

more than half of Illinois families
with children under 6 years old
use some type of child care

62%

child care & early education in illinois: the choices parents make



illinois
action for children
resources, community, advocacy.

**child care & early education in Illinois:
the choices parents make**

February 2008





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Introduction

Child care is a necessity for many families in Illinois, but a study of how many families use child care and early education and what kind they use did not exist until now.¹ The data presented here on families with children under 6 years old can help guide education and policy leaders as they develop Illinois' system of early care and education to meet the critical needs of families. This report presents Illinois data from the child care portion of the National Survey of Children's Health (NSCH). Some of the report's findings include:

- At any given time, two-thirds of families with children from infant to 5 years old are using some type of non-parental care. By the time their children reach age six, 77 percent of Illinois families will have placed them in non-parental care.
- Families with lower education levels are less likely to enroll their young children in formal programs such as center-based child care or early education programs. That is, they are more likely to use home-based child care.
- One-third of Illinois families that use some non-parental child care and early education (22 percent of all Illinois families with young children), combine two or more types of child care and early education in providing care for one child.
- Families with higher income buy more child care and early education: At least with incomes up to four times the poverty level, families with higher incomes use

more paid child care and early education (both formal and home-based) and less parental care. (We do not have reliable numbers for families with incomes more than four times the poverty line.)

- Comparing African American, white and Hispanic families, black families are most likely to use formal programs and child care in another adult's home, while Hispanic families are least likely to use each of these. When it comes to using parent-only care, Hispanics are most likely, and blacks are least likely.
- Families whose primary language is not English are less likely to use formal early childhood programs.
- Rural and metropolitan area families do not differ significantly in their use of child care and early education.
- The more adults there are in a household, the less likely the family is to use a formal program. (Though even with three adults, 35 percent of families still use formal care.)
- Very few single-adult families use parental care only. The more adults there are in a household, the more likely the family is to use parental care alone.
- Each month more than 20 percent of families with children in some type of non-parental child care have to make two or more last-minute child care changes. Home-based child care is often criticized for being unstable—for example, when a home provider

gets sick. The study finds that families using child care homes are not significantly more likely to make last minute changes in child care than families that use formal care.

The new data from the NSCH create a more complete picture of child care and early education in Illinois. In the past, officials have relied on partial estimates from available data. They used administrative data from the Illinois Child Care Assistance Program and early education data from the Illinois *Preschool for All* and Head Start programs to estimate how many of the neediest children receive child care and early education services. Data reported voluntarily by child care providers have also been used to estimate the number of children in child care. Now for the first time we can include data about families who use non-regulated care and who do not receive Illinois Child Care Assistance.

Last fielded in 2003 and 2004, the NSCH asked a large and diverse enough sample of Illinois families about their use of child care and early education to allow us to develop statistically valid estimates of the most critical numbers.² More information about the National Survey of Children's Health is available at <http://www.nschdata.org>.

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SECTION I

What Types of Child Care Do Illinois Families Use?

The National Survey of Children's Health asks parents to report on one specific child.³ It asks each parent whether the selected child attends any of the following non-parental child care or early education programs, which we have categorized as either formal or home-based:⁴

Formal Programs

- Child care centers
- Head Start or Early Start (used in the survey unconventionally to refer not just to the federal programs for low-income children with those names, but to any program with these names)
- Nursery school, preschool, or kindergarten.

Home-Based Programs

- Care in a Child Care Provider's home
- Care in the Child's Home

More detailed definitions of these types of care can be found in the glossary at the end of this report. Throughout this report, the programs we classify as "formal", which include both public (free) and private (often expensive) programs, are combined together. While we would like to enumerate child care center and early education data separately, the survey design does not allow us to do so with confidence.⁵

In Illinois, approximately 1,080,000 families have children under the age of six. Based on responses to the National Survey of Children's Health, we estimate that at any

Table I-1: Child Care and Early Education Programs Used by Illinois Families with Children Ages 0–5

	Number	Percentage of IL families with children ages		
		0–5	0–2	3–5
Any Formal Program	470,630	44	17	68
Child Care Center	258,809	24	16	31
Nursery School, Preschool or Kindergarten	357,730	33	*	63
Head Start or Early Start ⁸	110,673	10	2	18
Any Home-Based Program	407,076	38	38	38
Care in a Provider's Home	250,955	23	21	25
Care in the Child's Home	219,414	20	22	19
Any Non-Parental Child Care or Early Education	667,960	62	45	77
Parental Care Only	412,298	38	55	23

*This question was only asked for children ages 3–5.

given time 62 percent of these families place their young children in at least one type of child care or early education program.⁶ This comes to just under 670,000 families who use child care. The remaining 412,000 families use parental care alone for their children under six. As children approach school age, moreover, families' use of child care and early education grows. Over three-quarters of families with three- to five-year-olds use at least one type of child care or early education. See Table I-1.

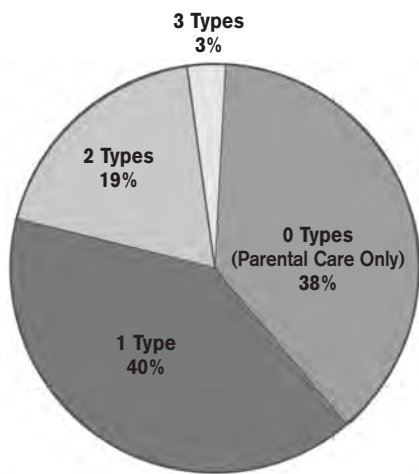
Table I-1 shows the number of families with children under age 6 that use different types of child care or early education. For example, child care centers provide care to 258,809 families, about 24 percent

of families. One-third of families have children in either nursery school, preschool or Kindergarten and ten percent use some form of Head Start.⁷ Since, as we shall see, many families use more than one type of program per child, the *Number* column of Table I-1 adds up to more than the total number of children in any non-parental child care or early education.

COMBINING TYPES OF CHILD CARE AND EARLY EDUCATION

Families frequently report that they patch together different caregivers to meet their child care needs. Families with irregular work schedules or less reliable child care particularly

Figure I-1: How Many Types of Child Care and Early Education Programs Do Illinois Families Use for a Child?



need to arrange a patchwork of care. In addition, many families that enroll children in early education programs use more than one provider, since most public and private preschool programs are only part-day. For example, Preschool For All provides children two-and-a-half hours of preschool per day. Many parents working full time would have to use non-parental care for at least six hours per day in order to send their children to preschool.

Families that patch together different child care providers often use different types of child care and early education: formal programs, providers in the child's home and care in the provider's home. Some 22 percent of all Illinois families, a third of those that use some non-parental child care and early education, use two or more types in providing care for one child (see Figure I-1). Families

Table I-2: Percentage of Families with Children Ages 0-5 in Each Type of Child Care or Early Education That Use Each of the Other Types

	Child in Formal Program	Child Cared for in Provider's Home	Child Cared for in Child's Home
Also in a Formal Program	-	63%	39%
Also Cared for in Provider's Home	33%	-	28%
Also Cared for in Child's Home	18%	34%	-
Also in ANY Other Type of Child Care or Early Education	45%	75%	53%

with boys, however, account for 59 percent of those that use two or more types of care while families with girls account for only 41 percent (see Appendix E). These numbers do not capture families that use multiple providers of the same type, such as two different relatives.

