



WHAT DOES IT COST TO MIND OUR PRESCHOOLERS?

By Lynne M. Casper

This is an excerpt from a larger report (P70-52). To purchase a complete report, email pop@census.gov.

One of the most important decisions employed parents make is arranging for someone to care for their children while they are working. Reliable, quality care is especially important for preschoolers because young children are dependent on caregivers to fulfill their basic needs and to keep them from harm. Affordability is also an important consideration and for many parents child care is a costly expense. In this report, we examine who pays for child care and how much it costs.

According to the Survey of Income and Program Participation, in Fall 1993, there were 8.1 million families with preschoolers who required care during the time their mothers were at work. Of these families, 56 percent paid an average of \$74 per week for child care or about 8 percent of their monthly family income (table 3). Larger families paid much more for child care than smaller families. Families with two or more preschool-aged children paid about \$110 per week for child care while families with one child paid only \$66 per week. Families with two or more children also spent a larger share of their family income on child care (11 percent versus 7 percent). Married-couple families spent about \$78 per week to care for their children, at least \$15 more per week than single-parent families spent. However, married-couple families spent a much smaller proportion of their family income on child care (7 percent) than did single-parent families (12 percent).

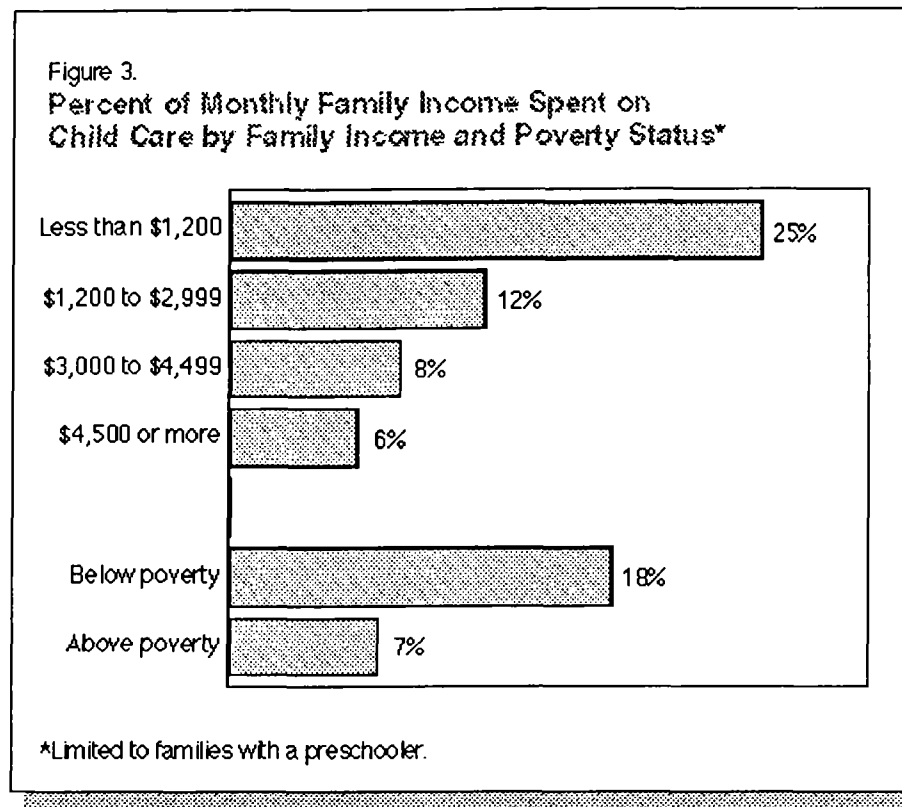
Families with older mothers paid more for child care than did families with younger mothers. Families with mothers who were 35 years old or more spent on average at least \$14 more per week on child care than families with younger mothers (those less than 35). In contrast, families with younger mothers spent a much larger proportion of their income on child care than did families with older mothers. For example, families with mothers aged 15 to 24 spent about 10 percent of their monthly income on child care, compared with families with mothers aged 35 or over who spent about 7 percent of their income on child care.

Families whose mothers have more education pay more for child care than families whose mothers have less education. In 1993, families whose mothers had less than a high school education paid significantly less for child care per week (\$60) than families whose mothers completed some college (\$70), and those whose mothers were college educated (\$93). In contrast, while child care expenditures accounted for about 10 percent of the family budget in families whose mother had less than a high school education, they accounted for only about 7 percent of the budget in families whose mothers were college educated.

Child care is more of an economic burden for poor families

In 1993, relatively fewer poor than non-poor families paid for child care (37 percent versus 58 percent). Poor families paid about \$25 less a week for child care than non-poor families (\$50 versus \$76). However, child care consumed an especially large share of the poor family's budget; poor families who paid for care spent 18 percent of their income on child care, compared with non-poor families who spent 7 percent (figure 3).

7 percent (figure 3).



Fewer families receiving either general assistance, AFDC, Food Stamps, or WIC payments paid for child care than did families not receiving these benefits (46 percent versus 57 percent). Families who participated in at least one of these programs spent an average of \$50 per week on child care, while families who did not participate in any of these programs spent an average of about \$78 per week on care. In contrast, child care consumed about 13 percent of the family budget for participant families compared with only about 7 percent for non-participant families.

Child care is more expensive in the Northeast and in metropolitan areas

In 1993, more families in the South paid for child care than did families in any other part of the country. But, families paid more for child care in the Northeast (\$85 per week) than either in the Midwest or in the South (about \$70 per week each). Child care was more expensive in metropolitan areas (\$80 per week) than in nonmetropolitan areas (\$55 per week), with families residing in metropolitan areas spending a slightly higher percentage of their monthly income on child care (8 and 7 percent respectively).

Upcoming Reports

Sharp changes in the distribution of preschoolers' child care arrangements have been observed between 1991 and 1993. The most notable changes include the rise in the use of organized child care facilities and the decline in the use of fathers as principal care providers during the time mothers are at work. Additional reports about these arrangements will be issued later this year.

More information

A detailed table package showing the child care arrangements of preschool and gradeschool children is available on floppy disk for \$20 or on paper for \$10 from Population Division's Statistical Information Office (301-457-2422). The table package is also available on the INTERNET (www.census.gov); look for Child Care data from the Population Division.

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Table 3.
Weekly Child Care Costs Paid for Preschoolers by Families With
Employed Mothers, Fall 1993

(Numbers of families in thousands. Excludes families with no report of family income in last 4 months)

Characteristics	Number of families	Payments made		Weekly child care expenses ¹		Hours worked per week ¹	Monthly income ² — of —		Income spent on child care ³
		Number	Percent	(\$)	Standard error		Family (\$)	Mother (\$)	Percent ³
All families.....	8,076	4,493	55.6	74.15	1.25	35.52	4,234	1,839	7.56
Race and Hispanic Origin:									
White, not Hispanic.....	5,937	3,420	57.6	76.35	1.44	36.09	4,491	1,889	7.37
Black, not Hispanic.....	993	517	52.1	60.89	3.18	38.37	3,104	1,645	8.50
Hispanic origin.....	831	434	52.2	65.69	3.80	36.88	3,174	1,434	8.97
Marital Status:									
Married, husband present.....	6,261	3,522	56.3	77.88	1.46	36.67	4,842	1,951	6.97
Widowed, separated, divorced.....	868	530	61.1	61.09	3.00	36.81	2,157	1,610	12.27
Never married.....	948	442	46.6	60.07	3.27	35.01	2,086	1,213	12.48
Age of Mother:									
15 to 24 years.....	1,372	628	45.8	58.49	2.25	34.46	2,495	967	10.16
25 to 34 years.....	4,732	2,701	57.1	72.44	1.50	37.00	4,089	1,753	7.68
35 years and over.....	1,972	1,164	59.0	86.56	2.94	36.51	5,588	2,508	6.71
Number of Preschoolers:									
1 child.....	6,515	3,694	56.7	66.48	1.17	36.53	4,229	1,835	6.81
2 or more children.....	1,561	799	51.2	109.63	3.86	36.49	4,371	1,853	10.87
Educational Attainment:									
Less than high school.....	847	373	44.0	59.70	4.07	35.55	2,592	987	9.98
High school, 4 years.....	2,931	1,498	51.1	65.07	1.77	37.08	3,389	1,420	8.32
College, 1-3 years.....	2,246	1,277	56.9	69.51	2.01	35.71	3,833	1,618	7.86
College, 4 or more years.....	2,052	1,345	65.5	92.67	2.75	36.93	6,079	2,751	6.61
Enrollment in School:									
Enrolled in school.....	622	369	59.4	78.81	4.18	33.71	3,904	1,590	8.75
Not enrolled in school.....	7,454	4,124	55.3	73.73	1.31	36.77	4,286	1,861	7.46
Employment Status:									
Full-time worker.....	5,301	3,341	63.0	79.00	1.46	41.34	4,333	2,072	7.90
Part-time worker.....	2,775	1,153	41.5	60.11	2.27	22.56	4,027	1,162	6.47
Work Shift Status:									
Daytime worker.....	5,009	3,173	63.4	76.58	1.47	38.55	4,358	1,940	7.61
Non-day worker.....	3,068	1,320	43.0	68.32	2.34	31.64	4,006	1,594	7.39
Monthly Family Income:									
Less than \$1,200.....	927	366	39.4	47.29	2.74	32.74	815	748	25.14
\$1,200 to \$2,999.....	2,667	1,295	48.6	60.16	1.86	35.97	2,177	1,202	11.98
\$3,000 to \$4,499.....	2,091	1,191	56.9	73.10	2.13	37.34	3,746	1,647	8.46
\$4,500 and over.....	2,391	1,642	68.7	91.93	2.37	37.20	7,029	2,723	5.67
Poverty Level:									
Below poverty level.....	870	319	36.6	49.56	3.47	30.66	1,211	696	17.73
Above poverty level.....	7,206	4,174	57.9	76.03	1.30	36.97	4,487	1,926	7.34

Program Participation:

Recipient ¹	1,218	558	45.8	49.76	2.27	32.97	1,682	889	12.82
AFDC	352	154	43.7	46.47	4.27	28.10	1,176	736	17.13
WIC	786	344	43.8	52.11	3.05	34.07	1,830	897	12.34
Food Stamps	708	319	45.0	45.42	3.04	31.71	1,349	822	14.60
Non-recipient ²	6,858	3,935	57.4	77.61	1.36	37.02	4,619	1,973	7.28
Region:									
Northeast	1,443	658	45.6	85.07	3.38	34.62	4,670	2,032	7.89
Midwest	2,237	1,261	56.4	71.47	1.96	36.28	4,236	1,853	7.31
South	2,739	1,684	61.5	69.17	2.17	37.66	4,196	1,778	7.14
West	1,658	890	53.7	79.32	2.98	36.11	4,083	1,789	8.42
Metropolitan Residence:									
Metropolitan	6,283	3,487	55.5	79.72	1.50	36.50	4,497	1,943	7.68
In central cities	2,272	1,204	53.0	81.66	2.89	36.75	4,036	1,855	8.77
Suburbs	4,010	2,283	56.9	78.70	1.71	36.37	4,740	1,989	7.19
Nonmetropolitan	1,793	1,006	56.1	54.85	1.72	36.59	3,414	1,478	6.96

¹Average per week for families making child care payments for any child under 5 years old. ²Average monthly income for the last 4 months for families making child care payments. ³Percent is ratio of average monthly child care payments to the average monthly family income. includes the small number of families (17,000) on General Assistance. ⁴Family not receiving either General Assistance, AFDC, Food Stamp payments.

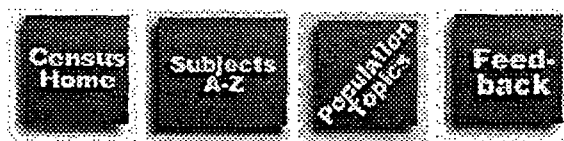
Source and Accuracy of Estimates

All statistics are subject to sampling error, as well as non-sampling error such as survey design flaws, respondent classification and reporting errors, data processing mistakes, and undercoverage. The Census Bureau has taken steps to minimize errors in the form of quality control and edit procedures to reduce errors made by respondents, coders and interviewers. Ratio estimation to independent age-race-sex population controls partially corrects for bias due to survey undercoverage. However, biases exist in the estimates when missed persons have characteristics different from those of interviewed persons in the same age-race-sex group.

Analytical statements in this report have been tested and meet statistical standards. However, because of methodological differences, use caution when comparing these data with data from other sources. Standard errors which estimate the magnitude of the SIPP sampling error are provided for means and percent of income in the tables. We do not provide estimates of total error, which includes nonsampling error. Contact Elaine Hock, Demographic Statistical Methods Division, at 301-457-4182 or on the internet at ehock@census.gov for information on (1) the source of data, (2) the accuracy of estimates, (3) the use of standard errors, and (4) the computation of standard errors for other estimates not found in this publication.

Source: U.S. Census Bureau

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**Results of NICHD Study of Early Child Care
Reported at Society for Research in Child Development Meeting**

New research being released this week indicates that the quality of child care for very young children does matter for their cognitive development and their use of language. In addition, quality child care in the early years, meaning care with a high degree of positive interaction between caregivers and children, can also lead to better mother-child interaction, the study finds.

The findings come from a longitudinal study on the effects of early child care supported by the National Institute of Child Health and Human Development (NICHD). They will be presented at the biennial meeting of the Society for Research in Child Development on April 4, 1997, at 4:30 p.m. at the Sheraton Washington Hotel in Washington, D.C.

"The most striking aspect of these results from the early child care study is that children are not being placed at a disadvantage in terms of cognitive development if they have high quality day care in their first three years," said NICHD's Director, Duane Alexander, M.D. "It's very important to study these issues as they are of such importance to American families."

A major way in which the NICHD Study of Early Child Care contributes to understanding the effects of child care is by moving beyond the global questions about whether child care is good or bad for children. Instead, it focuses on how the different aspects of child care, such as quantity and quality of care, are associated with children's cognitive and language development and mother-child interaction patterns over the first three years of life.

Just as important, the NICHD Study of Early Child Care examines effects of child care after taking into consideration other factors that shape children's development and their relationships with their mothers. These factors include family economic status, mother's psychological well being and intelligence, child sex and infant temperament. This study design makes it more likely that the effects discerned are truly due to child care, and not a function of other factors.

The study is clarifying the association between child care and children's cognitive development, as well as the association between child care and the mother-child relationship, two issues that are of deep concern to the over 50 million working mothers and their families in this country. Child care is becoming an ever increasing fact of life as more women stay in the work force after pregnancy and many more women are single parents. In 1980, according to U.S. census data, 38% of mothers, ages 18-44, with infants under one year of age, worked outside the home. By 1990, this percentage climbed to 50, a rate close to where it stands now. Most of these women return to work in their child's first three to five months.

Evidence is emerging from the study that across a wide range of child care settings, quality child care, as defined by positive caregiving and language stimulation given in the child care environment, are positively related to early cognitive and language development. While the quality of child care had a small but statistically significant relation to children's cognitive and linguistic outcomes, the combination of family income, maternal vocabulary, home environment, and maternal cognitive stimulation were stronger predictors of children's cognitive development.

"In this study, we found that the amount of language that is directed at the child in child care is an important component of quality provider-child interaction," said Dr. Sarah Friedman, NICHD coordinator of the study and one of its investigators. "This language input is predictive of children's acquisition of cognitive and language skills, which are the bedrock of school readiness."

