligibility requirements for participation and the low registration/licensing rates among family day care providers (see Table **III.2**), it appears that a substantial proportion of family day care providers who are licensed also participate in the CCFP. Very few family providers receive other meal subsidies.

## **H. HEALTH AND SAFETY**

Table III.25 describes the policies of child care centers and family day care providers regarding health and safety. Very few child care centers allow parents to leave children who are obviously sick (have a

TABLE III.24

## MEAL SERVICES PROVIDED BY FAMILY DAY CARE PROVIDERS

	Camden	Newark	South Chicago
Percentage of Providers Who Prepare and Serve:			
Any meal	66.6	52.8	45.3
Breakfast	29.1	41.5	32.8
Lunch	43.4	46.0	43.3
Dinner	29.0	24.0	24.2
All three meals	15.6	1a.5	19.2
Percentage of Providers Who Follow a Prescribed Meal Pattern	13.4	18.1	11.6
Percentage of Providers Who Participate in the Child Care Food Program	4.3	0.3	5.5
Percentage of Providers Who Receive Free Food or Government Surplus Food	5.6	0.3	5.8
Percentage of Providers Who Receive Other Meal Subsidies	0.5	0.0	3.0

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

TABLE III.25

## POLICIES REGARDING HEALTH AND SAFETY

	Camden	Newark	South Chicago
<u>Child Care Centers</u>			
Percentage of Centers That Allow Parents to Leave Children Who:			
Have a feverish appearance	14.3	<b>1.9</b>	3.2
Have severe coughs	9.5	13.5	8.5
Have unusual spots or rashes	0.0	3.8	3.2
Percentage of Centers That Have Separate Areas to Isolate Sick Children	<b>95.2</b>	<b>92.3</b>	<b>95.8</b>
Percentages of Centers That Will Administer (With Permission):			
Over-the-counter medications	14.3	40.4	<b>29.8</b>
Prescription medications	95.2	73.1	60.7
<u>Family Day Care Providers</u>			
Percentage of Providers Who Allow Parents to Leave Children Who:			
Have a feverish appearance	71.8	51.7	64.5
Have severe coughs	72.9	57.8	63.0
Have unusual spots or rashes	55.5	38.1	43.6
Percentage of Providers Who Have Separate Areas to Isolate Sick Children	52.5	45.8	60.7
Percentages of Centers That Will Administer (With Permission):			
Over-the-counter medications	86.1	83.7	86.1
Prescription medications	87.8	89.0	92.9
Percentage of Providers Who Have:			
Doctor's phone number for each child	74.0	81.8	77.0
Medical releases for emergencies	29.1	57.2	49.0
Practice fire drills	17.1	28.3	25.0

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).



feverish appearance, severe coughs, or unusual spots or rashes). However, in accordance with state licensing requirements, most centers reported that they have a separate area in which they can isolate children who become sick while at the center.

There **is** wide variation in the policies of centers with regard to administering medication. Only 14 percent of centers in Camden will administer over-the-counter medications to children in their care (with parental permission), but nearly all centers in Camden will administer prescription medications. In Newark, 40 percent of centers will administer nonprescription medications, and 73 percent will administer prescription medications. Finally, in South Chicago, 30 percent of centers will administer nonprescription medications, and 61 percent of centers will administer prescription medications. Both New Jersey and Illinois regulate the conditions under which medications may be administered.

Paid family day care providers are substantially more likely than centers to allow parents to leave children who are sick. Between one-half and three-fourths of all family day care providers in the three sites allow parents to leave children who have a feverish appearance or have severe coughs, and a third to half of providers will allow parents to leave children with unusual spots and rashes. Most family day care providers are also willing to administer both prescription and nonprescription medications to the children they care for. Although substantial percentages of family providers are willing to care for sick children, only about one-half of all family providers have an area where they can isolate sick children.

All child care centers in the three sites are required by state regulations to keep records for each child that include a doctor's phone number and a medical release for emergency treatment. Centers are also required to conduct regular fire drills. Therefore, child care centers were not questioned about their recordkeeping and safety practices in these areas. Unlicensed family day care providers face no similar requirements: therefore, we examined family provider practices in obtaining these medical records and in conducting fire drills. Approximately 75 percent of paid family day care providers reported that they have a doctor's phone number for each child in their **care**.<sup>1</sup> Even smaller percentages of family providers have medical releases for emergency treatment for each child. Only 29 percent of family providers in Camden, 57 percent of family providers in Newark, and 49 percent of **family** providers in South Chicago reported that they have medical releases for all children in their care. Finally, only 17 percent of family providers in Camden, 28 percent of family providers in Newark, and 25 percent of providers in South Chicago have had practice fire drills with the children they are currently caring **for**.<sup>2</sup>

#### I. FEES CHARGED FOR **CHILD** CARE

The next five tables describe the policies and fees charged by child care centers and paid family day care providers in each site. Table

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<sup>1</sup>**Those** providers who do not have a doctor's phone number for each child may be more careless than other family providers, or the children in their care may belong to families that have no regular source of care.

<sup>2</sup>**In** South Chicago, licensed family day care providers are much more likely to have doctors' phone numbers for each child (95 percent), to have medical releases for each child (92 percent), and to have practiced five drills with their children (83 percent).

III.26 shows that substantial proportions of child care centers in each site adjust their fees on the basis of a variety of criteria, although in every case, smaller proportions of centers in South Chicago adjust their fees. The most common fee adjustment made by centers is an adjustment for the number of children from one family in care at the center. Other adjustments made by more than 50 percent of all centers are those based on family income and total family size (New Jersey sites only). Relatively few centers adjust their fees according to hours in care, especially in the New Jersey sites, which suggests that the supply of center care may be tight in these areas.

In contrast to child care centers, family day care providers are substantially more likely to adjust their fees on the basis of hours in care. In addition, substantial proportions of family providers will adjust their fees depending on their relationship with the child's family, the number of children from one family, and family income.

Among the relatively few centers that do not adjust their fees, the average weekly fee is \$37 in Camden, \$49 in Newark, and \$24 in South Chicago. Among those centers that adjust fees, the average weekly fees for children from moderate- to high-income families vary across the three sites (see Table 111.27). The average fees for toddlers and preschool-age children in the two New Jersey sites are quite similar (all between \$35 and \$39 per week), but the average weekly fee for infants is considerably higher in Camden than in Newark (\$69 versus \$44). The average weekly fees for children from moderate- to high-income families in South Chicago are higher in all age groups than the corresponding fees in the two New Jersey

TABLE III.26

## POLICIES OF CHILD CARE PROVIDERS REGARDING FEE ADJUSTMENTS

	Camden	Newark	South Chicago
Percentage of Centers That Adjust Their Fees Depending On:			
Family income	71.4	<b>59.6</b>	18.9
Age of child	38.1	5.8	15.8
Number of children from one family	85.7	78.8	63.2
Total family size	66.7	59.6	17.9
Whether the child is toilet trained	4.8	5.8	8.4
Whether parent or agency pays	14.3	7.7	14.7
Number of hours per week in care	14.3	7.7	34.7
Special needs	0.0	0.0	2.1
Percentage of Family Providers Who Adjust Their Fees Depending On:			
Family income	42.1	<b>39.1</b>	<b>38.9</b>
Age of child	33.0	21.9	31.8
Number of children from one family	<b>49.7</b>	40.1	46.6
Whether the child is toilet trained	21.5	14.4	17.4
Whether parent or agency pays	17.1	27.7	19.2
Number of hours per week in care	<b>69.4</b>	<b>49.4</b>	54.0
Special needs	16.0	11.4	3.8
Relationship with family	44.4	37.6	36.8
Other	12.5	2.1	9.4

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

TABLE III.27

## FEES CHARGED BY CHILD CARE CENTERS

	N	Mean	Median	Minimum	Maximum
<hr/>					
Camden					
<hr/>					
Basic Weekly Fee Charged by Centers That Do Not Adjust Their Fee	1	<b>\$36.95</b>	<b>\$36.95</b>	<b>\$36.95</b>	<b>\$36.95</b>
Weekly Fee Charged to Parents for Child From Moderate to High Income Family:					
Infant	<b>5</b>	\$68.80	\$60.00	\$34.00	\$146.00
Toddler	11	\$35.78	\$34.00	\$21.00	\$70.00
Preschool child	<b>15</b>	\$34.65	\$30.00	\$20.00	\$63.00
Weekly Fee Charged to Parents for Child From. Low-Income Family:					
Infant	4	\$ 3.63	\$ 3.50	\$ -2.00	\$ 5.50
Toddler	a	\$ 3.75	\$ 2.00	\$ 1.99	<b>\$ 8.50</b>
Preschool child	10	<b>\$ 5.29</b>	\$ 3.00	\$ 1.99	\$20.00
<hr/>					
Newark					
<hr/>					
Weekly Basic Fee Charged by Centers That Do Not Adjust Their Fee	6	\$48.52	\$49.50	\$20.00	\$71.13
Weekly Fee Charged to Parents for Child From Moderate to High Income Family:					
Infant	<b>9</b>	\$43.60	\$34.00	\$13.16	\$75.00
Toddler	30	\$38.58	\$30.00	\$14.90	\$75.00
Preschool child	21	\$37.35	\$35.00	\$14.90	\$60.00

TABLE III.27 (continued)

	N	Mean	Median	Minimum	Maximum
<b>Newark</b>					
Weekly Fee Charged to Parents for Child From Low-Income Family:					
Infant	7	\$ 7.67	\$ 5.96	\$ 2.00	\$25.00
Toddler	22	\$ 8.07	\$ 2.00	\$ 0.23	\$46.19
Preschool child	17	\$10.51	\$ 4.04	\$ 0.23	\$60.00
<b>South Chicano</b>					
Basic Weekly Fee Charged by Centers That Do Not Adjust Their Fee					
	19	\$24.47	\$30.00	\$ 0.00	\$50.00
Weekly Fee Charged to Parents for Child From Moderate to High Income Family:					
Infant	4	\$98.75	\$92.50	\$85.00	\$125.00
Toddler	39	\$57.18	\$50.00	\$16.00	\$125.00
Preschool child	51	\$46.14	\$46.50	\$ 0.00	\$80.00
Weekly Fee Charged to Parents for Child From Low-Income Family:					
Infant	0	-----	-----	-----	-----
Toddler	10	\$31.80	\$40.00	\$ 0.00	\$70.00
Preschool child	17	\$27.04	\$18.50	\$ 0.00	\$70.00

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

sites, ranging from \$46 per week for a preschool-age child to \$99 per week for an infant.

Average weekly fees for children from low-income families are substantially lower than the average fees for higher-income children and also vary across the three sites. In Camden and Newark, a minimal fee is charged to parents for all children from low-income families, but the fees are very low, averaging from \$4 per week for infants and toddlers to \$5 to \$11 per week for preschool-age children. The average weekly fees charged by centers for children from low-income families in South Chicago are substantially higher than those charged by centers in the New Jersey sites. No child care centers in our sample for South Chicago care for infants from low-income families. The average weekly fee for low-income toddlers is \$32 per week and the average weekly fee for low-income preschool-age children is \$27 per week. However, unlike in Camden and Newark, there are centers in South Chicago that do not charge low-income parents for care.

Between one-fourth and one-third of all centers in each site currently enroll some children who are paid for by a government agency, primarily through direct payments from the agency to the center. Table III.28 shows that among centers who have any subsidized children, the average number of government-subsidized children ranges from 6 children per center in Camden to 18 children per center in Newark. The use of vouchers as a means to implement a subsidy appears to be more common in South Chicago than in the two New Jersey sites.

The fees charged by family day care providers in each site are summarized in Table III .29. Since many family day care providers reported that they adjust their fees based on hours in care, average hourly fees for

TABLE III.28

## GOVERNMENT SUBSIDIES RECEIVED BY CHILD CARE CENTERS

	Camden	Newark	South Chicago
Percentage of Centers That Have Any Children Paid For By a Government Agency			
Paid to parent	22.7	3.8	<b>0.0</b>
Paid to center	36.4	25.0	20.0
With a voucher	14.3	0.0	23.2
Among Centers That Have Any Subsidized Children, The Average Number of Children Per Center Who:			
Are subsidized	5.5	18.1	14.1
Pay with a voucher	1.1	0.3	5.2
Average Percentage of Children Who Are Subsidized	7.9	14.2	15.6

**SOURCE:** Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).



TABLE III.29

## FEES CHARGED BY FAMILY DAY CARE PROVIDERS

	Mean	Median	Minimum	Maximum
<b>Camden</b>				
Hourly Fee Charged to Parents For:				
All Care	<b>\$1.47</b>	\$1.15	\$0.00	\$7.04
Full-time Care <sup>a</sup>	\$1.09	\$0.91	\$0.00	\$4.80
Part-time Care	\$1.89	\$1.36	\$0.00	\$7.04
<b>Newark</b>				
Hourly Fee Charged to Parents For:				
All Care	\$1.41	\$0.96	\$0.20	\$5.00
Full-time Care	\$1.12	\$0.75	\$0.22	\$4.00
Part-time Care	\$2.01	\$1.40	\$0.20	\$5.00
<b>South Chicago</b>				
Hourly Fee Charged to Parents For:				
All Care	\$1.88	\$1.07	\$ 0 . 0 2	\$8.00
Full-time Care	\$1.68	\$0.95	\$0.02	\$8.00
Part-time Care	\$1.97	\$1.40	\$0.00	\$7.00

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> Full-time is defined as 40 hours per week or more.

care were calculated separately for full-time and part-time care.<sup>1</sup> In all three sites, the average hourly fee for part-time care is greater than the average hourly fee for full-time care, with the differential ranging from 15 percent higher fees for part-time care in South Chicago to 60 percent higher fees for part-time care in Newark. The average hourly fee for **full-time** care in Camden is \$1.09, which is equivalent to \$44 for a 40-hour week, a fee that is in the middle of the range of weekly fees charged by centers in Camden. In Newark, the average hourly fee for full-time care is \$1.12, which is equivalent to \$45 per week for a 40-hour week. Again, this average weekly fee is only slightly less than the average fees charged by centers in Newark. Finally, in South Chicago, the average hourly fee for full-time care charged by family day care providers is \$1.68 per hour, equivalent to a weekly fee of \$67 for a **40-hour** week, considerably higher than the average fees charged for full-time care by family providers in the two New Jersey sites and the average weekly fees charged by child **care** centers in South Chicago.

The range of hourly fees charged by paid family day care providers for children in their care is very large, extending from no charge to \$5 or more an hour. Therefore, it is instructive in this case to examine not only average fees but also median fees. When we consider the median fees charged by family providers in each sites, it is clear that the fees charged for family day care are more similar across the three sites than indicated by the average fees. The median hourly fees for full-time care range from \$0.75 in **Newark** to \$0.95 in South Chicago. The weekly fees implied by these median hourly rates for a **40-hour** week are much more

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<sup>1</sup>**Full-time** is defined as 40 hours per week for this calculation.

comparable to the average fees charged by child care centers in each site (\$36 per week in Camden, \$30 per week in Newark, and \$38 per week in South Chicago).

The median hourly fees charged by paid family day care providers decrease with the age of the child in Camden and South Chicago, but do not vary systematically with age in Newark. In Camden, the median family day care provider charges \$1.30 per hour for an infant, \$1.00 per hour for a toddler, and \$0.78 per hour for a preschool-age child. These fees are equivalent to \$52, \$40, and \$31 per **40-hour** week, respectively. In South Chicago, the median family provider charges \$1.11 per hour for an infant, \$1.00 per hour for a toddler, and \$0.97 per hour for a preschool child (or \$44, \$40, and \$39 per **40-hour** week, respectively). The median fees in Newark are much smaller. The median family provider in Newark charges \$0.83 per hour for an infant, \$0.63 per hour for a toddler, and \$0.81 per hour for a preschool child (or \$33, \$25, and \$32 per 40-hour week, respectively).

#### J. OPERATING EXPERIENCES

Table III.30 describes the experiences of child care centers and paid family day care providers in each site with liability insurance. All centers in all three sites are required by licensing regulations to carry liability insurance. Regulated family day care providers in Illinois (but not in New Jersey) are also required to have liability insurance. Only small percentages of centers reported that they had difficulty in obtaining liability insurance (5 percent in Camden and 14 percent in both Newark and South Chicago). Slightly higher percentages of centers reported that they

TABLE 111.30

## EXPERIENCES OF CHILD CARE PROVIDERS WITH LIABILITY INSURANCE

	Camden	Newark	South Chicago
<u>Child Care Centers</u>			
Percentage of Centers That Have:			
Had difficulty obtaining liability insurance	4.8	13.5	13.5
Had to increase fees to pay higher insurance premiums	14.3	11.5	<b>23.1</b>
<u>Family Day Care Providers</u>			
Percentage of Providers Who Have Liability Insurance	44.1	<b>39.4</b>	<b>49.6</b>
Among Providers With Liability Insurance:			
Percentage who had difficulty getting it	4.4	<b>0.0</b>	3.0
Percentage who have had coverage reduced in last two years	15.8	8.2	12.2
Percentage who made claims in the last two years	8.7	0.0	2.9
Percentage whose rates rose in the last two years	26.9	33.5	21.0
Among Providers Without Liability Insurance:			
Percentage who had insurance in the past	<b>7.9</b>	<b>5.9</b>	5.2
Percentage who never had insurance but tried to get it	1.9	2.6	2.5

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

have had to increase fees to pay higher liability insurance premiums (14 percent in Camden, 12 percent in Newark, and 23 percent in South Chicago).

Less than **50** percent of all family day care providers in each site reported that they are covered by liability insurance. Among family providers who have liability insurance, only small percentages of providers reported that they had difficulty in obtaining liability insurance. However, between 8 and 16 percent of family providers with insurance reported that their coverage had been reduced in the last two years, and between 21 and 34 percent of family providers with liability insurance reported that their rates had risen within the last two years. Only small percentages of family providers with liability insurance had filed claims against their insurance within the last two years (0 percent in Newark, .3 percent in South Chicago, and 9 percent in Camden).

Among family day care providers who do not currently have liability insurance, between **5** and 8 percent had liability insurance in the past, and only 2 to 3 percent had tried to get liability insurance. Thus, this study does not provide evidence that there is a liability insurance crisis in the three cities in the study.

Tables III.31 and III.32 describe other operating problems experienced by child care providers in the three sites. Table III.31 shows that, the most **common** and most serious problem reported by child care centers is receiving parent payments on time. Between two-thirds and three-fourths of all centers reported having this problem, and between **one-third** and one-half reported that it was a problem that happened frequently. Other common problems experienced by centers include receiving agency payments on time and parents routinely picking up children late.

TABLE III.31

## OPERATING EXPERIENCES OF CHILD CARE CENTERS

	Camden	Newark	South Chicago
Percentage of Child Care Centers That Have Had The Following Experiences:			
Problems receiving parent payments on time	66.7	73.1	73.4
Problems receiving agency payments on time	23.8	28.8	44.6
Not enough income to cover monthly operating expenses	19.0	34.6	34.8
Not enough income to pay for equipment or supplies	14.3	25.0	32.2
Parents routinely picking up children late	33.3	51.9	50.0
Parents unresponsive or uninvolved with staff concerns about child	28.6	42.3	33.0
Difficulty meeting licensing requirements	4.8	19.2	9.9
Percentage of Child Care Centers For Whom The Following Experiences Are Serious or Happen Frequently:			
Problems receiving parent payments on time	33.4	46.2	36.7
Problems receiving agency payments on time	14.3	19.2	38.6
Not enough income to cover monthly operating expenses	9.5	9.6	19.1
Not enough income to pay for equipment or supplies	4.8	13.5	21.1
Parents routinely picking up children late	14.3	32.7	28.7
Parents unresponsive or uninvolved with staff concerns about child	0.0	17.3	8.8
Difficulty meeting licensing requirements	0.0	3.8	4.4

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

TABLE III.32

## OPERATING EXPERIENCES OF FAMILY DAY CARE PROVIDERS

	Camden	Newark	South Chicago
Percentage of Family Providers Who Have Had The Following Experiences:			
Problems receiving parent payments on time	17.8	19.2	21.0
Problems receiving agency payments on time	5.9	2.7	2.5
Irregular income	6.9	4.2	8.5
Parents routinely picking up children late	34.5	22.0	16.2
Problems caused by child turnover	4.2	2.2	2.8
Difficulty keeping up with paperwork	1.9	0.8	<b>0.9</b>
<b>Own</b> children resent other kids	15.0	5.3	<b>6.9</b>
Had to do other things while caring for children	21.8	14.0	23.6
Husband resents disruptions due to child care	5.4	4.8	1.6
Percentage of Family Providers For Whom The Following Experiences Are Serious or Happen Frequently:			
Problems receiving parent. payments on time	3.4	4.6	4.9
Problems receiving agency payments on time	<b>2.9</b>	1.2	0.5
Irregular income	1.9	0.3	2.6
Parents routinely picking up children late	14.9	12.0	4.4
Problems caused by child turnover	1.1	0.0	1.5
Difficulty keeping up with paperwork	<b>0.0</b>	0.2	0.1
<b>Own</b> children resent other kids	0.3	0.0	0.7
Had to do other things while caring for children	11.2	4.5	13.5
Husband resents disruptions due to child care	2.2	0.0	0.0

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

Considerably smaller percentages of family **day** care providers reported having similar problems. Only about 20 percent of family day care providers reported that they had problems receiving parent payments on time, and--less than **5** percent of them reported that this problem happened frequently. **The** most serious problems experienced by family day care providers are parents routinely picking up children late and having to do other things while caring for children. Between one-fourth and one-third of all family day care providers reported that they had problems with parents picking up children late and about half of these providers reported that this problem happened frequently. Similarly, between 14 and 24 percent of all family day care providers said that they had to do other things while caring for children, and about half of these providers said that this happened frequently.

#### **K. CHARACTERISTICS OF PAID FAMILY DAY CARE PROVIDERS**

As seen in Table 111.33, nearly all paid family day care providers are women in all three sites. For the most part, the race and ethnicity of paid family child care providers reflects the racial and ethnic distribution of the population as a whole in each area. In Newark, paid family providers are somewhat more likely than the general population to be black, but the difference is not large (58 percent of providers versus 47 percent of the population are black). In South. Chicago, the race and ethnicity of unlicensed family day care providers generally reflects the racial composition of the community, but licensed family providers are nearly all black. More than three-fourths of paid family providers care for children who are all of the same race as they are. Approximately 20



TABLE III.33

## DEMOGRAPHIC CHARACTERISTICS OF PAID FAMILY DAY CARE PROVIDERS

	Camden	Newark	South Chicago
Percentage of Paid Family Providers Who Are Female	99.2	99.6	98.6
Percentage of Paid Family Providers Who Are:			
White	70.1	37.7	<b>59.1</b>
Black	25.4	57.6	<b>39.9</b>
Other races	4.5	4.7	1.0
Hispanic	10.0	14.5	4.3
Percentage of Paid Family Providers Who Care For Children, <b>All</b> of Whom Are The Same Race As They Are	83.3	87.7	<b>75.7</b>
Percentage of <b>Paid Family</b> Providers Who Speak A Language Other Than English	20.3	21.3	13.6
Percentage of Paid Family Providers Who Live In:			
A house	82.1	63.5	<b>79.2</b>
An apartment	17.6	32.8	19.1
A condominium	0.2	3.7	1.8
Percentage of Paid Family Providers Who Live — Blocks From Public Transportation			
1 block	54.7	74.6	40.6
2 to 6 blocks	36.5	25.3	47.6
More than 6 blocks	a.9	0.0	11.7

TABLE III.33 (continued)

	Camden	Newark	South Chicago
Percentage of Paid Family Providers Whose Family Income Is:			
\$0 to \$6,000	11.5	24.1	7.2
\$6,001 to \$12,000	15.1	18.0	7.7
\$12,001 to \$18,000	12.8	8.1	8.9
\$18,001 to \$24,000	9.9	1.6	9.6
\$24,001 to \$30,000	10.7	6.3	20.3
More than \$30,000	12.3	10.7	19.1
Don't know or refused	27.8	31.2	27.1

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

percent of paid family providers in the New Jersey sites speak a language other than English, while only 14 percent of paid family providers in South Chicago speak a language other than English.

The living situation of paid family day care providers differs between the three sites. In Camden and South Chicago, more than **three-**fourths of paid family providers live in a house, whereas only 64 percent of paid family providers in Newark live in a house. Most of the remaining providers live in an apartment, although a few providers live in condominiums. Nearly all paid family providers live within six blocks of public transportation and in the two New Jersey sites, more than half of the providers live only one block from public transportation.

The family incomes of paid family day care providers are generally fairly low relative to the family incomes of other families with working mothers. Approximately 39 percent of providers in Camden, 50 percent in Newark, and 24 percent in South Chicago have family incomes below \$18,000 per year. The smaller percentage of paid providers with lower family incomes in South Chicago is consistent with the higher overall level of income in that area and the higher fees charged by providers in that site.

We attempted to gather information about the proportion of annual family income that came from providing child care, but over one-half of paid family providers did not acknowledge receiving income from child care when asked directly about it (probably because they do not declare that income for tax purposes). Although the family providers reported the amounts that they charge for the children they currently care for, it is not possible to calculate annual income from child care from this

information. Thus, we do not have reliable information about providers' incomes from child care.

#### L. SUPPLY OF CHILD CARE FROM UNPAID FAMILY DAY CARE PROVIDERS

Although family day care providers who are not paid for any of the care they provide were not interviewed in the Survey of Family Day Care Providers, they were asked a few questions about the care they provide in the screening instrument. Table III.34 shows that unpaid providers care for an estimated 2,500 preschool children in Camden, 5,700 preschool children in Newark, and 29,000 preschool children in South Chicago. Unpaid providers care for an average of 1.5 preschool children (other than their own) in the New Jersey sites and 2.0 preschool children in South Chicago, and thus, they do not differ, on average, from paid providers in the number of preschool children they care for.

Most unpaid family day care providers do not care for children full-time: only 20 percent of unpaid providers in South Chicago, 29 percent of unpaid providers in Newark, and 35 percent of unpaid providers in Camden care for children 40 hours per week or more. The average number of hours per week that unpaid family day care providers care for children ranges from 30 hours per week in South Chicago to 38 hours per week in Newark.

As Table III.34 indicates, a large majority of unpaid family day care providers care for at least one related child. More than 80 percent of unpaid providers in each site are related to children in their care. Most related child care providers are the grandparent of at least one child that they care for: 73 percent of unpaid caregivers in Camden, 72 percent in South Chicago, and 46 percent in Newark are caring for at least one

TABLE III.34

SUPPLY OF CHILD CARE FOR PRESCHOOL CHILDREN  
FROM UNPAID FAMILY DAY CARE PROVIDERS

	Camden	Newark	South Chicago
Total Number of Preschool Children Cared For By Unpaid Family Day Care <b>Providers<sup>a</sup></b>	1,701	9,479	14,354
Average Number of Preschool Children Cared For Per Unpaid Family Provider	1.5	1.5	2.0
Percentage of Unpaid Family Providers Who Care For Children <b>Full-time<sup>b</sup></b>	34.7	29.4	20.4
Average Number of Hours Per Week Unpaid Family Providers Care For Children	<b>33.0</b>	38.2	30.1
Percentage of Unpaid Providers Who Care For A Related Child	88.7	82.1	82.0
Among Those Who Care For Relatives, The Percentage Who Are The <b>Child's:<sup>c</sup></b>			
Grandparent	72.5	45.6	72.1
Aunt or uncle	21.5	34.9	26.1
Sibling or cousin	4.1	7.1	2.4
Other relative	3.9'	15.8	4.3

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

<sup>a</sup> These estimates are adjusted for survey undercount.

<sup>b</sup> Full-time is defined as 40 hours per week or more.