This frequent use of multiple providers is a matter of public concern. It is generally accepted that young children need continuity and consistency in their care and education, and quality care for young children generally requires this stability and consistency. For 22 percent of young Illinois children, however, being in multiple types of programs requires them to adjust to a number of providers on a daily or weekly basis.⁹

PATTERNS IN COMBINING CHILD CARE

The types of child care and early education programs that parents combine follow some patterns. Table I-2 shows the combinations

that families use and their prevalence.¹⁰ We find that:

- Almost half (forty-five percent) of families using formal programs also use some type of home-based child care, particularly care in a provider's home (as opposed to care in the child's home).
- Children in home-based child care are even more likely to use another type of care than children in formal programs. Three-quarters of children cared for in a provider's home and one-half of children cared for in their own homes use another type of care.
- Of the other types of care they use, children in home-based child care use formal programs more so than another type of home-based child care. Almost two-thirds of children cared for in a provider's home (63 percent) also use a formal program.

SECTION II

Family Characteristics & Type of Child Care and Early Education

AGE OF CHILDREN

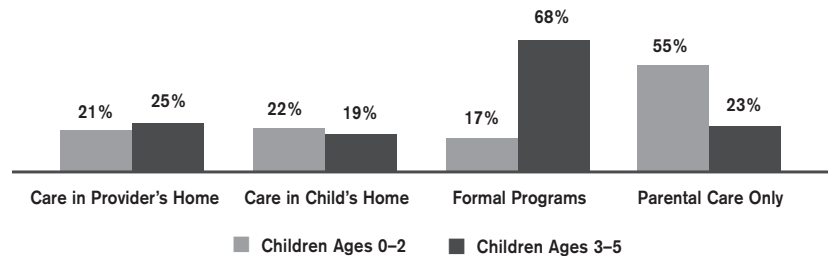
As mentioned, families choose different types of care for their children depending on the children's ages. Not surprisingly, most Illinois children ages birth to 2 are in parental care exclusively (55 percent). They are twice as likely as children ages 3 to 5 to be in parental care exclusively. In fact, for children birth to 5, each additional year of age makes them only 61 percent as likely to be in parental care exclusively (see Appendix C).

If younger children do attend a non-parental child care or early education program, they are more likely to be in home-based child care than in formal programs (see Figure II-1).¹¹ On the other hand, children ages 3 to 5 are more likely to attend formal programs.

In fact, for the group of children ages birth to 5, each additional year of age makes them 120 percent more likely to attend a formal program (see Appendix C). This is probably the case for several reasons:

- Centers have relatively few slots for children under two.
- Formal programs for infants and toddlers are more expensive.
- Many parents prefer a more personal home setting for their younger children.
- The closer children are to traditional school age, the more likely their parents are to enroll them in early education programs. They may view school as less appropriate for three-year-olds than for four-year-olds, for example.
- When programs have waiting lists, parents who attempt to

Figure II-1: Percent of Illinois Families with Children in Various Types of Child Care and Early Education, By Age



enroll their three-year-old children may not be able to do so until the children are four.

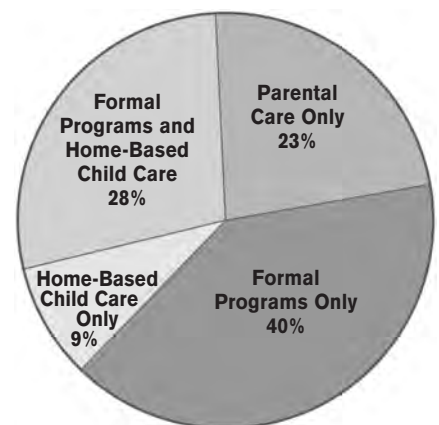
While all early care is important to children's development, early education is particularly vital for children ages 3 through 5 because of its potential impact on children's future academic success. We would like to report the use of early education programs for this age group, but, as mentioned, the survey data do not allow us to distinguish between preschool and child care center usage.

What we do know is that Illinois does rather well with respect to usage of formal programs in general for children at the critical ages of 3 through 5; among Illinois children of this age, over two-thirds are enrolled in formal programs. Nevertheless, another third are not enrolled in a center or early education program (although we should not necessarily presume from this that they lack good educational experiences).

It is common for children ages 3 through 5 in formal programs also to be in home-based child care. In fact, about 41 percent of families

with children of this age using formal programs (28 percent of all families with children of this age) combine formal programs with some type of home-based child care. Nevertheless, the majority, or 59 percent, of families using formal programs (40 percent of all Illinois families with children 3 through 5) use center care or early education exclusively (see Figure II-2).¹²

Figure II-2: Formal Programs and Other Types of Child Care for Children Ages 3-5



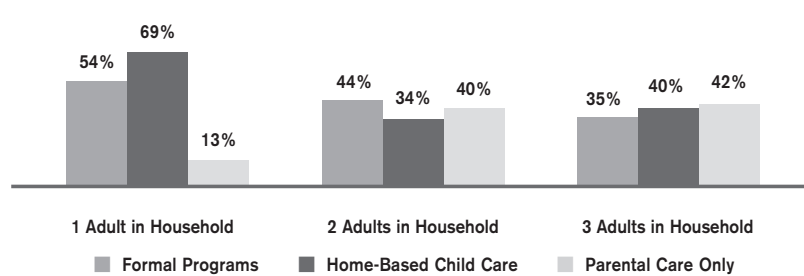
NUMBER OF ADULTS PRESENT

A family’s structure affects the type of child care and early education it chooses for its children under six. The following are notable survey findings about the number of adults in the household.

- Not surprisingly, families with only one adult rarely choose to use parental care exclusively. They are, moreover, roughly twice as likely as other families to use home-based child care. Home-based child care is generally less expensive than center care, and many one-parent families would find it the only affordable option.
- Families with two adults are more likely than single-parent families to use parental care exclusively. They have the options of one adult staying home or both parents staggering work schedules. Of two-adult families that use non-parental care, more use formal programs (44 percent) than home-based child care (34 percent).
- Families with three or more adults are the least likely to use formal programs. It is possible that the third adult fills the role of child care provider in these families (see Figure II-3).¹³

We also applied logistic regression techniques to the National Survey of Children’s Health survey data (see Appendix C). This allows us to calculate and compare a type of family’s probability of using different types of care. Holding all other factors constant, we found that for each additional adult in a family, that family is only 66 percent as likely to use a formal program (using parental or home-based child care instead).

Figure II-3: Types of Child Care and Early Education Used vs. Number of Adults in Household



Similarly, families with one or three adults are only 38 percent as likely as two-parent families to use parental care exclusively. On the other hand, these families are 87 percent more likely than two-parent families to use home-based child care.