Language stimulation was assessed by measuring how often caregivers spoke to children, asked them questions, and responded to their vocalizations. To assess children's cognitive development, researchers used standardized tests, including the Bayley Scales of Infant Development, the Bracken-Scale-of-Basic-Concepts school-readiness subtest, the MacArthur Communicative Development Inventory, and the Reynell Developmental Language Scale.

The small but consistent findings indicate that the higher the quality of child care in the first three years of life the greater the child's language abilities at 15, 24, and 36 months, the better the child's performance on the Bayley Scales of Infant Development at age two, and the more school readiness the child showed at age three.

Among children in care for more than 10 hours per week, those in center care, and to a lesser extent, those in child care homes, performed better on cognitive and language measures when the quality of the caregiver-child interaction was taken into account.

In addition to the cognitive findings, researchers also found that quality and amount of child care had a small but statistically significant association with the quality of the mother-child interaction. Again, a combination of other variables, including family environment, maternal education, and family income, were more influential in determining the quality of the mother-child interaction.

Researchers found that the amount of nonmaternal child care was weakly associated with less sensitive and engaged mother-child interactions. The more time infants and toddlers spent in non-maternal child-care arrangements, the less sensitive and positively involved were mothers with their infants at 6 months of age, the more negative they were with them at 15 months of age, the less positively affectionate the child was toward the mother at 24 and 36 months of age, and the less sensitive mothers were to their toddlers at the 36 month point.

Where effects of quality on mother-child interaction were found, higher quality of provider-child interaction in the child care setting predicted greater maternal involvement-sensitivity (at 15 and 36 months) and greater child positive engagement at 36 months.

Mother-child interaction was evaluated by videotaping mother and child together during play and observing mother's behavior toward the child to see how attentive, responsive, positively affectionate or restrictive the mother was when faced with multiple competing tasks (i.e., monitoring child, talking with interviewer).

In sum, what is happening at home and in families appears to be a powerful predictor of both cognitive outcomes and mother-child interaction. Still, with the family, maternal, and child care characteristics considered, the child care variables studied provided additional, significant prediction of children's cognitive and language outcomes and mother-child interaction.

In 1991, the NICHD Study of Early Child Care enrolled more than 1,300 families and their children from 10 locales throughout the country. The children, who were one month old or less at enrollment, their families, and their child-care arrangements are being followed through the child's seventh year of life. The families are diverse in terms of race, maternal education, family income, family structure (single-parent families are included), maternal employment status, type and quality of child care, and the number of hours that children spend in non-maternal care arrangements. Arrangements included father care, grandparent care, care by a non-relative in the child's home, child care homes, and center-based care.

The child care variables used in the analysis included information about the type of care, the amount of care, and the quality of care. Higher quality care was defined in terms of the interactions of child care providers with the study children. Interactions expected to promote positive affect, better social adjustment and greater cognitive and language skill were considered of higher quality.

Initiated and conducted by NICHD and investigators at 14 universities

nationwide, the study was spurred by many questions from parents, developmental psychologists, and policy makers about the effects of early child care on children's development. Among the investigators' core interests have been how these child-care experiences affect children's cognitive and language development and the way in which parents relate to children who are in child care. These are important study foci because early cognitive and language development predicts future school achievement and performance on intelligence tests and because patterns of mother-child interaction predict future social, emotional, and cognitive development.

Last April, study investigators released data which evaluated the infants up to the 15 month point. They found that child care, in and of itself, neither adversely affects, nor promotes, the security of children's attachment to their mothers at the 15 month age point, provided the children were already receiving relatively sensitive care from their mothers.

For more information about the study, contact NICHD's Public Information and Communications Branch at (301) 496-5133. The NICHD is part of the National Institutes of Health, the biomedical research arm of the Federal government. Since its inception in 1962, the Institute has become a world leader in promoting research on development before and after birth; maternal, child, and family health; reproductive biology and population issues; and medical rehabilitation.

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Child Care and Early Education Program Participation of Infants, Toddlers, and Preschoolers

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The care and education children receive regularly from individuals other than their parents have attracted the attention of policy makers, practitioners, and researchers. In the United States over the past few decades, the percentage of children receiving such care and education has grown to the point that most children now receive some type of nonparental care and education prior to starting first grade (West et al. 1992). Increasingly, this care and education is being provided by nonrelatives in a formal group setting rather than by relatives or nonrelatives in a private home (O'Connell and Bachu 1992; West, Germino Hausken, and Collins 1993).

This report contains the first release of information from the 1995 National Household Education Survey (NHES) on the care and educational experiences of young children who have yet to enter kindergarten. It describes infants', toddlers', and preschoolers' participation in a variety of early care and education settings, including both home-based and center-based arrangements. Characteristics of children (age and race-ethnicity) and their families (family income and mother's education and employment status) that have been found to be related to children's participation rates are examined (Dawson and Cain 1990; Hofferth et al. 1991; O'Connell and Bachu 1992).

National Data on Early Care and Program Participation

The increased interest in children's early care and education has placed more demands on the federal statistical system to supply data for monitoring children's early childhood program participation rates (Brooks-Gunn et al. 1994). Several federal household surveys collect periodic data for monitoring parents' use of and children's receipt of a range of supplemental care and education. Among these are the U.S. Bureau of the Census' Current Population Survey (CPS) and Survey of Income and Program Participation (SIPP), and the National Center for Education Statistics' National Household Education Survey (NHES). The CPS concentrates on preschool children's participation in formal education programs; the SIPP focuses on the supplemental care and education children receive while their mothers work or attend school; and, the NHES examines the care and education children receive from persons other than their parents regardless of parental activities while in care and education settings.¹

The early childhood program participation component of the NHES was developed to collect information on children's experiences in a wide range of care and education settings, including their homes, the homes of others, and formal group settings. This component was first fielded in 1991 and then repeated in 1995. Because parents are considered by definition to be their children's primary care providers, the NHES does not include parents as providers of supplemental care and education. Instead, it seeks to provide data to estimate how many children receive care and education on a regular basis from *persons other than their parents*.² Furthermore, no attempt is made to distinguish settings where children receive care from settings where they receive education as any such distinction would be largely artificial.

The early childhood component of the 1995 NHES differs from the 1991 NHES. In 1991, children had to be at least 3 years old to be included in the survey. But in 1995, there was no lower age limit. Consequently, estimates of the number and percentage of infants and toddlers receiving supplemental care and education can be made along with estimates for older children.

Current Participation in Nonparental Care and Education Programs

Children may receive supplemental care and education in home-based or in center-based settings. Home-based arrangements may take place in either a child's own home or in the home of someone else. This care may be provided by a relative (other than the child's parents) or a nonrelative. Care provided by a nonrelative in the caregiver's home is commonly called family day care. Center-based programs, on the other hand, provide children with care and education in a nonresidential setting. These programs include day care centers, nursery schools, prekindergartens, and other types of organized group programs such as Head Start.²

There are many ways of calculating children's participation rates in various child care and early education program arrangements. This report uses a prevalence rate which represents the percent of children receiving care and education in each type of arrangement. In calculating this rate, no consideration is given to either the number of hours a child spends in one setting as compared to others or a parent's activities (e.g., whether or not a child's mother works) while the child is in nonparental care. Moreover, a child may be counted under several arrangements if he or she spends time in more than one setting.

During the spring of 1995, about 6 out of every 10 children under the age of six who have yet to enter kindergarten were receiving some type of care and education on a regular basis from persons other than their parents (table 1).⁴ This translates to more than 12.9 million infants, toddlers, and preschool children receiving such care and education.

Table 1. Percentage of children under 6 years old participating in child care and early education programs on a regular basis, by type of arrangement and child and family characteristics 1

Characteristic	Children		T		
			Total		In R
	Number (in thousands)	percent	percent	s.e.	per
Total	21,421	100	60	0.7	2
Age 4					
Less than 1 year old	4,158	19	45	1.6	2
1 year old	4,027	19	50	1.5	2
2 years old	4,007	19	54	1.5	1
3 years old	4,126	19	68	1.5	2
4 years old	4,065	19	78	1.2	1
5 years old	1,038	5	84	2.1	1
Race-ethnicity					
White, non-Hispanic	13,996	65	62	0.9	1
Black, non-Hispanic	3,344	16	66	2.0	3
Hispanic	2,838	13	46	1.6	2
Other	1,243	6	58	3.1	2
Household Income					
\$10,000 or less	4,502	21	50	1.9	2
\$10,001 to \$20,000	2,909	14	54	1.9	2
\$20,001 to \$30,000	3,385	16	53	1.7	2
\$30,001 to \$40,000	3,047	14	60	1.8	2

\$40,001 to \$50,000	2,304	11	63	2.0	1
\$50,001 to \$75,000	3,063	14	74	1.6	2
More than \$75,000	2,211	10	77	1.7	1
Mother's Education ⁵					
Less than high school	3,055	15	38	2.0	2
High school / GED	7,328	35	56	1.2	2
Vocational/technical or some college	6,016	29	66	1.3	2
College graduate	3,478	17	70	1.6	1
Graduate or professional degree	1,246	6	79	2.3	1
Mother's Employment Status					
35 hours or more per week	7,101	34	88	0.8	3
Less than 35 hours per week	4,034	19	75	1.5	3
Looking for work	1,635	8	42	2.8	1
Not in labor force	8,354	40	32	1.1	7

1 Estimates are based on children under 6 years old who have yet to enter kindergarten.

2 Columns do not add up to total because some children participated in more than one type of nonparental arrangement.

3 Center-based programs include day care centers, head start programs, preschools, prekindergartens, and other early childhood programs.

4 Age is calculated as of December 31, 1994.

5 Children without mothers are not included in estimates dealing with mother's education or mother's employment status.

Source: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1995.

The percentage of children receiving nonparental care and education increases with the age of children. Forty-five percent of children who had not reached their first birthday were reported as receiving nonparental care and education on a regular basis. This contrasts to 78 percent of four-year-olds and 84 percent of five-year-olds.

Hispanic children are less likely to receive supplemental care and education than either white or black children.² About 46 percent of Hispanic children, compared with 62 percent of white children and 66 percent of black children, receive care and education regularly from persons other than their parents.

Children's participation in nonparental care and education also increases as household income increases. Only 50 percent of children living in households with incomes of \$10,000 or less receive care and education from persons other than their parents, in comparison to 77 percent of children living in households with incomes in excess of \$75,000.

In general, children's participation in nonparental care and education arrangements increases with mother's education. Children whose mothers did not complete high school or earn a GED are less likely to receive supplemental care and education (38 percent) than children whose mothers graduated from college or earned a graduate degree (70 percent and 79 percent, respectively).

Children are also more likely to receive supplemental care and education when their mothers work. Nearly 88 percent of children whose mothers work full-time (35 hours or more per week) and 75 percent of children whose mothers work part-time (less than 35 hours per week) regularly receive care and education from a nonparent caregiver. In contrast, only 32 percent of children whose mothers are not in the work force regularly receive care and education from persons other than their parents.

During the spring of 1995, about 6 out of every 10 children under the age of six who have yet to enter kindergarten were receiving some type of care and education on a regular basis from persons other than their parents. This translates to more than 12.9 million infants, toddlers, and preschool children receiving such care and education.

In general, more and more children receive nonparental care and education on a regular basis as they grow older. Forty-five percent of children who had not reached their first birthday were reported as receiving nonparental care and education on a regular basis. This contrasts to 78 percent of four-year-olds and 84 percent of five-year-olds.

More children receive this care and education in center-based programs than in either relative or nonrelative home-based arrangements. For this group of children as a whole, the participation rates in both the relative and nonrelative home-based arrangements (21 percent and 18 percent, respectively) are significantly lower than the participation rate in center-based programs (31 percent). The setting in which children receive supplemental care and education is related to children's age. Children under the age of two are more likely to be cared for by a relative in a private home or a nonrelative in a private home than in a center-based setting. Roughly one-fourth (24 percent) of children under the age of one receive care and education from a relative in a private home, and 17 percent receive this care and education from a nonrelative in a private home. In contrast, only 7 percent of these infants are cared for in center-based settings. The participation rates for one-year-olds follow a similar pattern. However, starting with two-year-olds, the setting in which children receive care and education begins to change noticeably. Two-year-olds are about equally likely to receive care and education in home-based settings, from relatives or nonrelatives (19 percent and 20 percent, respectively), and in center-based settings (19 percent). But, three-, four-, and five-year-old preschoolers are more likely to receive care and education in center-based programs than in either of the two home-based settings.

Children's participation in center-based programs also increases with household income and mother's education. Only 50 percent of children living in households with incomes of \$10,000 or less receive care and education from persons other than their parents, in comparison to 77 percent of children living in households with incomes in excess of \$75,000. Participation in nonparental care and education arrangements increases with mother's education. Children whose mothers did not complete high school or earn a GED are less likely to receive supplemental care and education (38 percent) than children whose mothers graduated from college or earned a graduate degree (70 percent and 79 percent, respectively).

With regard to mother's employment status, children whose mothers work full-time or part-time are more likely to attend a center-based program than children whose mothers are not in the work force. Children are also more likely to receive supplemental care and education when their mothers work. Nearly 88 percent of children whose mothers work full-time (35 hours or more per week) and 75 percent of children whose mothers work part-time (less than 35 hours per week) regularly receive care and education from a

nonparent caregiver. In contrast, only 32 percent of children whose mothers are not in the work force regularly receive care and education from persons other than their parents.

Characteristic	Children		Total		In Relative care		In nonrelative ca	
	Number (in thousands)	percent	percent	s.e.	percent	s.e.	percent	s.e.
Total	21,421	100	60	0.7	21	0.6	18	0.6
Age/4								
Less than 1 year old	4,158	19	45	1.6	24	1.4	17	1.2
1 year old	4,027	19	50	1.5	24	1.3	19	1.1
2 years old	4,007	19	54	1.5	19	1.1	20	1.2
3 years old	4,126	19	68	1.5	21	1.2	19	1.1
4 years old	4,065	19	78	1.2	18	1.1	15	1.0
5 years old	1,038	5	84	2.1	15	1.9	17	2.0
Race-ethnicity								
White, non-Hispanic	13,996	65	62	0.9	18	0.7	21	0.7
Black, non-Hispanic	3,344	16	66	2.0	31	1.8	12	1.2
Hispanic	2,838	13	46	1.6	23	1.3	12	1.0
Other	1,243	6	58	3.1	25	2.7	13	1.8
Household Income								
\$10,000 or less	4,502	21	50	1.9	22	1.5	10	1.2
\$10,001 to \$20,000	2,909	14	54	1.9	27	1.7	12	1.2
\$20,001 to \$30,000	3,385	16	53	1.7	22	1.4	14	1.1
\$30,001 to \$40,000	3,047	14	60	1.8	23	1.5	20	1.4
\$40,001 to \$50,000	2,304	11	63	2.0	19	1.7	22	1.7
\$50,001 to \$75,000	3,063	14	74	1.6	20	1.4	26	1.6
More than \$75,000	2,211	10	77	1.7	14	1.4	30	2.0
Mother's Education/5								
Less than high school	3,055	15	38	2.0	20	1.6	7	1.1
High school / GED	7,328	35	56	1.2	23	1.1	15	0.9
Vocational/technical or some college	6,016	29	66	1.3	24	1.1	19	1.0
College graduate	3,478	17	70	1.6	15	1.2	26	1.5
Graduate or professional degree	1,246	6	79	2.3	16	2.0	36	2.8
Mother's Employment Status								
35 hours or more per week	7,101	34	88	0.8	33	1.1	32	1.1
Less than 35 hours per week	4,034	19	75	1.5	30	1.5	26	1.5
Looking for work	1,635	8	42	2.8	16	2.0	4	0.9
Not in labor force	8,354	40	32	1.1	7	0.6	6	0.6

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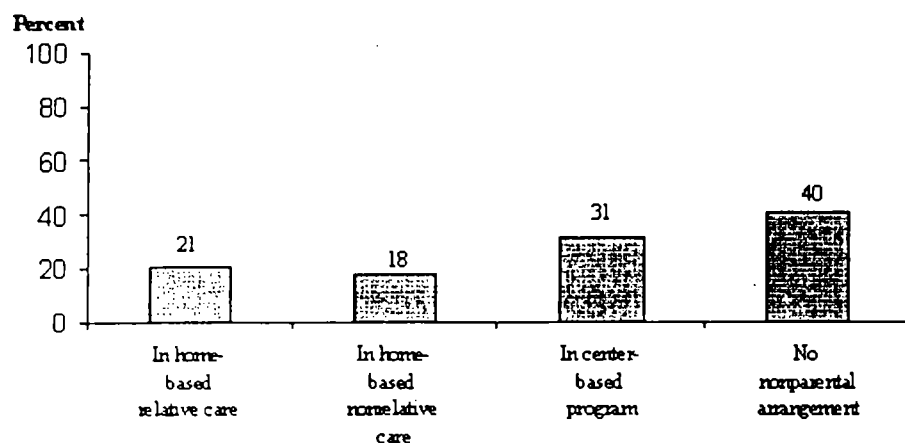
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1/ Estimates are based on children under 6 years old who have yet to enter kindergarten.
2/ Columns do not add up to total because some children participated in more than one type of nonparental arrangement.