<sup>c</sup> Percentages may not sum to 100 percent because providers may care for more than one type of related child.

grandchild. Most of the remaining unpaid caregivers who care for related children are caring for at least one niece or nephew.

#### M. POTENTIAL ADDITIONAL SUPPLY OF FAMILY DAY CARE

As was the case with respect to the supply of unpaid child care, this study was not designed to explore in depth the amount of latent child care supply that exists in the three study sites. However, several questions designed to elicit some indication of potential child care supply were included in the screening instrument. Table III.35 reports the findings related to potential child care supply.

Approximately 5 percent of households in each site include a former child care provider or someone who has considered providing child care for pay. About half of these households include someone who has ever considered providing child care for pay. The percentage of former child care providers who plan to start caring for children again in the future ranges from 17 percent in South Chicago to 24 percent in Newark. A substantial proportion of former providers stopped providing child care because they got another job.

#### N. COMPARISON OF SELECTED FINDINGS TO NATIONAL ESTIMATES

The characteristics of the supply of child care in the three program sites are similar to the characteristics of the national supply of child care in 1976-77, the last year for which national estimates are available. As Table III.36 demonstrates, the child care centers in the three sites are larger in terms of average enrollment and are more highly utilized. However, characteristics of supply associated with the quality

TABLE III.35

## POTENTIAL SUPPLY OF FAMILY DAY CARE IDENTIFIED IN EACH SITE

	Camden	Newark	South Chicago
Percentage of Households That Include a Potential Child Care <b>Provider</b> <sup>a</sup>	<b>5.5</b>	4.1	6.4
Total Number of Potential Paid <b>Family</b> Providers Identified <sup>b</sup>	665	1,384	5,670
Percentage of Households With No Former Providers That Include Someone Who Has Ever Considered Providing Child Care For Pay	2.6	2.5	3.0
Percentage of <b>Former</b> Providers Who Plan To Start Caring For Children Again	17.6	24.4	17.3
Percentage of <b>Former</b> Providers Who Stopped Providing Care Because:			
They got another job	<b>45.9</b>	43.2	30.0
They did not make enough money	1.9	4.5	2.8
They lost their license	0.0	0.0	0.0
Other	49.3	48.5	62.5
Don't know	3.0	3.8	4.6

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

<sup>a</sup> Potential providers are defined to be household members who have cared for other children in the past or said that they have ever considered providing child care for pay.

<sup>b</sup> Estimates are not adjusted for survey undercount.

TABLE III.36

COMPARISON OF **SELECTED** FINDINGS WITH AVAILABLE NATIONAL ESTIMATES

	1976-77 National Day Care <b>Study</b>	1988 Surveys of Child Care <b>Supply</b> and Needs
<u>Enrollment</u>		
Average enrollment per center	<b>49</b>	68
Utilization <b>rate<sup>a</sup></b>	80	103
Percentage of enrollment under the age of two	14	<b>17</b>
<u>Qualities of Center Care</u>		
Average group size	18	15
Average child-staff <b>ratio<sup>b</sup></b>	6.8	6.6
<u>Fees for Center Care</u>		
Percentage of centers that adjust fees based on:		
Family income	24	31
Family size	38	30
Number of children from the same family	19	68
Age of the child	14	15
Average fee (standard)	<b>\$53<sup>c</sup></b>	\$44
Average fee (low-income)	<b>\$39<sup>c</sup></b>	\$22

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., **1988**).

**a** Calculation of utilization rates is not exactly the same in both studies. In the National Day Care Study, utilization rates are calculated as

**b** Child-staff ratios are not calculated in exactly the same way in both studies.

**c** Adjusted for inflation.



of care available are more similar, with average group sizes and **overall** child-staff ratios that are almost identical.

Except for the fact that centers are more likely to adjust their fees **on** the basis of the number of children from the same family, the policies of child care centers in the three sites with respect to fee adjustments are comparable to the policies of child care centers nationally ten years ago. When national estimates are adjusted for inflation in the last decade, average fees in the three program sites appear to be somewhat lower than average fees across the nation.

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#### IV. THE NEED FOR CHILD CARE

This chapter describes the use of child care by working mothers of preschool children. It begins with a discussion of the extent of working mothers' need for child care and an examination of the characteristics of preschool children in child care. The following sections describe preschool children's main care arrangements and how their mothers found those arrangements. In addition, the use of secondary child care arrangements and the use of care by relatives and household members are explored. Detailed characteristics of children's main arrangements are then examined, and mothers' satisfaction with their children's child care arrangements and the problems they have experienced with child care arrangements are discussed. Finally, the chapter ends with a brief examination of unmet demand in the three sites.

##### A. THE NEED FOR CARE BY WORKING MOTHERS

One of the most important factors that determine the child care options working mothers consider and the arrangements they make is the length of time the mother is away from home to work, attend school, or participate in job training, and the scheduling of these activities. It is also possible that the mother's schedule may be partly determined by the child care options available to her. Table IV.1 examines the activities and schedules of working mothers of preschool children in the three sites.

Approximately one-half of all mothers of preschool children work (in the broad sense of employment, school or training) in each site. The vast majority (88 to 94 percent) of these working mothers are employed, most of them outside the home. Between 13 and 18 percent of working

TABLE IV.1

ACTIVITIES AND SCHEDULES OF **WORKING<sup>a</sup>** MOTHERS OF PRESCHOOL CHILDREN

	Camden	Newark	South Chicago
Percentage of Mothers of Preschool Children Who Worked in the Last Four Weeks	47.6	58.7	55.4
Percentage of Working Mothers <b>Who:<sup>b</sup></b>			
Were employed	<b>93.7</b>	91.4	87.8
Were employed outside of their home	88.1	85.1	<b>80.6</b>
Went to school	13.7	12.7	18.0
Attended job training	3.7	1.5	1.4
Among Working Mothers Who Were <b>Employed</b> , Percentage Whose Hours Per Week Were:			
Under 10 hours	4.6	0.8	6.6
10 to under 30 hours	19.3	14.2	25.2
30 to 40 hours	36.6	42.1	28.1
More than 40 hours	39.5	42.9	40.1
Average hours <b>per week</b>	36.3	<b>38.9</b>	34.5
Among Working Mothers Who Were In School, Percentage Whose Hours Per Week Were:			
Under 10 hours	so.7	38.8	38.2
10 to under 30 hours	34.0	37.4	38.9
30 to 40 hours	15.3	23.8	21.4
More than 40 hours	0.0	0.0	1.5
Average hours per week	12.9	17.3	10.9

TABLE IV.1 (Continued)

	Camden	Newark	South Chicago
Among Working Mothers Who Were in Job Training, Percentage Whose Hours Per Week Were:			
Under 10 hours	80.0	12.0	68.2
10 to under 30 hours	15.6	40.8	31.8
30 to 40 hours	4.5	47.3	0.0
More than 40 hours	0.0	0.0	0.0
Average hours per week	7.9	24.8	15.7
Among Working Mothers, Percentage Whose Total Hours Per Week in Employment, School, or Job Training Were:			
Under 10 hours	5.9	3.4	
10 to under 30 hours	20.1	16.1	
30 to 40 hours	34.2	40.0	
More than 40 hours	39.8	40.6	
Average hours <b>per week</b>	36.0	37.9	
Percentage of Working Mothers Whose <b>Activity(ies)</b> Is/Are At Least Partly in Evenings or on Weekends			
	45.3	27.8	41.3
Percentage of Working Mothers For Whom Schedule Given is Typical			
	87.1	91.1	88.9

**SOURCE:** Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

**a.** Work is defined as employment, participating in job training, or going to school.

**b** Multiple responses can occur. Thus, percentages can sum to more than 100.

mothers of preschool children are in school (either instead of or in addition to working for pay) , and less than 4 percent of mothers in each site are in job training.

Employed mothers average between 35 to 39 hours a week, and 40 to 45 percent of them work over 40 hours per week. Part-time work is most prevalent among mothers of preschool children in Chicago, where 32 percent worked fewer than 30 hours a week, and it was least prevalent in Newark (16 percent). Full-time employment is, thus, the norm for mothers of preschool children who work for pay.

The vast majority (76 to 85 percent) of the mothers of children who are in school in each site attend school for less than 30 hours per week, with the average number of hours they spend away from home for school activities ranging from 11 hours per week in South Chicago to 17 hours per week in Newark. Similarly, in Camden and South Chicago, mothers in job training tend to be involved on a part-time basis, with most attending job training programs less than 10 hours per week. However, in Newark job training is more likely to be a full-time **commitment**, with 47 percent of participants attending training programs for 30 to 40 hours per week.

The distribution of total hours spent in "work" activities is very similar to the distribution of hours spent in employment, since employment is the dominant work activity for most mothers of preschool children. The average number of hours per **week** spent by working mothers of preschool children in all activities are highest in Newark (38 hours per week) and lowest in South Chicago (33 hours per week). The average hours per week spent working by mothers of preschool children does not vary systematically with family income (see Appendix Table B.1).

Substantial numbers of mothers are involved in activities that have at least some evening or weekend hours--45 percent in Camden, 28 percent in Newark, and 41 percent in South **Chicago**.<sup>1</sup> Previous studies have suggested that shift work is often chosen by families so that the child's father or some other family member can care for the children while the mother is working (e.g., see Presser, 1988). One indication that the availability of the husband for child care may be an important reason for the relatively large proportions of mothers who work nonstandard schedules is that nonstandard hours are more **common** in Camden and South Chicago than in Newark, where a higher proportion of mothers of preschool children are unmarried (see below).

In summary, most working mothers of preschool children are employed and need child care for over 30 hours per week. The small number who attend school or training and do not work for pay tend to need child care fewer than 20 hours' per week. Between one quarter and one half of working mothers work at night or on the weekends. The number of hours during which mothers need child care does not vary greatly at different levels of family income.

#### B. **CHARACTERISTICS** OF PRESCHOOL CHILDREN IN CHILD **CARE**

As shown in Table IV.2, the age distribution of preschool children in care is similar across sites. Smaller proportions of children in care are under one year old, reflecting the fact that mothers are more likely to stay home with infants. There are also smaller proportions of **five-year-**olds among preschool children in care, probably resulting from the fact

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<sup>1</sup>**Evening** hours are defined to include any activity that concludes after 7 p.m. or begins before 6 a.m.

TABLE IV.2

DEMOGRAPHIC CHARACTERISTICS ~~OF~~ PRESCHOOL CHILDREN IN  
CHILD CARE SO THEIR **MOTHERS** CAN **WORK<sup>a</sup>**

	Camden	Newark	South Chicago .
Percentage of Children in Care Who Are Age:			
Newborn to under 6 months	4.4	7.3	5.3
6 months to under 12 months	9.3	10.6	6.8
1 year to under 2 years	17.6	13.4	17.8
2 <del>years</del> under 3 years	19.2	20.7	18.1
3 years <del>to</del> under 4 years	18.7	19.4	20.1
4 <del>years</del> under <b>years</b>	18.4	14.0	19.5
5 years	12.3	14.6	12.4
Percentage of Children Whose Mothers Are:			
Married	74.0	62.8	73.3
Divorced or separated	9.8	13.8	9.9
Widowed	1.2	1.3	1.0
Never married	15.0	22.0	15.9
White	70.5	<b>39.1</b>	54.2
Black	26.3	51.0	44.3
Other	3.2	9.9	1.5
Hispanic	8.3	18.8	3.1
Percentage of Children in Care Who Have Lived in Their Neighborhood For:			
Less than 6 months	4.8	4.2	7.0
6 months to 1 year	14.3	11.4	8.9
More than 1 year, less than 3	23.2	15.9	19.1
More than 3 years, less than 5	13.8	15.9	17.3
More than 5 years	43.9	52.6	47.8
Percentage of Children in Care <b>Whose</b> Mothers' Highest Level of School Completed is:			
Less than high school	6.4	10.1	<b>6.9</b>
High school	35.8	36.2	<b>30.9</b>
Vocational/technical school	4.3	3.3	3.1
Some college	29.2	27.3	32.4
College or above .	24.3	23.2	26.8



TABLE IV.2 (Continued)

	Camden	Newark	South Chicago
Percentage of Children in Care Whose Mothers Are Receiving:			
<b>AFDC</b>	5.8	6.7	10.2
Food Stamps	7.9	6.0	9.9
Other forms of public aid	4.8	4.3	5.6
Percentage of Children in Care in Families With Incomes of:			
\$0 to \$6,000	4.1	2.8	3.8
<b>\$6,001</b> to \$12,000	6.5	8.2	4.4
\$12,001 to \$18,000	7.4	8.3	4.4
\$18,001 to \$24,000	9.0	9.4	7.2
\$24,001 to \$30,000	12.3	12.3	14.6
More than \$30,000	44.4	34.7	43.0
Don't know or refused	16.3	24.3	22.8
Percentage of Children in Care Whose Mothers Have Earnings Of:			
\$0 to \$6,000	24.1	15.9	25.1
\$6,001 to \$12,000	19.8	13.8	17.6
\$12,001 to \$18,000	21.2	23.0	14.7
\$18,001 to \$24,000	5.9	10.1	13.2
\$24,001 to \$30,000	8.6	9.3	7.9
More than \$30,060	5.0	9.3	4.5
Don't know or refused	15.4	18.6	16.9
Percentage of Children in Care <b>Who</b> Have Special Needs	1.1	2.9	2.9

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 198.8).

<sup>a</sup> Work is defined as employment, participation in job training, or school attendance.

that some five-year-olds are already in school, and thus are no longer in the preschool population.

Table IV.2 also describes key characteristics of children and their families that reflect the environment in which mothers make child care decisions. These characteristics serve as indicators of differences in child care preferences and in the ability of families to pay for specific types of child care arrangements.

Nearly three-quarters of preschool children in child care in Camden and South Chicago have mothers who are married, while only 63 percent of those in Newark have mothers who are married. Among preschool children in care whose mothers are unmarried, slightly more than half have mothers who have never been married, and most of the remaining preschool children with unmarried mothers have mothers who are separated or divorced. Only one percent of preschool children in care have mothers who are widowed.

The racial distribution of preschool children in care is quite similar to the racial composition of the population as a whole in each site (see Table II.1 above). The majority of preschool children in care in Camden (71. percent) and South Chicago (54 percent) have white mothers. In Newark, on the other hand, most of the preschoolers in child care have nonwhite mothers, with 51 percent having black mothers and 10 percent having mothers of other races. Newark also has the largest proportion of preschool children with mothers of Hispanic ethnicity (who may be white or nonwhite), at approximately 19 percent. South Chicago has nearly the same percentage of preschool children with black mothers as in Newark, at 44 percent, but has fewer preschool children with Hispanic mothers or mothers of other races.

Because length of residence in a neighborhood may be an indicator of knowledge of (potential) local family day care arrangements, Table IV.2 also presents the distribution of preschool children in care according to **the** length of time their mothers have lived in their present neighborhood. Substantial proportions of preschool children in all three sites have mothers who have lived in their neighborhoods for over 5 years (44 to 53 percent). Only between 15 and 20 percent of children in all three sites have mothers who moved to their present neighborhood within the past year.

In all three sites, over half of the preschool children in care have mothers with some post-secondary schooling, and approximately **one-**quarter of them are the children of college graduates. Consistent with these relatively high education levels, **10** percent or fewer children with working mothers were in families receiving public assistance (AFDC, Food Stamps, or other public **assistance**).<sup>1</sup> Family incomes of children in care are also relatively high. In both Camden and South Chicago, 43 to 44 percent of the preschool children in care live in families with annual incomes **over** \$30,000, while in Newark, perhaps related to the larger proportions of black and single mother families, only 35 percent of the preschool children live in families with incomes **over** \$30,000 per year.

In comparison with **total** family income, the earnings of working mothers of preschool children are very low in all three sites. While working mothers of preschool children in Newark tend to have higher levels of earnings than mothers of preschool children in the other two sites, more

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<sup>1</sup>These levels of welfare dependence may be due in part to the omission of households without phones, which are more likely to be very poor, from the random digit dial sample frame.

than half of them earn under \$18,000 per year and less than 10 percent earned over \$30,000 per year.

Finally, very few preschool children in child care so their mothers can work were reported by their mothers to have special needs. Less than three percent of the preschool children in care in each site have special needs such as physical, developmental or learning disabilities.

#### C. THE USE OF CHILD CARE FOR PRESCHOOL CHILDREN BY WORKING MOTHERS

The average total hours that preschool children in the three sites are in child care ranges from 33 hours per week in Camden to 37 hours per week in Newark, slightly fewer hours than ~~the~~ number of hours the mothers report working. As Table IV.3 shows, there are no systematic differences in average hours per week in child care according to the age of the child, although infants tend to be in care for fewer hours per week in Camden.

The vast majority of preschool children (69 to 79 percent) are cared for in only one child care arrangement. Most of the remaining children are cared for in two arrangements. The use of multiple arrangements is somewhat more common in South Chicago than in the other two sites, with approximately 31 percent of preschool children in two or more arrangements compared to 21 percent of preschool children in Newark and 23 percent of preschool children in Camden.

Table IV.4 suggests that the location and convenience of transportation of preschool children to child care is likely to be an important concern for working mothers. About one-half of all working mothers of preschool children report that they take their children to their child care arrangements on their way to work: more than three-quarters of these mothers travel to their child care arrangements and to work by car.

TABLE IV.3

HOURS IN CARE AND NUMBER OF CHILD CARE ARRANGEMENTS  
FOR PRESCHOOL CHILDREN

	Camden	Newark	South Chicago
Average Hours Per Week Children Are in Care by Age:			
Under 1 year	27.7	36.4	36.8
1 to under 2 years	34.4	35.3	35.1
2 to under 3 years	33.8	36.7	33.5
3 to under 4 years	31.1	39.2	29.5
4 to under 5 years	37.7	41.4	32.6
5 years	33.5	33.8	28.0
All ages	33.2	37.2	32.5
Percentage of Preschool Children <u>in</u> Care Arrangements So Their Mothers Can Work			
<b>1</b>	71.2	79.1	68.7
2	18.4	18.6	24.3
3	3.6	2.4	6.6
<b>4+</b>	0.8	0.0	0.4
Average Number of Arrangements Used Per Preschool Child			
	1.3	1.2	1.4

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

TABLE IV.4

## TRANSPORTATION OF PRESCHOOL CHILDREN TO CHILD CARE ARRANGEMENTS

	Camden	Newark	South Chicago
<b>Percentage of Working<sup>a</sup> Mothers</b> Who Personally Take Their Children to Child Care on the Way to Work	53.8	<b>52.6</b>	<b>49.8</b>
Among Mothers Who Take Their Children to Child Care, the Percentage Who Travel By:			
Private car	86.8	<b>74.2</b>	81.1
Taxi	0.0	1.0	0.8
Bus/subway	2.9	<b>8.8</b>	5.5
Walking	10.3	<b>16.0</b>	12.5
Among Mothers Who Take Their Children to Child Care:			
<b>Average length of time</b> required to get to work, including taking child to arrangement (minutes)	32.1	<b>39.9</b>	27.2
Average additional time required for dropping off children with caregiver (minutes)	15.1	16.6	16.3

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

<sup>a</sup> Work is defined as employment, participation in job training, or going to school.

Only 10 to 16 percent of mothers are located close enough to their provider(s) that they can walk their children to the arrangement(s), and the remaining mothers (3 to 9 percent) take their children to their child care arrangements via public transportation or taxis.

Working mothers of preschool children in the three sites spend an average of 30 to 40 minutes getting to work, including taking their **child(ren)** to child care. The extra time added to their **commute** due to the need to drop the **child(ren)** off ranges from an average of 15 minutes in Camden to 17 minutes in Newark.

#### **D. MAIN CHILD CARE ARRANGEMENTS<sup>1</sup>**

The main child care arrangements made for preschool children while their mothers work are described in Table **IV.5**. Approximately half of all preschool children of working mothers are cared for by relatives. The prevalence of relative **care** for preschool children of working mothers in these sites is comparable to the national prevalence of relative care for children who are under five years old as estimated using the 1984-85 Survey of Income and Program Participation (**SIPP**). The results of that survey showed that approximately 48 percent of children under **5** years old with employed mothers were cared for in their primary arrangement by a relative (O'Connell and **Bachu**, 1987).

The most common relatives used as caregivers are fathers (including stepfathers) and grandparents. Father care is much less common in Newark (12 percent), where more mothers are unmarried, than in Camden or South

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<sup>1</sup>The main child care arrangement is defined as the arrangement in which the child is cared for during the most hours per week when the mother works, and; as was noted above, in most cases the main arrangement is the only child care arrangement made for the child.

TABLE IV.5

MAIN CHILD CARE ARRANGEMENTS USED BY **WORKING<sup>a</sup>** MOTHERS  
OF PRESCHOOL CHILDREN

	Camden	Newark	South Chicago
Percentage of Preschool Children Whose Main Child Care Arrangement is:			
Relative	52.3	46.7	56.3
Child's other parent/stepparent	18.6	11.5	17.7
Mother's partner	4.2	1.6	2.0
Child's sibling	1.4	0.8	<b>0.0</b>
Child's grandparent	12.1	16.5	17.2
Other relative of child	11.1	10.8	11.4
Mother cares for child at work	0.4	0.2	0.7
Mother works at home	4.5	5.3	7.3
Nonrelative	<b>25.4</b>	27.8	25.6
Friend or neighbor of parent	14.4	16.1	10.3
Other nonrelative	11.0	11.7	15.3
Child Care Center or Preschool	22.2	25.2	17.8
Group care center	15.2	17.3	<b>9.9</b>
Preschool	7.0	7.9	<b>7.9</b>
Other arrangement	0.2	0.3	0.2
Percentage of Preschool Children in Care Whose Main Arrangement is in:			
Child's home	42.0	32.3	41.6
Other private home	34.8	42.0	38.1
Other place	23.2	25.7	20.3

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

<sup>a</sup> Work is defined as employment, participation in job training, or going to school.



Chicago (19 percent and 18 percent, respectively). Grandparent care is less common in Camden, where it is used for only 12 percent of preschoolers, than in Newark or South Chicago, where it is used for 17 percent of preschoolers. The third most common relative who provides care is outside the immediate family (such as an aunt or uncle of the child). Few children are cared for by the mother while she works, by her partner (when not a parent or stepparent), or by siblings.

Approximately one-fourth of preschool children of working mothers in the three sites are cared for by nonrelatives. As was the case for relative care, the percentages of preschool children of working mothers in nonrelative care are very similar to the percentage of children under five years old with employed mothers who were cared for by nonrelatives in 1984-'85 according to SIPP (28 percent). Approximately 55 percent of nonrelative care is provided by friends or neighbors of the mother in Camden and Newark, while only 40 percent of nonrelative care is provided by friends or neighbors in South Chicago. This difference suggests that there is relatively greater use of more formal family day care in South Chicago.

Child care centers and preschools serve as the main arrangement for just under one-quarter of the preschoolers who need care in Camden and Newark (22 and 25 percent, respectively), but they care for a smaller percentage of children (18 percent) in South Chicago. While the percentage of preschool children of working mothers whose main child care arrangement is care in a preschool is similar in all three sites (between 7 and 8 percent), the percentage whose main arrangement is center care is somewhat higher in Camden and Newark (15 percent and 17 percent) than in South Chicago, where only 10 percent of preschoolers are cared for in centers.

The next section of Table IV.5 examines the location of the main child care arrangement. . . . **The** child's home is the most common location for care for preschoolers in Camden and South Chicago (42 percent), but the second most common for preschoolers in Newark (32 percent) after care in other private homes (42 percent). **This** difference is probably due to the lower prevalence of father care in Newark, since fathers who provide care will generally live with the **child(ren)**. Care in the child's home is most frequently care by relatives who live with the child or nearby, but also includes care by unrelated babysitters in the child's home. Another private home (usually the provider's home) is the second most frequent location for care in Camden and South Chicago. Care in other locations, including centers and preschool care and some more unusual situations such as care by the mother at her workplace, is least common (20 to 26 percent of children).

Table IV.6 compares the main types of child care arrangements used for children in lower-income and higher-income families, where lower-income is defined as family income below \$18,000 per year (**15** to 20 percent of working mothers of preschoolers). We might expect lower-income families to use more relative care, since it is often provided free of charge, and this is indeed the case in South Chicago, where 60 percent of the children in lower-income families receive relative care, compared with 49 percent of children in higher-income families. However, this pattern does not exist in the other sites. More detailed tables describing the distribution of preschool children in particular subgroups across types of care are included in Appendix B (see Appendix Tables' B.2 through B.4).

TABLE IV.6

MAIN CHILD CARE ARRANGEMENTS FOR PRESCHOOL CHILDREN,  
BY LEVEL OF INCOME

	Camden		Newark		South Chicago	
	Low Inc.	High Inc.	Low Inc.	High Inc.	Low Inc.	High Inc.
Percentage of Preschool Children Whose Main Arrangement is:						
Relative						
In child's home	18.3	40.6	17.6	24.7	38.0	32.1
In provider's home	15.1	13.7	22.1	17.2	21.5	16.4
Nonrelative						
In child's home	3.7	4.5	4.6	4.6	0.8	6.6
In provider's home	19.9	19.8	18.5	25.6	26.9	19.0
Center or preschool	36.9	17.2	32.6	23.4	9.7	19.5
Other	5.9	4.3	4.6	4.5	3.0	6.4

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

NOTE: Lower-income mothers are mothers with annual family incomes \$18,000 and below, and higher-income mothers are mothers with family incomes over \$18,000.

The overall use of nonrelative care for preschool children is fairly similar across income groups in all three sites. However, in South Chicago, less than 1 percent of children in lower-income families are cared for by nonrelatives in their own home, while nearly 7 percent of children in high-income families are cared for by nonrelatives in their own home. Nonrelative care in the provider's home is correspondingly more common for children in lower-income families in South Chicago.

The use of center or preschool care by the two income groups, like the use of relative care, differs considerably across the sites. In South Chicago, preschool children in higher-income families are twice as likely to be in formal group care as children in lower-income families (20 percent vs. 10 percent). In contrast, in Newark and Camden, children from lower-income families are more likely to be in center or preschool care, and the difference is especially large in Camden where 37 percent of **lower-**income children but only 17 percent of high-income children are in formal group care. These site differences probably reflect differences in subsidy policies between the New Jersey sites and South Chicago.

The differences among sites in the choices of main child care arrangements for preschool children made by lower- and higher-income families suggest that the relationship between the mode of child care chosen for a particular child and family income is not straightforward; many other factors, such as the availability of relatives and the hours the mother works may be more important than overall family income in determining the type of care chosen. The multivariate analysis of child care mode choices in Chapter V will allow us to look at the effects of these various factors, holding other things equal.

#### E. FINDING MAIN CHILD CARE ARRANGEMENTS

Mothers of preschool children who are not being cared for by relatives learned about the main child care arrangements they made for their children primarily from friends, neighbors, and relatives. Table IV.7 shows that the mothers of approximately one-half of preschool children in nonrelative care learned about their child's main arrangement from these sources. The mothers of between 13 and 22 percent of preschool children in nonrelative care reported that they already knew the provider of care in their child's main arrangement. Newspaper advertising and referrals from caseworkers or community agencies, more formal sources of information, were used for only about 9 percent of preschool children in Newark, 17 percent of preschool children in South Chicago, and 24 percent of preschool children in Camden. The sources of information used to locate child care for preschool children do not differ systematically with income level (see Appendix Table B.5).

In arranging for the main child care arrangement for their child, **the** mothers of more than half of all preschool children in care in each site did not consider any other arrangements for their child. In Camden there are no differences between lower-income and higher-income children in the extent to which their mothers "shopped" for their care. However, in Newark, the mothers of lower-income children were slightly more likely to have shopped for care, while in South Chicago, the mothers of higher-income children were more likely to have considered other arrangements (see Appendix Table B.5).