INCOME AND EDUCATION

Approximately one in seven Illinois families with children under 18 are in poverty.¹⁴ Many more have incomes above the poverty level but still struggle to pay for child care and early education programs. Table II-1 shows the income breakdown of the Illinois families in the NSCH sample.

The more money a family makes, the more likely it is to use formal

child care and/or home-based child care and the less likely it is to use parental care exclusively. Figure II-4 shows some of the key patterns related to family income and types of care used.¹⁵ Families with the lowest incomes are most likely to use parental care exclusively: 46 percent of these families use parental care alone compared to only 27 percent of families at the highest income range. Conversely, families with higher incomes use formal programs more than families with lower incomes: 55 percent compared to 38 percent.

In the United States higher family income and higher education levels go hand-in-hand. It is thus not surprising to see similar patterns of child care and early education use

Table II-1: Percentages of NSCH Families with Incomes Below & Above the Federal Poverty Level

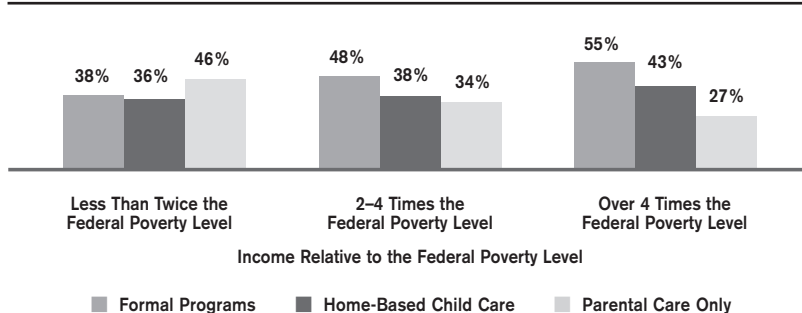
Income less than twice the poverty level	Income 2-4 times the poverty level	Income over 4 times the poverty level
37%	33%	30%

among families of different education levels. Of families in which all adults have less than a high school diploma, almost two-thirds use only parental care. Almost one-third use home-based child care and the remaining 15 percent use formal programs. By contrast, of families in which the highest education is beyond the high school level, almost half use formal programs, somewhat fewer (40 percent) use home-based child care, and only a third use parental care exclusively (see Figure II-5).¹⁶

We also applied a stronger statistical analysis to these phenomena. Logistic regressions tell us that each increase in the highest level of education in a family (as described in Figure II-5) makes that family 73 percent more likely to send their children to formal programs (see Appendix C). Similarly, each increase in the income level of a family (as described in Figure II-4) makes that family only 57 percent as likely to use parental care exclusively. Clearly Illinois families with lower education and income levels have fewer child care opportunities than others.

Are these unequal patterns of child care and early education enrollment the result of insufficient public support for more expensive types of care? In part, we believe they are.¹⁷ Despite recent increases, Illinois' Child Care Assistance is not sufficient for many low-income families to be able to use more expensive child care centers. Two other factors also play a role. First, in order for many working families to be able to use public early education programs, they need to combine early education and child care. For this to occur, Illinois programs need to blend Child Care Assistance and Preschool for All funds so that

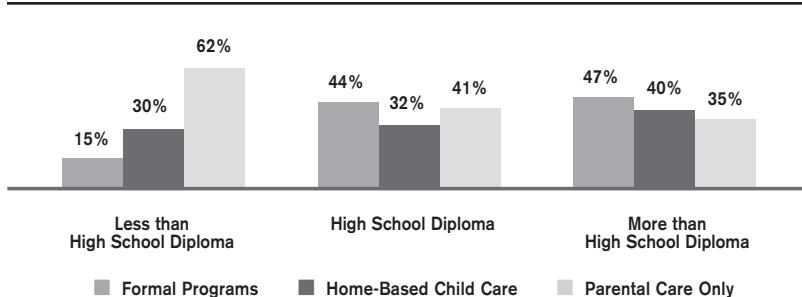
Figure II-4: Types of Child Care and Early Education Used vs. Family Income



children can receive early education and child care in the same site. While this blending has occurred in some programs, for others it is still in development by program regulators and program developers. Second, parents who work schedules other than traditional daytime, weekday hours need child care during odd

hours when most child care centers and licensed homes do not operate. People with less education and lower incomes are somewhat more likely to work evenings, nights or weekends, and because of these schedules, they have fewer child care options.¹⁸

Figure II-5: Types of Child Care and Early Education Used vs. Highest Level of Education of the Household



RACE AND ETHNICITY

The race or ethnicity of children also determines patterns of how families use child care and early education. Families with black children constitute 18 percent of Illinois families surveyed. We found that they are significantly less likely than families with white or Hispanic children to use parental care exclusively for their children ages zero to five and most likely to use formal programs (see Figure II-6).¹⁹ In a separate logistical regression analysis that controlled for other factors, we found that families with non-white children (a slightly larger sample that includes families with non-white Hispanic children, those with multi-racial children, or those whose races were identified as “other”) are only 61 percent as likely as whites to use home-based child care (see Appendix C).

Families with Hispanic children made up 17 percent of Illinois families surveyed. Half of these families exclusively use parental care for their children ages zero to five. They are less likely than families with white or black non-Hispanic children to use care in a provider’s home or formal programs (see Figure II-6).

Families whose primary language is not English (13 percent of the families surveyed) are just 43 percent as likely to use formal programs as English-speaking families but are 126 percent more likely to use home-based child care and 91 percent more likely to use parental care exclusively than English-speaking families.

Figure II-6: Types of Child Care and Early Education Used vs. Race/Ethnicity

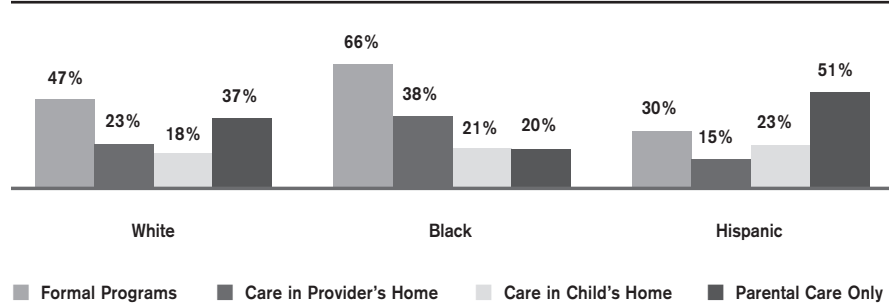
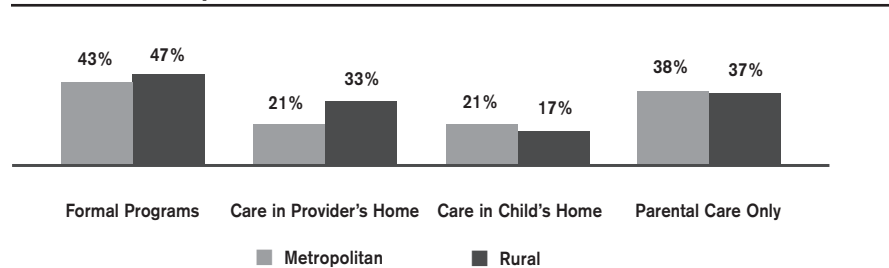


Figure II-7: Types of Child Care and Early Education Used in Metropolitan vs. Rural Areas



METROPOLITAN AND RURAL FAMILIES

Child care and early education resources are distributed differently across Illinois, so it is important to know if families in metropolitan and rural areas use different types of care. Families in metropolitan and rural areas use non-parental care at about the same rates. See Figure II-7.²⁰ (Definitions of rural and metropolitan areas as used in this report appear in the Glossary.)