B>Participation in Different Types of Care and Education Programs

Figure 1 shows the percentages of children under the age of 6 who receive home-based care from relatives and nonrelatives as well as the percentage of children who attend a center-based program. For this group of children as a whole, the participation rates in both the relative and nonrelative home-based arrangements (21 percent and 18 percent, respectively) are significantly lower than the participation rate in center-based programs (31 percent).

Figure 1.-Percentage of children under 6 years old participating in child care and early education programs on a regular basis, by type of arrangement ¹



Type of Arrangement²

¹ Percentages are based on children under 6 years old who have yet to enter kindergarten.

² Percentages do not add up to 100 percent because some children participated in more than one type of arrangement.

Source: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1995.

The setting in which children receive supplemental care and education is related to children's age (table 1). Children under the age of two are more likely to be cared for by a relative in a private home or a nonrelative in a private home than in a center-based setting. Roughly one-fourth (24 percent) of children under the age of one receive care and education from a relative in a private home, and 17 percent receive this care and education from a nonrelative in a private home. In contrast, only 7 percent of these infants are cared for in center-based settings. The participation rates for one-year-olds follow a similar pattern. However, starting with two-year-olds, the setting in which children receive care and education begins to change noticeably. Two-year-olds are about equally likely to receive care and education in home-based settings, from relatives or nonrelatives (19 percent and 20 percent, respectively), and in center-based settings (19 percent). But, three-, four-, and five-year-old preschoolers are more likely to receive care and education in center-based programs than in either of the two home-based settings. In comparison to the dramatic increase in preschool children's center-based program participation, the participation rates in relative and nonrelative home-based arrangements look quite stable.

The participation rates for white and black children under the age of 6 in center-based programs are the same (33 percent). Hispanic children participate at a lower rate than both of these groups (17 percent). White children (21 percent) are more likely to receive care and education from a nonrelative in a private home than children of any other racial-ethnic group. Black children (31 percent), on the other hand, are

more likely than white or Hispanic children to receive care and education from a relative in a private home.

Children's participation in center-based programs increases with household income and mother's education. Similarly, children are more likely to receive care and education from a nonrelative in a private home as household income and mother's education increase. For relative care arrangements, the relationship of household income and mother's education to children's participation is, however, less clear. Children whose mothers work full-time or part-time are more likely to attend a center-based program than children whose mothers are not in the work force (39 percent and 35 percent v. 22 percent). With regards to home-based care arrangements, relatively few children whose mothers are not in the labor force receive care and education from relatives (7 percent) or nonrelatives (6 percent). Care by a nonrelative is also used infrequently (4 percent) by mothers who are looking for work. For these women and their children, relative care is the more widely used home-based arrangement (16 percent).

Location of Home-Based Arrangements

Children may receive nonparental care and education in their own homes or in the homes of others, and in both settings this care may be provided by relatives or nonrelatives. Care provided by a nonrelative in a caregiver's own home is commonly called family day care, while care provided by a nonrelative in a child's own home is usually referred to as care by a sitter or nanny. Relative care in a child's own home or in a caregiver's home may be provided by an older sibling, grandparent, aunt, or uncle.

Table 2 contains estimates of the percentage of children under the age of 6 who receive relative or nonrelative care by the location where the care is provided. Whether the care children receive is provided by a relative or by a nonrelative, it is more likely to be provided in a home other than their own. The difference in the percentage of children receiving care in their own homes versus the home of someone else is larger for nonrelative than for relative care arrangements. Approximately 14 percent of children under the age of 6 receive nonrelative care in a home other than their own compared with 4 percent who receive care from a nonrelative in their own homes. For relative care, the comparable percentages are 14 and 9 percent, respectively.

Table 2. Percentage of children under 6 years old receiving relative or nonrelative care on a regular basis, by location and child and family characteristics. 1

Characteristic	Children		In Relative Ca		
			In own home		Not
	Number (in thousands)	percent	percent	s.e.	per
Total	21,421	100	9	0.4	
Age 2					
Less than 1 year old	4,158	19	12	1.0	
1 year old	4,027	19	10	0.8	
2 years old	4,007	19	9	0.8	
3 years old	4,126	19	9	0.8	
4 years old	4,065	19	8	0.8	
5 years old	1,038	5	5	1.2	
Race-ethnicity					
White, non-Hispanic	13,996	65	7	0.5	
Black, non-Hispanic	3,344	16	14	1.3	
Hispanic	2,838	13	12	1.0	
Other	1,243	6	14	2.2	
Household Income					
\$10,000 or less	4,502	21	10	1.0	
\$10,001 to \$20,000	2,909	14	12	1.1	

\$20,001 to \$30,000	3,385	16	8	0.9
\$30,001 to \$40,000	3,047	14	9	1.0
\$40,001 to \$50,000	2,304	11	9	1.2
\$50,001 to \$75,000	3,063	14	8	1.0
More than \$75,000	2,211	10	8	1.1
Mother's Education ³				
Less than high school	3,055	15	12	1.3
High school / GED	7,328	35	9	0.7
Vocational/technical or some college	6,016	29	9	0.7
College graduate	3,478	17	7	0.9
Graduate or professional degree	1,246	6	9	1.6
Mother's Employment Status				
35 hours or more per week	7,101	34	13	0.8
Less than 35 hours per week	4,034	19	14	1.2
Looking for work	1,635	8	9	1.4
Not in labor force	8,354	40	4	0.5

1 Estimates are based on children under 6 years old who have yet to enter kindergarten. Some of these children participated in more than one type of arrangement.

2 Age is calculated as of December 31, 1994.

3 Children without mothers are not included in estimates dealing with mother's education or mother's employment status.

4 - indicates that the estimate is less than half of one percent.

Source: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1995.

For children ages one through five, both relative and nonrelative care and education are less likely to be provided in a child's own home, with the differences being more pronounced for nonrelative care. For example, 16 percent of 1- and 2-year-olds receive care from a nonrelative in the care-giver's home, while 4 and 5 percent, respectively, receive care from a non-relative in their own homes. For children who are cared for by a relative, 16 percent of 1-year-olds and 12 percent of 2-year-olds are cared for outside of their own homes, while 10 and 9 percent, respectively, receive care in their own homes.

White and black children are more likely to receive care and education outside of their own homes, regardless of whether the care is provided by a relative or a nonrelative. For Hispanic children, there is no difference in the percentages who receive care from a relative in their own homes versus another's home. However, the pattern for nonrelative care is the same as that of white and black children.

With the exception of the most affluent group of children, the percentage of children receiving nonrelative care in a home other than their own is larger than the percentage receiving care in their own homes. Similarly, relative care is usually provided in a home other than the child's, except for those children living in households with incomes under \$10,000 or over \$75,000 where the percentages of children receiving relative care in and out of their own homes are nearly the same.

The patterns of care provided by relatives in children's own homes and in the homes of others by mother's education look much like those observed for household income. A notable exception is the children whose mothers have completed a graduate or professional degree. This group of children are unlikely to receive care from a relative, and those who do are as likely to receive it in their own homes (9 percent) as in the homes of someone else (9 percent).

Women who work, whether they work full-time or part-time, are more likely to use home-based care

from a nonrelative in a private home than children of any other racial-ethnic group. Black children (31 percent), on the other hand, are more likely than white or Hispanic children to receive care and education from a relative in a private home.

Children's participation in center-based programs increases with household income and mother's education. Similarly, children are more likely to receive care and education from a nonrelative in a private home as household income and mother's education increase. For relative care arrangements, the relationship of household income and mother's education to children's participation is, however, less clear. Children whose mothers work full-time or part-time are more likely to attend a center-based program than children whose mothers are not in the work force (39 percent and 35 percent v. 22 percent). With regards to home-based care arrangements, relatively few children whose mothers are not in the labor force receive care and education from relatives (7 percent) or nonrelatives (6 percent). Care by a nonrelative is also used infrequently (4 percent) by mothers who are looking for work. For these women and their children, relative care is the more widely used home-based arrangement (16 percent).

Location of Home-Based Arrangements

Children may receive nonparental care and education in their own homes or in the homes of others, and in both settings this care may be provided by relatives or nonrelatives. Care provided by a nonrelative in a caregiver's own home is commonly called family day care, while care provided by a nonrelative in a child's own home is usually referred to as care by a sitter or nanny. Relative care in a child's own home or in a caregiver's home may be provided by an older sibling, grandparent, aunt, or uncle.

Table 2 contains estimates of the percentage of children under the age of 6 who receive relative or nonrelative care by the location where the care is provided. Whether the care children receive is provided by a relative or by a nonrelative, it is more likely to be provided in a home other than their own. The difference in the percentage of children receiving care in their own homes versus the home of someone else is larger for nonrelative than for relative care arrangements. Approximately 14 percent of children under the age of 6 receive nonrelative care in a home other than their own compared with 4 percent who receive care from a nonrelative in their own homes. For relative care, the comparable percentages are 14 and 9 percent, respectively.

Table 2. Percentage of children under 6 years old receiving relative or nonrelative care on a regular basis, by location and child and family characteristics./1

Characteristic	Children		In Relative Care				In nonre	
			In own home		Not in own home		In own home	
	Number (in thousands)	percent	percent	s.e.	percent	s.e.	percent	s.e

Total	21,421	100	9	0.4	14	0.5	4	0
Age/2								
Less than 1 year old	4,158	19	12	1.0	15	1.2	3	0
1 year old	4,027	19	10	0.8	16	1.1	4	0
2 years old	4,007	19	9	0.8	12	0.9	5	0
3 years old	4,126	19	9	0.8	15	1.0	4	0
4 years old	4,065	19	8	0.8	12	0.9	4	0
5 years old	1,038	5	5	1.2	11	1.7	5	1
Race-ethnicity								
White, non-Hispanic	13,996	65	7	0.5	13	0.6	5	0
Black, non-Hispanic	3,344	16	14	1.3	20	1.5	2	0
Hispanic	2,838	13	12	1.0	13	1.0	3	0
Other	1,243	6	14	2.2	15	2.1	2	0
Household Income								
\$10,000 or less	4,502	21	10	1.0	13	1.3	2	0
\$10,001 to \$20,000	2,909	14	12	1.1	17	1.4	3	0
\$20,001 to \$30,000	3,385	16	8	0.9	16	1.2	2	0
\$30,001 to \$40,000	3,047	14	9	1.0	16	1.3	3	0
\$40,001 to \$50,000	2,304	11	9	1.2	14	1.5	4	1
\$50,001 to \$75,000	3,063	14	8	1.0	13	1.2	4	0
More than \$75,000	2,211	10	8	1.1	7	1.0	15	1
Mother's Education/3								
Less than high school	3,055	15	12	1.3	10	1.1	2	0
High school / GED	7,328	35	9	0.7	16	0.9	3	0
Vocational/technical or some college	6,016	29	9	0.7	17	1.0	3	0
College graduate	3,478	17	7	0.9	11	1.1	8	1
Graduate or professional degree	1,246	6	9	1.6	9	1.5	15	2
Mother's Employment Status								
35 hours or more per week	7,101	34	13	0.8	23	1.0	5	0
Less than 35 hours per week	4,034	19	14	1.2	21	1.4	6	0
Looking for work	1,635	8	9	1.4	9	1.6	/4	1
Not in labor force	8,354	40	4	0.5	4	0.5	3	0

1/ Estimates are based on children under 6 years old who have yet to enter kindergarten. Some of these children participated in more than one type of arrangement.

2/ Age is calculated as of December 31, 1994.

3/ Children without mothers are not included in estimates dealing with mother's education or mother's employment status.

4/ - indicates that the estimate is less than half of one percent.

Source: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1995.

that is provided outside of their own homes. This pattern is the same for both relative and nonrelative care. Very few children of women who are looking for work receive care from a nonrelative in a home-based setting. Those children who do are more likely to receive it in a home other than their own. For care received from relatives, women who are looking for work are equally likely to use home-based care in and outside of their own homes. Children of women who are not in the labor force are as likely to receive care in their own homes as in the home of someone else whether that care is given by a relative or a nonrelative.

Summary

In general, more and more children receive nonparental care and education on a regular basis as they grow older, and more children receive this care and education in center-based programs than in either relative or nonrelative home-based arrangements. Children's participation in center-based programs also increases with household income and mother's education. With regard to mother's employment status, children whose mothers work full-time or part-time are more likely to attend a center-based program than children whose mothers are not in the work force.

For home-based arrangements, the differences in participation rates between relative and nonrelative care vary depending on the characteristics of children and their families. Children who are very young, who are members of a racial-ethnic minority group, who are in lower income households, or who have mothers who did not graduate from college are more likely to be cared for by relatives while their counterparts are more likely to be cared for by nonrelatives. Nevertheless, infants, toddlers, and preschoolers in home-based arrangements are, in general, more likely to be cared for in a home other than their own regardless of their relationship to their non-parental caregiver.

Methodology and Technical Notes

Survey Methodology

The National Household Education Survey (NHES) is a random-digit-dial (RDD) telephone survey conducted by Westat, Inc. for the National Center for Education Statistics (NCES). It collects data on high priority topics on a rotating basis using computer-assisted telephone interviewing (CATI) technology. The sample is drawn from the civilian, noninstitutionalized population in households with telephones in the 50 states and the District of Columbia.

Data collection for the NHES:95 took place between January and April of 1995. A Screener interview was conducted with an adult member of the household and was used (1) to determine whether any children of the appropriate ages lived in the household, (2) to collect information on each household member, and (3) to identify the parent/guardian most knowledgeable about the care and education of each sampled child. If more than two eligible children resided in a household, two children were sampled as interview subjects. Children who were enrolled in transitional kindergarten, kindergarten, and prefirst grade were assigned a higher probability of selection.