Consistent with the finding that the mothers of only about one-half of preschool children in care considered other arrangements, the average

TABLE IV.7

METHODS USED AND **TIME** REQUIRED TO FIND MAIN ARRANGEMENTS  
FOR PRESCHOOL CHILDREN

	Camden	Newark	South Chicago
For Children Whose Main Arrangements Are Nonrelative Care, Percentage Whose Mother Learned About Arrangement From:			
Friend, neighbor, or relative	48.2	56.6	<b>49.3</b>
Welfare or social service caseworker	3.7	<b>0.0</b>	1.7
Newspaper advertisement	18.1	5.4	11.4
Community agency	2.3	3.8	4.2
Provider is family member	2.0	1.2	1.3
Provider is acquaintance	13.3	20.2	22.1
Provider already cared for an older child	1.5	<b>0.0</b>	0.1
Word of mouth	4.1	7.3	1.6
Other	6.7	5.5	a.2
Average Length of Time it Took Mother to Make Main Arrangement (business <b>days</b> ) <sup>a</sup>			
	0.3	6.3	0.5
Percentage of Children For Whom Mothers Considered Other Providers When Making Main Arrangement for Care			
	50.3	43.6	43.8
Percentage of Children For Whom the Reasons <b>Their Mothers</b> Selected Their Main Arrangement <b>Include:</b> <sup>b</sup>			
Price or affordability	24.4	15.8	20.7
Location <b>or</b> accessibility	30.6	30.4	20.4
General quality, personal recommendation	40.1	52.0	32.6
Availability	18.1	16.0	13.5
Hours	3.9	6.3	2.6

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988)'

a The duration of time between the initiation of search for child care and the making of a commitment for the arrangement.

b More than one reason may have been given, so the percentages do not necessarily add up to 100 percent.

length of time required by the mothers of preschool children to make their main child care arrangements<sup>1</sup> was quite short-- half a day or less in all three sites. The maximum time reported by any mother ranged from 7 business days in Camden and Newark to 14 business days in South Chicago.

In all three sites, the most prevalent reason cited by mothers for choosing a particular main child care arrangement for their preschool child was the general quality of the arrangement. As Table IV.7 shows, the mothers of one-third to one-half of preschool children reported that quality of care was a reason for choosing their main arrangement. Location and price were **also** commonly reported reasons for choosing the main care arrangements for preschool children. The availability of the arrangement was cited as a reason for choosing the arrangement by the mothers of about 14 to 18 percent of preschool children.

Again, family income shows no consistent relationship with the reasons mothers select their main child care arrangements (see Appendix Table B.5). In Newark and Camden, the two most frequently given reasons for choosing the main arrangement were quality of care and location in both income groups, although they were cited somewhat more often for lower-income children in Camden and more often for higher-income children in Newark. In South Chicago, price and that the provider is a relative were the most frequently cited reasons for selecting an arrangement for lower-income children. In contrast, **as was the case** for both income groups in New Jersey, quality and location were the primary reasons for selections for higher-income children in South Chicago.

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<sup>1</sup>The period between the time that they started trying to arrange child care and the time they had a commitment for the arrangement.

F. SECONDARY CHILD CARE **ARRANGEMENTS** FOR PRESCHOOL CHILDREN

As noted earlier, more than three-fourths of all preschool children in care in the three sites are cared for in only one arrangement: the remaining children are cared **for primarily** in two arrangements. Table IV.8 describes the secondary arrangements for preschool children who are cared for in more than one child care arrangement in each site. Secondary arrangements are most likely to be relative care, often care by the child's father or stepfather, grandparent, or other relative. The percentage of preschool children with secondary arrangements whose secondary arrangement is relative care ranges from 63 percent in Camden to 74 percent in Newark. Care by friends or neighbors or other nonrelatives accounts for 10 percent of secondary arrangements in Newark, 20 percent of secondary arrangements in Camden, and 23 percent of secondary arrangements in South Chicago. Between 9 and 15 percent of secondary arrangements for preschool children in the three sites are care in a group care center or preschool. Compared to the locations of main child care arrangements, secondary arrangements are more likely to be located in the child's home and less likely to be located in other places.

Table IV.9 examines the combinations of main and secondary types of **child care** arrangements made for preschool children in each site. In Newark and South Chicago, preschool children whose main arrangement is relative care in the provider's home or nonrelative care in the provider's home **are' the** least likely to have a secondary arrangement at all. In Camden, preschool children whose main arrangements are relative care in the child's home or center care are the least likely to have a secondary arrangement. Among preschool children who do have a secondary arrangement,



TABLE IV.8

SECONDARY CHILD CARE ARRANGEMENTS USED BY WORKING<sup>a</sup> MOTHERS  
OF PRESCHOOL CHILDREN

	Camden	Newark	South Chicago
Percentage of Preschool Children Cared For in More Than One Arrangement	22.8	21.0	22.4
Percentage of Preschool Children Whose Secondary Child Care Arrangement is:			
Relative	63.2	74.0	67.8
Child's other parent/stepparent	28.4	10.8	23.7
Mother's partner	2.9	0.0	1.8
Child's sibling	2.0	4.2	10.5
Child's grandparent	15.6	38.5	20.3
Other relative of child	12.7	20.5	9.0
Mother cares for child at work	1.5	0.0	0.0
Mother works at home	0.0	0.0	2.5
Nonrelative	19.5	<b>9.8</b>	23.0
Friend or neighbor of parent	15.6	6.3	18.1
Other nonrelative	3.9	3.5	4.9
Child Care Center or Preschool	<b>13.8</b>	15.2	9.1
Group care center	5.7	6.3	4.6
Preschool	<b>8.1</b>	8.9	4.5
Other arrangement	3.5	1.0	0.0
Percentage of Preschool Children in Care Whose Secondary Arrangement is in:			
• <b>Child's</b> home	<b>47.9</b>	<b>39.5</b>	66.5
Other private home	34.4	45.1	24.3
Other place	17.7	15.4	9.1

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

<sup>a</sup> Work is defined as employment, participation in job training, or going to school.

TABLE IV.9

PERCENTAGE OF PRESCHOOL CHILDREN IN EACH TYPE OF SECONDARY  
ARRANGEMENT, BY TYPE OF MAIN ARRANGEMENT

Secondary Arrangement	Main Arrangement					
	Relative		Nonrelative			
	Home	Not Home	Home	Not Home	Center	Other
<u>Camden</u>						
Relative						
In child's home	5.7	7.0	37.3	7.9	12.0	0.0
In provider's home	0.9	8.4	0.0	9.0	4.4	0.0
Nonrelative						
In child's home	1.7	0.0	6.7	0.0	0.5	0.0
In provider's home	1.4	8.5	0.0	1.5	2.0	0.0
Center/preschool	5.4	0.0	0.0	3.8	0.6	0.0
Other arrangement	0.0	0.0	0.0	3.7	0.0	0.0
No secondary arrangement	85.0	76.0	56.1	74.2	80.6	100.0
<u>Newark</u>						
Relative						
In child's home	8.6	3.4	0.0	4.0	6.8	0.0
In provider's home	4.3	5.8	0.0	7.9	5.0	0.0
Nonrelative						
In child's home	0.0	0.0	0.0	0.0	0.6	0.0
In provider's home	2.3	0.0	0.0	0.7	2.1	0.0
Center/preschool	3.8	0.9	23.9	0.0	0.5	0.0
Other arrangement	0.0	0.0	0.0	0.6	0.0	0.0
No secondary arrangement	81.2	89.9	76.1	87.1	85.0	100
<u>South Chicago</u>						
Relative						
In child's home	4.7	5.7	31.9	10.8	23.8	100.0
In provider's home	3.0	1.8	0.0	1.0	5.1	0.0
Nonrelative						
In child's home	5.2	0.0	1.6	0.0	0.0	0.0
In provider's home	3.8	3.0	0.0	1.0	1.0	0.0
Center/preschool	2.2	4.0	0.0	0.6	1.3	0.0
Other arrangement	0.0	0.0	0.0	0.0	0.0	0.0
No secondary arrangement	81.1	85.5	66.5	86.6	68.8	0.0

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

the following combinations of main and secondary arrangements are the most common: The secondary arrangements for children whose main arrangement is center care are nearly always relative care, primarily in the child's home, in all three sites. The **secondary arrangements** of children whose main arrangement **is nonrelative** care are also highly likely to be relative care. The secondary arrangements of preschool children whose main arrangement is relative care vary more across types of care, although as often as not, the secondary arrangement is also relative care.

G. THE AVAILABILITY OF ADDITIONAL HOURS OF CARE FROM CURRENT PROVIDERS

The mothers of approximately two-thirds of preschool children reported that the hours in their children's main arrangements could be increased if they were to work more hours, and the mothers of between **one-half** and two-thirds of the children reported that hours of care in secondary care arrangements could be increased<sup>6</sup> As Table IV.10 indicates, however, the extent to which hours in main arrangements could increase was unknown to the mothers of a substantial proportion of preschool children whose time in their main arrangement could be increased. Among those who did report that their hours of care could be increased, most reported that care by their main provider could be increased by ten hours or less per week. The potential to increase hours in secondary care arrangements was somewhat greater in Newark and South Chicago, but not in Camden.

H. THE USE OF RELATIVES AND HOUSEHOLD **MEMBERS** AS PROVIDERS

Tables IV.11 and IV.12 explore the use of relatives and household members **as** child care providers in more detail. Table IV.11 shows that approximately one-half of working mothers in each site are currently using

TABLE IV.10

AVAILABILITY OF ADDITIONAL HOURS OF ~~CARE FROM~~ PROVIDER  
OF CARE IN MAIN AND SECONDARY CARE ARRANGEMENTS

	Camden	Newark	South Chicano
Percentage of Preschool Children For Whom Hours in Main Arrangement Could Be Increased	65.0	64.3	72.7
Percentage of Preschool Children For Whom Hours in Main Arrangement Could Increase By _____ Hours Per Week:			
0 to 10 hours	41.5	<b>39.4</b>	27.2
11 to 20 hours	10.4	7.4	16.0
21 to 30 hours	5.7	1.2	5.7
31 to 40 hours	3.3	0.6	3.3
More than <b>40</b> hours	2.8	0.3	1.0
Don't know	36.3	50.8	46.8
Of Preschool Children With Secondary Care, Percentage For Whom Hours in Secondary Arrangement Could Be Increased	54.2	56.4	64.4
Percentage of Preschool Children In Secondary Care For Whom Hours in Secondary Arrangement Could Increase By _____ Hours:			
0 to 10 hours	35.8	25.7	24.4
11 to <b>20 hours</b>	8.6	0.0	10.0
21 to 30 hours	1.2	1.8	10.4
31 to 40 hours	0.0	11.1	3.5
More than 40 hours	3.3	4.4	3.5
Don't know	51.1	57.0	48.2

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

TABLE IV.11

## USE OF CHILD CARE BY RELATIVES

	Camden	Newark	South Chicano
Percentage of Working Mothers Who Are Currently Using Relative <b>Care<sup>a</sup></b>	57.5	50.3	52.7
Percentage of Working Mothers Who Have Ever Used Relative Care	66.1	61.4	62.3
Percentage of Working Mothers Who Once Used Relative Care Who Stopped Because:			
Care was unreliable	<b>0.0</b>	8.2	1.4
Relative too old or unhealthy	6.5	29.2	14.4
Child outgrew arrangement	9.0	1.6	7.3
Relative moved	4.9	7.1	7.9
Mother moved	0.0	1.8	0.0
Mother preferred different arrangement	25.2	16.9	17.7
Other	54.4	35.1	51.4
Percentage of Working Mothers Who Have Other Relatives Living Locally	62.7	61.9	64.3
Of Those Who Have Other Relatives Living Locally:			
Percentage Who Have <u>    </u> Relatives:			
One	9.9	17.8	15.3
Two to five	50.0	48.7	<b>53.3</b>
More than <b>5</b>	40.0	33.5	31.3
Percentage of Working Mothers Who Have Nonworking <u>    </u> Living Locally			
Mother	21.9	16.8	24.8
Mother-in-law	25.3	12.9	18.7
Maternal grandmother	8.2	7.0	10.5
Paternal grandmother	9.1	4.5	5.5

TABLE IV.11 (Continued)

	Camden	Newark	South Chicago
Of Those Who Have Other Relatives Living Locally:			
Percentage of Working Mothers Whose Relatives Provide Regular Care	15.8	17.3	15.6
Percentage Whose Relatives Could Help Regularly	25.4	31.0	30.3
If Not, Percentage Whose Relatives Would Help in an Emergency	74.7	61.6	64.1

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

<sup>a</sup> **Excluding** care by the mother where she works but including care of school-age children.

relative care for some regular child **care.**<sup>1</sup> In addition to those mothers who are currently using relative care, approximately 10 percent of working mothers have used relative care in the past. Among those mothers who stopped using relative care in the past, the most frequently given reasons for discontinuing relative care include a preference by the mother for another arrangement and the belief that the relative was getting too old or unhealthy to provide child care and other reasons, including distance to the relative's home and the relative becoming employed herself.

-Approximately 60 percent of working mothers in each site have **relatives living locally** who **are** not currently providing child care for their children. Among working mothers who have other relatives living locally, most have more than one nearby relative. Approximately 15 percent of working mothers reported that these nearby relatives provide some regular care for their children. The **percentage** of working mothers whose nearby relatives do not currently provide regular care but reportedly could **help** with child care regularly ranges from 25 percent in Camde to 31 percent in Newark. In addition, most of the working mothers whose nearby relatives could not provide regular child care reported that they could help with child care in an emergency.

Table IV.12 examines the use of child care provided by household members. Approximately 40 to **50** percent of working mothers of preschool children receive regular care from household members. Mothers who receive care from another member of their household are most likely to be receiving care from the child's father or stepfather or from their partner. Approximately 54 percent of mothers of preschool children in Newark, 65

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<sup>1</sup>These percentages exclude care by the mother while she works.

TABLE IV.12

## CHILD CARE BY HOUSEHOLD MEMBERS IN EACH SITE

	Camden	Newark	South Chicago
Percentage of Mothers Who Receive Regular Care From Household Members	42.9	22.5	41.4
Among Those Receiving Care By a Household Member, The Percentage Receiving Care By A Household Member Who Is: <sup>a</sup>			
Child's father/stepfather	71.7	41.6	57.3
Mother's partner	5.7	12.3	7.3
Child's sibling	3.8	6.5	3.7
Child's grandparent	13.4	29.2	17.9
Other relative of child	5.8	20.6	12.3
Nonrelative	3.5	2.6	a.4
Percentage of Household Caregivers Who Also Work Outside The Home	87.2	72.8	82.7
Among Household Caregivers Who Work Outside The Home, The Percentage Who Arranged Their Schedules So They Could Provide Child Care	<b>22.9</b>	26.7	21.1
Percentage of Mothers Who Arranged Their Schedules So Household Members Could <b>Provide Child</b> Care	37.3	44.5	47.2

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> Numbers may sum to more than 100 percent because mothers may receive care from more than one type of household member.



percent in South Chicago, and 77 percent in Camden who receive child care from another household member are receiving care **from** their spouse or partner .. In Newark, where proportionately fewer mothers are married, nearly 50 percent of working mothers of preschool children who receive care from a household member are receiving care from the child's grandparent or another relative of the child who lives in the household.

A large majority of the household members who provide regular child care for working mothers of preschool children in **the three** sites also work outside the home. Seventy-two (72) percent of household caregivers in Newark, 83 percent in South Chicago, and 87 percent in Camden work outside the home. However, only 21 to 28 percent of the household caregivers who work outside the home specifically arranged their schedule so that they could help with child care. It is more often the case that the working mothers of preschool children in each site arranged their schedules so that household members could help with child care.<sup>1</sup>

#### I. CHARACTERISTICS OF CARE FOR PRESCHOOL CHILDREN

Table IV.13 describes some basic characteristics of the main arrangements in which **preschool** children are cared for. The percentage of preschool children who are in their main arrangement full-time<sup>2</sup> varies **across** sites, ranging from about 41 percent in South Chicago to 62 percent in Newark. The average amount of time spent by preschool children in their main arrangements is approximately 31 hours per week in Camden and South

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<sup>1</sup>**Among** mothers who receive care from household members, 37 percent in Camden, 43 percent in Newark, and 47 percent in South Chicago arranged their schedules **so** that household members could help with child **care**.

<sup>2</sup>Full-time **is** defined as 40 hours per week or more.

TABLE IV.13

**CHARACTERISTICS OF CARE IN MAIN ARRANGEMENTS FOR PRESCHOOL CHILDREN**

	Camden	Newark	South Chicago
Percentage of Preschool Children Whose Main Arrangement is <b>Full-time<sup>a</sup></b>	46.3	61.9	41.4
Average Hours Per Week Child is Cared For In Main Arrangement			
Under 1 year old	26.7	35.0	36.0
1 year old	34.4	34.3	33.6
2 years old	31.8	35.1	32.8
3 years old	29.1	38.1	27.2
4 years old	32.1	38.6	28.5
<b>5</b> years old	29.1	33.8	26.6
All ages	30.8	35.9	30.6
The <b>Percentage of Preschool Children Whose Main Arrangement is With A Licensed/Registered Provider (Don't know)</b>	52.3 (10.1)	51.6 (15.0)	54.6 (10.6)
Among Children in Center Care Or Preschool, The Percentage of Children Whose Main Child Care Provider Has Special Training (Don't know)	57.7 (12.1)	49.0 (10.9)	<b>59.1</b> (12.9)
Among Children Whose Main Arrangement is Relative or -Nonrelative Care:			
Average age of primary caregiver	38.5	44.3	42.6
Percentage of children whose provider cares for other related children	46.1	38.7	44.1

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988)

<sup>a</sup> Full-time is defined as 40 hours per week.

<sup>b</sup> Mothers' reports.

Chicago to 36 hours per week in Newark. In the two New Jersey sites, the average hours spent by preschool children in **their** main arrangements does not appear to vary systematically with the age of the child; however, in South Chicago, the average number of hours spent in the main arrangement decreases with age from an average of 36 hours per week for infants to 27 hours per week for five-year-olds.

In comparison with Table IV.4, which presents the average total number of hours preschool children are in care so their mothers can work, **Table IV.13** suggests that on- average in all three sites, nearly all hours in care are spent in the main arrangement. In addition, in Camden and South Chicago, the difference between the average total hours per week in care and the average hours per week in the main arrangement widens for four- and five-year-olds, implying that children in these age groups are more likely to have a secondary arrangement (such as kindergarten or **part-day** nursery school) and/or to spend more time, on average, in their secondary arrangement.

According to their mothers, the main arrangements of approximately one-half of preschool children are with licensed providers. The mothers of between 10 and 15 percent of preschool children reported that they did not **know** if the provider of care in the main arrangement was licensed or not. **It is** likely that mothers' reports of the licensed status of their main providers **overestimate** the true proportion of the providers who are licensed, since in all three sites more than half of all children are cared for by relatives, few of whom are likely to be licensed (especially in the New Jersey sites) and another one-quarter are cared for by nonrelatives, most of whom are also unlikely to be licensed. (The family provider survey

TABLE IV.14

TRAINING AND LICENSING OF MAIN ARRANGEMENTS FOR PRESCHOOL  
CHILDREN, BY LEVEL OF INCOME

	Camden		Newark		South Chicano	
	Low Inc.	High Inc.	Low Inc.	High Inc.	Low Inc.	High Inc.
Percentage of Preschool Children Whose Main Arrangement is With A Licensed/Registered Provider (Don't know)	61.9 (16.4)	47.1 (7.8)	57.7 (13.3)	48.0 (11.6)	42.4 (8.6)	53.3 (11.8)
Percentage of Children in Formal Group Care Whose <b>Main</b> Child Care Provider Has Special Training (Don't know)	61.2 (17.0)	54.4 (9.5)	63.5 (15.5)	45.0 (8.6)	36.6 (19.4)	63.0 (11.8)

SOURCE: Surveys **of** Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

NOTE: Lower-income mothers are mothers with annual family incomes \$18,000 and below, and higher-income mothers are mothers with family incomes over **\$18,000**.

showed that only a very small percentage of family providers in each site are licensed.)

In Newark and Camden, mothers of lower-income preschool children were more likely than mothers of higher-income preschool children to report that their child's main arrangement was with a licensed or registered provider. The direction of this difference is consistent with the differences observed in the types of main arrangements in which preschool children are cared for, with lower-income children more likely to be in center care and less likely to be in relative care (see Table IV.14). On the other hand, in South Chicago, mothers of lower-income children were less likely to report that their children's main arrangements were with a licensed provider. This difference is consistent with the fact that lower-income preschool children are more likely than higher-income children to be cared for by relatives and less likely to be cared for in a child care center or preschool,

The mothers of approximately one-half of preschool children whose main arrangement is formal group care in Newark and approximately 60 percent of preschool children whose main arrangement is formal group care in Camden and South Chicago said that the provider of care in their child's main arrangement has special training related to young children (Table IV.13). Table IV.14 suggests that in Camden and Newark, according to mothers, a higher percentage of the main caregivers of lower-income children than of higher-income children in center care have special training related to young children. As was the case with licensing, however, in South Chicago, the percentage of main caregivers for **lower-** income children in center care who have special training related to young

children is considerably less than the percentage of main caregivers for higher-income children in center care who have special training.

Among children whose main provider is a relative or another family day care provider, the average age of that provider is 39 years in Camden, 43 years in South Chicago, and 44 years in Newark. Not surprisingly, since a significant proportion of relative care is provided by grandparents, the main caregiver for approximately one-quarter of children in family day care in Newark and South Chicago and 10 percent of children in family day care in Camden are 60 years old or above. Between 39 and 46 percent of these providers also care for (other) related children.

More than three-fourths of preschool children in each site who are not cared for in their own home receive meals prepared and served by their child care provider (see Appendix Table B.6). For the vast majority of children who receive meals from their provider, the meals are included in the regular fees for their care- and their mothers do not pay extra for those meals. However, among the 3 to 5 percent of children whose mothers do pay extra for meals, the average amount charged for meals ranges from \$6 per week to \$16 per week.

According to mothers' reports, more than one-fourth of all preschool children **in** relative or nonrelative care so their mothers can **work** are cared for alone. The average number of children cared for together in these arrangements is about 2.4 children in each site. The average age range of the children cared for together in relative and nonrelative care arrangements ranges from 3.5 years in Newark to 4.5 years in South Chicago. These fairly large age differences probably reflect the fact that preschool-age and school-age children are often cared for

together in family day care settings, since the child care centers in these sites reported that the age differences between children in nearly all of their groups were less than two years. The average number of adults supervising preschool children in the relative and nonrelative care arrangements is approximately 1.2 adults in all three sites, and the average child-staff ratio in these arrangements is 2.1 (see Appendix Table B.7).

#### **J. EXPENDITURES ON CHILD CARE**

An important characteristic of child care arrangements is their cost to parents. Tables IV.15 through IV.19 investigate the costs of child care for preschool children of working mothers in the three sites. Table IV.15 shows that the percentage of preschool children whose main arrangements were paid for, in cash and/or in kind, ranges from 56 percent in South Chicago to 74 percent in Newark. Examined from the other perspective, the percentage of preschool children whose main arrangements were provided free of charge ranges from 44 percent in South Chicago to 26 percent in Newark.

Among the preschool children whose main arrangements were paid for, nearly all were paid for with cash. The average amount of cash paid for care ranged from \$1.35 per hour in Camden to \$1.40 per hour in Newark. These average expenditures, which are equivalent to approximately \$50 to \$56 per week for a **40-hour** week of care, are **remarkably** similar to the average fees reported by child care centers and family day care providers in the provider surveys. Table IV.15 also shows that most of the mothers of preschool children with paid main arrangements paid between \$0.50 and \$2.00 per hour for their arrangements. However, in Camden the mothers of

TABLE IV.15

FEES PAID FOR CHILD CARE IN MAIN **ARRANGEMENTS** FOR PRESCHOOL CHILDREN

	Camden	Newark	South Chicago
Percentage of Preschool Children Whose Main Arrangement Was Paid <b>For in</b> Cash or in Kind	61.4	73.9	55.5
Among Children Whose Main Arrangement Was Paid For, The Percentage Whose Care Was Paid For With:			
Cash	<b>97.3</b>	<b>94.9</b>	<b>93.6</b>
<b>Noncash</b>	<b>0.9</b>	4.2	1.7
Both cash and <b>noncash</b>	1.8	0.9	<b>4.7</b>
Among Children <b>Whose Main</b> Arrangement Was Paid For At Least Partly With Cash:			
Average amount of cash paid per hour	\$1.35	\$1.40	<b>\$1.39</b>
Distribution of hourly <b>costs</b> of care:			
Less than \$0.50	18.4	9.1	8.6
\$0.50 to \$1.00	22.6	36.6	34.9
\$1.01 to \$2.00	43.9	40.6	40.6
\$2.01 to \$3.00	10.1	7.9	11.8
More than <b>\$3.00</b>	5.1	5.8	1.0

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).



approximately 18 percent of children whose main arrangements were paid for paid less than \$0.50 per hour.

The likelihood that a child's main child care arrangement is paid for does not vary systematically with the.. child's age in any of the three sites (Table IV.16). In addition, although fees charged by centers are generally higher for infants, Table IV.16 also shows that according to mothers, the average amount of cash paid per hour for the main arrangement of children whose main arrangement is paid for does not vary systematically with the age of the child. The lack of variation in fees by age of child is likely to be due to the prevalence of relative and nonrelative family day care arrangements in which fees do not differ systematically with the age of the child.

As Table IV.17 shows, the mothers of very few preschool children whose main arrangements are paid for reported that they received assistance in paying for that arrangement from welfare, a social service agency, their employer, or a relative of the child. This probably reflects the fact that most subsidization of care by welfare or other agencies is accomplished through direct payments to the child care provider and may not be apparent to-parents. At least some of the care for which mothers paid less than \$0.50 per hour undoubtedly was subsidized care through sliding fee schedules of centers.

The major form of assistance that mothers of preschool children who pay for their child's main arrangement receive is likely to be the dependent care tax credit. The mothers of 58 percent of children in paid arrangements in Newark, 66 percent of children in paid arrangements in South Chicago, and 71 percent of children in paid arrangements in Camden

TABLE IV.16

FEES PAID FOR CHILD CARE IN MAIN ARRANGEMENT  
FOR PRESCHOOL CHILDREN BY AGE

	Camden	Newark	South Chicano
Percentage of Children Age _____ Whose Main Arrangement <b>Was</b> Paid For At Least Partly In Cash			
Under 1 year old	54.0	70.6	55.6
1 year old	58.8	82.7	64.5
2 years old	66.4	62.8	44.3
3 years old	57.5	82.4	55.5
4 years old and above	59.7	71.4	48.3
Average Amount of Cash Paid Per Hour For Main Arrangement for Child Age:			
Under 1 year old	\$1.41	\$1.32	\$1.15
1 year old	\$1.39	\$1.54	\$1.43
2 years old	\$1.48	\$1.50	\$1.23
3 years old	\$1.30	\$1.67	\$1.54
4 years old and above	\$1.24	\$1.09	\$1.43

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

TABLE IV.17

ASSISTANCE IN PAYING FOR MAIN CHILD CARE ARRANGEMENTS  
FOR PRESCHOOL CHILDREN

	Camden	Newark	South Chicago
Percentage of Children Whose Mothers Pay Some Cash For Their Main Arrangement and Plan To Take An Income Tax Credit For This Arrangement	70.5	58.3	65.5
Percentage of Children Whose Mothers Pay Some Cash For Their Main Arrangement and Receive Assistance in Paying From:			
Welfare	0.6	0.3	1.0
Social service agency	0.0	0.0	0.1
Employer	0.2	<b>0.0</b>	0.2
Relative of child	2.0	3.0	0.6
Among Children Whose Main Care Was Not Paid For, The Percentage Whose Care Was Free Because:			
Care provided by relative or friend	93.8	90.8	91.4
Care provided by Head Start	0.8	0.0	1.9
Care provided free by welfare	0.7	0.0	2.2
Care provided free by social service agency	0.3	1.2	0.7
Other reason	4.4	8.0	3.8

**SOURCE:** Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

reported that they plan to take an income tax credit for their child's main arrangement.<sup>1</sup>

Among children whose main care arrangement was not paid for, the primary reason that the care was free was because it was provided by a relative or friend. Only small percentages of mothers reported that their child's main arrangement was provided free by Head Start, welfare, *or* another social service agency.