SECTION III

How Type of Child Care and Early Education Interacts With Other Factors of Public Concern

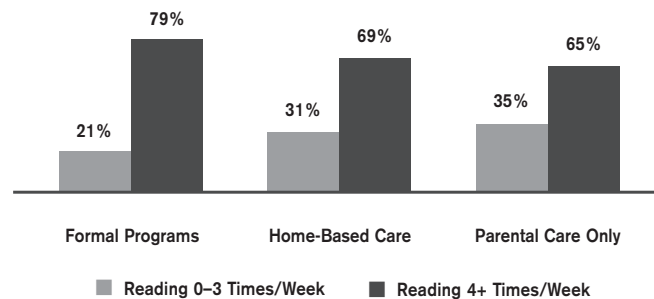
Our analysis shows that patterns of using child care and early education programs of different types also correlate with other factors in children's well-being and development. With limited data, we cannot always tell which factor, if any, is cause, and which is effect, but it is worth noting these correlations. Here we report two such correlations.

WHO READS TO THEIR CHILDREN?

One way in which parents can enrich the time they spend with their children without having to go anywhere special is to read with them. Children who read with their parents have a head start on literacy when they enter school. Seventy-four percent of Illinois families with preschool-age children read to their children four or more times per week while 26 percent read to their children less often. As might be expected, a number of family characteristics correlate significantly with reading to children frequently: having higher family income, being in a household with a higher level of education and even speaking English as a primary language. Perhaps more surprisingly, the children's sex also correlates with how often parents read to children, inasmuch as Illinois parents read more frequently to girls.

Type of child care and early education is also connected to frequent reading with children. For example, among children ages 3 through 5, families that use only parental care are somewhat less likely to read to their children four or more times per

Figure III-1: Types of Child Care and Early Education Used vs. Frequency Parents of 3- to 5-Year-Olds Read With Children



week than those who use non-parental care. This makes a case for ensuring that early literacy initiatives reach these families. Among types of non-parental care, the differences are more striking. Parents whose children attend formal programs in centers or early education programs are more likely to read to their children frequently than those who use home-based care (see Figure III-1).²¹ Given this, it is predictable (though perhaps not a causal explanation) that those parents who read to their 3- to 5-year-old children most days use formal programs more often and use exclusively parental care less often than parents who read to their children less frequently or not at all.

IS ONE TYPE OF CARE MORE STABLE?

We noted in the previous section that patching together several types of care can jeopardize the continuity and consistency of child care and early education that is so important to quality. In addition to the concerns raised by multiple types of

care, there are other components to stable care. The National Survey of Children's Health asks families about one type of instability: how often they had to make different arrangements for child care at the last minute because circumstances beyond their control forced them to change their usual plans (for example, a child care provider suddenly changes his/her plans or schedule or a child becomes ill). This is important not only to measure the potential conflict between using child care and having regular employment, but also to examine the common claim that home-based child care is less stable for children than is center care. One reason given is that when home providers get sick or must change plans at the last minute, they have fewer back-up options than centers that employ a number of staff who can double up in an emergency. When we examined the survey data, however, we did not find home-based child care to be significantly less stable than formal programs (using the measure of stability described above).

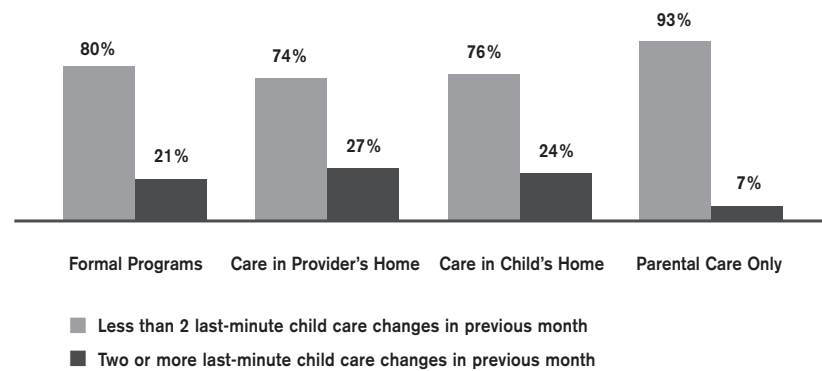
Unfortunately, the frequency of having to make such child care changes overall is rather large: 16 percent of Illinois families with children, one out of six, had to make two or more last-minute child care changes in the previous month alone. If we exclude children solely in parental care, more than 20 percent of families with children experienced such instability that month.

Figure III-2 shows that families that exclusively used parental care had

the fewest problems with stability—only 7 percent experienced two or more last-minute changes in the previous month. Among types of non-parental child care, formal programs were the most stable, followed by care in the child’s home. Care in the provider’s home was slightly less reliable than the others. However, these types of care did not show large differences in stability.²² Similarly, families using each type of care were as likely to report having quit a job, not taken a job, or

changed their jobs because of problems with child care (9 percent). We can thus end this report on a somewhat positive note that the nearly 40 percent of Illinois’ younger children in home-based child care do not experience significantly greater instability of care than those in formal programs. Similarly, families using each type of child care or early education had to quit, not take, or greatly change jobs due to child care problems at approximately the same rate.

Figure III-2: Frequency of Last Minute Child Care Changes (outside of the parent’s control) by Type of Child Care and Early Education



SECTION IV

Conclusion

As Illinois continues to take the lead in trying to ensure universal access to quality child care and preschool programs, it is important to know what types of care families currently use. Thanks to the National Survey of Children's Health, we know that two-thirds of families with 0 to 5-year-old children use some type of non-parental care. These types of non-parental care, from most to least frequently used, are formal programs, care in a provider's home, and care in the child's home. A third of families who use some non-parental care mix two or more types of child care or early education in providing care for one child.

Use of more than one type of care is prevalent among those children ages 3 to 5 who are enrolled in

formal programs. About half combine formal programs with some other type of non-parental care. As policy makers explore how to create the new classrooms necessary to provide enough preschool slots for all 3- to 5-year-old children, they should keep in mind that many families will only be able to use these classrooms if they are in some manner fused with child care programs. Ways to help meet this need are to locate preschool programs at centers and to include transportation between preschool programs and home-based child care in state funding.