The Early Childhood Program Participation (ECPP) component of the NHES:95 sampled 0- to 10-year-olds who were not yet in fourth grade. Since the sample for the ECPP interviews was drawn from households with telephones, the estimates were adjusted using control totals from the Census Bureau's Current Population Survey (CPS) so that the totals were consistent with the total number of civilian, noninstitutionalized persons in all (telephone and nontelephone) households.⁶

Response Rates

The NHES:95 completed screening interviews with 45,465 households, of which 11,042 contained at least one child eligible for the ECPP component of the survey. The response rate for the Screener was 73.3 percent. The completion rate for the ECPP interview was 90.4 percent, or 14,064 interviews. Thus, the overall response rate for the ECPP interview was 66.3 percent (the product of the Screener response rate and the ECPP completion rate). This report is based on children under 6 years old not yet enrolled in

kindergarten. The number of interviews included in this analysis is 7,557.

The item nonresponse (the failure to complete some items in an otherwise completed interview) was less than two percent for all of the items used in this report (except for income which has an item nonresponse rate of 14 percent). Missing responses to all items were imputed, and imputations were done using a hot-deck procedure.

Data Reliability

Estimates produced using data from surveys are subject to two types of error, sampling and nonsampling errors. Nonsampling errors are errors made in the collection and processing of data. Sampling errors occur because the data are collected from a sample rather than a census of the population.

Nonsampling Errors. Nonsampling error is the term used to describe variations in the estimates that may be caused by population coverage limitations and data collection, processing, and reporting procedures. The sources of nonsampling errors are typically problems like unit and item nonresponse, the differences in respondents' interpretations of the meaning of the questions, response differences related to the particular time the survey was conducted, and mistakes in data preparation.

In general, it is difficult to identify and estimate either the amount of nonsampling error or the bias caused by this error. In the NHES:95, efforts were made to prevent such errors from occurring and to compensate for them where possible. These efforts included the use of focus groups and cognitive laboratory interviews when designing the survey instruments, extensive testing of the CATI system, and a two-phase pretest with approximately 870 households (759 in the first phase and 111 in the second phase).

An important nonsampling error for a telephone survey is the failure to include persons who do not live in households with telephones. About 90 percent of all 0- to 5-year-olds live in households with telephones. Estimation procedures were used to help reduce the bias in the estimates associated with children who do not live in telephone households.

Sampling Errors. The sample of telephone households selected for the NHES:95 is just one of many possible samples that could have been selected. Therefore, estimates produced from this sample may differ from estimates that would have been produced from other samples. This type of variability is called sampling error because it arises from using a sample of households with telephones, rather than all households with telephones.

The standard error is a measure of the variability due to sampling when estimating a statistic. Standard errors for estimates presented in this report were computed using a Taylor Series approximation. Standard errors can be used as a measure of the precision expected from a particular sample. The probability that a complete census count would differ from the sample estimate by less than 1 standard error is about 68 percent. The chance that the difference would be less than 1.65 standard errors is about 90 percent; and that the difference would be less than 1.96 standard errors, about 95 percent.

The standard errors found in the table can be used to produce confidence intervals. For example, an estimated 20 percent of children whose mothers did not finish high school or earn a GED are cared for by a relative. This figure has an estimated standard error of 1.6. Therefore, the estimated 95 percent confidence interval for this statistic is approximately 16.9 to 23.1 percent.

The significance of differences cited in this report for the percentage of children who receive each type of care were tested using Student's *t* statistic. All the differences cited in this report are significant at the 0.05 level of significance with a Bonferroni adjustment procedure used to correct the significance tests for multiple comparisons.

Endnotes

1. For a more detailed discussion of the different federal surveys that collect data on children's

supplemental care and education, see West, J. & Germino Hausken, E. (1994). Different Approaches to Counting Early Childhood Program Participation. Proceedings of the Annual Meetings of the American Statistical Association, Social Statistics Section. Washington, D.C.: American Statistical Association.

2. Throughout this report, parents represent natural and adoptive parents as well as stepparents and guardians.

3. Some Head Start programs are offered in home-based, rather than center-based, settings. The NHES:95 survey instrument does not permit identification of this distinction.

4. The term "regular basis" was not defined for respondents; however, they were instructed not to include occasional babysitting. Analysis of the NHES:95 data shows that of children receiving care and education in a center-based setting, 99 percent receive it on a weekly basis. For relative and nonrelative care, the percentages are 96 percent and 99 percent, respectively.

5. If an interviewer contacted an individual who preferred to conduct the interview in Spanish, a Spanish speaking interviewer and survey instrument were used. Also, in this report, the terms "white" and "black" are used to describe "white, non-Hispanic" and "black, non-Hispanic" children.

6. Additional information pertaining to the ECPP survey component will be provided in the NHES:95 Early Childhood Program Participation Data File User's Manual (Brick et al. forthcoming).

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-##-



Education At A Glance



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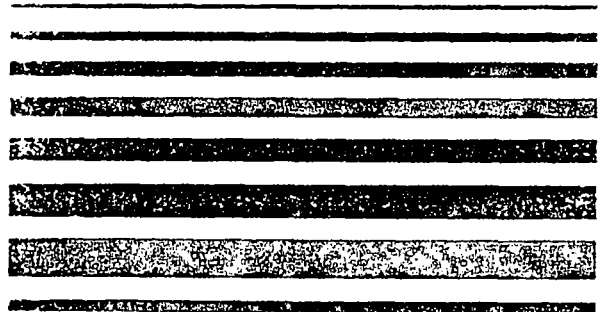
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Child Care in the United States Today

Sandra L. Hofferth

Abstract

This article describes the consumers and providers of child care in the United States. It uses data from nationally representative surveys and research studies conducted from the late 1960s through 1995 to examine the child care arrangements parents select for their young children, comparing today's arrangements with those made by parents decades ago. It then discusses the availability of child care, examining both the number of child care spaces available and whether quality programs are available to suit the needs and resources of parents. The article concludes with speculation about how proposed new policies and continuing trends may lead to future changes in child care.

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The number of children being cared for in a child care or early education program has soared over past decades, driven by increases in the number of women in the work force, changes in family structure, and parents' desire to provide children with educational experiences to prepare them for school.¹ (See also the article by Cohen in this journal issue.) In 1995, for example, 60% of children from birth to five years of age who had not yet enrolled in school—13 million children—participated in a non-parental child care or early education program.² Child care is no longer an experience for a few children; it is rapidly becoming the norm.

Just as child care is becoming the norm for children, struggling to secure a child care arrangement is becoming the norm for parents. Parents face an almost bewildering array of choices: friends and relatives, child care programs operated either publicly or privately, as either independent businesses or as part of a chain, either regulated by state agencies or not, and staffed by individuals with widely varying training and experience. Parents must weigh considerations of quality and convenience, of availability and affordability as they choose care, all the while worrying about whether they have made the right decision.

The results of parents' struggles can be seen by examining who provides care for the young children in America. This article reviews the results of several representative national surveys and additional research studies to

compare child care arrangements today with those of two and three decades ago.³⁻⁹ The data indicate that some shortages may exist and that, over the past decades, parents have been paying more to place their children in settings of declining quality. Such placements have negative implications for parents' ability to enter and remain in the work force and, as discussed in the article by Helburn and Howes in this journal issue, for children's development.

Definitions of Types of Care

Families are remarkably flexible and inventive in finding ways to care for their children. Some working mothers can care for their own children at home because they work at home. Others take them to work with them. Some share child care with their husbands or partners. Relatives such as grandmothers or aunts may provide care in the child's or their own home. Other mothers rely instead upon neighbors, friends, and professionals to care

family child care refers to a program in which a provider takes care of unrelated children in her own home. The family child care provider may be a neighbor, a friend, the woman down the street who cares for other people's children while raising her own, and/or someone who has chosen this as a career and business.

Regulation of Family Child Care Homes

Regulation of child care is a responsibility of the states, and states vary widely in how they exercise that responsibility. States generally regulate family child care homes via licensing and/or registration approaches. Licensing means that family child care homes must meet certain minimum health, safety, and (sometimes) programmatic standards before they can serve a specific number of children. Registration is a simpler, more limited approach in which providers are either required or encouraged to identify themselves to state authorities to certify that they comply with state standards and requirements.¹⁰ Under registration, no initial inspection is required before programs can begin operation.

States often use registration with family child care homes that serve a relatively small number of children and licensing with larger programs. Or they may exempt family child care providers serving small numbers of children from all requirements. In 1993, only eight states and the District of Columbia required that all family child care providers be registered or licensed.¹¹

The aspects of operation that are regulated vary across states but usually cover one or more of the following: minimum number of square feet for indoor and outdoor activities, minimum age of caregiver, maximum number of children permitted per caregiver (staff-child ratio), preservice training requirements or criminal background check for the caregiver, immunization for children before enrollment, prohibition of

Licensing means that family child care homes and centers must meet certain minimum health, safety, and (sometimes) programmatic standards before they can serve a specific number of children.

for their children. Some parents hire an in-home provider (a "sitter" in this article), a nonrelative, to care for the child in their own home while they work. If the sitter lives with the child's family, she is often called a "nanny." In this article, "relative care" refers to care by relatives and by husbands or partners, and "informal care" refers to all arrangements (that is, care by relatives, husbands, sitters, and so on) in which care is not typically regulated by state or federal agencies.

Other mothers may rely upon more formal settings, either family child care homes or, especially as children emerge from toddlerhood, center-based programs. These arrangements are dubbed "formal" because, depending upon the states in which they occur, they are likely to be regulated and therefore required to meet particular standards for health, safety, and general operation.

Family Child Care

Although the precise definition of family child care differs across states, in most cases,

corporal punishment, or parental right to visit the home during hours of operation.^{12,13} In 1995, licensing officials were sometimes not required to routinely visit family child care homes and sometimes required to do so up to four times per year. In 27 states and Washington, DC, routine visits were required less than once per year or not at all.¹⁵

Few states regulate all of these aspects of operation. Indeed, because many states exempt large numbers of family child care homes from any regulation, there are many more unregulated family child care homes than regulated ones. In 1990, between 10% and 18% of all family child care homes were thought to be regulated.¹⁴ This results in a vast number of family child care homes that are hard to identify and hard to count.

Enrollment in Family Child Care Homes

In 1990, the average regulated family child care home served 6 children, and the average nonregulated home served 3. In some states, providers may serve up to 12 children in a large family child care home. In 1995, approximately 9% of regulated family child care homes were large homes that served 7 to 12 children.¹⁵

Administrative Auspices of Family Child Care Homes

Although most family child care providers operate independently as small businesses with a sole proprietor, some do operate under the sponsorship of an outside organization such as a neighborhood child care center or family service agency. In such arrangements, programs are members of a family child care home network where the sponsoring agency takes responsibility for training (and sometimes paying) the family child care provider and for referring potential clients to the family child care home. In 1990, some 23% of regulated and 2% of nonregulated providers were sponsored by an outside organization.¹⁴

Center-Based Care

As children approach entry into kindergarten, most parents choose a center-based program for their children, either (1) a child care program or (2) a preschool, nursery, or Head Start program. These two basic types of center-based care vary in their schedules, in the ages of children

served, and often in the income level of their clientele.

Child care centers are generally open all day, five days per week, all year. They provide care for infants (children up to one year of age), toddlers (one- to two-year-olds), and preschool children (three- to five-year-olds) as well as after-school care for school-age children. Because of their hours of operation, they are well-suited to serve children of employed mothers who work the traditional 9:00 A.M. to 5:00 P.M.

In contrast, nursery school, Head Start, and state prekindergarten programs comprise primarily part-day, part-year programs for three- and four-year-olds. They may be part-week as well, offering enrollment two or three mornings per week, for example. Among those families that opt for a part-day program, middle-income families largely have enrolled their children in nursery school programs, and low-

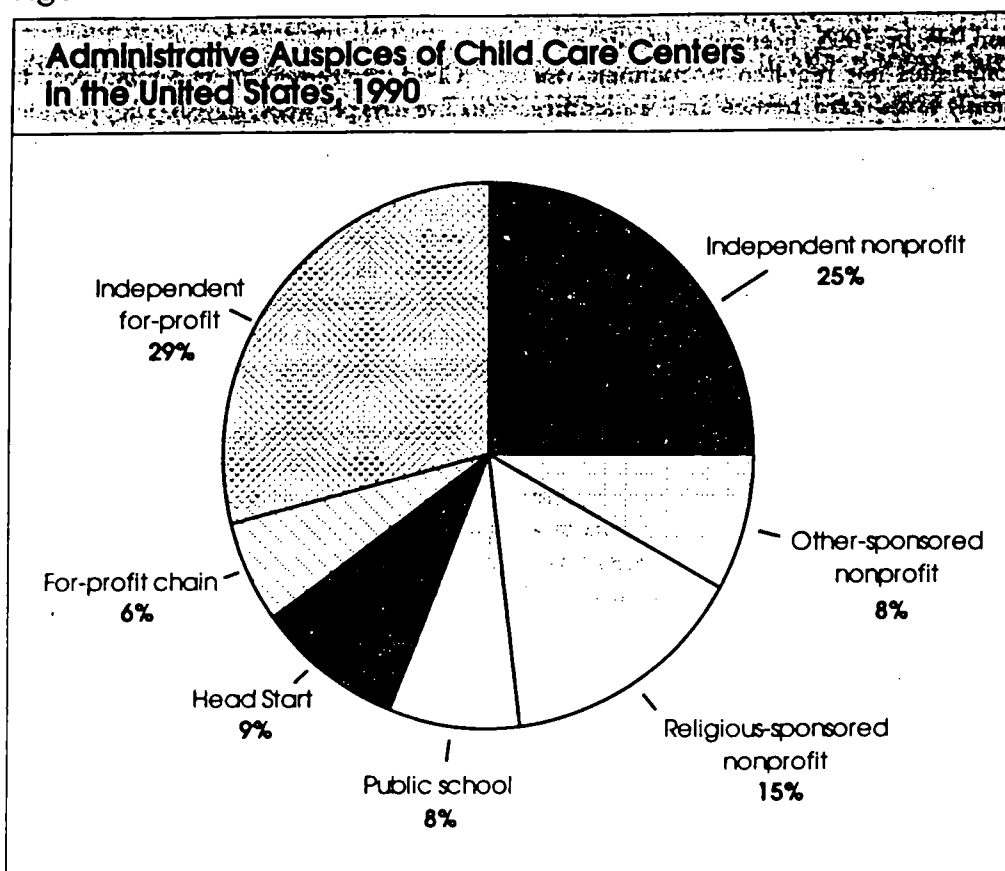
As children approach entry into kindergarten, most parents choose a center-based program for their children.

income families primarily have taken advantage of Head Start, the foremost early childhood program for low-income children and their families.¹⁵ The latter is free to eligible families and provides a wider range of services than do most other early childhood programs, including education, structured opportunities for parent involvement, and social and health services.¹⁶

Regulation of Centers

Although some states exempt from their licensing regulations church-sponsored centers, part-day preschools, or state prekindergarten programs that are part of the public school system, almost all centers are regulated or licensed in some way.¹⁷ Centers are generally regulated on the same aspects of operation as are family child care homes, plus others such as the maximum number of children per group. They are also subject to more stringent inspection cycles by licensing officials. In some states, they are visited up to four times per year.¹² Inspection visits

Figure 1



Source: Wilber, B., Hofferth, S., Kisker, E. E., et al. *The demand and supply of child care in 1990*. Washington, DC: National Association for the Education of Young Children, 1991, p. 21.

are also required before they can begin operations.