Secondary arrangements, which are more likely than main arrangements to be relative care, are also less likely than main arrangements to be paid for (Table IV.18). Only 28 percent of secondary arrangements in Newark, 33 percent in South Chicago, and 43 percent *in* Camden are paid for. As was the case for main child care arrangements, nearly all secondary arrangements that are paid for are paid directly by the parents with **cash**.<sup>2</sup> The average hourly cost of care in children's paid secondary arrangements is substantially higher than for the main arrangement, ranging from \$1.86 per hour in South Chicago to \$2.53 per hour in Camden (the equivalent of \$74 to \$101 per week for a 40-hour week).

Altogether, mothers of preschool children who pay for at least part of their child care, pay an average cost for all children that ranges from \$55 per week **in** South Chicago to \$62 per week in Newark (see Table IV.19). The median total cost of all child care is \$50 per week in all three **sites**. While average total costs generally rise with the number of children and the number of preschool children in the family, this pattern is not

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<sup>1</sup>These figures **are roughly** the same as the national average (Robins, 1988).

<sup>2</sup>**Appendix** Table B.8 shows the subsidy rate<sup>8</sup> for secondary care.

TABLE IV.18

## FEES PAID FOR CHILD CARE IN SECONDARY ARRANGEMENTS FOR PRESCHOOL CHILDREN

	Camden	Newark	South Chicago
Percentage of Preschool Children Whose Secondary Arrangement Was Paid For in Cash or in Kind	42.9	<b>28.3</b>	<b>33.0</b>
Among Children Whose Secondary Arrangement Was Paid For, The Percentage Whose Care Was Paid For With:			
Cash	96.4	<b>100.0</b>	<b>100.0</b>
<b>Noncash</b>	0.0	<b>0.0</b>	<b>0.0</b>
Both cash and <b>noncash</b>	3.6	<b>0.0</b>	<b>0.0</b>
Among Children Whose Secondary Arrangement Was Paid For At Least Partly With Cash:			
<b>Average</b> amount of cash paid per hour	\$2.53	\$2.41	\$1.86
Distribution of hourly costs of care:			
Less than \$0.50	6.8	20.0	0.0
\$0.50 to \$1.00	10.6	7.0	22.4
\$1.01 to \$2.00	43.1	26.5	48.7
\$2.01 to \$3.00	16.8	17.6	15.9
More than \$3.00	22.7	28.9	<b>13.0</b>

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

TABLE IV.19

TOTAL CHILD CARE EXPENDITURES FOR MOTHERS OF PRESCHOOL CHILDREN  
WHO PAY FOR AT LEAST PART OF THEIR CHILD CARE

	Camden	Newark	South Chicano
Average Total Cost Per Week For All Child Care (Median)	\$57.52 (\$50.00)	\$61.66 (\$50.00)	\$54.62 (\$50.00)
Average Total Cost Per Week For All Child Care For Mothers With:			
1 child	\$59.06	\$54.65	\$46.62
2 children	\$52.70	\$68.00	\$62.46
3 children	\$67.69	\$67.60	\$61.27
4+ children <sup>a</sup>	\$43.75	\$88.13	\$39.00
1 preschool child	\$56.87	\$56.77	\$50.47
2 preschool children	\$59.60	\$78.40	\$71.07
3 preschool children <sup>a</sup>	\$61.60	\$93.49	\$42.20

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> There are very few cases in this category.

universal. In several cases, it appears that average total costs level off or decline slightly in families with 3 or more children. This may reflect different choices of types of care in families with greater numbers of children.

Consistent with national estimates (Hofferth, 1988), the average share of total family income spent on child care ranges from 10.3 percent in South Chicago to 13.2 percent in Newark (see Table IV.20). In each site, these income shares spent on child care range from less than 1 percent to approximately 50 percent of family income.<sup>1</sup> As was the case with the average total cost of child care, the average share of family income devoted to child care does not appear to be systematically related to family size.

The average share of the mother's earnings that is spent on child care is approximately 25 percent in all three sites, as is the case nationally. The share of mothers' earnings spent on child care ranges from 1 to 92 percent in Camden, from 2 to 78 percent in Newark, and from 1 to 96 percent in South Chicago. Thus, in a few cases, nearly all of the mother's income is spent on child care.<sup>2</sup>

#### K. SATISFACTION WITH CHILD CARE ARRANGEMENTS.

The majority of mothers of preschool children seem to be generally satisfied with their child care arrangements. The mothers of fewer than one-third of preschool children in each site reported that they would

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<sup>1</sup>Approximately 15 cases for which child care costs exceeded reported family income were excluded from the analysis for each site.

<sup>2</sup>Cases for which child care costs were more than two times the mother's earnings were excluded from this analysis.

TABLE IV.20

SHARES OF FAMILY INCOME AND MOTHER'S INCOME SPENT ON CHILD CARE  
BY MOTHERS OF PRESCHOOL CHILDREN WHO PAY SOME CASH FOR CHILD CARE

	Camden	Newark	South Chicago
Average Percentage of Family Income Spent On Child Care By:			
All mothers with preschool children	10.9	13.2	10.3
Mothers with:			
...1 preschool child	11.2	12.0	10.1
2 preschool children	<b>0.8</b>	18.2	<b>11.5</b>
3 preschool <b>children<sup>a</sup></b>	15.4	18.3	6.7
Average Share of Mother's Income Spent On Child Care By:			
All mothers with preschool children	24.2	24.9	24.4
Mothers with:			
1 preschool child	22.1	24.6	24.1
2 preschool children	33.0	25.7	28.1
3 preschool <b>children<sup>a</sup></b>	29.9	29.6	12.0

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

<sup>a</sup> There are very few **cases** in this category.



prefer some other child care arrangement for their child if all arrangements were available free of charge (Table IV.21).

Among preschool children whose mothers would prefer some other arrangement for their child, the primary reason given for preferring another arrangement was that the child would learn more. The mothers of one-third to one-half of preschool children reported that they would prefer another arrangement because their child would learn more. About 10 percent in each site indicated a desire to change providers due to cost. In addition, about 20 percent of the mothers of preschool children in *care* in Camden cited convenience (in terms of both location and hours) as a reason for preferring another arrangement. The reasons for preferring another arrangement vary somewhat among mothers of children currently in different types of arrangements, although the fact that the child would learn more and convenience are the most frequently cited reasons for preferring another arrangement for children currently in most types of arrangements. Cost is a relatively more important reason for children currently cared for by a nonrelative in their own home and children currently in center care (Appendix Table B.9).

Consistent with the reasons given for preferring another arrangement, the mothers of a large majority of preschool children for whom other arrangements were preferred stated that they would prefer that their child be cared for in a child care center or preschool. Among mothers preferring different arrangements, the mothers of approximately 66 percent of preschool children in Camden, 73 percent of children in South Chicago, and 85 percent of children in Newark would prefer that their child be cared for in a child care center *or* preschool program.

TABLE IV.21

## SATISFACTION WITH CHILD CARE ARRANGEMENTS FOR PRESCHOOL CHILDREN

	Camden	Newark	South Chicago
Percentage of Children Whose Mothers Would Prefer Some Other Arrangement For Them	32.3	31.0	26.8
Among Children Whose Mothers Would Prefer Some Other Arrangement For Them, the Percentage Whose Mother Prefers Another Arrangement <b>Because<sup>a</sup></b> :			
Child would learn more	33.0	47.3	50.1
Prefer care by relative	<b>1.8</b>	2.0	2.2
Reliability of arrangement	9.1	2.9	2.3
cost	<b>11.2</b>	10.2	9.9
Convenient location	13.3	6.8	6.3
Convenient hours	19.2	3.6	11.0
Quality of care	10.0	7.1	7.5
Current arrangement not right for child	1.9	3.4	3.2
Other	27.3	26.1	21.6
Among Children Whose Mothers Would Prefer A Different Arrangement, The Percentage Preferring:			
Relative	15.8	4.2	10.5
Nonrelative	11.0	4.4	10.4
Child care center or preschool	66.4	<b>84.5</b>	72.9
Other	6.8	6.9	6.1

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> More than one reason may have been given, so the percentages do not necessarily add up to 100 percent.

There are some differences in the satisfaction of mothers with their current arrangements for preschool children in different age groups. In general, mothers seem to be more satisfied with their infant care than with their toddler and preschool care. In South Chicago, the mothers of only 16 percent of infants would prefer another arrangement, while over one-quarter of the mothers of toddlers and preschool-age children in that site would prefer another arrangement for them, and in Newark, the mothers of 24 percent of infants, compared with over 30 percent of older children would prefer another arrangement for them (see Appendix Tables B.10 through **B.12**). Unlike in Newark and South Chicago, however, the mothers of infants, toddlers, and preschool-age children in Camden are equally likely to prefer another arrangement for their child (33 percent). Convenience is the most commonly cited reason for wanting to change arrangements for young children, while mothers of older children most often prefer another arrangement for their child because the child would learn more.

The most frequently reported arrangement that mothers of preschool children of all ages in all three sites preferred is care in a child care center or preschool program, although the percentages of infants in care whose mothers reported preferring that arrangement are smaller than the percentages of toddlers and preschool-age children whose mothers would prefer that arrangement in Camden and South Chicago. Compared to mothers of toddlers and preschool-age children, the working mothers of higher percentages of infants in care in Camden and South Chicago would prefer care by a relative or nonrelative.

Table IV.22 relates the preferred arrangements for preschool children in each site to their current arrangements. In all three sites,

TABLE IV.22

PERCENTAGE OF PRESCHOOL CHILDREN WHOSE MOTHERS WOULD PREFER  
DIFFERENT CHILD CARE ARRANGEMENTS, BY **CURRENT ARRANGEMENT**

Preferred Arrangement	Current Arrangement			
	Relative	Nonrelative	Center	Other
<b>Camden</b>				
No change	68.2	74.4	65.5	50.0
Relative	7.3	0.5	4.2	0.0
Nonrelative	5.5	1.6	0.6	0.0
Center/preschool	1a.2	22.9	22.8	50.0
Other	0.8	0.5	6.9	0.0
<b>Newark</b>				
No change	76.4	62.4	69.6	58.3
Relative	0.0	1.5	3.3	0.0
Nonrelative	0.8	3.2	0.0	0.0
Center/preschool	21.9	32.3	21.2	41.7
Other	0.8	0.6	5.9	0.0
<b>South Chicago</b>				
No change	<b>69.5</b>	73.8	82.6	0.0
Relative	2.5	4.7	1.2	0.0
Nonrelative	5.0	0.0	0.9	0.0
Center/preschool	22.0	21.1	9.9	100.0
Other	0.9	0.4	5.5	0.0

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

the mothers of most children in all types of care are satisfied with their current arrangements, and for the vast majority of children whose mother would prefer another arrangement, the preferred arrangement is center-based care. Even among "dissatisfied" mothers of children currently in center care, the most preferred arrangement is care in another center or preschool. There is no clear pattern of preferences for other types of arrangements based on current arrangements.

#### L. CONTINUITY OF CARE IN MAIN CHILD CARE ARRANGEMENTS

Because stability of care is an important dimension of the quality of care for young children, it is important to examine the extent to which children's child care arrangements have changed over time. As shown in Table IV. 23, the main child care arrangements of 12 percent of preschool children of working mothers in South Chicago and Newark and 14 percent of preschool children in Camden had changed in the past 12 months. The most unstable type of care for preschool children appears to be nonrelative care, with the percentage of children whose main arrangement had changed and whose previous main arrangement was care by a nonrelative ranging from 42 percent in South Chicago to 59 percent in Newark, despite the fact that only about one-fourth of all preschool children are cared for by nonrelatives.

The most frequently given reason for a change in the main care arrangement was that the provider stopped providing care. The mothers of 32 percent of preschool children in Newark whose main arrangement had changed said that the arrangement had changed because the provider stopped providing care. The corresponding percentages in Camden and South Chicago are 29 and 19 percent, respectively. In Camden, other commonly cited

TABLE IV.23

CHANGES IN MAIN CHILD CARE ARRANGEMENTS FOR PRESCHOOL  
CHILDREN IN THE PAST YEAR

	Camden	Newark	South Chicago
Average Length of Time Child Has Been Cared For in Main Arrangement (months)	14.7	15.5	16.1
Percentage of Preschool Children Whose Main Arrangements Have Been Changed Within the Past 12 Months	14.0	11.9	12.1
Among Children Who Changed Main Arrangements:			
Average number of times main arrangements changed' in the last 12 months	1.3	1.2	1.5
Percentage whose <b>last</b> main arrangement before changing <b>was:</b>			
Relative	36.8	20.8	39.1
Nonrelative	49.3	58.8	41.7
Center/preschool	13.1	20.4	10.6
Other	0.8	0.0	8.6
<b>Percentage</b> who changed arrangements because>			
Provider unreliable	6.4	4.6	18.3
cost	3.8	5.1	5.1
Mother or family moved	9.1	1.4	9.3
Hours no longer convenient	0.8	0.0	15.0
Provider stopped providing care	28.5	<b>31.9</b>	19.1
Child outgrew arrangement	0.8	17.1	4.7
Mother changed jobs	7.7	9.2	1.5
Transportation problems	11.5	2.7	0.0
Dissatisfaction with provider	11.1	12.8	7.3
Other reason	20.2	15.2	19.8

**SOURCE:** Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

reasons for changing arrangements include dissatisfaction with the provider, transportation problems, and mobility of the family. In addition to the provider discontinuing care, in Newark other frequently reported reasons for changing arrangements include the fact that the child outgrew the arrangement and dissatisfaction with the provider. Finally, in South Chicago, in addition to the provider discontinuing care, other reasons for changing arrangements include unreliability of the provider and the hours of care no longer being convenient.

An examination of the previous and current child care arrangements of preschool children whose arrangements changed within the past year (Table IV.24) shows that there are few clear patterns of change. Children who changed to relative care were most likely to have previously been cared for by other enrolled in a child care center. In all three sites, most of the 'preschool children whose arrangements changed to nonrelative care were previously in other nonrelative care arrangements. Again, very few children whose arrangements changed to nonrelative care were previously cared for in center-based arrangements. Finally, preschool children who changed to center-based arrangements were, in general, more likely to have been cared for by relatives or nonrelatives prior to the change, although substantial proportions of children who changed to center care changed from other center-based care arrangements.

#### M. PROBLEMS WITH CHILD CARE ARRANGEMENTS

The next set of tables describe the nature and extent to which mothers of preschool children in the three sites experienced problems with child care that affected their work activities. Table IV.25 shows that the mothers of 13 percent of preschool children in South Chicago, 15 percent of

TABLE IV.24

PERCENTAGE OF PRESCHOOL CHILDREN WHOSE MOTHERS CHANGED THEIR  
ARRANGEMENTS WITHIN THE **LAST** YEAR, BY CURRENT ARRANGEMENT

Previous Arrangement	Current Arrangement			
	Relative	Nonrelative	Center	Other
<b>Camden</b>				
Did not change	08.7	82.3	87.4	100.0
Relative	3.9	7.4	4.2	<b>0.0</b>
Nonrelative	5.8	10.3	4.1	0.0
Center/preschool	1.3	0.0	4.3	0.0
Other	0.2	0.0	0.0	0.0
<b>Newark</b>				
Did not change	94.9	82.0	85.3	58.3
Relative	3.4	0.6	2.3	0.0
Nonrelative	<b>1.7</b>	14.9	6.0	41.7
Center/preschool	0.0	2.5	6.4	0.0
Other	0.0	0.0	0.0	0.0
<b>South Chicago</b>				
Did not change	94.9	81.5	<b>78.8</b>	<b>0.0</b>
Relative	2.3	3.6	12.3	100.0
Nonrelative	2.2	10.6	4.9	0.0
Center/preschool	0.5	0.8	4.0	0.0
Other	0.1	3.5	0.0	0.0

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).



TABLE IV.25

PROBLEMS WITH REGULAR CHILD CARE ARRANGEMENTS EXPERIENCED  
BY MOTHERS OF **PRESCHOOL** CHILDREN

	Camden	Newark	South Chicano
Percentage of Children Whose Mothers Were Late to Work or Had to Leave Early During the Last Month Due to Problems With Regular Child Care Arrangements	15.3	16.7	13.1
Among Those Children Whose Mothers Were Late or Left Early, the Average Number of Times in the Last Month-The Mothers Were Late or Left Early	3.4	3.1	3.2
Percentage of Children Whose Mothers Had to Miss at Least One Day of Work in the Last Month Due to Problems With Child Care	7.0	14.2	<b>9.2</b>
Among Children Whose Mothers Had to Miss Work:			
Average number of days missed	<b>1.9</b>	1.6	1.7
Percentage whose mothers missed work because:			
Provider was sick	19.2	42.4	27.0
Provider's family was sick	3.5	8.4	0.0
Provider had personal problem	27.8	24.2	36.7
Preschool was closed	0.0	6.7	2.4
Mother couldn't pay provider	0.0	1.2	0.0
Other reason	49.4	17.0	33.9

TABLE IV.25 (Continued)

	Camden	Newark	South Chicano
Percentage of Children Who Were Cared For in the Following Way the Last Time Their Regular Arrangements Were Unavailable:			
Regular arrangement always available	41.1	44.9	48.7
Mother took child to work	1.2	1.3	0.4
Spouse stayed home	12.0	5.8	5.3
Relative or neighbor watched child	38.0	41.6	36.3
Mother hired babysitter	1.7	0.5	4.1
Older child stayed home	1.6	0.4	<b>0.6</b>
Child watched self	0.4	0.0	0.1
Other	4.0	5.4	0.0

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

children in Camden, and 17 percent of children in Newark were late to work or had to leave work early during the month previous to the survey due to problems with their regular child care arrangements. Among those children whose mothers were late or had to leave early, the average number of times their mothers were late or left early was about 3 times in the last month in each site. The percentage of preschool children whose mothers had to miss at least one day of work in the month previous to the survey due to problems with child care ranges from 7 percent in Camden to 14 percent in Newark. **This** happened an average of nearly two times in the last month. Among children whose mothers missed at least one day of work in the last month due to child care problems, the primary reasons for missing work were that the **provider** was sick and the provider had personal problems.

When asked about who cared for their child the last time their regular arrangement was not available, the mothers of nearly one-half of preschool children in care reported that their regular arrangements are always available. The working mothers of approximately 41 percent of preschool children in Camden, 45 percent of preschool children in Newark, and 49 percent of preschool children in South Chicago said that their child's regular arrangement is always available. However, children whose regular arrangements are not always available were most likely to have been cared for by a relative or neighbor the last time their regular arrangement was not available. The remaining children whose regular arrangements are not always available were cared for primarily by their fathers or an older sibling who stayed home with them the last time their regular arrangements were not available.

There are no clear and consistent differences between the child care problems experienced by lower-income and higher-income mothers of preschool children in the three sites. (See **Appendix** Table B.13). The primary problems with child care arrangements were the same in all three sites for both lower- and higher-income children; the most prevalent problems were that the provider was sick or the provider had personal problems.

The next two tables **examine the** child care arrangements made by mothers of preschool children the last time their children were sick. Table IV.26 shows that the mothers of approximately one-half of preschool children stayed home from work to take care of their child the last time he/she was sick. In contrast, the fathers/stepfathers of only about 5 percent of preschool children stayed home to care for their child the last time he/she was sick. About 10 percent of preschool children in Camden and Newark and 20 percent of preschool children in South Chicago were cared for in their regular arrangement the last time they were sick, and a similar percentage were cared for by a relative or neighbor the last time they were sick.

A substantial proportion of mothers who stayed home from work to care for their child the last time he/she was sick took leave without pay in order to stay home. Among mothers who stayed home, the mothers of 32 percent of preschool children in Newark, 39 percent of children in Camden, and 45 percent of children in South Chicago took leave without pay in order to stay home with their child the last time he/she was ill. The percentage of children whose mothers took sick time to stay at home with their children ranges from 26 percent in Camden to 39 percent in Newark. The

TABLE IV.26

## ARRANGEMENTS FOR THE CARE OF SICK CHILDREN

	Camden	Newark	South Chicago
Percentage of Children Whose Mothers Made the Following Arrangements for Their Care The Last Time They Were Sick:			
Used regular arrangement	<b>9.6</b>	<b>11.0</b>	21.1
Mother stayed home	56.5	53.8	47.3
Spouse stayed home	6.4	5.1	5.4
Older child stayed home	0.0	0.2	0.1
Mother took child to work	0.8	0.2	1.5
Relative or neighbor watched child.	11.2	13.0	10.6
Mother hired babysitter	0.3	0.2	1.3
Other	15.2	16.6	12.8
Among Children Whose Mothers Stayed Home The Last Time They Were Sick, The Percentage Whose Mothers:			
Took vacation time	12.1	8.0	6.6
Took sick time	25.7	38.6	31.8
Took personal time	11.2	12.4	11.9
Used flex-time	5.7	1.9	2.8
Worked from home	0.0	2.1	1.7
Took leave without pay	39.2	31.7	45.2
O t h e r	6.1	5.1	0.9

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

mothers of most of the remaining children took vacation time or personal leave time to stay at home with their child. Very few mothers used flex time or worked at home the last time their child was sick.

Mothers of preschool children in higher-income families are slightly less likely than the mothers of preschool children in lower-income families to have stayed at home with their child the last time they were sick and slightly more likely to have used their regular child care arrangement or had a relative or neighbor watch their child (see Appendix Table B.14). In Camden and South Chicago, there are no major differences in the arrangements made by lower- and higher-income mothers to be away from work to care for their children the last time they were sick. However, in Newark, the arrangements made by lower-income mothers of preschool children to stay home with their children the last time they were sick were much more likely to involve taking leave without pay or personal leave time and less likely to involve taking vacation time or sick time compared to the arrangements made by higher-income mothers.

#### N. **UNMET DEMAND FOR CHILD CARE**

Although the main focus of this study is on the level and characteristics of child care currently used by working mothers of preschool children, this section looks briefly at the issue of unmet demand for child care: who is and is not served by the child care market, to what degree problems of cost, availability and quality of child care have blocked opportunities for working mothers and prevented other mothers from entering the job market, and finally, how much and what kind of child care mothers **not** currently **using** child care would prefer.

Table IV.27 examines the demographic characteristics of working mothers, those currently served by the child care market, versus nonworking mothers. In Camden **and** South Chicago, working mothers of preschool children are less likely than their nonworking counterparts to be married and more likely to have never married. In Newark, approximately **one-**quarter of mothers in both groups have never been married, but the nonworking mothers are more likely to be divorced or separated. In all sites, working and nonworking mothers differ across race and ethnic groups.. A larger percentage of working than nonworking mothers are black; the majority of all nonworking mothers are white, as high as 84 percent in South Chicago, where only **45** percent of working mothers are white. More nonworking than working mothers are Hispanic.

Nonworking mothers in all three sites are less educated than the working mothers. The difference is greatest in Newark where **75** percent of nonworking mothers compared with only **45** percent of working mothers have completed high school or less. The majority of all working mothers have had at least some college education. Working mothers in New Jersey also appear to be more advantaged economically than nonworking mothers, with higher average **family** incomes and lower percentages receiving AFDC or food stamps.

Both currently working and nonworking mothers reported lost opportunities due to child care problems, as shown in Table IV.28. From 28 to 37 percent of working mothers and 19 to 41 percent of nonworking mothers said child care problems had ever prevented them from working or led them to change jobs or work hours. In all three sites, more than three-fourths of working mothers who had had these child care problems had changed work

TABLE IV.27

DEMOGRAPHIC CHARACTERISTICS OF WORKING AND NONWORKING  
MOTHERS OF PRESCHOOL CHILDREN

	Camden		Newark		South Chicano	
	Working	Not Working	Working	Not Working	Working	Not Working
Percentage of Mothers Who Are:						
Married	73.2	<b>79.5</b>	60.6	55.3	71.4	<b>89.6</b>
Divorced or separated	9.6	<b>9.2</b>	14.1	21.5	9.5	4.1
Widowed	1.1	0.6	1.3	0.4	1.3	0.2
Never married	16.3	10.6	24.1	22.9	17.9	5.7
White	70.7	84.3	39.0	59.0	45.1	84.4
Black	25.3	11.0	51.8	33.3	53.4	11.0
Other race	4.0	2.7	9.2	7.2	1.5	4.1
Hispanic	9.5	13.0	<b>18.1</b>	27.1	3.3	4.9
Percentage of Mothers Who Have Completed:						
Less <del>than</del> high school	6.3	15.5	9.8	26.1	6.8	7.1
High school	35.4	46.9	34.7	48.9	31.5	40.2
Vocational/technical	4.8	4.8	3.5	3.9	2.8	1.8
Some college	28.5	12.5	28.1	12.7	32.9	28.9
College or above	24.9	20.3	23.9	8.4	26.0	21.4
Percentage of Mothers Whose Family Income Is:						
\$0 to \$6,000	4.0	7.1	4.2	21.8	5.7	6.9
\$6,001 to \$12,000	6.8	8.9	11.4	11.0	6.0	2.4
\$12,001 to \$18,000	<b>6.5</b>	8.9	11.7	10.6	6.8	4.1
\$18,001 to \$24,000	8.8	8.5	10.4	4.2	9.4	10.7
\$24,001 to \$30,000	11.9	10.3	13.6	12.1	15.9	11.4
More than \$30,000	44.9	37.0	36.9	19.2	45.5	46.8
Unknown or refused	17.1	19.4	11.8	21.1	10.7	17.6
Percentage of Mothers Who Are Currently Receiving:						
AFDC	5.1	18.1	7.0	30.8	9.6	7.7
Food Stamps	6.7	19.8	5.8	33.9	8.5	7.1
Other public assistance	4.6	8.5	4.6	18.5	4.4	1.7

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

NOTE: Working is defined as employment, participating in job training, and going to school.



TABLE Iv.28

## LOST OPPORTUNITIES AND CHANGES IN EMPLOYMENT DUE TO CHILD CARE PROBLEMS

	Camden		Newark		South Chicago	
	Not Working	Working	Not Working	Working	Not Working	Working
Percentage of Mothers Of Preschool Children Who Have Ever Been Prevented From Working or Led to Change Jobs Or Hours Worked Due to Child Care Problems	37.3	41.0	<b>29.6</b>	26.1	<b>27.9</b>	19.3
Percentage of Currently. Working Mothers Whose Previous Child Care Problems Caused Them To:						
Not look for a job	30.3	—	<b>24.9</b>	----	28.5	—
Turn down a job offer	37.6	—	34.5	—	41.0	—
Change jobs	30.9	----	35.3	—	37.4	----
Quit a job	34.8	----	42.3	----	33.8	—
Change hours worked	77.9	—	70.9	----	73.0	—
Change days worked	26.3	—	1a.8	—	40.3	—
Percentage of Those Affected by Problems Whose Primary Problem With Child Care Was:						
<b>Cost</b>	39.1	68.6	40.0	22.5	40.3	30.5
Availability	45.3	7.9	40.6	46.6	39.2	9.6
Quality	15.5	23.5	19.4	30.8	20.5	41.7
Other	0.0	0.0	0.0	0.0	0.0	1a.2

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

NOTE: Working is defined as employment, participating in job training, and going to school.

ours. Working mothers had also frequently turned down job offers, quit their jobs or changed jobs due to child care problems. Cost of care was most frequently the main problem for working mothers in South Chicago, but availability of care was more frequently cited as the main problem for working mothers in the New Jersey sites. In Camden, 69 percent of nonworking mothers, but only 39 percent of working mothers said cost of care had been the primary problem. Overall, more nonworking than working mothers saw quality of care as the main issue, although only nonworking mothers in South Chicago mentioned this more-frequently than other problems with child care..