The families that stand to benefit most from creative ways of broadening child care and early education options are those with lower incomes and levels of education as well as

those with Hispanic children because their options are currently the most constrained. Both groups currently use parental care more often and formal programs less often than other families.

While there are many reasons for the current patterns of use of child care and early education, inaccessibility should not be among them. As a result, it is important both to set Child Care Assistance reimbursements at a level such that all types of child care are financially accessible to all families and to look at creative ways of allowing children of working parents to attend preschool while still receiving quality care for the remainder of their parents' work day.



Glossary of Demographic and Program Terms Used in Report

Black:

Any person identified as black/African-American and as a single race (not identified as white, American Indian, Alaskan native, Asian, native Hawaiian, Pacific Islander, or of Hispanic/Latino origin). Most children in the survey were only identified as a single race.

Early Education:

In this report, this includes a wide variety of programs for 3- to 5-year-olds: nursery school, preschool, kindergarten, Head Start, and Early Start.

Care in a Provider's Home:

Child care provided in the home of the caregiver, who may or may not be licensed to provide child care by the Illinois Department of Children and Family services. For this analysis, the provider can be either licensed or license-exempt.

Care in the Child's Home:

This is any child care provided in the child's home by a nanny, non-parent relative, or non-relative.

Federal Poverty Level:

The National Survey of Children's Health uses the 2002 and 2003 Department of Health and Human Services Federal Poverty Guidelines for the 48 Contiguous States and the District of Columbia (the year used varies with the point at which the survey was administered).

These Federal Poverty Guidelines are:

Size of Family Unit	Poverty Guideline (2002)	Poverty Guideline (2003)
1	8,860	\$8,980
2	11,940	12,120
3	15,020	15,260
4	18,100	18,400
5	21,180	21,540
6	24,260	24,680
7	27,340	27,820
8	30,420	30,960

For family units with more than 8 members, add \$3,080 in 2002 and \$3,140 in 2003 for each additional member. <http://aspe.hhs.gov/poverty/03fedreg.htm>.

Formal Care:

Care in a child care center, pre-school, nursery school, Kindergarten, Head Start or Early Start program as opposed to home-based child care and parental care.

Head Start:

As defined by the National Survey of Children's Health, Head Start and Early Start programs are usually school-based programs that sometimes provide care for the child either before or after the school day and are usually operated only during the school year.

Hispanic:

Any person identified as being of Hispanic or Latino origin.

Home-Based Child Care:

This refers to either care in the child's home or care in the child care provider's home.

Metropolitan Areas:

Metropolitan Statistical Areas as defined by the U.S. Census Bureau. In Illinois, these include Bloomington-Normal, Champaign-Urbana, Chicago-Naperville-Joliet, Danville, Davenport-Moline-Rock Island, Decatur, Kankakee-Bradley, Lake County-Kenosha County, Peoria, Rockford, Springfield and St. Louis, MO. (<http://www.census.gov/population/estimates/metro-city/0312msa.txt>).

Non-parental care:

Any type of child care or early education that is not provided by a child's parents, including: child care centers, care in a provider's home, care in a child's home, nursery school, preschool, kindergarten, Head Start, and Early Start.

Parental-Care Only:

When parents are the only adults providing their children with care. In other words, parents explicitly said that their 0 to 5-year-old children had not regularly attended child care centers, child care in a provider's home, care in the child's home or early education during the past month.

Rural Areas:

All of Illinois not included in *Metropolitan Areas* as defined in this section.

White:

Any person identified as white and as a single race (not identified as black/African-American and, American Indian, Alaskan native, Asian, native Hawaiian, pacific islander, or of Hispanic/Latino origin). Most children in the survey were only identified as a single race.



APPENDIX A:

About the Data

Unless otherwise indicated, all data come from the survey of 2,158 Illinois parents in the 2003-2004 National Survey of Children's Health. Data were provided by the Data Resource Center on Child and Adolescent Health. See <http://nschdata.org/Content/Default.aspx>.

All data were adjusted to actual Illinois Census figures using weights provided by the Data Resource Center on Child and Adolescent Health.

To confirm that the National Survey of Children's Health sample is representative of Illinois, we compared it with figures from the 2004 American Community Survey (see Table A-1).

Table A-1: Comparisons Between the 2003-2004 National Survey of Children's Health (NSCH) and 2004 American Community Survey (ACS)

Variable	Count in NSCH	(Weighted) Percentage in NSCH	Percentage in ACS	Percentage Point Difference between and ACS
Sex				
Male	1082	51	49	2
Female	1075	49	51	-2
Race/Ethnicity				
White, non-Hispanic	1394	59	66	-7
Black, non-Hispanic	255	18	15	3
Hispanic	366	17	14	3
Income				
Families with Children Under 18 in Poverty	544	18	14	4

It is important to note that the National Survey of Children's Health measures adults with children whereas the American Community Survey measures all adults.²³ This may help explain why non-Hispanic white Illinoisans appear to be somewhat underrepresented in the National Survey of Children's Health: There are relatively more families with children among Hispanic and non-Hispanic black Illinoisans than among white Illinoisans.

APPENDIX B:

Confidence Intervals

Table B1 (for Table I-1): 95% Confidence Intervals for Child Care and Early Education Programs Used by Illinois Families with Children Ages 0-5

Type of Care	0-5		0-2		3-5	
	Low (%)	High (%)	Low (%)	High (%)	Low (%)	High (%)
Any Formal Program	38	49	7	27	62	74
Child Care Center	17	31	6	26	23	40
Nursery School, Preschool, or Kindergarten	27	39	NA	NA	57	69
Head Start or Early Start	3	17	-8	12	8	28
Any Home-Based Child Care	32	44	29	47	30	46
Care in a Provider's Home	17	29	11	31	16	34
Care in the Child's Home	14	27	12	32	9	28
Any Non-Parental Child Care and Early Education	57	66	37	53	73	82
Parental Care Only	32	44	48	62	13	32

In the text we report many estimated percentages. Most statistical estimates in any area, however, are not absolutely dead-on accurate. In the tables below, we report the *confidence interval* for each estimated percentage. A *confidence interval* is a comfort zone or range around an estimated percentage. It tells us where the majority of estimates would fall if random samples of people to be surveyed were drawn many different times. Imagine we were drawing 100 different samples instead of just the one we usually draw. A *95 percent confidence interval* is a range in which the estimated percentage would lay for 95 out of the 100 different samples.²⁴ The other five percent of estimates would fall outside of this range.

For example, our analysis of the 2003-2004 National Survey of Children's Health found that 24 percent of Illinois children from birth through 5 are cared for in a child care center. The complete picture is that 95 times out of 100, the estimated percentage of children in center care will fall within plus or minus seven percentage points of the estimated percentage—a range from 17 percent to 31 percent as shown in the second row of Table B1.

Below we report the confidence intervals for findings reported in the text.