Enrollment in Centers

The number of children enrolled varies substantially across programs. In 1990, the average enrollment in a center-based program was 67, but it ranged from a low of 50 in the average Head Start program to a high of 91 in the average center operated by a for-profit chain.

Administrative Auspices of Centers

In 1990, 65% of early education and care centers operated as nonprofit agencies (meaning that they were exempt from federal and state taxes because they were judged to be providing a charitable or educational service), and the remaining 35% operated as for-profit businesses.¹⁴ As illustrated in Figure 1, most nonprofit child care programs operated under the sponsorship of another organization, usually a religious group, public school, or Head Start. Independent for-profit programs constituted 29% and for-profit chains 6% of all cen-

ter-based programs. (The implications of auspices for the cost and quality of child care are discussed in the article by Helburn and Howes in this journal issue.)

Child Care Arrangements

In 1995, there were nearly 21 million children five years of age or younger who had not yet enrolled in school in the United States.² About 40% were cared for by their parents, 21% by relatives, 31% in center-based programs, 14% in family child care homes, and 4% by sitters.² These numbers add up to more than 100% because about 9% of parents use multiple child care arrangements (for example, children might spend three mornings per week in a center-based nursery school program, but two mornings per week and all afternoons with a relative). To avoid confusion, this article focuses on the child's *primary arrangement*, defined as the arrangement in which the child spent the most hours each week. This results in smaller estimates of overall enrollments in center-based programs; however, it makes the data compa-

rable to previous studies and uniquely describes each child.

In any case, this picture of current child care arrangements is a static snapshot. It does not capture the dynamic trends over the past 30 years that have led an increasing percentage of all children to be enrolled in child care and an increasing percentage of those children to be enrolled in formal, center-based arrangements.

Despite these overall trends, the current numbers illustrate persistent differences in the arrangements parents choose, depending upon their employment status, the ages of their children, and their family income: (1) employed parents are more likely than nonemployed parents to choose center-based child care, (2) preschoolers are more likely than infants and toddlers to be enrolled in centers, and (3) children from higher-income families are more likely than children from lower-income families to be enrolled in centers.

Maternal Employment and Child's Age

In 1994, 62% of married mothers with a child under age six were in the work force, compared with 30% in 1970.¹⁸ Because 8 of 10 employed mothers are likely to use some form of nonparental child care arrangement,² the increased employment of mothers outside the home has led to a sharp increase in the use of nonparental child care over the past several decades.

In fall 1993, about 10 million children under five years of age had mothers (married or not) in the work force. Of those children, 47% were cared for by parents or relatives, 30% in a center-based program, 17% in a family child care home, and 5% by an in-home sitter.² (These arrangements are illustrated in Figure 2.)

Over the past three decades, employed mothers gradually shifted their care arrangements from parents or relatives to centers or family child care homes (also depicted in Figure 2). In 1965, only 22% of young children were in family child care and center-based arrangements. By 1993, the use of center care increased fivefold, from 6% to 30%, while the use of family child care remained at about 17%. In con-

trast, the use of relatives, sitters, and parents all declined.

The increase in enrollment in center-based programs has occurred across all age ranges. Figure 3 illustrates that, since the early 1980s, the percentage of three- to four-year-olds of employed mothers in center-based programs has increased by almost half, the percentage of toddlers has doubled, and the percentage of infants has tripled. In other words, as more women have entered the work force, more and more of their children have entered center-based programs at younger and younger ages.

In fact, there has been a large increase in center-based enrollments of all preschool children, whether their mothers are employed or not. Over half (53%) of all four-year-old children were enrolled in a preprimary program (including kindergarten) in 1991, compared with just 28% in 1965.¹⁹ By 1995, about 40% of three-year-olds, 65% of four-year-olds, and 75% of five-year-olds not yet enrolled in school were enrolled in center-based programs.²

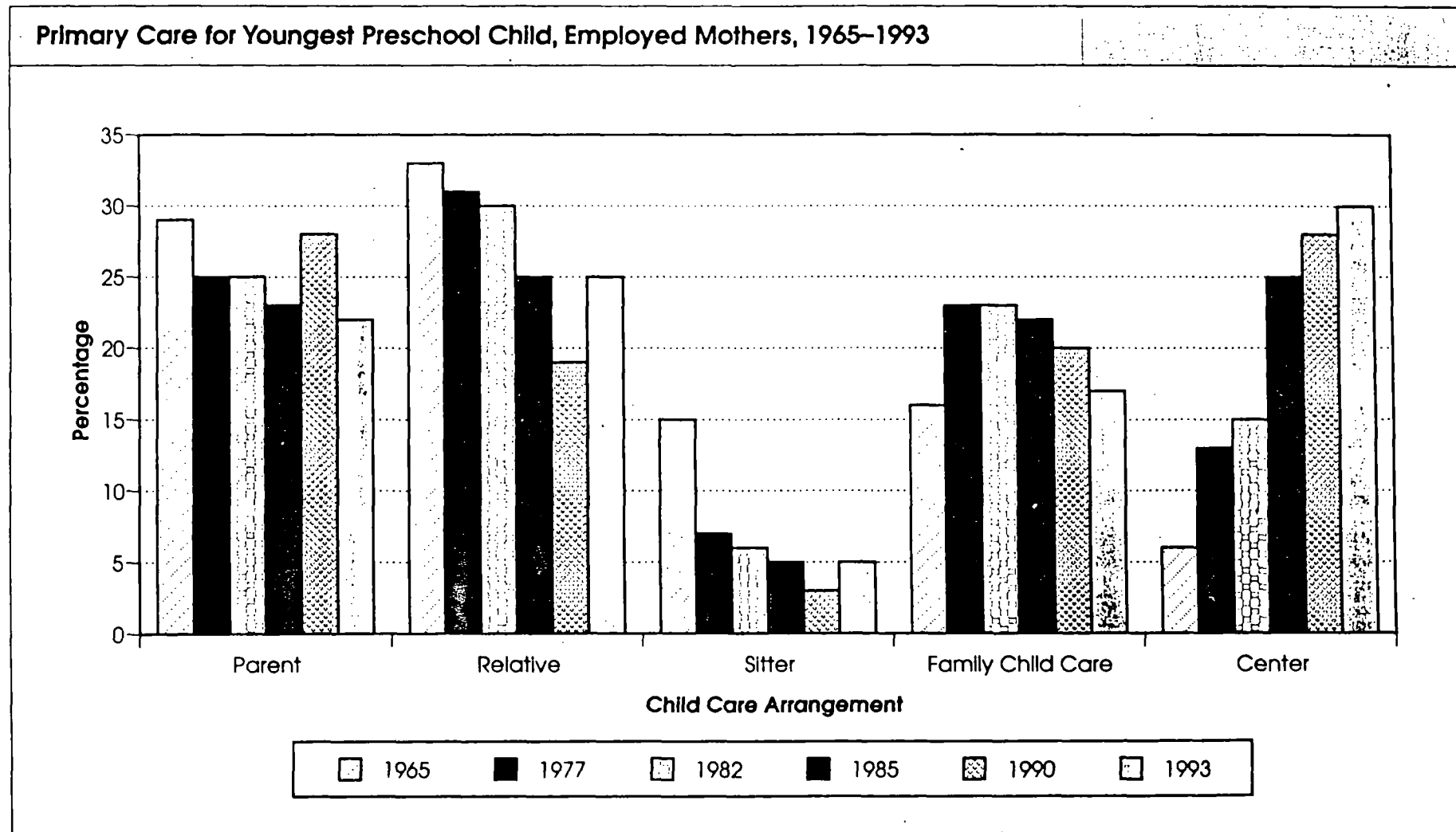
The increase among older preschoolers in enrollment in center-based programs is so broad-based that the enrollment rates of three- to five-year-old children of employed and nonemployed mothers have begun to converge. In 1991, 50% of three- to five-year-

As more women have entered the work force, more and more of their children have entered center-based programs at younger and younger ages.

old children of mothers not in the work force were enrolled in a nursery school at some time, compared to 60% of three- to five-year-old children of mothers in the labor force.¹⁹

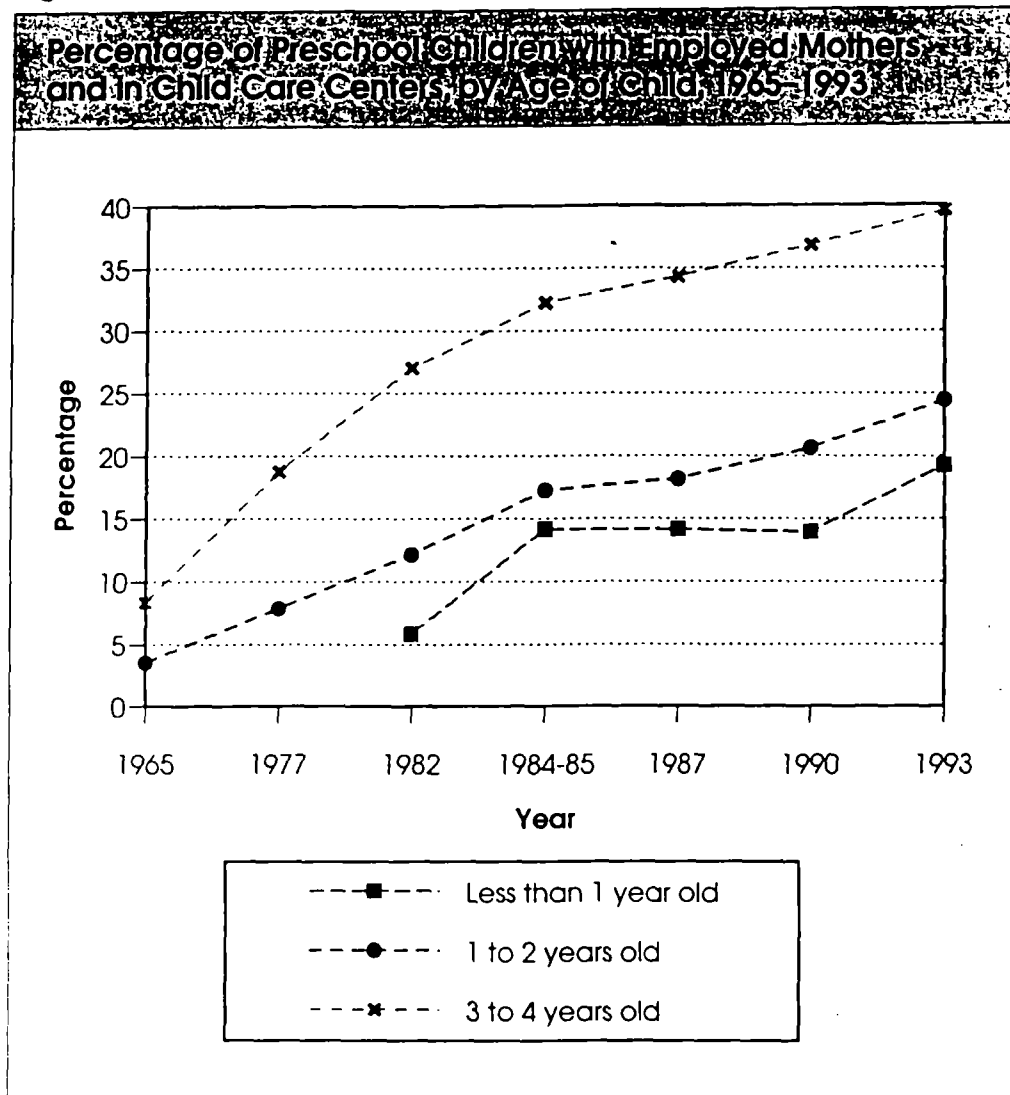
The story is different for infants and toddlers, however. Children under three years of age are much less likely to be enrolled in center-based programs than are three- and four-year-olds. Only 7% of all infants and about 15% of all toddlers were enrolled in a center-based program in 1990.²

Figure 2



Sources: U.S. Bureau of the Census. *Trends in child care arrangements of working mothers*. Current Population Reports, P-23, no. 117. Washington, DC: U.S. Government Printing Office, 1982; U.S. Bureau of the Census. *Child care arrangements of working mothers*. Current Population Reports, P-23, no. 129. Washington, DC: U.S. Government Printing Office, June 1982; U.S. Bureau of the Census. *Who's minding the kids? Child care arrangements: Winter 1984-85*. Current Population Reports, P-70, no. 9. Washington, DC: U.S. Government Printing Office, 1987; U.S. Bureau of the Census. *What does it cost to mind our preschoolers?* Current Population Reports, P-70, no. 52. Washington, DC: U.S. Government Printing Office, September 1995; Hofferth, S., Brayfield, A., Delch, S., and Holcomb, P. *National Child Care Survey, 1990*. Washington, DC: The Urban Institute, 1991.

Figure 3



Sources: U.S. Bureau of the Census, *Trends in child care arrangements of working mothers*, Current Population Reports, P-23, no. 117, Washington, DC: U.S. Government Printing Office, 1982; U.S. Bureau of the Census, *Child care arrangements of working mothers*, Current Population Reports, P-23, no. 129, Washington, DC: U.S. Government Printing Office, June 1982; U.S. Bureau of the Census, *Who's minding the kids? Child care arrangements: Winter 1984-85*, Current Population Reports, P-70, no. 9, Washington, DC: U.S. Government Printing Office, 1987; U.S. Bureau of the Census, *What does it cost to mind our preschoolers?*, Current Population Reports, P-70, no. 52, Washington, DC: U.S. Government Printing Office, September 1995; Hofferth, S., Brayfield, A., Deich, S., and Holcomb, P., *National Child Care Survey*, 1990, Washington, DC: The Urban Institute, 1991.

In addition, the differential between employed and nonemployed mothers in enrollment for their very young children is still quite substantial: in 1990, the rate of enrollment in centers for infants of employed mothers was almost 5 times higher than the rate for infants of nonemployed mothers. The rate of enrollment for toddlers was about 2.5 times as high. (See Figure 4.)