Table IV.29 looks more closely at the reasons nonworking mothers gave for **not** working. The majority of nonworking mothers in Newark and South Chicago and over **40** percent in Camden have worked for pay since having children. Most of these women stopped working either because they were having another child **or** because they want to be with their children while they are young. However, 11 percent of nonworking mothers in Camden, 18 percent in Chicago and 28 percent in Newark stopped working because of problems with child care costs, availability **or** quality. Most mothers who have not worked since having children are also staying home by choice, and fewer of these mothers said child care problems prevented them from working. Nevertheless, a substantial percentage (21 percent) of nonworking mothers in Newark who have not worked since having children did cite these problems.

While between 7 and 27 percent of nonworking mothers in each site cited child care as a reason for not working, **two** to four times as many nonworking mothers in each site reported that they would look for or return

TABLE IV.29

## PREVIOUS EMPLOYMENT AMONG CURRENTLY NONWORKING MOTHERS OF PRESCHOOL CHILDREN AND REASONS FOR NOT WORKING

	Camden	Newark	South Chicano
Percentage of Nonworking Mothers Who Have Ever Worked For Pay Since They Had Children	42.5	55.5	51.7
Among Nonworking Mothers Who Have Worked Since Having Children:			
Average number of weeks worked in past year	10	8	7
Percentage who stopped working because:			
Couldn't afford child care	1.0	2.8	<b>4.9</b>
Child care no longer avail.	5.7	14.0	11.4
Didn't like child care	4.1	11.0	2.1
Wanted to be with children	36.8	24.4	16.7
Got pregnant/had child	14.8	18.2	24.0
Did not like job	0.0	1.6	6.3
Fired/laid off	6.3	6.5	6.7
Didn't make enough money	3.2	1.8	4.9
Went back to school/training	0.0	0.0	3.2
Own illness	5.9	1.3	2.5
Other's illness	3.7	3.4	0.0
Other reason	18.5	14.9	17.3
Among Nonworking Mothers Who Have Not Worked Since Having Children, Percentage Whose Reason For Not Working Was:			
Prefer not to work when children are young	72.9	61.6	77.3
Can't find satisfactory child care	6.0	20.8	4.1
Can't make enough money	3.8	7.4	2.7
Can't find a job	0.7	0.5	3.0
Not interested in working	4.8	2.6	3.5
Pregnant	1.4	1.1	0.8
Other	10.3	6.0	8.6

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

to work if satisfactory child care were available at reasonable cost (see Table IV.30). The level of unmet demand seems to be highest in Newark where 27 percent of nonworking mothers cited child care as a reason for not working and 61 percent of nonworking mothers would look for or return to work if child care were available at a reasonable cost.

Although the cost of child care was frequently cited as a problem, the nonworking mothers do not, on average, have unreasonable expectations: the fees of \$51 to \$70 per week they consider reasonable to pay for child care are well within the range charged by day care centers and **family** day care providers in these three sites. In the New Jersey sites, over half of these mothers would choose formal day care centers or preschools for their children, and another fourth would prefer relative care. In South Chicago, relative care is most preferred, although 27 percent would choose formal care.

#### 0. CONCLUSION

The use of child care by working mothers in Camden, Newark, and South Chicago is remarkably similar. Although there are some differences in the level and characteristics of child care between the sites (consistent with differences in the demographic characteristics of mothers in the three sites), the overall picture is one of similarity.

The use of different types of child care arrangements in the three sites of the Teenage Parent Demonstration programs is also remarkably similar to the use of these arrangements nationally, as shown in Table IV.31. The percentage of preschool children who are cared for by relatives is slightly greater in the three study sites, but the difference is not large. The greatest difference in the types of arrangements in which

TABLE IV.30

EXTENT TO WHICH NONWORKING MOTHERS OF PRESCHOOL CHILDREN WOULD LOOK  
FOR WORK IF SATISFACTORY CHILD CARE **WERE** AVAILABLE

	Camden	Newark	South Chicago
Percentage of Nonworking Mothers Who Would Look For Work or Return to Work If Satisfactory Child Care Were Available at Reasonable Cost	33.7	61.4	34.6
Among Nonworking Mothers Who Would Look For Work:			
Average cost per week of full-time care considered reasonable	\$57.68	\$51.39	\$70.16
Percentage who would prefer the following arrangements:			
Child's other parent	3.5	1.3	<b>9.6</b>
Mother's partner	0.0	1.6	<b>0.0</b>
Child's sibling	0.0	1.2	<b>0.0</b>
Child's grandparent	6.4	9.8	17.8
Other relative	16.7	12.3	18.3
Nonrelative of child	7.0	9.4	14.6
Child care center	35.9	32.1	19.6
Preschool	15.6	18.0	7.3
Self care	0.0	1.6	0.0
Mother works at home	1.6	2.4	0.8
Mother cares for child at work	<b>2.9</b>	<b>0.0</b>	<b>0.0</b>
Other	10.5	10.2	12.1

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

TABLE IV.31

## COMPARISON OF SELECTED FINDINGS WITH AVAILABLE NATIONAL ESTIMATES

	1984-85 Survey of Income and Program Participation	1988 Surveys of Child Care Needs and Supply
<u>Type of Child Care</u> <u>Arrangements Used</u>		
Percentage of Preschool Children of Working Mothers Whose Primary Child Care Arrangement Is:		
Formal group care	24	20
Nonrelative care	28	26
Relative care	48	54
Father care	16	17
Percentage of Preschool Children of Working Mothers Who Have <b>Secondary Arrangements</b>	13	22
<u>Use of Paid Child Care</u>		
Percentage of Working Mothers Who Paid Some Cash for Child Care <b>Arrangements<sup>a</sup></b>	69	75
Median Total Cost Per Week For Child Care for Mothers With One <b>Child<sup>a</sup></b>	\$44	\$47

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

- <sup>a</sup> The Survey of Income and Program Participation includes working mothers with children under 15 years old. The Surveys of Child Care Need and Supply includes only working mothers of preschool children.

children are cared for is in the extent to which preschool children are cared for in more than one arrangement (22 percent in the three study sites versus 13 percent in the nation as a whole).

Comparisons of other characteristics of care for which national estimates are available also suggest that the nature of child care use for **preschool children** in Camden, Newark, and South Chicago is similar to the nation as a whole. Although the samples are not exactly the same, the percentage of working mothers who paid cash for their child care arrangements differs very little between the nation and the three study sites (69 percent and 75 percent, respectively). The cash paid for child care by mothers with one child is also very similar, despite the differences in sample frames. The median **weekly** cost for child care for mothers of one child nationally is \$44.23 (inflated to 1988 dollars), while the median weekly cost of child care for mothers of one preschool child in the three study sites is \$47.24. We would expect the national cost to be lower, since that estimate applies to mothers of one child under 15 years of age, while the estimate for the study sites refers only to mothers of one child of preschool age.





## V. MULTIVARIATE ANALYSIS OF CHILD CARE MODE CHOICE AND EXPENDITURES

In this chapter, we use multivariate analysis to provide additional insight into how the various supply and demand factors affect the child care utilization patterns and costs that we observe, when other relevant factors are held constant. Because child care choices are closely related to the mother's decision to work or to attend school or training, this analysis focuses on the choice of child care mode by mothers of preschool children who work, attend training, or go to school. For this group, we examine the following outcomes:

- o The choice of relative care, nonrelative care (by a babysitter or family provider), or formal care (in a group care center or preschool)
- o The more detailed choice of relative care in the child's home, relative care in another home. nonrelative care in the child's home, nonrelative care in another home, or formal care
- o Whether or not the mother pays for care, either with cash or **noncash** payments or both
- o Whether or not the mother pays cash for care
- o Expenditures on care, for mothers who pay cash for care
- o The proportion of family income spent on child care
- o The proportion of the mother's earnings spent on 'child care

The analyses of child care mode choices examine the main arrangement used for a preschool child.<sup>1</sup> In the analyses of expenditures, we look at the payment arrangements made both for particular preschool children and for

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<sup>1</sup>**For** mothers with more than one preschool child, we chose one child at random to include in the child-based analyses

families. In all models, we make three simplifying assumptions: (1) the decision to work, attend training or go to school (and the decision about how many hours to engage in these activities) precedes decisions about child care; (2) the mother is the decision-maker with respect to child care, and (3) fertility and family formation decisions are not related to child care decisions, so that family size and composition can be treated as predetermined variables in the analysis.

#### A. CHOICE OF CHILD CARE MODE

In our analysis of mothers' choices of the type of child care provider to use for their preschool child, we estimate multinomial **logit** models of choices among types of care selected by all mothers in the sample, and for subgroups defined by the age of the child, the mother's race, and the mother's marital status. In the first section below, we describe the analytic model used and the explanatory variables included in the model. In the second section, we discuss the definition of the sample and the particular sample subgroups considered. The final section presents the results of the analysis and discusses their interpretation.

##### 1. The Analytic Model

The multinomial **logit** model is a useful approach to studying the effects of independent variables on a set of mutually exclusive, exhaustive and clearly distinct choices (Maddala, 1983). and has been applied in several previous studies of child care mode choices (Robins and Spiegelman, 1976; Yaeger, 1978). The model, as applied to child care mode choice, consists of a set of equations that have as their dependent variable the probability that a mother will choose a particular mode of child care as

the primary care provider for her preschool child. The equations of the model have the following form:

$$P_{ij} = \exp(X_i b_j) / \sum_{k=1}^m \exp(X_i b_k);$$

for all  $i=1, \dots, n$  and  $j=1, \dots, m$

where  $P_{ij}$  is the probability that the  $i$ th mother will choose mode  $j$ ;  $b_j$  is a vector of parameters for the  $j$ th mode; and  $X_i$  is a vector of explanatory variables which may include characteristics of the mothers, the child, and the child care mode choices. Only the differences in the  $b_j$ s for two different modes, not the  $b_j$ s themselves, can be identified. In estimation, the normalization is imposed by setting, the coefficients of one mode to zero:

$$P_{ij} = \exp(X_i b_j) / (1 + \sum_{k=1}^{m-1} \exp(X_i b_k)); \quad j=1, \dots, m-1$$

$$P_{im} = 1 / (1 + \sum_{k=1}^{m-1} \exp(X_i b_k))$$

The estimated parameters from these equations can be interpreted as the effects of the  $X$  variables on the probabilities relative to the last or  $m^{\text{th}}$  mode. The effects on the relative probabilities of any two other modes can be calculated by subtraction of the coefficients for those choices. The parameters of the model and their standard errors are estimated using maximum likelihood estimation procedures.

When there are more than two choices, the coefficient estimates do not give a clear indication of the net effect of a change in an explanatory variable on the probability of a particular choice. Instead, we calculate

the net effect,  $dP/dX$ , which indicates the effect of a one unit change in an X variable on a given choice.' In the case of a model with three choices, for example, the formulas for the net effects are calculated as follows:

$$dP_1/dX = P_1((b_1-b_2)P_2 + b_1P_3)$$

$$dP_2/dX = P_2((b_2-b_1)P_1 + b_2P_3)$$

$$dP_3/dX = P_3(-b_1P_1 - b_2P_2)$$

These effects depend on the values of the X variables, and thus need to be calculated for some fixed set of X values. When evaluated at the sample means of the X variables, the net effects are interpreted as the effects of a one unit change in an X variable on the choice probabilities for an average sample member.<sup>2</sup>

The independent variables in the model include factors that affect the supply of child care of each type, and factors that affect demand. The supply factors include the price, availability, quality and convenience of each mode of care. Since many of these factors are the same for mothers in each city, site indicators are used to capture differences across sites in the set of child care options available. The availability of relatives or other household members is a supply factor which varies systematically across households. We use a variable representing the **number** of adults in

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<sup>1</sup>**Technically**, the net effects are the partial derivatives of the choice probabilities with respect to the explanatory variable.

<sup>2</sup>**For** explanatory variables which are indicator variables, indicating the presence or absence of some characteristic, these net effect formulas are only approximately correct.

the household, other than the mother, to partially capture this concept.<sup>1</sup> In addition, we include indicators of the length of time the mother has spent in the neighborhood and of whether she considered other providers to indicate the mother's familiarity with available sources of care.

Several characteristics of the child are likely to influence the mother's preferences for type of child care. The child's age is most important. As noted above, the typical arrangements for infants and toddlers differ substantially from the typical arrangements for 3 and 4-year-olds. The number and ages of the child's siblings are also likely to influence choices, since mothers with several children in care need to consider the cost of child care for the other children and the difficulty of coordinating care in several locations.

Finally, several characteristics of the mother are hypothesized to influence child care mode choices, either because they affect the type of care needed, the mother's preferences, or her ability to pay for care. The variables which indicate the mother's needs are her hours at work, school or training and an indicator of whether she works evenings or weekends. Demographic characteristics of the mother may be related to preferences or her ability to pay for care. Those demographic characteristics included in the model are the mother's age, race, marital status and education level. In addition, we include indicators of whether the mother has especially high or low earnings, and an indicator of whether income other than the

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<sup>1</sup>This variable is the sum of the number of adult household members who provide some care and the number of related adults who do not currently provide care. Unrelated adults who do not provide care are not counted in the questionnaire, but they are less likely to be potential sources of care.

mother's earnings is available to the family, as some indication of ability to pay.

## 2. The Sample Used in The Analysis

The sample for the analysis includes the mother of one randomly selected preschool child from each family that reported using child care for a **preschooler**.<sup>1</sup> The resulting sample consists of 663 mothers who had valid data on all of the outcome and explanatory variables used in the model.<sup>2</sup>

Separate models of the choice between relative care, nonrelative care and formal care were also estimated for key subgroups. Since many studies have shown that preferences for child care settings for infants and toddlers are very different than preferences for older preschoolers, we estimated separate models for children under 3 years old, and for children age 3 or above. **Roughly** half of the children in the sample (48.3 **percent**) are less than 3 years old. In addition, we looked separately at the choices of black and **nonblack** mothers and the choices of married and unmarried mothers. Forty-two percent of the overall sample is black, and 30.6 percent is not currently married.

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<sup>1</sup>We decided to use data on only one child for each mother because we were concerned that unobserved factors that affect child care choices would be correlated for children of the same mother. While such correlation can be corrected for fairly easily in a linear regression model, it is much more difficult to incorporate into a multinomial **logit** model.

<sup>2</sup>In total about one-third of the sample was excluded due to missing data, especially on mother's earnings and family income.

### 3. Estimation Results

Mode Choice for the Full Sample. The results from the model of the choice among relative care, nonrelative care and formal care are presented in Table V.1. The first three columns in the table present the coefficient differences in a way that allows us to consider the effects of a variable on the odds of choosing relative care vs. formal care (column 1), nonrelative care vs. formal care (column 2), and relative care vs. nonrelative care (column 3). The coefficients in the first two columns were estimated directly, while the coefficients in the third column were calculated by subtracting column 2 from column 1. Examination of these coefficients is most useful for determining the extent to which a variable has statistically significant effects and the direction of these effects. The net effects on the choice probabilities, presented in columns 4 through 6, are useful in assessing the magnitude of the effects.

We find that mothers in Camden are more likely to use formal care than mothers in Newark (the omitted site), and less likely to use both relative and nonrelative care. The relative odds of them using relative vs. nonrelative care, however, are not significantly different than for Newark mothers (since  $b_1 - b_2$  is not significant). The estimated net effect of living in Camden instead of Newark, other things equal, is to increase the probability of using formal care by 10 percentage points, decrease the probability of relative care by 7.7 percentage points, and decrease the probability of nonrelative\* care by 2.7 percentage points. Mothers in Chicago do not differ significantly in their mode choices from those in Newark, when other things are held constant.

TABLE v. 1

MULTINOMIAL LOGIT MODEL OF CHOICE OF RELATIVE CARE,  
NONRELATIVE CARE OR FORMAL CARE

	Coefficients <sup>a</sup>			Effects on the Probability of Using:		
	(b <sub>1</sub> - b <sub>3</sub> )	(b <sub>2</sub> - b <sub>3</sub> )	(b <sub>1</sub> - b <sub>2</sub> )	Relative Care	Nonrelative Care	Formal Care
Intercept	4.04 (.951)	1.63 (.957)	2.41 (.869)	--	--	--
Camden	-.599* (.305)	-.497* (.313)	-.0630 (.290)	-.0767	-.0266	.103
Chicago	-.182 (.300)	.137 (.304)	-.318 (.272)	-.0625	.0496	.0129
Age of Child (in years)	-.690*** (.0928)	-.725*** (.0948)	.0358 (.0799)	-.0804	-.0549	.135
No. of Other Adults in Household	.743** (.315)	-.137 (.367)	.880*** (.300)	.202	-.120	-.0821
No. of Preschool Siblings	.784** (.248)	.689** (.255)	.0954 (.192)	.109	.0358	-.144
No. of School-age Siblings	.0373 (.162)	.00121 (.167)	.0361 (.144)	.00914	-.00446	-.00468
Hours per Week	-.0331*** (.0098)	-.00745 (.0103)	-.0257*** (.0084)	-.00730	.00271	.00459
Works Evenings or Weekends	1.44*** (.271)	.510* (.288)	.931*** (.228)	.295	-.0819	-.213
Mother's Age (in years)	.00224 (.0249)	.0470* (.0246)	-.0448* (.0230)	-.00537	.00891	-.00354
Married	.218 (.438)	.0602 (.481)	.158 (.413)	.0468	-.0158	-.0311
Black	-.817*** (.280)	-.966*** (.281)	.150 (.252)	-.0818	-.0860	.168
Hispanic	.0421 (.438)	-.726 (.521)	.768* (.465)	.102	-.147	.0452
College Graduate	-1.50*** (.346)	-.703** (.349)	-.801*** (.303)	-.286	.0522	.234
Some College	-.686** (.277)	-.222 (.291)	-.464* (.245)	-.143	.0431	.0999



Table V.1 (continued)

	Coefficients <sup>a</sup>			Effects on the Probability of Using:		
	(b <sub>1</sub> - b <sub>3</sub> )	(b <sub>2</sub> - b <sub>3</sub> )	(b <sub>1</sub> - b <sub>2</sub> )	Relative Care	Nonrelative Care	Formal Care
Mother's Earnings ≤ \$6,000/yr.	.255 (.267)	.178 (.276)	.0761 (.242)	.0410	.00280	-.0438
Mother's Earnings > \$30,000/yr.	.828* (.489)	-.370 (.531)	1.20" (.474)	.253	-.177	-.0763
Family has Other Income	-.165 (.379)	-.229 (.386)	.0642 (.365)	-.0122	-.0240	.0362
Lived Over One Year in Neighborhood	.273 (.311)	.431 (.331)	-.157 (.293)	.0138	.0497	-.0636
Considered Other Providers	-1.32*** (.240)	-.280 (.248)	-1.04*** (.212)	-.295	.112	.182
Probability of Mode Choice	--	--	--	.473	.267	.261

Number. of Observations = 664.

-2 x Log - Likelihood = 1,119

SOURCE: Surveys of Child Care Needs and Supply (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> Choices are numbered 1 = relative care, 2 = nonrelative care, 3 = formal care. Coefficients measure the effect of a one unit change in the variable on the log of the odds of two choices. For example, if b<sub>1</sub> - b<sub>3</sub> is positive for a particular variable, an increase in that variable increases the odds of choosing relative care over formal care. Standard errors are in parentheses. \*\*\*/\*\*/\* indicates that a coefficient is significantly different from zero at the 99/95/90 percent level of confidence.

As expected, the age of the child, the household structure, and the extent and timing of the mother's activities away from home all have significant effects on mode choices. As the child becomes a year older, the probability that the mother will choose formal care increases by 13.5 percentage points, with roughly equal declines in the use of relative and nonrelative care. An additional adult in the household increases the likelihood of using relative care by 20.2 percentage points, with declines in nonrelative and formal care. Having a preschool sibling significantly decreases the probability that the child will be in formal care (by 14.4 percentage points). The presence of a school-age sibling, however, has an **insignificant (and quantitatively** small) effect on child care mode choices for a preschool child.

... **Mothers who** work more hours are significantly less likely to use relative care: the probability of relative care declines by **.73** percentage points for each additional hour worked. Given the mother's hours of work, however, those who work evenings or weekends are much more likely to use relative care. The probability of using relative care increases 29.5 percentage points for a woman who works evenings or weekends as opposed to one who does not (assuming both **are** average in their hours of work and other characteristics). Nonrelative care falls by 8.2 percentage points, while formal care falls by 21.3 percentage points. These results are in accord with findings discussed in Chapter III which indicate that center and family day care is almost entirely restricted to weekday hours and

tends to be either unavailable part-time, or as expensive part-time as full-time.<sup>1</sup>

Among the demographic characteristics of the mother, her age, race and education level all have significant effects on child care mode choices, but her marital status does not. The lack of a marital status effect, when the presence of adults in the household is controlled for, may indicate that fathers are about as likely to be providers of child care as other adults in the household. Older mothers are significantly more likely than younger mothers to use nonrelative care as opposed to either relative or formal care.

As noted in many previous studies, including Brush (1987), black non-hispanic mothers are much more likely to choose formal care for their preschool children than are white non-hispanic mothers, even when many other factors are controlled for. The probability that blacks use formal care is 16.8 percentage points' higher than for whites, while the probabilities of relative and nonrelative care decline by 8.2 and 8.6 percentage points, respectively. Hispanics, in contrast, are significantly more likely to choose relative care over nonrelative care than white non-hispanics.

These results also support previous research which indicates that the higher the level of the mother's education, the more likely she is to choose formal care (and to a lesser extent, nonrelative care), and the less likely she is to choose relative care for her preschool child. In contrast

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<sup>1</sup>Such results may also indicate (contrary to our working assumption that labor supply decisions precede child care decisions) that mothers choose shift-work or part-time work in order to take advantage of relative care available only on those schedules.

to the omitted group of mothers with a high school education or **less**, mothers with some college are 14.3 percentage points less likely to use relative care and 9.9 percentage points more likely to use formal care, while mothers who are college graduates are 28.6 percentage points less likely to use relative care, and 23.4 percentage points more likely to use formal care. These patterns may reflect differences in preferences (with more educated mothers seeing a more structured environment as higher quality care), or differences in lifestyles (if more educated mothers are less likely to live near their relatives).

**The** indicators of high and low earnings and of the presence of other sources of income either have no significant effect or have an effect in a direction contrary to expectations. One plausible explanation is that, once we control for such factors as race, marital status and education, there may be very little independent variation in these income measures. Brush (1987) also found that income had little effect on child care mode choices when other things were controlled for. We tried different specifications, using continuous income measures or larger numbers of categories, but did not produce any evidence of effects of mother's earnings or other income on mode choice. We find evidence with this specification that women with high earnings, holding education and other factors constant, are more likely to use relative care than are women with a moderate level of earnings. This may indicate (as Brush suggests) that the use of relative care is more related to the availability of such care than to socioeconomic status.

Finally, there were two variables intended to capture the mother's knowledge of the child care market in her area. The first of these, which

indicates whether the mother has resided in the neighborhood at least a year, has no significant effect.' The direction of the effect is as expected, in that the probability of using nonrelative care is somewhat higher for longer residents. The indicator of whether the mother reported she had considered other providers for the child has a very significant effect: mothers who considered other providers are 29.5 percentage points **less** likely to choose relative care. Mothers who have the possibility of using relative care may feel they have no need to look for alternatives, while mothers who have no relative care available are less likely to engage the first provider they consider, since the providers are not necessarily known to them and they may have to contact **many** providers just to find one that suits their needs.

The net effects of the independent variables on the five choices of relative care in the child's home, relative care in another home, nonrelative care in the child's home, nonrelative care in another home, and formal care are presented in Appendix C, Table C. 1. The results of the five-choice model suggest total effects of the variables on the three broad categories considered up until now which are **very** close to those estimated in the three-choice mode. However, some variables have different effects on care in the child's home versus care in another home.

The variables which have different effects on relative care depending on the location of care include the number of adults and the number of preschool children in the household, the mother's schedule, her race and her level of education. The presence of additional adults in the

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<sup>1</sup>In specifications which allowed for more categories, none of the categories had significant effects.

child's home, not surprisingly, increases the probability of using relative care at home without affecting the use of relative care elsewhere. Additional preschoolers increase the probability of using relative care at home **and** slightly decrease the probability of using relative care elsewhere. Mothers with evening or weekend schedules are much more likely (35.7 percentage points) to use relative care in the child's home but somewhat less likely (by 3.3 percentage points) to use relative care elsewhere. Blacks are much less likely to use relative care in the child's home (by 15.1 percentage points) but somewhat more likely to use relative care at other homes (by 4.9 percentage points). More education decreases the use of relative care in the home quite substantially, but has little effect on the use of relative care elsewhere.

Many of the variables which affect nonrelative care, including the number of adults in the household and the mother's age, largely affect the use of nonrelative care in the provider's home. Only a few variables have effects on nonrelative care at home worth noting. The presence of other adults in the household slightly increases the probability of nonrelative care in the home, perhaps because some of these other adults are **nonrelatives** who provide care, while it sharply decreases the probability of nonrelative care in other homes. A mother who works evenings or weekends has a higher probability of using nonrelative care in the home (by 3 percentage points), while she has a much lower probability of using nonrelative care outside the home. Mothers with unusual schedules who can't find relative care probably need to hire babysitters, since family day care providers and centers generally are not available outside normal work hours. In addition, mothers may feel their night or weekend schedule

will be less disruptive for the child if the caregiver comes to the child's home.

Differences in Effects by Subgroup. When we compare the results for the entire sample with results for subgroups of the sample, we can gain additional insight into factors affecting the choice of child care mode. The full results from the multinomial **logit** models for subgroups are reported in Appendix C. A summary of key results follows.

First, a number of factors which affected child care mode choices for the entire sample appear to matter only for the younger children, or only for the older **children**. (see Tables C.2 and C.3). For example, race **and** ethnicity are significantly related to child care choices only for older children, for whom the direction of the effects is the same as for the entire sample, while the magnitude nearly doubles. In addition, we find that having other preschool siblings affects child care mode choices only for older children, by making them less likely to be placed in formal care settings.

Differences in the children's ages remain important within each age group. The probability of formal care significantly increases with age for the 0-3 age **group**, while among the older children, the effect of becoming older is to reduce nonrelative care in favor of both relative and formal care. Other variables have similar effects within each age group subsample as in the overall sample.

Second, we looked at subgroups of married and unmarried mothers (see Tables C.4 and C.5) and found generally comparable results for the two subsamples. However, the tendencies for more educated mothers, black mothers and mothers of older children to prefer formal care were somewhat

larger among single mothers. We found that the age of the mother affected mode choice among single but not married mothers. In addition, married mothers were more likely to use relative care and less likely to use formal care if they had other preschool children, while the presence of other preschool children had no significant effect for single mothers. Time in the neighborhood, while insignificant for the overall sample, is significant in different directions for single and married mothers. The single mothers who had lived over a year in their neighborhoods were more likely to use nonrelative care as opposed to relative care, while the married mothers who had lived over a year in their neighborhoods were more likely to use relative care as opposed to formal care. Mothers with high levels of earnings are more **likely** to use relative care in both subsamples, but single mothers with high earnings have a higher probability of using formal care, as well, when compared with lower-earning single mothers.