Table B2 (for Figure I-1): 95% Confidence Intervals for How Many Types of Child Care and Early Education Programs Illinois Families Use

Number of Types of Care	Confidence	
	Low (%)	High (%)
0	32	44
1	34	45
2	13	26
3	-4	10

Table B3 (for Table I-2): 95% Confidence Intervals for Percent of Families with Children Ages 0-5 in Each Type of Child Care and Early Education That Use Each of the Other Types

	Formal Program		Care in a Provider's Home		Care in the Child's Home	
	Low (%)	High (%)	Low (%)	High (%)	Low (%)	High (%)
Also in a Formal Program	-	-	53	72	26	52
Also cared for in a provider's home	24	43	-	-	14	43
Also cared for in the child's home	8	28	21	47	-	-
Total: In ANY other type of non-parental care	36	53	67	83	41	64

Table B4 (for Figure II-1): 95% Confidence Intervals for Percent of Illinois Families with Children in Various Types of Child Care and Early Education by Age

	0-2 Confidence		3-5 Confidence	
	Low (%)	High (%)	Low (%)	High (%)
Care in a Provider's Home	12	31	16	34
Care in the Child's Home	13	32	9	28
Formal Programs	7	27	62	74
Parental Care Only	48	63	13	32

Table B5 (for Figure II-2): 95% Confidence Intervals for Formal Programs and Other Types of Child Care for Children Ages 3-5

	Confidence	
	Low (%)	High (%)
Parental Care Only	13	32
Home-Based Child Care Only	0	19
Formal Programs Only	32	48
Formal Programs and Home-Based Child Care	20	37

Table B6 (for Figure II-3): 95% Confidence Intervals for Types of Child Care and Early Education Used vs. Numbers of Adults in Household

Number of Adults	Formal programs		Home-Based Child Care		Parental Care Only	
	Low (%)	High (%)	Low (%)	High (%)	Low (%)	High (%)
1	36	72	54	84	-13	38
2	38	51	27	41	33	47
3	21	50	25	54	28	56

Table B7 (for Figure II-4): 95% Confidence Intervals for Types of Child Care and Early Education Used vs. Family Income

Income	Formal programs		Home-Based Child Care		Parental Care Only	
	Low (%)	High (%)	Low (%)	High (%)	Low (%)	High (%)
Less than Twice the FPL	27	48	25	46	36	55
2-4 Times the FPL	38	58	27	48	23	45
More than 4 Times the FPL	44	65	32	54	15	40

Table B8 (for Figure II-5): 95% Confidence Intervals Types of Child Care and Early Education Used vs. Highest Level of Education of the Household

Highest Level of Education	Formal programs		Home-Based Child Care		Parental Care Only	
	Low (%)	High (%)	Low (%)	High (%)	Low (%)	High (%)
Less than High School	-9	39	8	52	46	78
High School	31	56	18	45	29	54
More than High School	41	54	33	47	27	42

Table B9 (for Figure II-6): 95% Confidence Intervals for Type of Child Care and Early Education Used vs. Race/Ethnicity

Race/Ethnicity	Formal programs		Care in a Provider's Home		Care in the Child's Home		Parental Care Only	
	Low (%)	High (%)	Low (%)	High (%)	Low (%)	High (%)	Low (%)	High (%)
White, Non-Hispanic	42%	51%	19%	28%	14%	22%	32%	41%
Black, Non-Hispanic	50%	82%	22%	54%	7%	35%	6%	33%
Hispanic	20%	41%	7%	24%	13%	32%	39%	62%

Table B10 (for Figure II-6): 95% Level of Significance for Type of Child Care and Early Education Used vs. Race/Ethnicity

Race/Ethnicity	Formal programs			Care in a Provider's Home			Care in the Child's Home			Parental Care Only		
	Diff. from IL Avg.	95% conf. Low High		Diff. from IL Avg.	95% conf. Low High		Diff. from IL Avg.	95% conf. Low High		Diff. from IL Avg.	95% conf. Low High	
Illinois	0%	-	-	0%	-	-	0%			0%		
White, Non-Hispanic	-3%	-11.7	5.9	0%	-10.0	9.7	2%	-8.6	12.6	2%	-8.1	11.1
Black, Non-Hispanic	-22%**	-40.8	-3.4	-15%	-37.6	7.7	-1%	-24.7	23.2	19%	-5.5	42.8
Hispanic	13%**	-0.2	26.9	8%	-5.7	21.1	-2%	-16.5	11.9	-12%*	-25.0	0.2

* Statistically significant at the 90% level.

** Statistically significant at the 95% level.

Table B11 (for Figure II-7): 95% Confidence Intervals for Types of Child Care and Early Education Used in Metropolitan vs. Rural Areas

	Metropolitan Area		Rural Area	
	Low (%)	High (%)	Low (%)	High (%)
Formal Programs	37	49	33	61
Care in a Provider's Home	14	29	17	49
Care in the Child's Home	14	28	-1	34
Parental Care Only	32	45	22	52

Table B12 (for Figure III-1): 95% Confidence Intervals for Types of Child Care and Early Education Used vs. Frequency that Parents of 3- to 5-Year-Olds Read With Children

Frequency	Formal programs		Home-Based Child Care		Parental Care Only	
	Low (%)	High (%)	Low (%)	High (%)	Low (%)	High (%)
0 to 3 Times/Week	10	32	17	45	18	53
4 or more Times/Week	73	85	60	78	52	78

Table B13 (for Figure III-2): 95% Confidence Intervals for Frequency of Last-Minute Child Care Changes (Outside Parent's Control) by Types of Child Care and Early Education Used

	Less than 2 last-minute child care changes in previous month		Two or more last-minute child care changes in previous month	
	Low (%)	High (%)	Low (%)	High (%)
Formal Programs	74	85	10	31
Care in a Provider's Home	65	82	13	40
Care in the Child's Home	68	84	9	38
Parental Care Only	90	96	-5	19

APPENDIX C:

Logistic Regressions

Among statistical tools, regression methods allow us to estimate the influence of a number of factors on a pattern such as type of child care and early education used by families. Logistic regression allows us to determine the odds that a child or family with a certain factor will use a certain type of care, such as formal programs.

Our logistic regression analysis yielded the following findings about use of child care and early education in Illinois.

Factors that make it substantially more likely that a child will be in a formal program:

- The older the child under 6
- The higher the highest education attainment of adults in the household

Factors that make it substantially less likely that a child will be in a formal program:

- The more adults in the household
- Primary language in the child's home is not English

Factors that make it substantially more likely that a child will be in home-based child care:

- Primary language in the child's home is not English
- Family structure of one or three adults (as opposed to two adults)

Factor that makes it substantially less likely that a child will be in home-based child care:

- Child's race is reported as something other than white.