The changes in child care arrangements over time are probably due to three main trends. (1) The increasing percentage of children who are being cared for by someone other than their parents is largely attrib-

utable to the increasing number of women in the labor force. (2) The shift from relatives and the other parent as caregiver to center-based programs may be due in part to the increasing proportion of single parents. Between 1940 and 1960, only about 6% to 8% of children lived in mother-only families; in 1988, 21% of children did.²⁰ As that percentage has increased, mothers may have fewer relatives and in-laws to rely on, and those relatives may have to work themselves, leaving fewer available for child care responsibilities.²¹ (3) The increased enrollment rates in centers by all three- and four-year-olds is most likely due to parental convictions, based on substantial research,²²

Figure 4

Child Care Arrangements by Age of Child and Maternal Employment Status, 1990

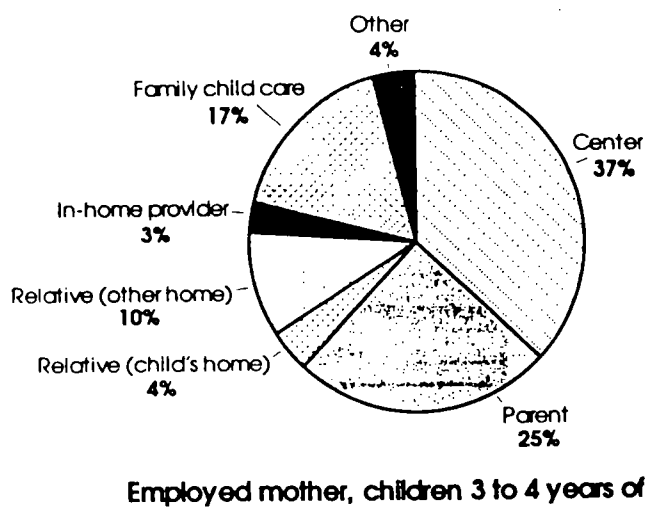
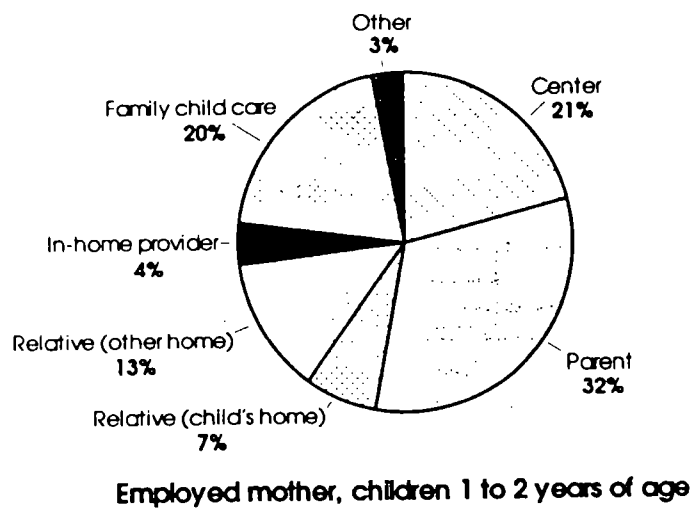
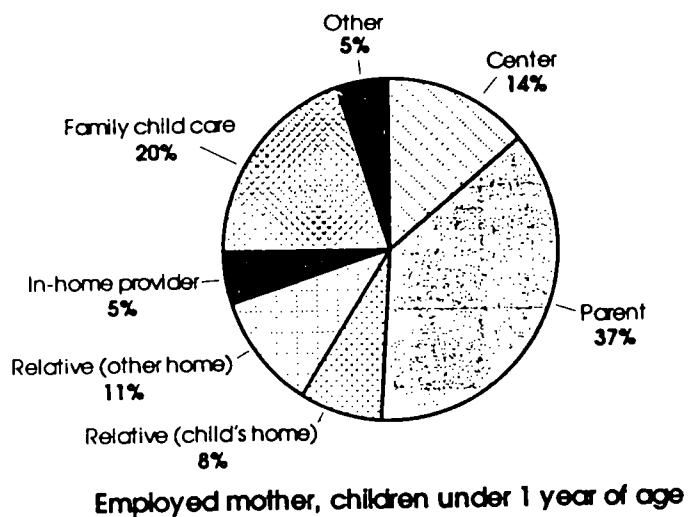
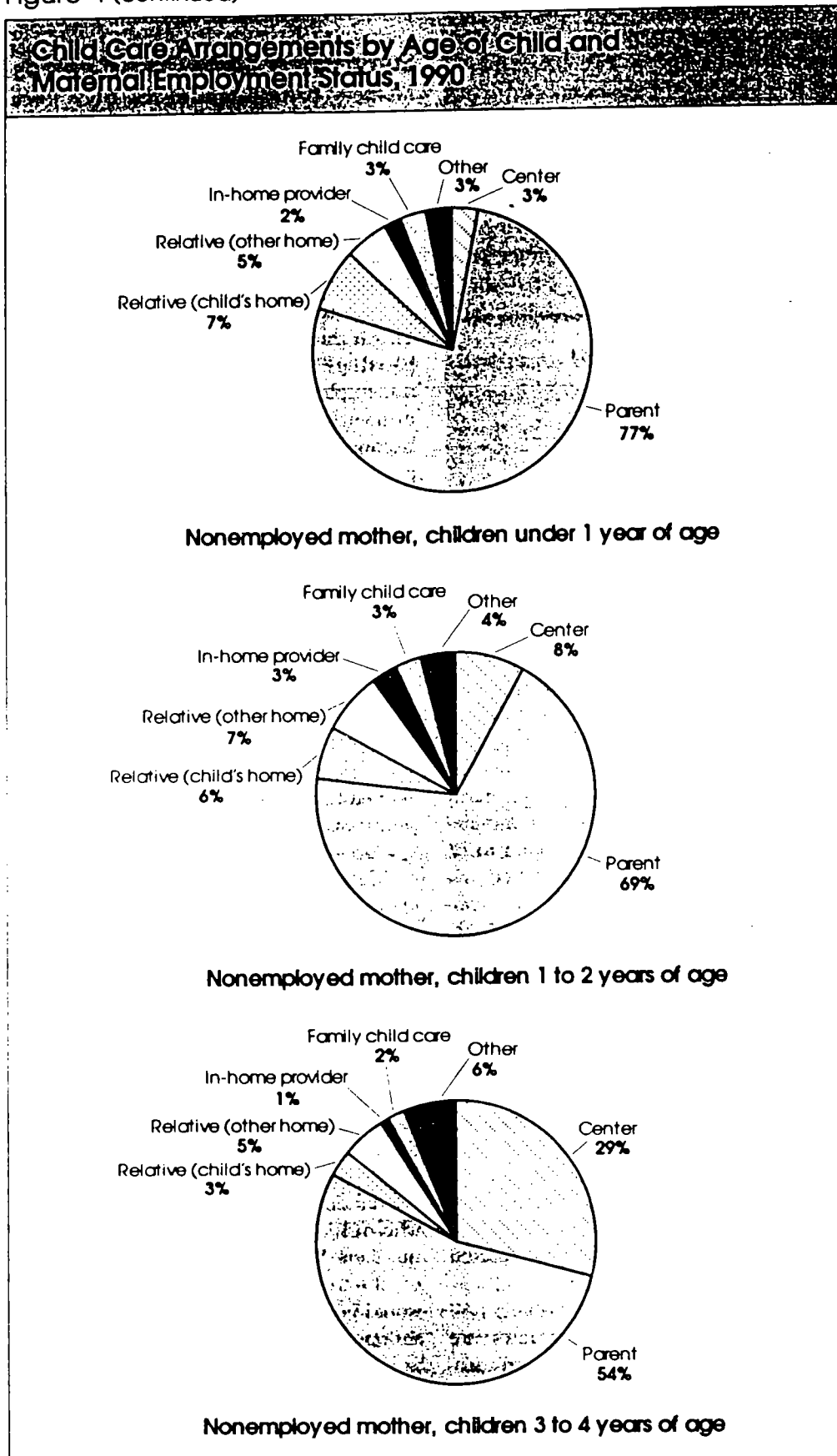


Figure 4 (continued)



Source: Hofferth, S., Brayfield, A., Delch, S., and Holcomb, P. *National Child Care Survey, 1990*. Washington, DC: The Urban Institute, 1991.

endorsed by public policy,²³ and subsidized by increased dollars for Head Start and state prekindergarten programs, that preschool programs can help prepare children for success in school.

Family Income

Child care arrangements are also affected by family income. In the past 15 years, the proportion of preschool children of low-income families who are enrolled in center-based programs has risen.²⁴ But a gap remains

Only about half of centers in 1990 accepted infants. Thus, parents have fewer choices for arrangements for their infants than for their older preschoolers.

between the enrollment rates of children of lower- and higher-income families.²⁵ For example, only about 45% of three- to five-year-olds whose family incomes were below the poverty level attended center-based programs in 1991, in contrast with about 75% of children from high-income families (family income of more than \$50,000).²⁵

In addition, among the poor, primarily the children from the very poorest families where parents are not working seem to be the ones enrolling in these center-based programs.²⁶ Children from families where a parent worked but incomes were below \$25,000 per year were less likely than either children of nonworking poor or middle-class families to participate in center-based programs.²⁶ There are probably two reasons: (1) many publicly subsidized center-based programs are part-day and part-year programs that may not meet the needs of working parents and (2) many such programs are open only to the very poorest families. Once parents begin to work, they may exceed income eligibility for them. (For a review of these subsidy programs, see the article by Stoney and Greenberg in this journal issue.)

The differential enrollment rates are important because early childhood programs are associated with short- and long-term benefits for the children who enroll in them.²² To the extent that children from low-income families are not enrolled in such programs, the distance between them and

their more well-to-do age-mates will probably widen as they move through school.

Summary of Child Care Choices

Mothers' participation in the labor force leveled off in the late 1980s at about 60% of mothers with children under age five, but the use of early care and education programs for children continues to grow. In addition, there continues to be substitution of formal center-based programs for both informal care by relatives, sitters, and the other parent, as well as for family child care. This is due to the increased use of center-based programs by both employed and nonemployed mothers. Both working and nonworking parents appear to have become convinced of the value of these programs in preparing their children for school.

Some of the more frequent use of center-based programs is probably associated with increased public funding for center-based preschool programs such as state prekindergarten and Head Start. These programs serve primarily the very poorest of low-income families, and this may help explain the continued difference across income levels in the rates of three- to four-year-olds' enrollment in center-based programs.

These numbers reveal the child care choices that parents have made, but they do not reveal if the choices reflect parental preferences or lack of alternatives.

Assessing the Need for Child Care

Is there a child care shortage? There are many ways to answer that question. The most straightforward approach is to estimate the number of child care spaces that exist in the nation, estimate the number of children who need child care, and compare the two numbers. If the supply exceeds the number of children, then, in this approach, one would conclude that there is no child care shortage.

In 1990, for example, there were approximately 80,000 early care and education centers with the capacity to serve four to five million children (about 20% to 25% of all children under age five).^{5,14} In 1990, there

were estimated to be between 668,000 and 1.2 million family child care providers.¹⁴ Regulated family child care providers cared for about 700,000 children.

In 1990, therefore, there were spaces for between 50% and 60% of the preschool children of employed mothers in centers (including Head Start and state prekindergarten programs) or in licensed family child care homes. The remaining 40% to 50% of preschool children were not left without care; most were cared for by relatives, friends, neighbors, or others in settings that were not regulated or licensed by states.

The informal care market—the unregulated sector of the child care market—is remarkably elastic. It can expand rapidly in response to demand, in part because it, unlike licensed center-based programs, requires little or no initial capital investment and little administrative complexity. If one counts only the number of child care spaces available, the existence of the informal care market helps to assure that there is no child care shortage.

Of course, this approach of counting spaces to determine if a child care shortage exists is overly simplistic: it ignores the need for a fit between a space in a child care program and a child. For example, a space in a child care program in Beverly Hills is probably not of much use to a family that lives and works in south central Los Angeles. Spaces in a preschool program are no help to a family seeking care for an infant. Spaces in programs that cost families more than they can afford to pay are not of use to those families. Spaces in a low-quality program are not of interest to parents seeking the highest-quality setting for their child. To assess if there is a shortage of child care, in other words, one must consider the availability of child care programs that fit the needs and the financial resources of parents.

Availability of Child Care for Specific Groups

Research has indicated that the number of child care spaces available in a community depends upon several factors, including the income level of the community. In addition, care for particular age groups or during particular hours may be limited.



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Variation by Age of Child

Even though there may be enough openings for families needing child care across all child care settings, available spaces in centers may not necessarily match consumer needs for care for children of particular ages. Only about half of centers in 1990, for example, accepted infants, compared with almost all family child care homes.¹⁴ As a consequence, infants and toddlers constituted fewer than 10% of the children in centers but about a quarter of those in family child care.¹⁴ Thus, parents have fewer choices for arrangements for their infants than for their older preschoolers.

Variation by Mother's Work Schedule

In 1990, 7.2 million mothers with 11.7 million children under age 15 worked full or part time during nonstandard hours.²⁷ These different schedules create varying needs for child care. About 8% to 9% of mothers worked evenings or nights in 1990, but few centers (only 3%) offered evening or night care, compared to 13% of regulated and 20% of nonregulated family child care

providers.¹⁴ It has been estimated that no more than about a dozen centers across the country offer 24-hour child care.²⁷ Consequently, children under age five are more likely to be cared for by their mothers who work nonday hours or to be cared for at home than are children of women who work during the day (49% versus 29%, respectively, in 1993).⁴

The likelihood of nontraditional work hours varies by family income. Lower-income parents are more likely than higher-income parents to work during nonday hours, on a rotating or changing schedule, or on weekends. For example, almost half of working poor parents (income less than the poverty line) worked on a rotating or changing schedule, compared to one-quarter of working-class and middle-class mothers (working-class families have incomes above the poverty level but less than \$25,000 per

Almost half of working poor parents worked on a rotating or changing schedule, compared to one-quarter of working-class and middle-class mothers.

year; middle-class families have incomes \$25,000 per year or higher) and one-third of working-class and middle-class fathers in 1990.²⁶ One-third of the working poor and one-quarter of working-class mothers surveyed in the National Child Care Survey 1990 worked weekends. In contrast, only 10% of centers and 6% of family child care homes reported providing care on weekends. Rotating shifts present an even greater obstacle to finding stable care.

Variation by Community Income Level

Many services and businesses are more scarce in low-income communities, and studies demonstrate that child care is no different.^{28,29} In general, there are fewer regulated child care programs or spaces available in lower-income communities, based on a national sample of counties.²⁹ However, not surprisingly, subsidies for child care for low-income families can increase the supply of child care. In Massachusetts, for example, a state with a relatively large number of subsidies for child care for low-income families, there was more child care available in both

high- and low-income counties than in more moderate income communities.²⁹

Affordability of Child Care

Although there may be geographic area differences in the supply of center-based programs and regulated family child care homes in some communities or for some groups of children, the supply of informal arrangements is quite flexible and can expand to meet most child care needs. On those two measures, therefore, there does not appear to be a significant child care shortage, although some parents undoubtedly face constrained choices when they consider their child care options. However, just because programs exist does not mean that parents can afford them. The cost of care is, therefore, another important way to gauge if there is a shortage of child care.