As an additional subgroup analysis, we divided the sample into subsamples of black (non-hispanic) mothers and **nonblack** mothers (Tables C.6 and C.7). The variables which had significant effects for black mothers but not for **nonblack** mothers included mother's age and marital status. Older black mothers are more likely to use nonrelative care and less likely to use both of the other options. None of these differences are evident among **nonblack** mothers. In addition, married black mothers are significantly more likely to use relative care vs. nonrelative care than unmarried black mothers, while among nonblacks, the marital status effect is insignificant and in the direction of less use of relative care in favor of the **other** options.



Having another adult in the household leads to a substantial increase in the likelihood of choosing relative care for **nonblacks**, while the effect for blacks, although in the same direction, is smaller and insignificant. The mother's hours per week are insignificant in looking at mode care choice among blacks, but longer hours have significant effects for nonblacks--they are associated with increases in the probability of formal care, and to a lesser extent, nonrelative care. **Nonblack** mothers who have lived over a year in their neighborhoods are significantly more likely to choose relative care over formal care than newer arrivals, but this effect is not apparent among blacks.

Other variables tend to have effects within each subgroup similar to their effects for the full sample. The degree to which **the probability** of formal care increases with the age of the child is larger among blacks than nonblacks, however--as black children get a year older, their probability of being placed in formal care increases 23.3 percentage points, while as **nonblack** children get a year older, their probability of being placed in formal care increases 7.1 percentage points.

#### B. EXPENDITURES ON CHILD CARE

The focus so far in this chapter has been on mothers' decisions regarding the type of child care setting they will use for their preschool **child(ren)**. An alternative perspective on the market for child care is offered by examining the determinants of expenditures on child care. Much as with child care mode choices, expenditures on child care are influenced by both supply and demand-related factors, which include the costs faced by providers in such areas as staff salaries, the number of hours that care is

needed, the characteristics of the child, and the parents' preferences and ability to pay.

In any analysis of child care expenditures, it is important to take into consideration the fact that not all care is paid for and that not all payments are made in cash; payments are at times made (entirely or partly) in kind, or in the form of social or familial obligations that are perceived as costs by the mother. Furthermore, the form of payment for care and the mode of care used are closely related, at least to the extent that relative care is not usually paid for in cash, while nonrelative care and formal care are almost always paid for. Thus, the mode choice decision can be seen as a preliminary decision about how much to spend on care (as well as about such factors as quality and convenience of care). There may be a range of prices offered by particular providers in each mode, and a given provider's prices may vary according to what services are purchased, for how long, and for how many children. We do not attempt to fully model these decisions, but we approach such a model by first considering parents' choices of whether to use paid or unpaid care, both conditional and unconditional on mode of care used, and then considering expenditures on care, conditional on paying cash for care.

#### 1. Determinants of the Use of Paid Care

This section considers the choice of whether to pay for care from both the perspective of a particular child's care and the perspective of a mother's decisions concerning all of her children. The relationship between the probability of paying for care and the supply and demand factors which are hypothesized to influence the decision to use paid care is modeled using a binomial **logit** model. Payment for care is defined in

two ways--as any payment, either in cash or in kind, or as cash payment only. We estimate models of payment for care, with and without conditioning on the mode of care.

The binomial **logit** model is a special case of the multinomial **logit** model used to examine child care mode choices earlier. It applies when there are only two choices, which in this case are the choices of paid or unpaid child care. The probability of using paid care is assumed to have the form:

$$P = \exp(Xb) / (1 + \exp(Xb))$$

where X is a vector of explanatory variables, and b is a vector of parameters to be estimated. When there are only two choices, the estimated effect of a unit change in the variable  $X_i$  (which has coefficient  $b_i$ ) on the probability of using paid care is  $b_i P(1-P)$ , where the value for P is calculated using the sample means of the X variables. Since the net effects are always proportional to the coefficients, we only report the net effects in the tables.

The Child's Perspective. The sample for this analysis is the same as for the mode choice analysis (with the exception of exclusions for missing values). It consists of one randomly selected preschool child from each family. We compare results using two dependent variables: a dummy variable indicating whether the family pays for the main child care arrangement for this child (either in cash or in kind) and a dummy variable indicating whether the family pays cash for the main arrangement for this child. For each dependent variable, models both excluding and including indicators of the mode of care being used are estimated. The first model

can be seen as indicating the total effect of each variable on the choice of paid or unpaid care, while the second model can be interpreted as indicating the effect of the variable on whether to use paid care, net of its effect on mode choice.

The independent variables are the same as those used in the mode choice models, except that the actual number of hours that the child is cared for in the main arrangement are included rather than the mother's hours of work. In the version of the model which controls for mode choice, indicator variables are included for nonrelative care and formal care, with relative care as the excluded mode.

The results, presented in Table V.2, indicate that the age of the child, the number of adults in the household, the number of preschool siblings, and the mother's education all have significant effects when mode choice is not controlled for, but have small and insignificant effects when mode choice is included in the model. Thus, it seems likely that their effects on the use of paid care operate largely via their influence on the choice of child care mode. The direction of the effects of these variables in the unconditional model is consistent with their effects in the mode choice models, given that formal or nonrelative care is much more likely to be paid for than relative care.

Several variables have significant effects even when we control for mode choice. The more hours that care is needed, the more likely it is that the provider is paid, suggesting that friends and relatives are more likely to donate a few hours of child care than to offer full-time care for free. however, if care is needed during evenings or on weekends, it is less likely to be paid for, suggesting that among relatives, it is likely

TABLE V.2

LOGIT MODELS OF THE PROBABILITY OF PAYING FOR  
CHILD CARE FOR A PARTICULAR PRESCHOOL CHILD

	Effect on the Probability of <u>Paying for Main Arrangement</u> Controlling for		Effect on the Probability of <u>Paying Cash for the Main Arrangement</u> Controlling for	
	Basic Model	Mode Choice	Basic Model	Mode Choice
Camden	.0561	.0551	.0480	.0529
Chicago	.0402	.0215	.0200	.0140
Age of Child (in years)	.0292*	.00599	.00794	-.0296
No. of Other Adults	-.102**	-.0390	-.102*	-.0361
No. of Preschool Siblings	-.0939**	-.0701	-.370***	-.457***
Number of School-age Siblings	.00221	.0188	-.00925	.00360
Hours in Care in Main Arrangement	.00901***	.00869***	.0114***	.0104***
Mother Works Evenings or Weekends	-.201***	-.138***	-.213***	-.150***
Mother's Age (in years)	-.00386	-.00995*	.00107	-.00299
Married	-.117	-.146	-.0805	-.0761
Black	.164***	.196***	.127**	.122*
Hispanic	.0201	.140	.0401	.163
College Graduate	.196***	.0248	.164**	-.00621
Some College	.0722	-.0336	.120**	.0322
Mother's Earnings $\leq$ \$6,000/yr.	-.145***	-.166***	-.0816	-.0791

TABLE V.2 (continued)

	<u>Effect on the Probability of Paving for Main Arrangement</u>		<u>Effect on the Probability of Paving Cash for the Main Arrangement</u>	
	Basic Model	Controlling for Mode Choice	Basic Model	Controlling for Mode Choice
Mother's Earnings > \$30,000/yr.	<b>-.0931</b>	<b>.0742</b>	<b>-.166*</b>	<b>-.0468</b>
Family has Other Income	<b>.0721</b>	<b>.117</b>	.0737	<b>.105</b>
Lived Over One Year in Neighborhood	<b>-.0337</b>	<b>-.0188</b>	<b>-.00280</b>	<b>.0252</b>
In Nonrelative Care	--	<b>.842**</b>	--	.671***
In <b>Formal</b> Care	--	<b>.594**</b>	--	<b>.657***</b>
Mean of Dependent Variable	<b>.692</b>	.692	<b>.621</b>	<b>.621</b>
No. of Observations	697	6 9 7	697	697
-2 x Log - Likelihood	654	471	669	522

SOURCE: Surveys of Child Care Supply and Needs (Mathernatica Policy Research, Inc., 1988).

NOTE: **\*/\*\*/\*\*** implies that the underlying coefficient is significantly different from zero at the 90/95/99 percent level of confidence in a two-tailed test.

to be the closest relatives, such as fathers or grandparents, who provide evening or weekend care. The tendency for blacks to be more likely to pay for care increases slightly when we control for mode of care, for reasons that are not clear. It may be that blacks are more likely to pay at least a minimal amount for relative care than are whites, because their relatives are poorer and less able to afford to donate their time. Mothers with very low earnings also are significantly less likely to pay for care, which is consistent with their lower ability to pay and probably greater use of subsidized care.

As expected, in the model that conditions on mode choice, users of nonrelative care and formal care are significantly more likely to pay for care. **The** effects of the mode choice variables dwarf all other effects. It is somewhat surprising, however, that users of nonrelative care are more likely to pay for care than users of formal care. Greater availability of government subsidies for **formal** care than for nonrelative care may explain this difference.

The results for the probability of paying cash for the main arrangement, presented in the last two columns of Table V.2, are very similar to those for the probability of any payment. **Two** differences are worth noting. First, the effect of the child's having a preschool sibling on the probability of paying cash for child care is much larger than its effect on the probability of paying for care, and it becomes even larger when mode choice is controlled for. This suggests that arrangements for the care of several preschool children may be more likely to be paid for in kind, other things equal. Second, the effect of using nonrelative care on the probability of paying cash is roughly equal to the effect of using

formal care, while nonrelative care had a larger impact on the probability of paying in any form. The difference may be due to nonrelative care which is paid for in kind.

The Mother's Perspective. We estimated four similar **logit** models which analyze the probability a mother pays for child care (or pays cash for child care) for any of her preschool children, in either the main or secondary child care arrangement. The results, presented in Appendix Table C.8, are very similar to the results from the child's perspective for most variables. The most notable difference is that the number of preschool children in the family has no significant effect on the probability of paying for care or on the probability of paying cash, regardless of whether mode choice is in the equation.

## 2. Expenditures on Care for Those Who Pay Cash

In this section, we analyze the determinants of expenditures on child care for the main arrangement for a preschool **child** and the determinants of total expenditures on child care for a family, using a sample of families who pay cash for child care. Some of the key questions we seek to address are the extent to which spending on child care varies with the hours the children are in care, the number of children in care, the income of the family, and the mother's earnings.

Costs per Child. We first consider the cost per week of the main arrangement used for each preschool child in the sample whose main arrangement is paid for in cash. The weekly cost of the main arrangement will depend on supply 'factors proxied by the site indicators, and on the services purchased, which depend on the mode of care, the age of the child, the hours in care, whether care is during evenings or on weekends, and



whether or not another sibling is cared for in the same arrangement. Other factors that may affect expenditures on care include the family's ability to **pay** (measured by the mother's earnings, other family income, and the number of siblings who **are** likely to need **care** also), **and** preferences for different types of care (largely proxied by characteristics of the mother). The variables included **are** the **same** as those used in the analyses of mode choice and the probability of using paid care.

The results from the regression analysis of expenditures on **care** in the **main** arrangement for **each** child are presented in Table V. 3. At the margin, costs increase an average of \$0.55 for each additional hour in care. Both nonrelative and formal **care** are on average nearly **\$5** per week more expensive than paid care by relatives, but interestingly, there are no significant differences in the cost of nonrelative and formal care, other things equal. The regression results suggest some use of "quantity discounts" in the pricing of child care, since the presence of another sibling in the same arrangement lowers the cost per child by nearly 6 dollars per week, even when the number of siblings (and thus the tendency of households with more children only to be able to afford less expensive forms of care) is held constant.

After we control for these differences in the types of services used, we find considerable evidence that spending on child care increases with a **family's** ability to pay. Mothers with very low earnings pay significantly less per week for the main arrangement for their **child**, **and** mothers with high earnings appear to pay **8** bit more (although the difference is not significant). We also find that an additional preschool sibling reduces spending on **8** child's **main** care arrangement by about 11

TABLE V.3

DETERMINANTS OF WEEKLY EXPENDITURES PER CHILD  
ON CHILD CARE IN THE MAIN ARRANGEMENT

Variable	Regression Coefficient
Intercept	23.52 (9.28)
Camden	-4.64 (3.03)
Chicago	-3.15 <b>(2.98)</b>
Nonrelative Care	<b>4.75*</b> (2.89)
Formal Care	<b>4.78*</b> (2.78)
Hours <b>in</b> Care	<b>.552***</b> <b>(.0930)</b>
Other Sibling in Same Arrangement	<b>-5.96*</b> (3.34)
Mother Works Evenings or Weekends	<b>-.409</b> (2.72)
No. of Other Adults in Household	<b>.00535</b> (3.22)
Age of Child (in years)	<b>-.953</b> <b>(.933)</b>
No. of Preschool Siblings	<b>-10.83***</b> (3.81)
No. of School-age Siblings	<b>-6.01***</b> (1.88)
Mother's Age (in years)	<b>.264</b> <b>(.250)</b>
Married	4.11 (4.34)
Black	<b>-12.35***</b> (2.78)

Table V.3 (continued)

Variable	Regression Coefficient
Hispanic	-13.27"" (4.54)
College Graduate	<b>12.9***</b> <b>(3.49)</b>
Some College	1.24 (2.79)
Lived Over One Year in Neighborhood	3.44 (3.31)
Mother's Earnings $\leq$ \$6,000/yr.	<b>-4.58*</b> (2.67)
Mother's Earnings $>$ \$30,000/yr.	3.21 (5.22)
Family has Other Income	1.01 (3.89)

No. of Observations = 429

**R<sup>2</sup> = .299**

Mean of Dependent Variable = 46.55

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

NOTE: Results are ordinary least squares estimates. Standard errors are in parentheses. \*/\*\*/\*\* indicates that a coefficient is significantly different from zero at the 90/95/99 percent level of confidence. Sample includes only children for whom main arrangement is paid for at least partly with cash.

dollars per week, while an additional school-aged sibling reduces spending on care by about 6 dollars per week. The larger effect of having a preschool sibling is probably due to the fact that child care expenses are greater for preschool than for school-aged children. College graduates pay nearly 13 dollars per week more on average for their child's care than do nongraduates, and blacks and hispanics pay about 12 dollars less per week than do whites. These relationships may reflect differences in income not captured by our other variables, or differences in preferences.

An additional result of interest is that, when we consider paid child care arrangements, the age of the child does not have a significant effect on the amount paid for the child's care. This result holds even when we do not control for the mode of care used.

**Costs-per-Family.** We hypothesize that total spending depends on the mother's hours away from home and whether she works evenings or weekends, on the number of children who need care, on the mode of care used (indicated by variables for whether any nonrelative care or formal care is used), on the availability of other adults in the household as secondary sources of care, and on the general level of costs in each site (captured by the site indicators). In addition, we expect that expenditures depend on family income (included as a continuous variable here), and we also include the percentage of family income derived from the mother's earnings, to test the hypothesis that families weigh the mother's earnings more than other types of income in determining spending on child care.<sup>1</sup> Our standard

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<sup>1</sup>Family income or mother's earnings was reported as an interval value for one quarter of the sample with non-missing data on these variables. We used the midpoint of the interval to develop the continuous income variables.

set of characteristics of the mother is also included to pick up differences in preferences.

To examine these questions, we estimate linear regression models of total weekly spending on child care for all children in the family, in main and secondary arrangements, of the proportion of family income spent on child care, and of the proportion **of the** mother's earnings spent on child care.

The regression results for the analysis of total weekly spending on child care are presented in the first column of Table **V.4**. Several factors that did not affect expenditures for the main arrangement for each child do tend to reduce overall spending. Total spending is significantly lower in families with other adults in the household, **and** in those where the mother works evenings **or** weekends, because these families are more likely to have relatives available for secondary care and perhaps some primary care. The presence of an additional preschool child increases average spending on care only **16** dollars per week, which is consistent with previous results that families with more children choose care which is less expensive per child. Families which use some nonrelative care pay significantly more than families that use only relative care. The **'same** is not true for families using formal care, perhaps due to greater subsidization of care in centers than in family day care settings.

The last two columns of Table **V.4** present results of regressions which analyze the proportion of family income spent on child care and the proportion of the mother's earnings spent on child care, respectively. These equations should be interpreted **with** even more caution than others considered in this chapter because of the approximations used to derive our

TABLE V. 4

## DETERMINANTS OF FAMILIES' WEEKLY EXPENDITURES ON CHILD CARE

Variable	Total Weekly Expenditures	Proportion of Family Income Spent on Child Care	Proportion of Mother's Earnings Spent on Child Care
Intercept	16.3 (11.9)	.161 (.0297)	.667 (.0798)
Camden	-7.85** (3.88)	-.0126 (.00976)	-.0233 (.0253)
Chicago	-2.46 (3.79)	-.0127 (.00949)	-.0158 (.0245)
Any Nonrelative Care	6.49' (3.52)	.00424 (.00885)	.0238 (.0228)
Any Formal Care	1.74 (3.57)	-.00155 (.00897)	.00373 (.0232)
Mother's Hours per Week	.662*** (.141)	-.000621* (.000353)	-.00301*** (.000940)
Mother Works Evenings or Weekends	-14.5*** (3.42)	-.0209** (.00859)	-.0157 (.0224)
No. of Other Adults in Household	-7.11* (4.09)	-.000461 (.0102)	-.0114 (.0262)
No. of Preschool Children	16.2*** (2.99)	.0311*** (.00761)	.0501** (.0199)
No. of School-age Children	2.97 (2.17)	.0177*** (.00544)	.0303** (.0140)
Mother's Age (in years)	.363 (.315)	-.00181** (.000789)	-.00139 (.00204)
Married	2.58 (5.17)	-.0405*** (.0129)	-.119*** (.0340)
Black	-13.2*** (3.44)	-.00763 (.00863)	-.0162 (.0223)
Hispanic	-17.1*** (5.90)	-.00486 (.0147)	.0103 (.0391)
College Graduate	21.9*** (4.29)	-.00980 (.0107)	-.0145 (.0276)

Table V.4 (continued)

Variable	Total Weekly Expenditures	Proportion of Family Income Spent on Child Care	Proportion of Mother's Earnings Spent on Child Care
Some College	5.78 (3.58)	-.00202 (.00899)	.00334 (.0233)
Lived in Neighborhood Over One Year	-.247 (4.06)	-.0180* (.0102)	-.0208 (.0266)
Annual Family Income/1000	.677 (.643)	-.00112 (.00160)	-.00519 (.00408)
Proportion of Family Income from Mother's Earnings	-8.01 (6.65)	.0910*** (.0167)	-.377*** (.0457)
No. of Observations	475	469	452
R <sup>2</sup>	.233	.296	.235
Mean of Dependent Variable	61.39	.120	.241

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

NOTE: Results are ordinary least squares estimates. Standard errors are in parentheses. \*\*\*/\*\*\* indicates that a coefficient is significantly different from zero at the 90/95/99 percent level of confidence. Sample includes only mothers who report paying cash for care for at least one preschool child in either the main or secondary arrangement.

income and earnings measures. In particular, measurement errors in income will tend to induce a spurious correlation between the dependent variable and the independent variables that also depend on this income measure, and thus bias the estimates of these coefficients. For example, in the equation for the proportion of family income spent on care, one would expect the coefficient on income to be understated and the coefficient on mother's earnings as a percentage of family income to be overstated.

A number of other variables affect the proportion of family income spent on care as expected. The more children in **the family**, the greater the proportion of income spent on child care. It is a bit surprising that school-aged children have almost as large an effect as preschool children. Mothers who work evenings or weekends use more relative care and thus, spend less. ~~Mothers who are~~ older and mothers who have lived longer in the neighborhood spend a lower proportion of family income on child care. This is probably a life cycle effect, since they will tend to have older children and higher incomes. Married mothers tend to spend lower proportions of family income, perhaps because of the availability of father care. Increases in the mother's hours of work increase both income and the need for child care, **so** their effect on the proportion of income spent on care is not clear a priori. We find that additional hours of work decrease the proportion of income spent on child care, perhaps because part-time care is more expensive per hour than full-time care. None of the other variables has a significant effect.

The results of the regression examining child care expenses as a proportion of the mother's earnings indicate that mothers who work more hours spend lower proportions of their earnings on care, again presumably



because their income increases faster than their child care costs. Married mothers spend lower proportions of their earnings, as with total family income. Mothers of more children spend higher proportions of their earnings. The apparent negative effect of the proportion of family income from the mother may be biased due to measurement error, as noted above.

### C. SUMMARY

This chapter has analyzed in a multivariate framework the factors associated with mothers' decisions about what type of child care to use for their preschool children and how much to pay for that care. The variables most clearly associated with these choices are the age of the child, the length and timing of the periods during which the child needs care, the number of other preschool children and other adults in the household, the race of the mother and her level of education. The mother's income is not a major factor in determining the type of child care used, when other things are held constant, but does affect whether paid care is used and how much is spent per child.

The analysis of the choice of relative care, nonrelative care, or formal group care as the main care arrangement for a preschool child shows that:

- o Older preschool children are much less likely than younger preschool children to be in relative care, and more likely to be in formal care or, to a lesser extent, nonrelative care.
- o The **more hours** the **mother** works, the less likely it is that the child will be in relative care.
- o Given the number of hours the mother works, children of mothers who work evenings or weekends are much more likely to be in relative care.

- Children in families that include other adults or other preschool children are more likely to be in relative care.
- Black children are more likely than **nonblack** children to be in formal care and less likely to be in relative care.
- Children of mothers with higher educations are less likely to be cared for by relatives and more likely to be in formal care settings, or to a lesser extent, nonrelative care than children of less educated mothers.

As expected, in the analysis of who paid for child care, the child care mode chosen was the most important predictor. Users of nonrelative care and formal care are much more likely to pay for care than users of relative care. Given the child care mode chosen, black mothers, mothers who work longer hours and mothers with standard schedules are more likely to pay for care. Mothers with very low earnings are less likely to pay for care. The factors that determine whether a family used any paid care for any child are quite similar to those affecting whether paid care is used for a particular child.

For those who pay cash for **care**, the amount paid for the main arrangement for a preschool child depends on the mode of care, the hours of care, and whether another sibling is in the same arrangement. Mothers with college educations pay substantially more per **child** for care, while black and Hispanic mothers, those with larger numbers of children, and those with low incomes pay less per child. Factors affecting total expenditures on child care for the family are quite similar. However, if there are other adults in the household or if the mother works an evening or weekend schedule, total family expenditures on child care tend to be lower, although these factors do not affect per child expenditures in the main arrangement.

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APPENDIX A  
SAMPLE WEIGHTS

## SAMPLE WEIGHTS

Sample weights were constructed in order to generate estimates of population characteristics from these samples. The weights for child care centers in each site were calculated as the number of child care centers in the sample frame divided by the number of child care centers interviewed. The number of child care centers in the sample frame for these licensed providers was adjusted for the number of ineligible centers (those no longer in **business** or not providing care primarily for nonhandicapped preschool children) expected in each site, based on the rate of ineligibility in the sample. The weights for licensed/registered family day care providers in each site were calculated in the same way.

The unlicensed/unregistered family day care providers and the child care users were weighted separately according to telephone exchange, due to the fact that phone numbers in low-income telephone exchanges were oversampled (**i.e.**, the release rate of random digit dial (RDD) phone numbers differed by exchange). The weight for child care users in each telephone exchange is the inverse of the probability that a household was called in that exchange, adjusted for refusals to the screener and the response rate of users who were identified in the screener.'

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<sup>1</sup>The sample weight for child care users in telephone exchange i was calculated as:

$$P_i = \frac{\text{No. HHs Called}_i}{\text{Total HHs}_i} * \frac{\text{No. Screeners Completed}_i}{\text{No. HHs Called}_i} * \frac{\text{Users Interviewed}_i}{\text{Users Identified}_i}$$

$$W_i = 1/P_i$$

where  $W_i$  = weight for users in telephone exchange i  
 HH = household

Because unlicensed/unregistered family day care providers were identified in two ways (directly through screening RDD telephone numbers and indirectly through child care users identified in the RDD screening), a two step process was followed for calculating sample weights for these family day care providers. The first step consisted of estimating the total number of family day care providers in each exchange using only the family providers found directly in the RDD screening. This was accomplished using weights calculated in the same way that weights were calculated for child care users in each exchange, except that the response rate of identified family providers to the provider survey replaced the response rate of identified users to the users **survey**. In the second step, the sample weight for all unlicensed family day care providers in each exchange was calculated as the total number of **family providers** (estimated in the first step) divided by the number of family providers interviewed (including those found directly through the **RDD** screening and those named by child care **users**).<sup>1</sup>

A small amount of information was **collected** in the RDD screening instrument for nonworking mothers and potential child care providers in the household. Sample weights for use in tabulating these data were calculated for each telephone exchange as the inverse of the probability that a

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<sup>1</sup> The second step assumes that the providers named by users are a random sample of all unregulated family day care providers in the exchange. This is true to the extent that the users who named the providers were randomly sampled, that all users of unregulated family day care named their provider(s), and that the named providers care for the same number of children. Comparisons of providers found directly through the RDD screening and providers named by users show that the two groups of providers are very similar in terms of the distribution of number of children in care and other key characteristics, suggesting **that** this assumption is unlikely to introduce significant bias into the estimates.

household in that exchange was called, adjusted for refusals to complete the screening interview.

For estimates of population numbers, all weights were adjusted by a scalar to correct for the estimated undercount (see Chapter **II**) of each type of respondent in the RDD surveys.

It should be noted that comparisons of tabulations using weighted and unweighted data for selected characteristics of child care users and child **care** providers--show that the analysis results are not especially sensitive to the sample weights used.



APPENDIXB  
SUPPLEMENTAL TABLES ON CHILD CARE USE

TABLE B.1

ACTIVITIES AND SCHEDULES OF WORKING\* MOTHERS OF PRESCHOOL CHILDREN  
BY FAMILY INCOME LEVEL

<u>Family Income</u>	<u>Camden</u>	<u>Newark</u>	<u>South Chicago</u>
<u>Percentage of Working Mothers in Jobs</u>			
\$0 to \$6,000	92.1	75.0	16.6
\$6,001 to \$12,000	93.7	80.4	69.6
\$12,001 to \$18,000	89.6	100.0	88.4
\$18,001 to \$24,000	83.8	100.0	94.2
\$24,001 to \$30,000	100.0	97.5	94.0
More than \$30,000	98.0	96.7	95.2
Don't know or refused	85.2	80.1	79.4
<u>Percentage of Working Mothers in School</u>			
\$0 to \$6,000	7.9	38.7	83.4
\$6,001 to \$12,000	15.1	24.3	41.6
\$12,001 to \$18,000	12.6	0.0	23.0
\$18,001 to \$24,000	18.2	3.5	17.2
\$24,001 to \$30,000	5.0	a.7	10.2
More than \$30,000	13.4	9.0	9.2
Don't know or refused	19.0	<b>20.9</b>	26.8
<u>Average Hours Per Week Working</u>			
\$0 to \$6,000	40.4	41.5	26.6
\$6,001 to \$12,000	41.9	35.7	27.7
\$12,001 to \$18,000	37.1	39.9	39.3
\$18,001 to \$24,000	29.8	40.6	40.5
\$24,001 to \$30,000	35.0	44.4	33.8
More than \$30,000	35.5	37.5	32.4
Don't know or refused	37.4	34.0	33.4

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

\*Work is defined as employment, participating in job training, or going to school.