Table 1: Logistic Regression for Use of Formal Programs

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Age of Child	.79	.06	163.11	1	.00	2.20
Highest Level of Education	.55	.20	7.76	1	.01	1.73
Primary Language (English =1, Other=2)	-.84	.31	7.61	1	.01	.43
Total Adults	-.42	.20	4.24	1	.04	.66
Constant	-2.76	.68	13.35	1	.00	.06

Table 2: Logistic Regression for Use of Home-Based Child Care

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Race of Child (white = 1, other=2)	-.50	.22	5.40	1	.02	.61
Primary Language (English =1, Other=2)	.82	.28	8.27	1	.00	2.26
Family Structure (2 adults =1, one or three adults =2)	.63	.20	9.80	1	.00	1.87
Constant	-.83	.33	6.53	1	.01	.44

Table 3: Logistic Regression for Exclusive Use of Parental Care

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Age of child	-.50	.06	72.61	1	.00	.61
Primary Language (English =1, Other=2)	.65	.27	5.93	1	.02	1.91
Income Level	-.57	.13	19.66	1	.00	.57
Family Structure (2 adults =1, one or three adults =2)	-.963	.24	15.63	1	.00	.38
Constant	1.74	.34	26.45	1	.00	5.67

Factor that makes it substantially more likely that a child will be in parental care exclusively:

- Primary language in the child's home is not English

Factors that make it substantially less likely that a child will be in parental care exclusively:

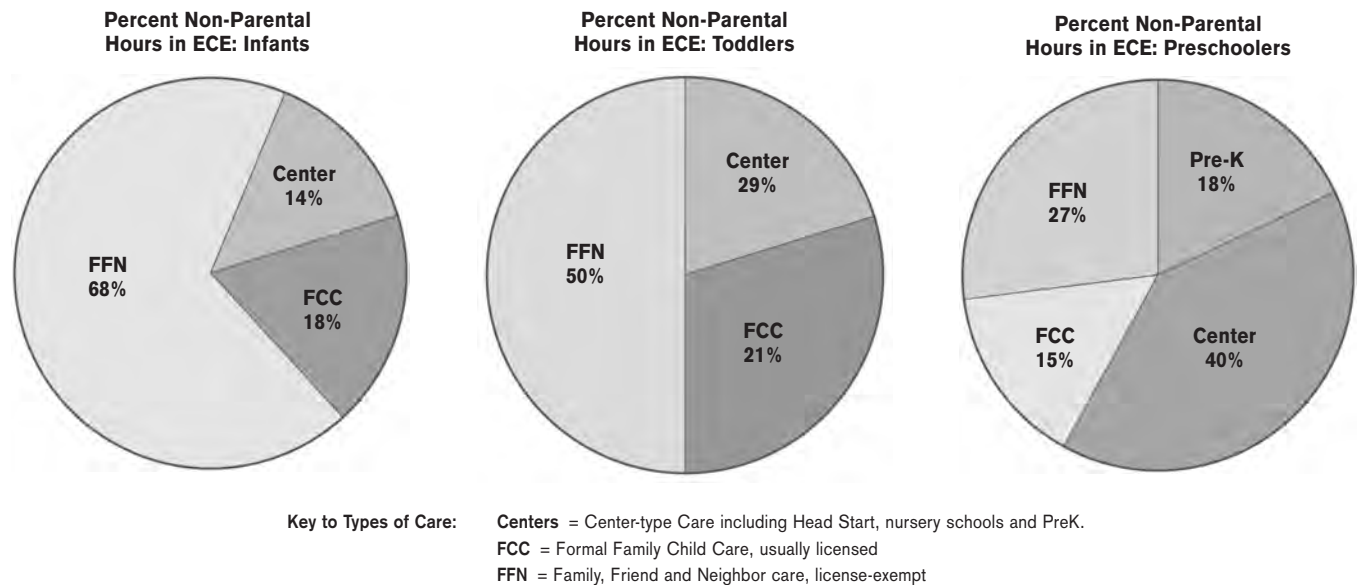
- The older the child under 6
- The higher the income level of the household
- Family structure of one or three adults (as opposed to two adults)

For those who are familiar with logistic regression, we report the statistics in Tables 1 through 3.

APPENDIX D:

Types of Early Care Used in Illinois in Brandon, 2004

Chart 2: Percent Early Care and Education (ECE) Hours by Setting and Age of Child, Illinois Child Care Survey (HSPC, 2003)



The chart above comes from a report on a statewide survey, *Brandon, 2004* (p. 7).²⁵ It shows the percentage of all child care hours spent in different types of early care and education (ECE) by Illinois children of three age groups.

Since they use hours in care as their unit of measurement, these published data cannot help us estimate the number of Illinois families or children in different types of care. Nor can we tell from them how many families mix types of care, or in what patterns they mix them.

The chart does confirm that as children grow from infants to toddlers to preschool-age, in terms of hours spent in a program, they move out of family, friend and neighbor care to centers and licensed homes, and then to centers and preschool programs.

The chart also uses definitions of *types of care* more consistent with those used by the State of Illinois than does the National Survey of Children's Health definitions.

APPENDIX E:

Sex of Children and Types of Care Used

When starting the NSCH analysis, one of our initial questions was whether there are any differences in the types of care used by families with boys versus those with girls. Statistics indicate that boys are less likely than girls to graduate from high school.²⁶ Since academic success in high school is more likely for children who enter first grade with a solid foundation, it is important to know if boys and girls are getting comparable types of early childhood education and development experience. Figure E-1 compares the number of types of care

used by families with boys and those with girls, and Figure E-2 examines the types of care used by these families.

Families with boys are more likely than those with girls to use two or more types of care—26 percent of families with boys versus 19 percent of families with girls use multiple types of child care or early education (see Figure E-1). Regardless of how many types of care are used, results indicate that families with boys are more likely than those with girls to use care in the child's

home (see Figure E-2). In fact, of families that use *only* care in the child's home for a particular child, 61 percent are families with boys whereas only 39 percent are families with girls. These findings are not significant by statistical measures. Nevertheless, they do raise serious questions for policy and planning.²⁷ Research using a larger sample size, either from multiple states in the National Survey of Children's Health or from a different survey, should yield further clarity.

Figure E-1: Number of Types of Child Care or Early Education Used, By Sex of Child

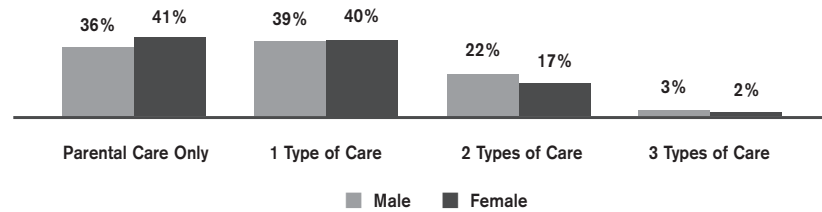


Figure E-2: Types of Child Care or Early Education Used, By Sex of Child

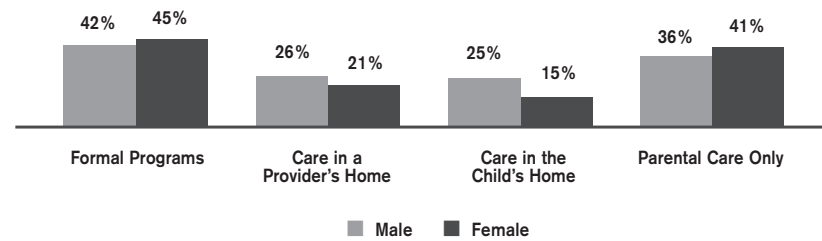


Table E1 (for Figure E-1): 95% Confidence Intervals for Number of Types of Child Care and Early Education Used, by Sex of Child