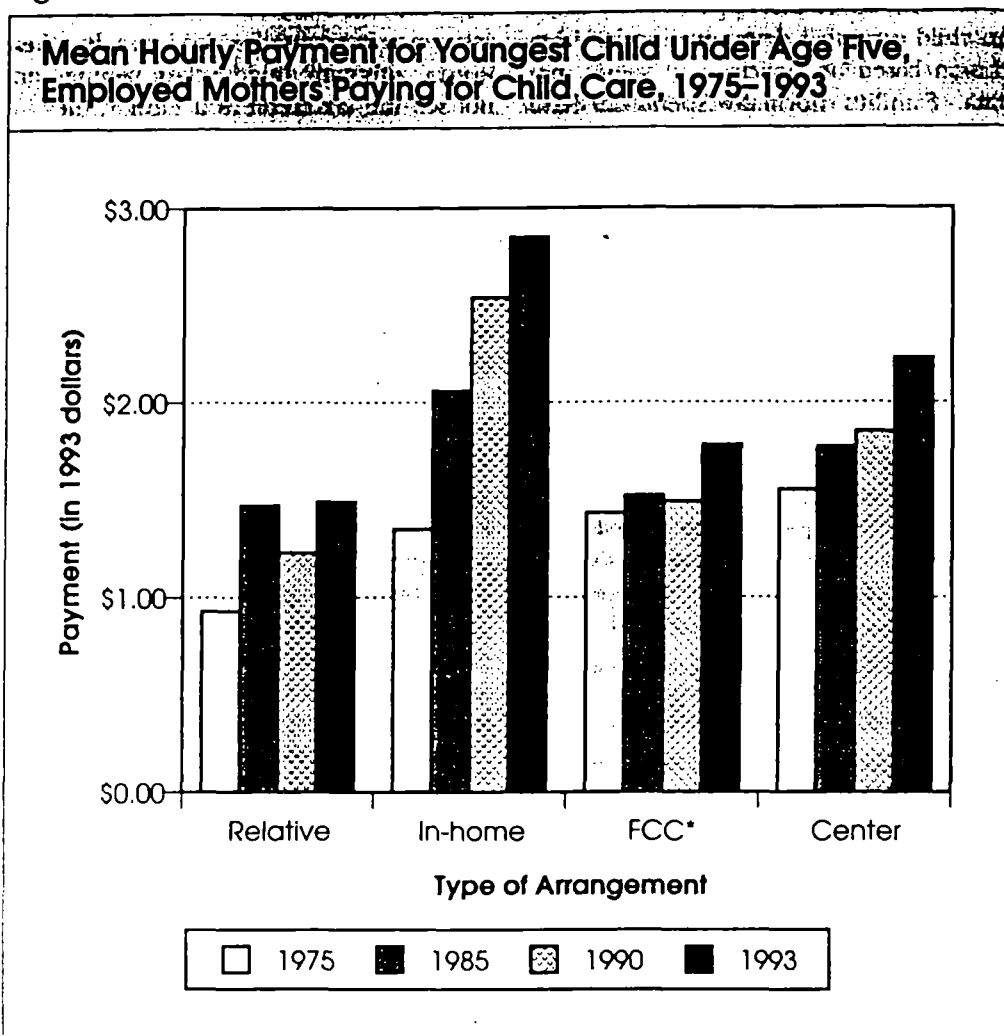
Fees and Parental Expenditures

Between 1975 and 1990, as illustrated in Figure 5, the amount paid by parents per hour of center-based and family child care changed relatively little after adjusting for inflation. In 1990, employed mothers who paid for care paid, on average, amounts ranging from \$1.23 per hour for relative care to \$2.54 per hour for sitter care of a child under age five (in 1993 dollars).⁵ These figures reflect increases of about 1.2% per year in real dollars for centers and less than 0.5% a year for family child care homes. In contrast, the per-hour cost of care in the child's own home increased by 88% between 1975 and 1990 in real dollars (6% per year) and was the most expensive of all forms.

Since 1990, however, steeper annual price increases have occurred (also illustrated in Figure 5). In 1993, parents who paid for care paid amounts ranging from \$1.49 per hour for relative care to \$2.85 per hour for sitter care (in 1993 dollars).³ This represents an increase of about 20% over about three and one-half years (about 5.7% annually) for center-based care, family child care, and relative care and about a 12% increase for sitter care.

The burden these child care expenditures place on families can be substantial. In 1993, the average family with an employed mother and a child under age five spent about \$79 per week for child care

Figure 5



Sources: UNCO, Inc. *National Child Care Consumer Study*, 1975, vols. 1-4. Washington, DC: UNCO, 1975; Hofferth, S., Brayfield, A., Deich, S., and Holcomb, P. *National Child Care Survey*, 1990. Washington, DC: The Urban Institute, 1991; U.S. Bureau of the Census. *What does it cost to mind our preschoolers?* Current Population Reports, P-70, no. 52. Washington, DC: U.S. Government Printing Office, September 1995; Hofferth, S. *Child care in the United States. In American families in tomorrow's economy*. Proceedings of hearings before the House of Representatives Select Committee on Children, Youth and Families, July 1, 1986, pp. 166-87. Washington, DC: U.S. Government Printing Office, 1988. *FCC = Family Child Care.

for all children in the family (that is, both for the preschooler and for any siblings), an increase of about 10% over the \$72 that families spent in fall 1990 (all in 1993 dollars).⁵ On average, families with a child under age five spent about 8% of their incomes on child care, but, obviously, that percentage varied with family income.⁵ Families with annual incomes under \$14,400 that paid for care spent 25% of their income on child care, compared to 6% or less for families with incomes of \$54,000 or more.

Standard economic theory states that shortages of a commodity or service push its price upward, encouraging suppliers to provide more of it. Because the price of child care remained stable until 1990,

there was little evidence of excess demand for child care up until that time. However, recent price increases suggest that might be changing. During the 1980s, as demand for child care expanded, there was a parallel expansion in supply, and prices remained relatively constant. The price increases in the 1990s suggest that more pressure is being put on the supply of child care in this decade without a concomitant expansion of supply, and, as a result, parental expenditures for it are rising faster than the cost of living.

The analyses of the percentage of family income devoted to child care by families with different incomes suggest that, for low-income families, the cost of child care can be quite an obstacle to obtaining care. These

studies do not demonstrate what percentage of monthly income is appropriately spent on child care; that determination is a conclusion based on policies and values, not data. Families normally spend 20% of their incomes on housing and 10% on food. Families that have to spend close to 20% or more of their incomes on child care will have much less to spend on other necessities.

Child Care Subsidies to Expand Options

Child care subsidies and tax credits do exist to help make child care more affordable for families and thereby to expand their choices for care. (See the article by Stoney and Greenberg in this journal issue for a description of these forms of assistance.) Because the cost of child care programs varies from one setting to another, one would expect

poverty line and at least one parent working) that were the least likely to receive assistance in paying for child care. In other words, although middle-class families do not see the tax credit as a subsidy, they in fact receive more assistance with child care than do the working poor.

Quality of Child Care

Parents try to select child care settings that will keep their children safe and healthy and that will nurture them and prepare them for later life. But are such programs readily available?

There are many ways to assess child care quality (see the article by Helburn and Howes in this journal issue for an in-depth discussion). Although quality is best measured by observing the warmth and nature of the interactions between child and provider and the day-to-day experiences of children in the program, these sorts of observational assessments are difficult, time-consuming, and expensive. Therefore, state regulators and researchers typically measure a few specific structural features of the child care programs that have been associated with quality interactions and good child development. These include staff-child ratios, group size, and training and education of staff/providers. In addition, a number of studies have linked stability of care (that is, little change in the number of child care arrangements and low rates of staff turnover) with overall quality measures in a child care program.^{7,12} Higher staff salaries, in turn, have been associated with lower rates of staff turnover.⁷ Programs with these characteristics (that is, programs with higher staff-child ratios, smaller group sizes, a well-compensated staff educated in child development, and low turnover) are programs that demonstrate warmer, more responsive, and more appropriate interactions between staff and children, better experiences for children, and, ultimately, better development for the children.

This section reviews the characteristics of programs and providers in 1990, the most recent year for which comprehensive national data are available, on these measures of quality. Then, using data from two large 1976-77 studies of child care, it describes trends in child care quality over time.³⁰⁻³³ (See the article by Helburn and Howes in

When tax credits are combined with other forms of direct assistance for child care, it was the working poor that were the least likely to receive assistance in paying for child care.

that these subsidy programs would increase the ability of families to enroll their children in more expensive forms of care (for example, center-based care and family child care homes as opposed to relatives, and licensed care as opposed to nonlicensed care).

The National Child Care Survey 1990, a nationally representative survey, indicated that (1) the percentage of families that reported receiving assistance in paying for child care was directly related to income level (poorer families were more likely to report receiving assistance); (2) families using center-based care were more likely to report receiving child care assistance than were families using some other type of care; (3) higher- rather than lower-class families were much more likely to report using the Child and Dependent Care Tax Credit (although the families that reported receiving it did not necessarily also report receiving assistance for child care costs); and (4) when those tax credits are combined with other forms of direct assistance for child care, it was, in fact, the working poor (families with incomes less than the

this journal issue for additional details on quality, including data from other studies and a review of findings concerning process measures of quality.)

Group Sizes and Staff-Child Ratios

In 1990, group sizes and staff-child ratios in centers serving three- and four-year-olds were in the upper ranges of those recommended by the National Association for the Education of Young Children (NAEYC), the preeminent professional association for child care directors and staff in the United States. Ratios far exceeded recommended levels for centers serving one- and two-year-olds, suggesting that programs and parents may be accepting lower-quality care because care for infants and toddlers is in short supply.⁶ For example, the average group size reported for one-year-olds was 10, and the NAEYC recommends 6 to 12. The average staff-child ratio was 1:6 to 7, and the NAEYC recommends 1:3 to 4.¹² All told, the average number of children per group in centers increased by 16%, and staff-child ratios worsened by 25% between the mid-1970s and 1990.¹⁴ (See the article by Helburn and Howes in this journal issue for additional explanation of NAEYC standards.)

Enrollments in family child care have expanded, and group sizes have risen between 1976 and 1990. In 1990, the average group size was six in regulated care.¹⁴ The average was four in 1976-77. In family child care homes, therefore, although quality levels declined, they still fell within acceptable limits for those measures.

Staff Education and Training

In 1990, providers were better educated than the population as a whole; more than 9 out of 10 teachers in centers had received training related to young children (this does not include assistants). On average, nearly half of all teachers had a four-year college degree or better, and an additional 13% had a two-year college degree. In addition, the levels of education and training of staff in both centers and family child care homes increased between the mid-1970s and 1990 when only 29% of teachers in centers had 16 or more years of education.¹⁴ The average schooling of family child care providers also rose from high school in 1976 to one year of college in 1990.¹⁴ According to at least this measure, therefore, and considering only

teachers rather than all child care staff, quality of care improved between the mid-1970s and 1990.

Child Care Stability

Instability in child care can occur either when the child is moved from placement to placement or when the caregivers within a particular program leave the program.

■ *Changing Settings.* Changing child care arrangements is all too common an experience for children in child care. In 1990, the median length of children's current child care arrangements was 12 months.⁵ Informal arrangements made with relatives and friends tend to be much less stable than formal arrangements with regulated centers or family child care homes.⁶ Half of infants under age one entered a nonparental child care arrangement during their first year, and, of these, 10% changed arrangements during the year.⁵

■ *Teacher Turnover.* Considering child care teachers, not assistant teachers or aides, teacher turnover increased between the mid-1970s and 1990, from 15% to 19% per year for comparable full-day centers.¹⁴ Over all types of programs, teacher turnover aver-

Half of infants under age one entered a nonparental child care arrangement during their first year, and, of these, 10% changed arrangements during the year.

aged 25% in 1990¹⁴ and has hovered at that level through 1992.³⁴ In 1990, approximately half of all centers reported some teacher turnover in the prior year, and, among those programs experiencing turnover, the rate was very high (50%).¹⁴

Turnover varies considerably by auspice. In 1990, turnover was 20% in Head Start, 14% in public school programs, and 39% in for-profit chains. Head Start turnover rates in 1994 were 12.5% for teachers and 21% for assistants.³⁵

These rates appear to suggest that children in child care are regularly exposed to multiple settings and multiple providers within a setting and that the percentage of

children who suffer that sort of instability has increased over time.

Provider Salaries

One of the reasons that staff turnover within child care programs may have increased could be that teacher salaries have declined by 25% since the 1970s.¹⁴ The annual earnings of a teacher in a child care center averaged \$12,390 in 1990, compared with \$14,180 in 1976 (as expressed in 1990 dollars).¹⁴ Because turnover is directly related to the quality of the experience of children in child care, provider salaries are also an important consideration in determining the quality of care.⁷

In 1990, teachers in center-based programs across the United States earned \$7.49 per hour and averaged an annual income of about \$11,500¹⁴ (excluding assistant teachers and aides, who earn perhaps 10% to 20% less).³⁴ Regulated family child care providers earned about \$4 per hour, and nonregulat-

Although quality in family child care did not decline in the 1980s, the revenues of providers did.¹⁴ The larger increases in expenditures during the early 1990s suggest that providers are now raising fees, another indication of some pressure on the supply of care.

Quality of Care for Low-Income Children

Do low-income parents have access to the same quality of care as middle-income parents? Evidence suggests that when structural features such as group size and staff-child ratios are considered, the lowest- and highest-income families have the highest-quality center-based care, with working- and middle-class children in somewhat lower-quality care.^{7,25,36} When child-adult interactions in centers (other than Head Start) are measured, children from high-income families are better off than children from all other income groups.³⁶

Summary of Child Care Costs and Quality

Although parental expenditures on child care rose slowly during the 1980s, only about a percentage point above inflation, expenditures rose almost 6% annually in the early 1990s. This suggests increasing pressure on the overall supply of early education and care arrangements. In addition, there appears to be a more limited set of child care options for some families, such as those that live in low-income communities, seek care for infants and toddlers, and work odd hours.

The picture derived by assessing all measures of quality is mixed, but not encouraging. Between the mid-1970s and 1990, the education of center staff increased; however, the ratio of children to staff and staff turnover also rose over the past decade, a consequence of increased competition, lower staff salaries, and declining direct federal support.¹⁴

Today, the overall quality in centers and family child care homes appears low, based on the most recent studies that have observed the quality of teacher-child interactions in child care programs. As reported in the article by Helburn and Howes in this journal issue (and not reviewed here), such studies indicate that only 12% to 14% of chil-

Centers kept fees constant in a time of declining direct subsidies by increasing group sizes, decreasing staff-child ratios, and cutting staff salaries.

ed provider wages amounted to \$1.25 per hour (all in 1990 dollars). In 1990, the annual income of regulated family child care providers was \$10,944 and that of nonregulated family child care providers was \$4,275 per year.

In the late 1980s and early 1990s, public funding for center-based programs shifted from supply side (to providers) to demand side (to parents). As described in the article by Stoney and Greenberg in this journal issue, more federal funding goes directly to parents through vouchers and tax credits than to providers via contracts. The proportion of revenues coming to centers from the government has declined since the mid-1970s, increasing the dependence of centers on parent fees.¹⁴ Yet, as shown earlier, parent fees essentially stayed the same over the period. Apparently, centers kept fees constant in a time of declining direct subsidies by increasing group sizes, decreasing staff-child ratios, and cutting staff salaries.

dren are in high-quality center or family child care arrangements. Between 12% and 21% are in low-quality child care that is unsafe and/or harmful to their development. Among center-based programs, quality appears to be lowest in those serving infants and toddlers.

Because parental expenditures for child care have increased during the past decade, these findings suggest that parents are receiving less rather than more for their money and that there may be some shortages of high-quality, affordable care and of care for infants and toddlers.

Although government subsidies do help the lowest-income families gain access to child care, upper-income families actually benefit the most from federal support in the form of income tax credits for child care expenses. Consequently, the largest burden may be borne by the families least likely to receive subsidies: those with at least one working parent and total incomes less than \$25,000. It is their children who wind up in programs of the lowest quality. For them, the child care burden is very real.

The Importance of Affordable, High-Quality Child Care

The preceding sections document that child care is hard to obtain for at least some families in some communities, that the costs to families are increasing, with a larger burden for low-income families, and that the quality of care is declining. The effects of not being able to obtain high-quality, affordable child care can be profound for both children and parents. The effects on children are discussed in the article by Helburn and Howes in this journal issue, but the effects on parents are only now becoming a topic of investigation.