TABLE 8.2

**MAIN CHILD CARE ARRANGEMENTS USED FOR PRESCHOOL CHILDREN IN CAMDEN,  
BY CHARACTERISTICS OF MOTHERS AND CHILDREN**

	Type of Care							
	Mother Care		Relative Care		Nonrelative Care			Other
	Working	Nonworking	Child's Home	Relative's Home	Child's Home	Caregiver's Home	Group Care	
<b>Total</b>	<b>2.3</b>	<b>53.2</b>	<b>15.8</b>	<b>6.5</b>	<b>1.9</b>	<b>9.7</b>	<b>10.5</b>	<b>0.1</b>
<b>Age of Child:</b>								
Newborn to under 6 months	1.1	72.0	14.5	1.4	0.7	6.7	0.7	0.0
6 months to under 12 months	1.9	59.5	11.4	6.5	3.1	13.1	3.6	0.9
12 months to under 18 months	0.0	61.9	15.0	4.0	0.5	11.5	7.1	0.0
18 months to under to under 24 months	2.8	22.8	32.0	19.3	2.8	15.3	5.0	0.0
2 years to under 3 years	1.1	51.9	14.2	7.7	4.1	9.5	11.5	0.0
3 years to under 4 years	5.2	49.7	15.2	6.2	1.8	10.0	11.9	0.0
4 years to under 5 years	1.9	50.2	16.9	6.3	1.3	6.8	16.6	0.0
5 years	1.9	53.0	15.9	5.0	0.0	8.6	15.5	0.0
<b>Mother's Marital Status</b>								
Married	2.7	55.6	16.5	5.7	1.8	9.4	8.3	0.7
Divorced or separated	2.1	52.2	15.9	6.6	0.0	11.1	12.0	0.0
Widowed	0.0	31.3	37.9	17.0	0.0	0.0	13.8	0.0
Never married	0.0	38.6	9.8	11.7	4.3	11.4	23.7	0.4
<b>Race/Ethnicity</b>								
White	2.0	58.1	14.4	6.0	1.8	9.7	8.0	0.1
Black	3.8	30.1	21.0	9.6	2.9	10.0	22.3	0.3
Other	1.2	58.8	21.4	3.9	0.0	9.4	5.2	0.0
Hispanic origin	0.0	60.5	12.3	9.1	0.0	8.0	10.1	0.0
<b>Mother's Education</b>								
Less than high school	0.0	71.6	14.2	5.9	1.4	3.1	3.7	0.0
High school	4.0	59.6	14.2	4.6	1.0	8.9	7.6	0.0
Some college	1.7	31.6	23.1	10.8	0.7	12.5	19.5	0.0
Vocational/technical school	0.0	61.2	15.8	14.4	0.0	3.5	5.1	0.0
College and above	1.3	49.9	13.3	4.9	5.2	13.2	12.1	0.0

TABLE 6.2 (continued)

	Type of Care							
	Mother Care		Relative Care		Nonrelative Care		Group Care	Other
	Working	Nonworking	Child's Home	Relative's Home	Child's Home	Caregiver's Home		
<b>Mother's Public Assistance Status</b>								
Receiving AFDC	2.6	77.4	2.9	4.8	1.8	5.6	4.6	0.4
Receiving Food Stamps	2.2	73.2	7.2	4.9	0.4	1.2	4.6	0.4
Receiving other public assistance	0.0	62.1	18.7	7.0	0.0	6.5	5.7	0.0
<b>Family Income</b>								
\$0 to \$16,000	2.5	57.9	7.8	6.4	1.6	8.1	15.7	0.0
Over \$18,000	1.8	50.6	20.3	6.9	2.2	9.6	6.6	0.1
Don't know or refused	4.0	56.6	9.4	5.5	1.1	11.9	11.1	0.3

TABLE 6. 3.

**MAIN CHILD CARE ARRANGEMENTS USED FOR PRESCHOOL CHILDREN IN NEWARK,  
BY CHARACTERISTICS OF MOTHERS AND CHILDREN**

	Type of Care							
	Mother Care		Relative Care		Nonrelative Care		Group Care	Other
	Working	Nonworking	Child's Home	Relative's Home	Child's Home	Caregiver's Home		
Total	3.1	44.0	12.9	10.1	2.2	13.4	14.1	0.2
Age of Child:								
Newborn to under 6 months	14.1	45.8	10.8	16.5	0.0	12.2	0.0	0.0
6 months to under 12 months	0.0	49.3	21.2	10.7	2.8	14.3	0.7	0.9
12 months to under 18 months	5.1	46.4	11.7	12.1	5.9	14.6	4.2	0.0
18 months to under to under 24 months	0.0	44.3	13.4	7.6	5.5	21.9	7.3	0.0
2 years to under 3 years	4.8	39.7	15.0	12.6	0.0	19.4	8.1	0.4
3 years to under 4 years	0.6	42.1	9.2	6.3	3.8	18.8	19.2	0.0
4 years to under 5 years	0.0	38.5	9.5	9.7	2.5	4.9	34.9	0.0
5 years	2.8	49.2	13.7	7.0	0.0	4.3	23.0	0.0
Mother's Marital Status								
Married	4.8	42.8	15.0	11.5	2.4	11.0	12.2	0.1
Divorced or separated	0.0	54.0	3.3	6.9	0.6	22.7	12.5	0.0
Widowed	0.0	14.5	11.1	10.2	0.0	33.8	30.4	0.0
Never married	0.7	40.5	14.7	8.7	2.8	11.8	20.3	0.5
Race/Ethnicity								
White	4.8	54.6	12.4	7.9	3.1	11.0	6.0	0.2
Black	0.8	33.1	12.9	12.8	1.6	16.4	22.4	0.0
Other	4.5	38.5	16.3	9.4	0.0	12.4	17.7	1.1
Hispanic origin	1.0	53.0	14.6	13.2	0.0	11.6	6.2	0.5
Mother's Education								
Less than high school	0.0	67.2	14.0	3.7	0.6	7.4	6.5	0.6
High school	3.6	50.1	16.4	10.9	1.8	8.7	8.5	0.0
Some college	3.1	25.8	14.1	9.7	0.8	22.1	24.4	0.0
Vocational/technical school	0.0	51.9	2.4	21.4	0.0	7.2	17.1	0.0
College and above	5.6	26.1	5.1	12.6	6.7	21.7	21.8	0.4

TABLE 8.3 (continued)

	Type of Care								Group Care	Other
	Mother Care		Relative Care		Nonrelative Care					
	Working	Nonworking	Child's Home	Relative's Home	Child's Home	Caregiver's Home				
Mother's Public Assistance Status										
Receiving AFDC	0.0	76.0	7.6	4.4	0.0	5.2	6.1	0.7		
Receiving Food Stamps	0.0	80.0	4.5	2.5	0.6	6.4	6.0	0.0		
Receiving other public assistance	0.0	76.6	7.4	7.2	0.0	7.6	1.2	0.0		
Family Income										
\$0 to \$18,000	1.8	61.1	6.8	8.6	1.8	7.2	12.7	0.0		
Over \$18,000	2.7	35.9	15.8	11.0	2.9	16.4	15.0	0.2		
Don't know or refused	5.5	40.5	14.1	10.0	1.0	14.6	13.8	0.5		

TABLE 8.4

**MAIN CHILD CARE ARRANGEMENTS USED FOR PRESCHOOL CHILDREN IN SOUTH CHICAGO,  
BY CHARACTERISTICS OF MOTHERS AND CHILDREN**

	Type of Care							
	Mother Care		Relative Care		Nonrelative Care		Group Care	Other
	Working	Nonworking	Child's Home	Relative's Home	Child's Home	Caregiver's Home		
<b>Total</b>	<b>4.2</b>	<b>48.0</b>	<b>16.3</b>	<b>8.9</b>	<b>3.7</b>	<b>9.6</b>	<b>9.3</b>	<b>0.1</b>
<b>Age of Child:</b>								
Newborn to under 6 months	4.1	57.7	12.0	5.0	2.1	17.2	1.9	0.0
6 months to under 12 months	2.9	61.9	14.9	13.3	0.0	7.0	0.0	0.0
12 months to under 18 months	6.3	49.0	11.7	13.3	5.4	11.0	3.3	0.0
18 months to under to under 24 months	0.0	27.0	19.7	17.4	6.3	22.0	7.6	0.0
2 years to under 3 years	1.8	46.3	19.5	10.3	3.7	11.3	7.1	0.0
3 years to under 4 years	4.6	47.5	13.6	4.3	2.3	8.8	19.0	0.0
4 years to under 5 years	5.6	45.6	19.9	7.6	2.9	5.1	13.0	0.4
5 years	4.6	44.3	17.8	7.8	8.2	7.7	9.2	0.4
<b>Mother's Marital Status</b>								
Married	4.1	53.2	16.6	7.1	3.6	7.2	8.1	0.2
Divorced or separated	2.2	37.6	14.6	9.5	0.5	28.2	7.5	0.0
Widowed	0.0	16.2	22.4	23.9	0.0	21.0	16.5	0.0
Never married	6.9	23.6	13.8	18.3	4.5	15.6	17.3	0.0
<b>Race/Ethnicity</b>								
White	4.2	58.3	17.8	5.2	4.5	5.7	4.3	0.1
Black	4.7	21.8	13.9	16.7	2.1	19.0	21.8	0.2
Other	0.0	75.3	10.0	14.7	0.0	0.0	0.0	0.0
Hispanic origin	3.3	63.6	11.6	17.9	0.0	1.1	2.5	0.0
<b>Mother's Education</b>								
Less than high school	13.1	52.3	16.2	10.9	0.0	0.7	6.8	0.0
High school	4.4	52.2	17.1	10.4	2.4	6.9	6.7	0.0
Some college	2.0	46.8	15.3	8.1	3.2	14.4	10.0	0.2
Vocational/technical school	2.9	35.5	17.5	12.1	20.5	3.4	8.2	0.0
College and above	4.0	43.3	16.5	6.9	5.6	10.4	13.0	0.2

TABLE il.4 (continued)

	Type of Care							
	Mother Care		Relative Care		Nonrelative Care			Other
	Working	Nonworking	Child's Home	Relative's Home	Child's Home	Caregiver's Home	Group Care	
<b>Mother's Public Assistance Status</b>								
Receiving AFDC	6.1	42.6	15.9	15.6	0.3	6.6	0.7	0.0
Receiving Food Stamps	6.4	40.6	16.0	12.9	0.3	14.3	7.4	0.0
Receiving other public assistance	22.7	24.1	22.7	5.4	0.0	7.6	17.5	0.0
<b>Family Income</b>								
\$0 to \$18,000	1.5	50.1	19.0	10.8	0.4	13.4	4.8	0.0
Over \$18,000	3.1	50.6	15.9	8.2	3.2	9.5	9.4	0.1
Don't know or refused	9.6	37.5	15.9	10.1	7.5	7.3	11.9	0.3



TABLE B.5

METHODS FOR FINDING CHILD CARE AND REASONS FOR CHOOSING  
CURRENT **ARRANGEMENTS**, BY LEVEL OF INCOME

	Camden		Newark		south Chicago	
	Low Inc.	High Inc.	Low Inc.	High Inc.	Low Inc.	High Inc.
For Children Whose Main Arrangements Are Nonrelative Care, Percentage Whose Mother Learned About the Arrangement From:						
Friend or relative	50.1	43.4	46.7	50.2	35.0	<b>49.4</b>
Welfare or social service caseworker	7.2	0.0	0.0	0.0	0.0	1.3
Newspaper advertisement	18.6	20.8	<b>4.9</b>	6.8	5.0	14.3
Community agency	3.4	2.6	6.9	4.3	14.0	2.9
Provider is family member	0.0	2.4	6.5	0.0	6.4	0.6
Provider is acquaintance	16.9	12.4	27.4	23.2	29.9	20.9
Provider already cared for an older child	1.2	2.1	0.0	0.0	0.0	0.2
Word of mouth	1.4	6.4	4.3	<b>8.4</b>	1.0	2.0
Other	1.2	9.8	3.3	7.1	8.7	8.5
Percentage of Children For Whom Mothers Considered Other Providers When Making Main Arrangement for Care	50.9	51.8	53.5	47.7	36.1	46.6
Percentage of Children For Whom the Reasons Their Mothers Selected Their Main Arrangement <b>Include:<sup>a</sup></b>						
Price	23.7	29.8	15.6	17.4	26.4	18.3
Location	34.1	32.7	25.9	32.7	12.3	22.1
Quality	54.5	40.9	42.6	57.0	16.0	36.4
Availability	14.5	19.0	18.6	15.7	17.9	12.5
Hours	6.1	4.1	4.7	7.5	1.0	3.1
Other	9.1	11.9	9.9	12.8	25.4	15.3

**SOURCE:** Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

NOTE: Lower-income mothers are mothers with annual family incomes \$18,000 and below, and higher-income mothers are mothers with family incomes over \$18,000.

<sup>a</sup> More than one reason may have been given, so the percentages do not necessarily add up to 100 percent.

TABLE B.6

**MEALS RECEIVED FROM CHILD CARE PROVIDERS BY PRESCHOOL CHILDREN**

	Camden	Newark	South Chicago
Percentage of Children Not Cared For in Their Own Home Who Receive Meals Prepared and Served by Their Provider	77.2	81.0	86.8
Among Children Who Receive Meals, the Percentage of Mothers Who Pay Extra For Those Meals	2.6	6.4	<b>5.1</b>
Among Children Whose Mothers Pay Extra for Meals, the Average Extra Amount Paid Per Week	\$10.09	\$15.61	\$6.20

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

TABLE B.7

GROUP SIZE, TEACHER SUPERVISION, AND CHILD-STAFF RATIOS  
FOR PRESCHOOL CHILDREN IN RELATIVE AND NONRELATIVE CARE

	Camden	Newark	South Chicago
Percentage of Preschool Children Who Are Cared For With — Other Children in Main Arrangement:			
0 other children	37.1	42.3	25.1
1 to 4 other children	58.2	52.3	67.4
5 or more children	4.7	5.4	7.5
Average Number of Children Cared For Together in Main Arrangement	2.3	2.4	2.4
Average Age Range of Children Cared For <b>Together</b> in Children's Main Arrangements (Years)	4.1	3.5	4.5
Average Number of Adults Who Supervise Child in Main Arrangements	1.2	1.3	1.2
Age Distribution of Main Adults Caring for Preschool Children (Relatives and Family Day Care Providers Only)			
15 to 19 years old	7.4	4.4	3.8
20 to 29 years old	19.9	16.2	16.3
30 to 39 years old	35.2	21.6	28.5
40 to 49 years old	14.8	20.6	18.7
50 to 59 years old	12.2	18.9	18.6
60 to 69 years old	6.8	12.6	8.1
70 years old and above	3.7	5.7	6.0
Average Child-Staff Ratio in Main Arrangement	2.1	1.9	2.1

**SOURCE:** Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

TABLE B.8

ASSISTANCE IN PAYING FOR SECONDARY CHILD CARE ARRANGEMENTS  
FOR PRESCHOOL CHILDREN

	Camden	Newark	South Chicago
Percentage of Children Whose Mothers Pay Some Cash For Their Secondary Arrangement and Plan To Take An Income Tax Credit For This Arrangement	58.8	<b>55.2</b>	47.1
Percentage of Children Whose Mothers Pay Some Cash For Their Secondary Arrangement and Receive Assistance in Paying	1.3	<b>0.0</b>	<b>0.0</b>
Among Children Whose Secondary Care Was Not Paid For, The Percentage Whose Care Was Free Because:			
Care provided by relative or friend	88.2	95.9	87.6
Care provided by Head Start.	0.0	0.0	4.1
Care provided free by welfare	2.3	0.0	4.6
Care provided free by social service agency	0.0	0.0	0.0
Other reason	9.5	4.1	3.7

**SOURCE:** Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

TABLE B.9

## REASONS FOR PREFERRING ANOTHER ARRANGEMENT, BY TYPE OF CURRENT CARE

	Main Arrangement					
	Relative		Nonrelative		Center	Other
	Home	Not Home	Home	Not Home		
Percentage of Children Whose Mothers-Would Prefer Another Arrangement Because:						
	<u>Camden</u>					
Child would learn more	12.5	46.0	81.1	60.5	35.4	0.0
Prefer relative care	0.9	6.8	0.0	0.0	1.4	0.0
Reliability of arrangement	0.9	0.0	0.0	33.9	4.8	100.0
cost	11.4	2.8	0.0	5.6	21.9	0.0
Location	20.9	<b>8.7</b>	0.0	2.3	14.3	0.0
Hours	47.4	6.4	0.0	0.0	0.0	0.0
Quality of care	5.7	2.8	0.0	16.1	18.3	0.0
Current arrangement wrong for child	0.0	9.1	0.0	2.5	<b>0.0</b>	<b>0.0</b>
Other reason	33.2	44.6	0.0	12.3	21.8	0.0
	<u>Newark</u>					
Child would learn more	<b>31.9</b>	47.1	<b>25.1</b>	79.7	20.8	0.0
Prefer relative care	<b>0.0</b>	0.0	<b>0.0</b>	4.4	2.5	0.0
Reliability of arrangement	<b>5.9</b>	2.7	0.0	2.2	2.8	0.0
cost	3.7	0.0	13.5	4.4	29.6	0.0
Location	0.0	16.5	0.0	1.7	7.0	100.0
Hours	4.0	3.0	0.0	0.0	7.2	100.0
Quality of care	5.9	3.0	0.0	8.7	10.8	0.0
Current arrangement wrong for child	4.5	3.0	0.0	4.4	2.8	0.0
Other reason	68.1	29.9	11.5	8.0	24.9	0.0
	<u>South Chicago</u>					
Child would learn more	47.7	61.3	3.0	78.9	19.9	0.0
Prefer relative care	1.3	0.0	0.0	4.0	6.7	0.0
Reliability of arrangement	15.6	9.3	0.0	1.0	0.0	0.0
cost	1.1	1.1	34.3	10.9	35.9	0.0
Location	5.1	8.1	<b>0.0</b>	0.0	21.8	0.0
Hours	21.1	0.0	16.6	0.0	0.0	0.0
Quality of care	4.0	12.7	23.8	9.5	1.7	0.0
Current arrangement wrong for child	3.2	7.1	0.0	0.0	0.0	100.0
Other reason	24.3	15.9	34.5	21.9	8.0	0.0

**SOURCE:** Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

TABLE B.10

SATISFACTION WITH CHILD CARE ARRANGEMENTS FOR  
CHILDREN UNDER ONE YEAR OLD

	Camden	Newark	South Chicago
Percentage of Children Whose Mothers Would Prefer Some Other Arrangement For <b>Them<sup>a</sup></b>	33.1	23.8	<b>15.9</b>
Among Children Whose Mothers Would Prefer Another Arrangement For Them, The Percentage Preferring:			
Relative	8.2	<b>0.0</b>	<b>18.9</b>
Nonrelative	25.5	5.3	31.1
Center/preschool	44.2	90.7	43.7
Other	22.1	4.0	6.3
Percentage of Children Whose Mothers Would Prefer Another Arrangement <b>Because:<sup>b</sup></b>			
Child would learn more	8.8	40.1	26.8
Prefer relative care	2.6	0.0	13.4
Reliability of arrangement	5.2	11.7	32.0
cost	11.4	4.2	5.5
Location	5.2	25.8	0.0
Hours	33.2	0.0	28.6
Quality of care	4.8	11.7	29.2
Current arrangement wrong for child	5.8	<b>0.0</b>	<b>0.0</b>
Other reason	31.1	35.2	20.4

**SOURCE:** Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

<sup>a</sup>If all child care arrangements were available free of charge.

<sup>b</sup>More than one reason may have been given, so percentages do not necessarily add up to 100 percent.

TABLE B.11

SATISFACTION WITH CHILD CARE ARRANGEMENTS FOR  
CHILDREN AGE ONE TO TWO YEARS OLD

	Camden	Newark	South Chicago
Percentage of Children Whose Mothers Would Prefer Some Other Arrangement For <b>Them<sup>a</sup></b>	32.5	33.6	27.0
Among Children Whose Mothers Would Prefer Another Arrangement For Them, The Percentage Preferring:			
Relative	<b>5.9</b>	3.8	7.7
Nonrelative	14.4	a.5	5.0
Center/preschool	54.0	80.2	78.9
Other	25.6	7.5	<b>8.4</b>
Percentage of Children Whose Mothers Would Prefer Another Arrangement <b>Because:<sup>b</sup></b>			
Child would learn more	26.6	<b>44.9</b>	55.7
Prefer relative care	3.7	3.8	3.4
Reliability of arrangement	5.4	0.0	10.9
cost	4.7	4.3	9.4
Location	19.3	2.8	5.7
Hours	24.8	6.7	a.1
Quality of care	<b>12.8</b>	5 . 7	5.8
Current arrangement wrong for child	<b>0.0</b>	<b>0.0</b>	2.7
Other reason	31.0	22.0	12.3

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

<sup>a</sup> If all child care arrangements were available free of charge.

<sup>b</sup> More than one reason may have been given, so percentages do not necessarily add up to 100 percent.

TABLE B.12

SATISFACTION WITH CHILD CARE ARRANGEMENTS FOR  
CHILDREN AGE THREE TO FIVE **YEARS** OLD

	Camden	Newark	South Chicago
Percentage of Children Whose Mothers Would Prefer Some Other Arrangement For <b>Them<sup>a</sup></b>	32.4	31.7	29.3
Among Children Whose Mothers Would Prefer Another . Arrangement For Them, The Percentage Preferring:			
Relative	2.4	4.5	5.2
Nonrelative	4.1	1.4	11.4
Center/preschool	82.6	86.0	72.4
Other	10.9	7.2	11.0
Percentage of Children Whose Mothers Would Prefer Another Arrangement <b>Because:<sup>b</sup></b>			
Child would learn more	45.0	<b>50.9</b>	45.1
Prefer relative care	0.0	1.3	0.0
Reliability of arrangement	13.2	2.7	3.7
cost	16.3	15.9	10.0
Location	10.9	4.7	7.5
Hours	10.8	2.3	10.7
Quality of care	9.3	6.9	5 . 9
Current arrangement wrong for child	2.2	6.8	<b>3.9</b>
Other reason	23.3	26.8	<b>27.9</b>

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

<sup>a</sup> If all child care arrangements **were available** free of charge.

<sup>b</sup> More than one reason may have been given, so percentages do not necessarily add up to 100 percent.



TABLE B.13

PROBLEMS WITH REGULAR CHILD CARE ARRANGEMENTS EXPERIENCED  
BY MOTHERS OF PRESCHOOL CHILDREN, BY LEVEL OF INCOME

	Camden		Newark		South Chicago	
	Low Inc.	High Inc.	Low Inc.	High Inc.	Low Inc.	High Inc.
Percentage of Children Whose Mothers Were Late to Work or Had to Leave Early During the Last Month Due to Problems With Regular Child Care Arrangements	20.4	15.1	11.8	18.8	6.4	14.1
Percentage of Children Whose Mothers Had to Miss at Least One Day of Work in the Last Month Due to Problems With Child Care	7.2	6.2	9.8	17.7	4.6	10.3
Among Children Whose Mothers Had to Miss Work, The Percentage Whose Mothers Missed Work Because:						
Provider was sick	9.1	23.3	10.2	<b>49.3</b>	9.5	27.2
Provider's family sick	9.1	0.0	0.0	11.8	0.0	0.0
Provider had personal problem	9.1	34.9	8.2	24.3	58.1	33.8
Preschool was closed	0.0	0.0	16.7	4.8	0.0	3.3
Mother couldn't pay provider	0.0	0.0	0.0	0.0	0.0	0.0
Other reason	73.7	41.8	64.9	9.7	32.4	35.7

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

NOTE: Lower-income mothers are mothers with annual family incomes \$18,000 and below, and higher-income mothers are mothers with family incomes over \$18,000.

TABLE B.14

## ARRANGEMENTS MADE FOR THE CARE OF SICK CHILDREN, BY LEVEL OF INCOME

	Camden		Newark		South Chicago	
	Low Inc.	High Inc.	Low Inc.	High Inc.	Low Inc.	High Inc.
Percentage of Children Whose Mothers Made the Following Arrangements for Their Care The Last Time They Were Sick:						
Used regular arrangement	5.0	10.2	4.9	14.1	12.7	21.7
Mother stayed home	59.0	54.8	65.2	49.2	66.7	45.0
Spouse stayed home	5.3	8.1	3.3	5.4	5.4	5.8
Older child stayed home	0.0	0.0	0.9	0.0	0.0	0.2
Mother took child to work	0.8	1.0	0.0	0.0	0.0	1.4
Relative or neighbor watched child	20.1	10.0	10.8	16.1	7.4	12.5
Mother hired babysitter	0.0	0.5	0.0	0.0	0.0	1.4
Other	9.8	15.6	14.9	15.2	7.7	12.0
Among Children Whose Mothers Stayed Home The Last Time They Were Sick, The Percentage Whose Mothers:						
Took vacation time	21.5	12.5	2.1	11.1	5.6	8.5
Took sick time	29.2	25.7	33.1	43.3	34.0	34.0
Took <b>personal</b> time	15.8	11.2	25.3	8.6	6.4	12.1
Used flex-time	1.7	8.1	0.0	2.0	8.1	2.4
Worked from home	0.0	0.0	0.0	3.8	6.2	1.3
Took leave without pay	30.2	35.2	39.5	21.5	39.7	40.4
Other	1.7	7.3	0.0	9.6	0.0	1.3

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, Inc., 1988).

NOTE: Lower-income mothers are mothers with annual family incomes \$18,000 and below, and higher-income mothers are mothers with family incomes over \$18,000.

TABLE B.15

SELECTED **CHARACTERISTICS** OF PAID FAMILY DAY CARE PROVIDERS  
BY LICENSED STATUS IN SOUTH CHICAGO

	Licensed	Unlicensed
Average Number of Children Cared For		
Preschool	5.4	2.4
School-age	3.8	1.7
	1.6	0.7
Average Number of Additional Children That Provider Would Accept Full-Time		
Preschool	2.1	1.3
School-age	1.7	0.6
Percentage Who Take No Steps To Fill An Empty Slot	39.9	54.7
Percentage Who:		
Have doctor's phone number for each child	<b>95.1</b>	76.3
Have medical release for each child	<b>92.3</b>	47.3
Practice fire drills	82.3	22.7
Have liability insurance	61.5	49.2
Median Hourly Fee Charged For:		
Full-time Care	<b>\$0.92</b>	\$1.01
Part-time Care	\$1.34	'\$1.50
Percentage Whose Highest Level of Education Completed Is:		
Less than high school	21.0	34.6
High school	36.4	38.9
More than high school	42.6	26.5
Percentage Who Are:		
White	7.7	61.2
Black	92.3	37.8
Other	<b>0.0</b>	1.0

SOURCE: Surveys of Child Care Supply and Needs (**Mathematica** Policy Research, **Inc.**, 1988).

APPENDIX C

ADDITIONAL RESULTS FROM THE **MULTIVARIATE**  
ANALYSES OF CHILD CARE MODE CHOICE  
AND EXPENDITURES

TABLE C.1

## MULTINOMIAL LOGIT RESULTS FOR 5-WAY CHOICE MODEL

	Effect on the Probability of:				
	Relative Care in Child's Home	Relative Care In Another Home	Nonrelative Care In Child's Home	Nonrelative Care In Another Home	Center/Preschool Care
Camden	-.069	-.00871	-.026	-.00418	.109
Chicago	-.0998	.0175	-.0202	.0773	.0252
Age of Child (In years)	-.0474	-.0318	-.00403	-.0524	.136
No. of Other Adults	.233	.00935	.0212	-.167	-.0961
No. of Preschool Siblings	.143	-.0342	.00058	.0401	-.150
Number of School-age Siblings	.0616	-.0432	.0192	-.0298	-.00777
Hours per Week	-.00838	.00014	-.00193	.00539	.00478
Hours Evenings or Weekends	.357	-.0330	.0301	-.132	-.222
Mother's Age (in years)	.00257	-.00669	-.00109	.00944	-.00423
Married	.0841	-.0144	.0131	-.0319	-.0509
Black	-.151	.0486	-.0241	-.0521	.179
Hispanic	-.0259	.221	-.369	.0236	.151
College Graduate	-.267	-.0522	.0137	.0524	.253
Some College	-.184	.0130	-.00205	.0517	.121
Mother's Earnings $\leq$ \$6,000/yr.	.0484	-.0123	-.0193	.0224	-.0393
Mother's Earnings $>$ \$30,000/yr.	.120	.135	-.0463	-.140	-.0698

Table C.1 (continued)

	Effect on the Probability of:				
	Relative Care in Child's Home	Relative Care in Another Home	Nonrelative Care In Child's Home	Nonrelative Care In Another Home	Center/Preschool Care
Family has Other Income	-.0244	-.00261	-.0515	.0308	.0477
Lived Over One Year in Neighborhood	.0409	-.0202	.0414	.00982	-.0720
Considered Other Providers	-.147	-.137	.0249	.0851	.174
Probability of Choice	.278	.196	.042	.223	.261

Number of Observations = 663.