	Parental Care Only		1 Type of Care		2 Types of Care		3 Types of Care	
	Low (%)	High (%)	Low (%)	High (%)	Low (%)	High (%)	Low (%)	High (%)
Male	29	43	32	46	16	28	-6	6
Female	34	48	33	47	11	22	0	5

Table E2 (for Figure E-1): 95% Level of Significance for Number of Types of Child Care and Early Education Used, by Sex of Child

	Diff. from IL Avg.	95% conf.		Diff. from IL Avg.	95% conf.		Diff. from IL Avg.	95% conf.		Diff. from IL Avg.	95% conf.	
		Low	High		Low	High		Low	High		Low	High
Illinois Total	0%	-	-	0%	-	-	0%	-	-	0%	-	-
Illinois, Male	2%	-10.5	15.1	0%	-12.4	12.8	-3%	-15.6	9.4	0%	-13.5	12.7
Illinois, Female	-3%	-15.5	10.1	-1%	-13.5	11.1	2%	-9.7	14.3	1%	-11.5	12.7

Table E3 (for Figure E-2): 95% Confidence Intervals for Types of Child Care and Early Education Used, by Sex of Child

	Formal programs		Care in a Provider's Home		Care in the Child's Home		Parental Care Only	
	Low (%)	High (%)	Low (%)	High (%)	Low (%)	High (%)	Low (%)	High (%)
Male	35	49	19	32	19	32	29	43
Female	38	52	15	27	10	20	34	48

Table E4 (for Figure E-2): 95% Level of Significance for Types of Child Care and Early Education Used, by Sex of Child

	Formal programs		Care in a Provider's Home		Care in the Child's Home		Parental Care Only		
	Diff. from IL Avg.	95% conf.		Diff. from IL Avg.	95% conf.		Diff. from IL Avg.	95% conf.	
		Low	High		Low	High		Low	High
Illinois	0%	-	-	0%	-	-	0%		
Illinois, Male	1%	-8.4	11.2	-2%	-13.0	8.4	-5%	-16.2	6.0
Illinois, Female	-1%	-10.8	8.0	2%	-7.9	12.5	5%	-5.5	16.3

Footnotes

- ¹ The 2000 U. S. Census reports on children in school, including nursery school or preschool and kindergarten and elementary school, but not child care. Another survey-based study estimates some of the numbers: *Financing Access to High Quality Early Care and Education for All of Illinois Children, Public Report of the Illinois Universal Financing Project Team*, Richard N. Brandon, Erin J. Maher, Guanghui Li, Jutta M. Joesch, Human Services Policy Center, Evans School of Public Affairs, University of Washington, May 2004. See Appendix D. We refer to this report as *Brandon, 2004*. http://hspc.org/publications/pdf/Illinois_final.pdf.
- ² See Appendix A.
- ³ The child is either the sole child in the household or is randomly selected if there is more than one child.
- ⁴ If parents said that their children did not attend any of these types of non-parental care, we assumed that families used parental care exclusively.
- ⁵ In the survey most parents who described their 3- to 5-year-old child's program as a preschool or nursery school also described it as a Head Start or center and vice versa. This can lead us to double-count children in these programs. The number of families using formal programs (our combined concept) is about 33 percent less than the sum of families using all three categories of formal programs. Because many parents did not distinguish between the types of formal programs, we are unable to report accurately on their child care center use separated from their preschool use.
- ⁶ By comparison, *Brandon, 2004* estimated that 68 percent of Illinois parents with children under age 6 used non-parental care. *Brandon's* data do not allow us to compare our estimates of types of non-parental care used in Illinois with theirs. Instead of estimating the number of children or families that use a type of care, the authors chose to estimate a third measure: the portion of total child care *hours* that Illinois children spend in different types of care (See Appendix D).
- ⁷ See Table 1 of Appendix B for confidence intervals for the percentages in Table I-1.
- ⁸ The actual number of children attending Head Start or Early Head Start in Illinois in 2004 was 39,177. The discrepancy between the number of families using the program and those who say they do seems to be due to NSCH's broader definition of Head Start and Early Start (according to NSCH, Head Start and Early Start programs are usually school-based programs that sometimes provide care for the child either before or after the school day and are usually operated only during the school year) and is likely also due to confusion on the parents' end as to what the name means. This is why combining categories under *formal programs* gives a more accurate count in our view.
- ⁹ See Table 2 of Appendix B for detailed statistics.
- ¹⁰ See Table 3 of Appendix B for confidence intervals.
- ¹¹ See Table 4 of Appendix B for statistical details.
- ¹² See Table 5 of Appendix B for statistical details.
- ¹³ See Table 6 of Appendix B for statistical details.
- ¹⁴ American Community Survey, 2004.
- ¹⁵ See Table 7 of Appendix B for details.
- ¹⁶ See Table 8 of Appendix B for details.
- ¹⁷ Illinois Action for Children, *Child Care in Cook County: Elements of Child Care Supply and Demand*, 2007, section 5. Available at http://www.actforchildren.org/_uploads/documents/live/2006_Report_On_Cook_County_Child_Care.
- ¹⁸ Illinois Action for Children, *Working Later in Illinois: Work Schedules and Parent Access to Child Care*, 2007. http://www.actforchildren.org/_uploads/documents/live/WorkingLaterFinal62807.pdf.
- ¹⁹ Children identified as multi-race are not included in these simplistic comparisons for statistical reasons. See Appendix B and C for statistical details on this section.
- ²⁰ See Table 11 of Appendix B for statistical details.
- ²¹ See Table 12 of Appendix B for details.
- ²² See Table 13 of Appendix B for details.
- ²³ See <http://www.census.gov/compendia/statab/tables/07s0089.xls>.
- ²⁴ This assumes that sampling errors for children in center care (as in all of these variables) follow a normal statistical distribution.
- ²⁵ *Financing Access to High Quality Early Care and Education for All of Illinois Children, Public Report of the Illinois Universal Financing Project Team*, Richard N. Brandon, Erin J. Maher, Guanghui Li, Jutta M. Joesch, Human Services Policy Center, Evans School of Public Affairs, University of Washington, May 2004. http://hspc.org/publications/pdf/Illinois_final.pdf Data came from a telephone survey in 2003.
- ²⁶ E.g. see http://www.educationsector.org/supplementary/supplementary_show.htm?doc_id=378692, accessed, 1/8/07.
- ²⁷ Do these sex differences in type of care help explain the high school academic achievement gap between girls and boys? Should parents be encouraged to enroll their boys in patterns more like girls', and should these programs do more to accommodate boys? Conversely, should more education resources be made available to families whose children are cared for in their homes?