-2 x Log - Likelihood = 1532.

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc.. 1988)

TABLE C.2

## MULTINOMIAL LOGIT RESULTS FOR CHILDREN UNDER 3

	Coefficients <sup>a</sup>			Effects on the Probability of Using:		
	(b <sub>1</sub> - b <sub>3</sub> )	(b <sub>2</sub> - b <sub>3</sub> )	(b <sub>1</sub> - b <sub>2</sub> )	Relative Care	Nonrelative Care	Formula Care
Intercept	6.31 (1.95)	5.30 (1.94)	1.01 (1.21)			
Camden	-2.09*** (.616)	-1.87*** (.602)	-.215 (.408)	-.183	-.0367	.219
Chicago	-1.07* (.615)	-.462 (.606)	-.608* (.363)	-.183	.0900	.0925
Age of Child (in years)	-1.71*** (.456)	-1.50*** (.451)	-.203 (.230)	-.154	-.0240	.178
No. of Other Adults in Household	1.10 (.675)	.0837 (.719)	1.01*** (.431)	.256	-.177	-.0790
No. of Preschool Siblings	.490 (.479)	.398 (.482)	.0922 (.269)	.0503	-.00048	-.0498
No. of School-age Siblings	-.338 (.309)	-.373 (.314)	.0349 (.215)	-.0171	-.0211	-.0382
Hours per Week	-.0584*** (.0193)	-.0521*** (.0200)	-.0063 (.0118)	-.00515	-.00097	.00612
Works Evenings or Weekends	2.37*** (.665)	1.32*** (.678)	1.05*** (.324)	.350	-.133	-.217
Mother's Age (in years)	.0645 (.0517)	.0831 (.0510)	-.0186 (.0312)	.00114	.00663	-.00778
Married	-.122 (.917)	-.185 (.935)	.0629 (.585)	.00278	-.0186	.0158
Black	-.502 (.511)	-.455 (.505)	-.0467 (.332)	-.0430	-.00991	.0529
Hispanic	-.536 (1.07)	-.196 (1.08)	-.340 (.686)	-.0974	.0526	.0449
College Graduate	-1.77*** (.650)	-1.25*** (.646)	-.514 (.409)	-.213	.0415	.172
Some College	-.825 (.563)	-.595 (.565)	-.230 (.339)	-.0979	.0171	.0808

Table C.2 (continued)

		Coefficients <sup>a</sup>			Effects on the Probability of Using:		
		(b <sub>1</sub> - b <sub>3</sub> )	(b <sub>2</sub> - b <sub>3</sub> )	(b <sub>1</sub> - b <sub>2</sub> )	Relative Care	Nonrelative Care	Formal Care
Mother's Earnings	≤ \$6,000/yr.	.162 (.524)	-.399 (.533)	.561* (.338)	.111	-.116	.00475
Mother's Earnings	> \$30,000/yr.	1.11 (.823)	.363 (.810)	.749 (.591)	.210	-.119	-.0914
Family has Other Income		.126 (.727)	-.171 (.693)	.297 (.503)	.0616	-.0597	-.00191
Lived Over One Year in Neighborhood		-.164 (.614)	-.155 (.623)	-.0085 (.389)	-.0128	-.00467	.0175
Considered Other Providers		-1.55*** (.463)	-.338 (.468)	-1.22*** (.294)	-.324	.203	.121
Probability of Mode Choice		--	--	--	.555	.321	.125

Number of Observations = 321.

-2 x Log - Likelihood = 479.

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> Choices are numbered 1 = relative care, 2 = nonrelative care, 3 = formal care. Coefficients measure the effect of a one unit change in the variable on the log of the odds of two choices. For example, if b<sub>1</sub> - b<sub>3</sub> is positive for a particular variable, an increase in that variable increases the odds of choosing relative care over formal care. Standard errors are in parentheses. \*\*\*/\*\*/\* indicates that a coefficient is significantly different from zero at the 99/95/90 percent level of confidence.



TABLE C.3  
MULTINOMIAL LOGIT RESULTS FOR CHILDREN AGE 3-5

	Coefficients <sup>a</sup>			Effects on the Probability of Using:		
	(b <sub>1</sub> - b <sub>3</sub> )	(b <sub>2</sub> - b <sub>3</sub> )	(b <sub>1</sub> - b <sub>2</sub> )	Relative Care	Nonrelative Care	Formal Care
<b>intercept</b>	2.24 (1.36)	-.724 (1.38)	2.97 (1.48)			
<b>Camden</b>	.228 (.412)	-.182 (.436)	.410 (.472)	.0701	-.0503	-.0198
<b>Chi cago</b>	.194 (.408)	-.0555 (.422)	.250 (.467)	.0512	-.0260	-.0252
<b>Age of Child (in years)</b>	.0460 (.190)	-.522** (.209)	.568*** (.215)	.0557	-.0923	.0366
<b>No. of Other Adults in Household</b>	.659* (.414)	-.220 (.498)	.878* (.481)	.176	-.0935	-.0829
<b>No. of Preschool S i b l i n g s</b>	.751** (.307)	.733** (.324)	.0177 (.307)	.117	.0598	-.177
<b>No. of School-age S i b l i n g s</b>	.259 (.213)	.246 (.224)	.0131 (.221)	.0410	.0195	-.0605
<b>Hours per Week</b>	-.0406*** (.0134)	.0150 (.0141)	-.0556*** (.0140)	-.0110	.00602	.00499
<b>Works Evenings or Weekends</b>	1.29*** (.343)	.460 (.373)	.826** (.369)	.268	-.0322	-.236
<b>Mother's Age (in years)</b>	-.0313 (.0324)	.0513* (.0320)	.0200 (.0358)	-.0119	.0114	.00052
<b>Married</b>	.249 (.577)	-.104 (.652)	.353 (.653)	.0684	-.0389	-.0296
<b>Black</b>	-1.11*** (.377)	-1.51*** (.387)	.394 (.432)	-.137	-.160	.297
<b>Hispanic</b>	.182 (.499)	-1.64** (.725)	1.82** (.729)	.183	-.292	.109
<b>College Graduate</b>	-1.60*** (.464)	-.345 (.474)	-1.26** (.503)	-.354	.0788	.276
<b>Some College</b>	-.642* (.350)	.149 (.383)	-.790** (.387)	-.166	.0801	.0862

Table C.3 (continued)

	Coefficients <sup>a</sup>			Effects on the Probability of Using:		
	(b <sub>1</sub> - b <sub>3</sub> )	(b <sub>2</sub> - b <sub>3</sub> )	(b <sub>1</sub> - b <sub>2</sub> )	Relative Care	Nonrelative Care	Formal Care
Mother's Earnings ≤ \$6,000/yr.	-.0190 (.348)	.481 (.369)	-.500 (.385)	-.0457	.0831	-.0373
Mother's Earnings > \$30,000/yr.	1.07 (.728)	-1.56 (1.14)	2.63** (1.16)	.389	-.355	-.0331
Family has Other Income	-.417 (.489)	.0096 (.541)	-.427 (.588)	-.101	.0373	.0633
Lived Over One Year in Neighborhood	.234 (.420)	.684 (.476)	-.451 (.498)	-.00263	.0958	-.0932
Considered Other Providers	-1.18''' (.312)	-.268 (.326)	-.916*** (.337)	-.260	.0560	.204
Probability of Mode Choice	--	--	--	.397	.216	.388

Number of Observations = 343.

-2 x Log - Likelihood = 569.

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1982).

<sup>a</sup> Choices are numbered 1 = relative care, 2 = nonrelative care, 3 = formal care. Coefficients measure the effect of a one unit change in the variable on the log of the odds of two choices. For example, if b<sub>1</sub> - b<sub>3</sub> is positive for a particular variable, an increase in that variable increases the odds of choosing relative care over formal care. Standard errors are in parentheses. \*\*\*/\*\*/\* indicates that a coefficient is significantly different from zero at the 99/95/90 percent level of confidence.

TABLE C. 4

## MULTINOMIAL LOGIT RESULTS FOR MARRIED MOTHERS

	Coefficients <sup>a</sup>			Effects on the Probability of Using:		
	(b <sub>1</sub> - b <sub>3</sub> )	(b <sub>2</sub> - b <sub>3</sub> )	(b <sub>1</sub> - b <sub>2</sub> )	Relative Care	Nonrelative Care	Formal Care
Intercept	4.13 (1.48)	2.73 (1.66)	1.40 (1.35)			
Camden	-.159 (.397)	.102 (.419)	-.262 (.363)	-.0531	.0399	.0132
Chicago	-.0850 (.372)	.310 (.390)	-.395 (.334)	-.0617	.0688	-.00708
Age of Child (in years)	-.711*** (.116)	-.710*** (.120)	-.0012 (.0948)	-.0842	-.0391	.123
No. of Other Adults in Household	.962 (.700)	-.394 (.911)	1.36* (.715)	.291	-.199	-.0920
No. of Preschool Siblings	.983*** (.331)	.872** (.346)	.112 (.232)	.131	.0336	-.164
No. of Schoolage Siblings	.170 (.199)	.122 (.212)	.0473 (.169)	.0263	.00056	-.0268
Hours per Week	-.0275** (.0116)	-.00914 (.0124)	-.0184* (.0097)	-.00565	.0019	.00375
Works Evenings or Weekends	1.42*** (3.42)	.473 (.372)	.944*** (.274)	.291	-.0974	-.194
Mother's Age (in years)	-.0336 (.0318)	.0109 (.0335)	-.0445 (.0296)	-.00980	.00643	.00337
Black	-.781** (.349)	-.864** (.360)	.0829 (.310)	-.0816	-.0586	.140
Hispanic	.400 (.553)	-.406 (.673)	.806 (.561)	.153	-.128	-.0248
College Graduate	-1.21*** (.407)	-.533 (.427)	-.673** (.346)	-.231	.0587	.172
Some College	-.546 (.366)	-.202 (.397)	-.344 (.310)	-.110	.0339	.0756
Mother's Earnings ≤ \$6,000/yr.	.355 (.340)	.0659 (.365)	.289 (.298)	.0798	-.0342	-.0456

Table C.4 (continued)

	Coefficients <sup>a</sup>			Effects on the Probability of Using:		
	(b <sub>1</sub> - b <sub>3</sub> )	(b <sub>2</sub> - b <sub>3</sub> )	(b <sub>1</sub> - b <sub>2</sub> )	Relative Care	Nonrelative Care	Formal Care
Mother's Earnings > \$30,000/yr.	1.34** (.610)	.292 (.643)	1.04" (.528)	.295	-.121	-.174
Family has Other Income	-.209 (.703)	-.167 (.763)	-.0429 (.622)	-.0304	-.00358	.0340
Lived Over One Year in Household	.708* (.396)	.303 (.403)	.406 (.356)	.137	-.0364	-.100
Considered Other Providers	-1.35*** (.302)	-.380 (.321)	-.973*** (.253)	-.287	.106	.181
Probability of Mode Choice	--	--	--	.529	.247	.223

Number of Observations = 461,

-2 x Log - Likelihood = 751.

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> Choices are numbered 1 = relative care, 2 = nonrelative care, 3 = formal care. Coefficients measure the effect of a one unit change in the variable on the log of the odds of two choices. For example, if b<sub>1</sub> - b<sub>3</sub> is positive for a particular variable, an increase in that variable increases the odds of choosing relative care over formal care. Standard errors are in parentheses. \*\*\*/\*\*/\* indicates that a coefficient is significantly different from zero at the 99/95/90 percent level of confidence.

TABLE C. 5

## MULTINOMIAL LOGIT RESULTS FOR SINGLE MOTHERS

	Coefficients <sup>a</sup>			Effects on the Probability of Using:		
	(b <sub>1</sub> - b <sub>3</sub> )	(b <sub>2</sub> - b <sub>3</sub> )	(b <sub>1</sub> - b <sub>2</sub> )	Relative Care	Nonrelative Care	Formal Care
Intercept	4.18 (1.67)	.155 (1.60)	4.03 (1.64)			
Camden	-1.28" (.569)	-1.52" (.560)	.235 (.568)	-.127	-.188	.315
Chicago	-.0736 (.589)	.304 (.564)	-.377 (.538)	-.0492	.0729	-.0238
Age of Child (in years)	-.771*** (.182)	-.930*** (.183)	.159 (.162)	-.0746	-.117	.191
No. of Other Adults in Household	-.685* (.382)	-.198 (.433)	.882** (.364)	.176	-.116	-.0603
No. of Preschool Siblings	.498 (.449)	.649 (.441)	-.151 (.395)	.0431	.0856	-.129
No. of School-age Siblings	-.247 (.330)	-.102 (.303)	-.145 (.314)	-.0450	.00465	.0403
Hours per Week	-.0465** (.0203)	-.00470 (.0219)	-.0418** (.0197)	-.00999	.00397	.00603
Hours Evenings or Weekends	1.54*** (.503)	.744 (.527)	.800* (.486)	.269	-.00593	-.263
Mother's Age (in years)	.0725* (.0457)	.117*** (.0416)	-.0448 (.0416)	.00383	.0173	-.0212
Black	-.837 (.552)	-1.27** (.528)	.432 (.509)	-.0533	-.182	.235
Hispanic	-.641 (.856)	-1.35 (.940)	.706 (.914)	-.00064	-.220	.220
College Graduate	-2.18*** (.820)	-1.38* (.709)	-.799 (.791)	-.345	-.0625	.407
Some College	-1.04** (.475)	-.396 (.474)	-.645 (.440)	-.193	.0266	.166
Mother's Earnings ≤ \$6,000/yr.	.317 (.482)	.602 (.474)	-.285 (.470)	.00713	.0950	-.102

Table C.5 (continued)

	Coefficients <sup>a</sup>			Effects on the Probability of Using:		
	(b <sub>1</sub> - b <sub>3</sub> )	(b <sub>2</sub> - b <sub>3</sub> )	(b <sub>1</sub> - b <sub>2</sub> )	Relative Care	Nonrelative Care	Formal Care
Mother's Earnings > \$30,000/yr.	-.370 (1.14)	-2.61** (1.32)	2.24' (1.34)	.196	-.518	.323
Family has Other Income	.0543 (.508)	-.227 (.507)	.282 (.497)	.0366	-.0544	.0179
Lived Over One Year in Neighborhood	-.559 (.552)	.899 (.655)	-1.46** (.588)	-.222	.252	-.0298
Considered Other Providers	-1.32*** (.452)	-.0442 (.437)	-1.27*** (.428)	-.293	.131	.161
Probability of Mode Choice	--	--	--	.345	.310	.345

Number of Observations = 203.

-2 x Log - Likelihood = 335.

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> Choices are numbered 1 = relative care, 2 = nonrelative care, 3 = formal care. Coefficients measure the effect of a one unit change in the variable on the log of the odds of two choices. For example, if b<sub>1</sub> - b<sub>3</sub> is positive for a particular variable, an increase in that variable increases the odds of choosing relative care over formal care. Standard errors are in parentheses. \*\*\*/\*\*/\* indicates that a coefficient is significantly different from zero at the 99/95/90 percent level of confidence.

TABLE C.6

## MULTINOMIAL LOGIT RESULTS FOR BLACK MOTHERS

	Coefficients <sup>a</sup>			Effects on the Probability of Using:		
	(b1 - b3)	(b2 - b3)	(b1 - b2)	Relative Care	Nonrelative Care	Formal Care
Intercept	2.63 (1.34)	-.961 (1.41)	3.59 (1.75)			
Camden	-1.07 <sup>*</sup> (.500)	-.653 (.508)	-.421 (.513)	-.183	-.0186	.202
Chicago	-.258 (.419)	.556 (.431)	-.814 <sup>**</sup> (.394)	-.0119	.139	-.0200
Age of Chld (in years)	-1.01 <sup>***</sup> (.155)	-1.07 <sup>***</sup> (.159)	-2.08 <sup>***</sup> (.144)	-.125	-.108	.233
No. of Other Adults in Household	.417 (.398)	-.176 (.457)	.594 (.382)	.117	-.0795	-.0371
No. of Preschool Siblings	.769 <sup>**</sup> (.370)	.621 <sup>*</sup> (.380)	.148 (.302)	.115	.0442	-.159
No. of School-age Siblings	.187 (.247)	.263 (.252)	-.0754 (.234)	.0163	.0332	-.0495
Hours per Week	-.00065 (.0165)	.0131 (.0181)	-.0138 (.0148)	-.00153	.00270	-.00117
Works Evenings or Weekends	1.52 <sup>***</sup> (.434)	.274 (.475)	1.25 <sup>***</sup> (.398)	.329	-.105	-.224
Mother's Age (in years)	.0364 (.0350)	.106 <sup>***</sup> (.0340)	-.0691 <sup>**</sup> (.0330)	-.00255	.0174	-.0149
Married	.317 (.603)	-.668 (.658)	.985 <sup>*</sup> (.575)	.145	-.168	.0233
College Graduate	-1.58 <sup>***</sup> (.573)	-.809 (.565)	-.767 (.531)	-.285	.00288	.282
Some College	-.600 (.436)	-.0899 (.452)	-.510 (.398)	-.131	.0450	.0863
Mother's Earnings ≤ \$6,000/yr.	.491 (.418)	.511 (.424)	-.0197 (.385)	.0615	.0512	-.113
Mother's Earnings > \$30,000/yr.	.984 (.758)	-1.94 (1.23)	2.93 <sup>**</sup> (1.20)	.435	-.495	.0596

Table C.6 (continued)

	Coefficients <sup>a</sup>			Effects on the Probability of Using:		
	(b1 - b3)	(b2 - b3)	(b1 - b2)	Relative Care	Nonrelative Care	Formal Care
Family has Other Income	-.566 (.532)	.126 (.561)	-.692 (.544)	-.146	.0849	.0612
Lived Over One Year	-.455 (.493)	.151 (.565)	-.606 (.482)	-.123	.0784	.0444
Considered Other Providers	-1.16*** (.369)	-.149 (.381)	-1.01*** (.343)	-.257	.0923	.165
Probability of Mode Choice	--	--	--	.376	.280	.344

Number of Observations = 279.

-2 x Log - Likelihood = 458.

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> Choices are numbered 1 = relative care, 2 = nonrelative care, 3 = formal care. Coefficients measure the effect of a one unit change in the variable on the log of the odds of two choices. For example, if  $b_1 - b_3$  is positive for a particular variable, an increase in that variable increases the odds of choosing relative care over formal care. Standard errors are in parentheses. \*\*\*/\*\*/\* indicates that a coefficient is significantly different from zero at the 99/95/90 percent level of confidence.



TABLE C. 7

## MULTINOMIAL LOGIT RESULTS FOR NONBLACK MOTHERS

	Coefficients <sup>a</sup>			Effects on the Probability of Using:		
	(b <sub>1</sub> - b <sub>3</sub> )	(b <sub>2</sub> - b <sub>3</sub> )	(b <sub>1</sub> - b <sub>2</sub> )	Relative Care	Nonrelative Care	Formal Care
Intercept	5.66 (1.47)	3.71 (1.47)	1.95 (1.22)			
Camden	-.408 (.462)	-.485 (.463)	.0774 (.402)	-.0335	-.0358	.0692
Chicago	-.274 (.495)	-.218 (.492)	-.0558 (.410)	-.0375	-.00342	.0409
Age of Child (in years)	-.438*** (.123)	-.446*** (.124)	.00720 (.100)	-.0466	-.0239	.0705
No. of Other Adults in Household	1.86** (.732)	.523 (.796)	1.34** (.553)	.390	-.160	-.229
No. of Preschool Siblings	.826** (.377)	.725* (.385)	.101 (.262)	.104	.0232	-.127
No. of School-age Siblings	-.111 (.235)	-.129 (.243)	.0189 (.201)	-.00935	-.00930	.0187
Hours per Week	-.0626*** (.0144)	-.0286* (.0147)	-.0337*** (.0111)	-.0116	.00328	.00827
Works Evenings or Weekends	1.43*** (.388)	.648 (.400)	.924*** (.296)	.263	-.0753	-.188
Mother's Age (in years)	-.0597 (.0402)	-.0275 (.0404)	-.0322 (.0347)	-.0110	.00309	.00790
Married	-.876 (.835)	-.116 (.894)	-.760 (.689)	-.201	.100	.101
Hispanic	-.00581 (.482)	-.844 (.545)	.838* (.495)	.116	-.160	.0440
College Graduate	-1.57*** (.478)	-.595 (.480)	-.973** (.389)	-.306	.105	.201
Some College	-.919** (.402)	-.388 (.420)	-.531* (.332)	-.174	.0542	.120
Mother's Earnings ≤ \$6,000/yr.	-.242 (.395)	-.246 (.413)	.00370 (.329)	-.0257	-.0132	.0389

Table C. 7 (continued)

	Coefficients <sup>a</sup>			Effects on the Probability of Using:		
	(b <sub>1</sub> - b <sub>3</sub> )	(b <sub>2</sub> - b <sub>3</sub> )	(b <sub>1</sub> - b <sub>2</sub> )	Relative Care	Nonrelative Care	Formal Care
Mother's Earnings > \$30,000/yr.	1.07* (.669)	.0433 (.673)	1.03' (.556)	.260	-.141	-.119
Family has Other Income	.407 (.610)	-.345 (.587)	.752 (.544)	.149	-.123	-.0264
Lived Over One Year in Neighborhood	.776* (.438)	.674 (.441)	.102 (.386)	.0984	.0205	-.119
Considered Other Providers	-1.46*** (.341)	-.350 (.349)	-1.11*** (.278)	-.314	.137	.177
Probability of Mode Choice	--	--	--	.542	.257	.200

Number of Observations = 385.

-2 x Log - Likelihood = 615.

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

<sup>a</sup> Choices are numbered-1 = relative care, 2 = nonrelative care, 3 = formal care. Coefficients measure the effect of a one unit change in the variable on the log of the odds of two choices. For example, if b<sub>1</sub> - b<sub>3</sub> is positive for a particular variable, an increase in that variable increases the odds of choosing relative care over formal care. Standard errors are in parentheses. \*\*\*/\*\*/\* indicates that a coefficient is significantly different from zero at the 99/95/90 percent level of confidence.

TABLE C. 8  
LOGIT MODELS OF THE PROBABILITY OF PAYING FOR  
CHILD CARE FOR ANY CHILD

	<u>Effect on the Probability of Paying for Some Arrangement(s)</u>		<u>Effect on the Probability of Paying Cash for Some Arrangement(s)</u>	
	Basic Model	Controlling for Mode Choice	Basic Model	Controlling for Mode Choice
Camden	.0457	.0100	.0523	.0145
Chicago	.0409	.0103	.00780	-.0320
No. of Other Adults	-.111**	-.0846	-.107**	-.0792
Hours per Week Worked	.00811***	.00698***	.00785***	.00654***
Mother Works Evenings or Weekends	-.182***	-.119**	-.173***	-.110**
Mother's Age (in years)	-.00358	-.00975*	-.00199	-.00852*
Married	-.127*	-.107	-.158**	-.116
Black	.0926*	.142**	.100**	.160***
Hispanic	-.00245	.108	.0152	.135
College Graduate	.191***	.0400	.188***	.0284
Some College	.0517	-.0214	.0606	-.0216
Mother's Earnings ≤ \$6,000/yr.	-.0806*	-.107**	-.103**	-.122**
Mother's Earnings > \$30,000/yr.	-.107	.0542	-.193**	-.0654

Table C.8 (continued)

	Effect on the Probability of Paying for Some Arrangement(s)		Effect on the Probability of Paying Cash for the Main Arrangement(s)	
	Basic Model	Controlling for Model Choice	Basic Model	Controlling for Model Choice
Family has Other Income	.0737	.108	.102	.137
Lived in Neighborhood Over One Year	.0121	.0486	.0219	.0615
No. of Preschool Children	-.0440	-.0438	-.0453	-.0544
No. of School-age Children	.00192	.0152	.00646	.0208
Use Any Nonrelative Care	--	.697***	--	.787***
Use Any Formal Care	---	.477***	--	.529***
Mean of Dependent Variable	.748	.748	.717	.717
No. of Observations	.664	.664	.686	.686
-2 x log-Likelihood	.604	.439	.671	.473

SOURCE: Surveys of Child Care Supply and Needs (Mathematica Policy Research, Inc., 1988).

NOTE: \*/\*\*/\*\* implies that the underlying coefficient is significantly different from zero at the 90/95/99 percent level of confidence in a two-tailed test.

**APPENDIX D**

CHARACTERISTICS OF FAMILY PROVIDERS KNOWN  
TO THE TEENAGE **PARENT** DEMONSTRATION PROGRAMS

TABLE D.1

**CHARACTERISTICS OF FAMILY DAY CARE PROVIDERS  
KNOWN TO THE TEENAGE PARENT DEMONSTRATIONS IN NEWARK**

	TPD PROVIDERS	SAMPLE PROVIDERS
Average Enrollment:		
Preschool children	1.8	1.5
School-age children	0.8	0.5
Total	2.6	2.0
Child-Staff Ratio:		
Average	<b>1.9</b>	<b>1.9</b>
Median	<b>1.5</b>	2.0
Percentage of Family Providers <b>Who Are:</b>		
White	16.7	37.7
Black	83.3	57.6
Other	0.0	4.7
Percentage of Family Providers With:		
College degree	<b>0.0</b>	3.7
Associate's degree	0.0	0.0
Some college	8.3	16.7
Vocational training	0.0	1.4
High school diploma	33.3	31.9
Less than high school	58.3	46.3
Percentage of Family Providers With Specific Child Care Training	41.7	33.2
Percentage of Providers Who Have:		
Doctor's phone number for each child	75.0	81.8
Medical releases for emergencies	25.0	57.2
Practice fire drills	25.0	28.3
Percentage of Providers Who Have Liability Insurance:	41.7	39.4

TABLE D.2

CHARACTERISTICS OF FAMILY DAY CARE PROVIDERS  
 KNOWN TO THE TEENAGE PARENT DEMONSTRATIONS IN CAMDEN

	TPD PROVIDERS	SAMPLE PROVIDERS
Average Enrollment:		
Preschool children	2.9	1.6
School-age children	0.3	0.7
Total	3.2	2.3
Child-Staff Ratio:		
Average	1.9	1.9
Median	1.8	1.5
Percentage of Family Providers Who Are:		
White	44.4	70.1
Black	44.3	23.4
Other	11.1	4.5
Percentage of Family Providers With:		
College degree	5.6	5.9
Associate's degree	5.6	2.1
Some college	16.7	11.9
Vocational training	0.0	6.0
High school diploma	38.9	32.0
Less than high school	33.3	42.0
Percentage of Family Providers With Specific Child Care Training	44.4	44.3
Percentage of Providers Who Have:		
Doctor's phone number for each child	72.2	74.0
Medical releases for emergencies	27.8	29.1
Practice fire drills	22.2	17.1
Percentage of Providers Who Have Liability Insurance:	33.3	44.1