Effects of Availability

At least one study has demonstrated that the number of centers and family child care homes per capita in a community is linked to the employment of mothers in higher-income areas.²⁸ In the same study, the number of Head Start programs was also associated with parental employment in low-income areas. Specifically, the greater the number of centers, family child care homes,

or Head Start programs, the greater the likelihood that a mother in the community would be employed. Of course, this association does not prove that it was the presence of child care programs that caused mothers to go to work (as opposed to the other way around), but it does suggest that actual availability of programs is closely linked with parental employment.

Effects of High Costs

The cost of care is an important factor in mothers' choices of child care arrangements. Several studies have documented that, controlling for indicators of quality and other factors, the higher the price for a specific type of child care, the less likely families are to use it.³⁷

Researchers have also documented that mothers are less likely to work when child care is more expensive.^{38,39} Among mothers

Upper-income families actually benefit the most from federal support in the form of income tax credits for child care expenses.

of all income levels, higher-cost child care is associated with both a lower probability of starting and a higher probability of exiting employment.⁴⁰

The effects of the cost of care on women's work decisions are more pronounced among low-income mothers, who are likely to be raising children alone,⁴¹ than among high-income mothers.^{28,42} The effects can be substantial. A recent report by the General Accounting Office, for example, indicated that subsidizing child care costs completely would lead to a 15% increase in the employment of poor mothers, from 29% to 44%.⁴²

Effects of Quality

Quality of child care, at least as measured by stability and reliability, can also affect mothers' work decisions. A study of the Illinois Aid to Families with Dependent Children (AFDC) population estimated that problems with child care had caused 20% of AFDC mothers to quit school or a training program in the previous 12 months; another 20% were estimated to have returned to

public assistance because of child care problems.⁴³ Parents on AFDC with poor-quality care are more likely to leave their jobs than parents with good-quality care.⁴⁴

Parents report a greater incidence of losing time from work because the provider was not available in in-home rather than formal out-of-home arrangements.^{5,45} Parents on AFDC who had to give up their child care arrangements when they changed activities in California's Greater Avenues for Independence program (California's precursor to the federal JOBS program) were more likely to drop out of the program than those who maintained continuity in child care.⁴⁵

Conclusions: What Does the Near Future Hold?

In sum, recent studies and national surveys indicate that children are more and more being cared for by someone other than their parents and that they are being placed increasingly in more formal arrangements (that is, center-based programs) at younger ages. Nevertheless, some groups of children are less likely to be enrolled in center-based programs: infants and toddlers, children from low-income and perhaps

that sort of care that has the most negative implications for both children and parents.

As of early 1996, it is hard to predict the precise details of what legislation concerning welfare reform or child care for low-income families will be implemented, but there clearly is a general policy push toward increasing the ability of states to mandate work for mothers receiving public assistance. Two key questions therefore are likely to remain. (1) Will mothers indeed move into the work force in greater numbers, thus increasing further the pressure on child care? (2) Will parents continue to utilize center-based programs as they have in the past?

Increases in maternal employment have leveled off since the late 1980s at about three out of five mothers of young children in the work force. With the exception of never-married mothers with young children, the majority of women are already employed at high levels. (About 60% of married or ever-married women versus 46% of never-married women with children under age six were in the labor force in 1992.)⁴⁶ Of course, it is precisely this group of never-married women that is frequently identified as the group that should be employed at higher rates.

Parents on AFDC with poor-quality care are more likely to leave their jobs than parents with good-quality care.

especially from working poor families, and children whose parents work nontraditional hours. Parents of children in these groups appear to face a more limited number of choices for child care. For all children in care, the overall quality of their programs is minimal on some measures and adequate on others, but shows signs of decline over the past few decades. Given that parents have been paying more for care in recent years, they seem today to be getting less for their money.

The informal child care market assures that most parents will be able to find someone to care for their children, but not that they will be able to find stable, affordable, high-quality child care. It is the absence of

Both the 25-year trend toward decreased use of relatives and sitters and increased use of centers suggest that the trend toward greater use of formal early childhood programs will continue. However, if states are unable or unwilling to continue subsidizing the costs of early education and care programs for low-income families, some reversal of the long-term trend toward increased use of center-based programs could occur, at least for low-income families. That would mean that the gap that already exists between enrollment of low- and high-income families in such programs would continue.

Family child care enrollment is likely to remain at about the same level as it is now. The percentage of children of employed mothers who are enrolled in family child care is at the same level today as it was in 1965 (see Figure 2). Two approaches to enlarge the use of family child care would be to make it more attractive, by increasing either its quality or subsidies for care; but

neither of these approaches appears likely to lead to great growth in the use of family child care. Recent studies show that further reducing the price of child care to parents increases the use of center-based programs, rather than the use of other types of programs,³⁷ and quality improvements in family child care have small impacts at best in promoting its use.⁴⁷ Families may simply prefer center-based programs. In one study of low-income parents in New Jersey, for example, the parents preferred center-based programs because they trusted the staff and its child development expertise and believed that their children would be safer in child care centers than in private homes.⁴⁸ Although this may or may not be an accurate view, the finding suggests that the movement toward center-based programs will not be slowed easily.

The exception for this preference for center-based care appears to occur when parents choose arrangements for infants and toddlers. If low-income mothers of children from birth to two years of age are required to engage in employment-related activities, then major growth in the use of child care for very young children is possible. At present, most of these children are in family child care and relative care when not

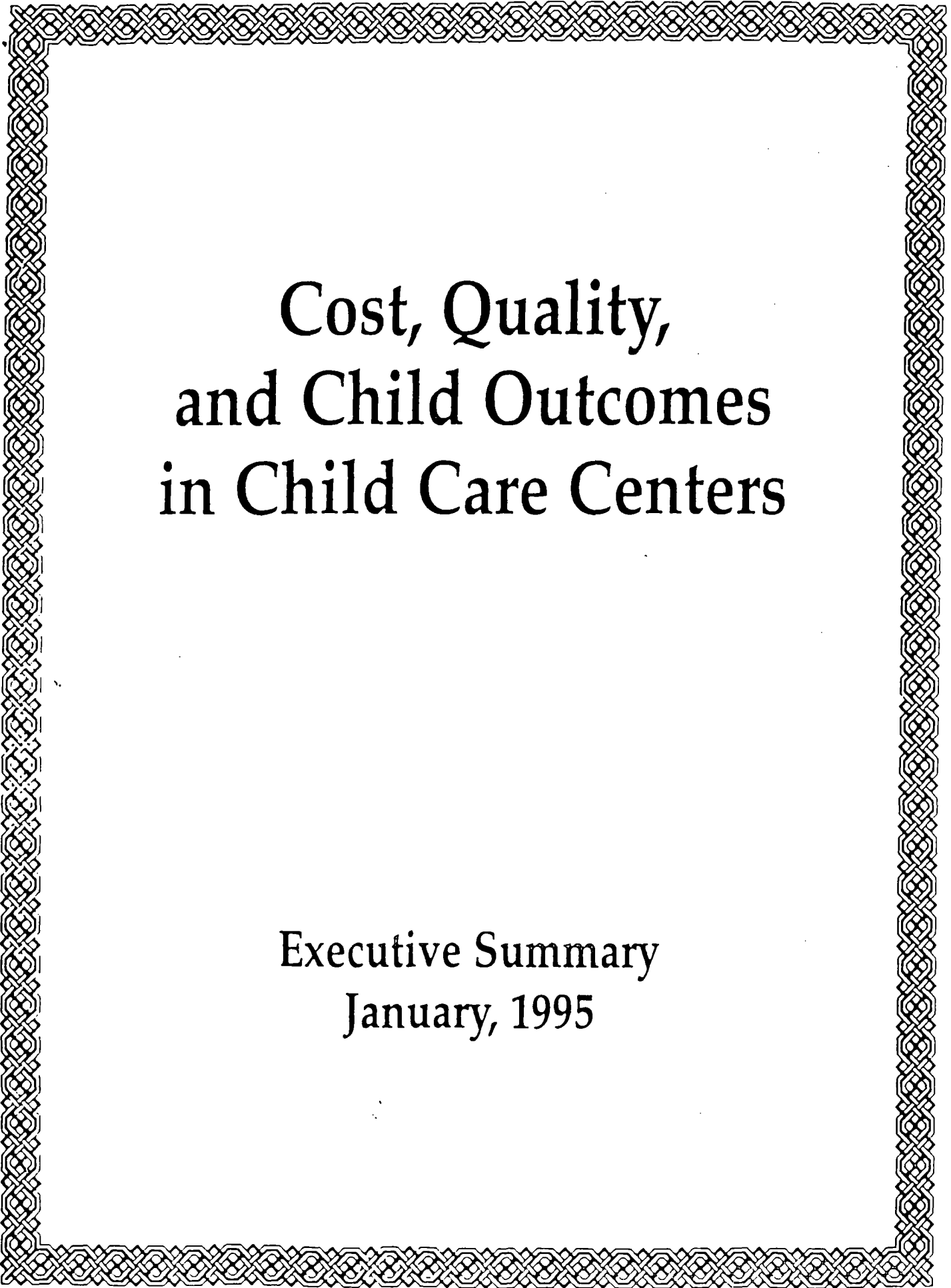
in the care of a parent, either because of parental preference or because only a small proportion of centers accepts infants and toddlers. To increase their enrollment of infants and toddlers, centers would have to expand their programs for infants in order to meet increased demand. However, center-based infant care is very expensive (see the article by Helburn and Howes in this journal issue). Thus, a major move toward enrollment of infants and toddlers in centers seems unlikely without a concomitant increase in assistance to pay for care. Therefore, parents will likely continue to use informal arrangements for their youngest children. Because recent research suggests that the quality of informal care is not as high as that of formal care, this is cause for concern.⁴⁹

While policymakers contemplate the most significant change in social policy for low-income families since the beginning of the war on poverty, families continue to make decisions daily regarding how best to provide care and education for their children. For many, the options are limited. Federal involvement has increased their choices of child care over the years, but concerns remain that withdrawal of this support will jeopardize these gains.

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- nationally representative survey of center directors and family day care home providers (see note no. 6, Kisker, Hofferth, Phillips, and Farquhar); (5) the 1988 Child Care Staffing Study (see note no. 7, Whitebook, Howes, and Phillips); and (6) the 1994 Cost, Quality and Child Outcomes Study (see note no. 8, Helburn, Culkin, Howes, et al).
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Cost, Quality, and Child Outcomes in Child Care Centers

Executive Summary
January, 1995

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*The Cost, Quality, and Child Outcomes Study
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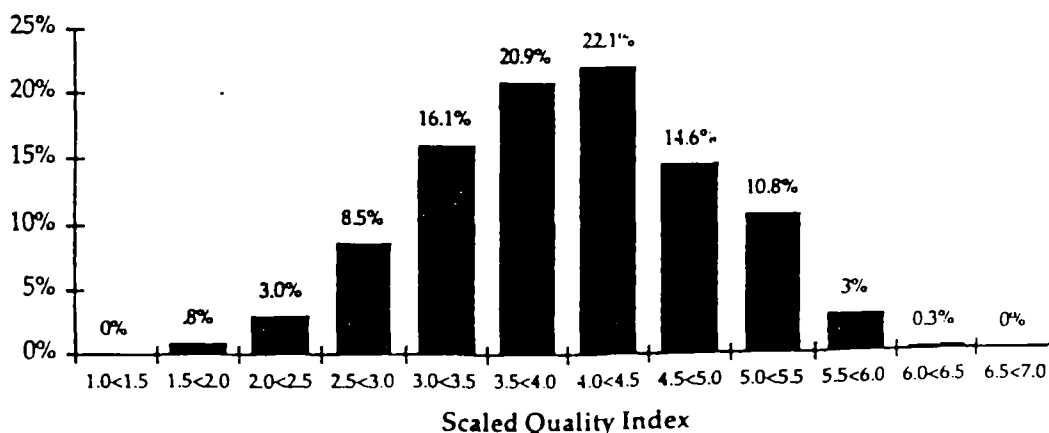
- 1 - Inadequate: Children's needs for health and safety not met; no warmth or support from adults observed, no learning encouraged.
 - 3 - Minimal: Children's basic health and safety needs met; a little warmth and support provided by adults; few learning experiences.
 - 5 - Good: Health and safety needs fully met; warmth and support for all children; learning in many ways through interesting, fun activities.
 - 7 - Excellent: Everything in "good," plus children encouraged to become independent; teacher plans for children's individual learning needs; adults have close, personal relationships with each child.
- The range of quality between these scores is also important. In particular, we call services that are rated below minimal (less than 3) "poor" or "less than minimal"; those that are between minimal and good (3 to less than 5) "mediocre"; and those that are between good and excellent (5 and over) "developmentally appropriate."

FINDING 1: Child care at most centers in the United States is poor to mediocre, with almost half of the infants and toddlers in rooms having less than minimal quality.

The level of quality at most U.S. child care centers, especially in infant/toddler rooms, does not meet children's needs for health, safety, warm relationships, and learning. While there is a great deal of variation in the sample, the mean score for all centers in the study was 4.0, a full point below the good-quality level (5). Figures 1 through 3 show the distribution of quality scores. Only one in seven centers (14%) received a rating of developmentally appropriate (5 or above), and one in eight (12%) were less than minimal (less than 3).

Child care for infants or toddlers is of particular concern. Of the 225 infant or toddler rooms observed, only 1 in 12 (8%) met the good-quality level, while 2 in 5 (40%) rated less than minimal. Babies in poor-quality rooms are vulnerable to more illness because basic sanitary conditions are not met for diapering and feeding; are endangered because of safety problems that exist in the room; miss warm, supportive relationships with adults; and lose out on learning because they lack the books and toys required for physical and intellectual growth.

**FIGURE 1:
Process Quality in Child Care Centers
(N=398)**



FINDING 2: *Across all levels of maternal education and child gender and ethnicity, children's cognitive and social development are positively related to the quality of their child care experience.*

Children in higher quality preschool classrooms display greater receptive language ability and pre-mathematics skills, and have more advanced social skills than those in lower quality classrooms. Children in higher quality centers have more positive self-perceptions and attitudes toward their child care, and their teachers are more likely to have warm, open relationships with them. All of these factors are considered important to a child's capacity to enter school ready to learn. Further, these relations were obtained in analyses that controlled for child and parent characteristics known to be related to both child care selection and developmental outcomes, including maternal education and child gender and ethnicity.

While many previous research projects have studied the impact of child care on the development of at-risk children, this study focuses on the broad range of children in center care. For these children, developmental outcomes on a wide variety of measures improve with the quality of the center across all levels of maternal education and child characteristics. In some instances, however, quality had even more impact on children typically at risk (specifically on receptive language ability of minority children and on the self-perceptions of children of less-educated mothers).

FINDING 3: *The quality of child care is primarily related to higher staff-to-child ratios, staff education, and administrators' prior experience. In addition, certain characteristics distinguish poor, mediocre, and good-quality centers, the most important of which are teacher wages, education, and specialized training.*

This study affirms how important the ratio of adults to children is to quality of services. In the statistical analysis to predict the determinants of quality, the staff-to-child ratio is the most significant determinant of quality, even when controlling for other factors affecting quality. Center quality also increases as the percentage of center staff with a high level of education increases. An increase in a center administrator's prior experience generates higher quality, all else being constant. Finally, there is some evidence that staff tenure at the center also increases quality.

A different analysis identified classroom and center characteristics that distinguished among centers of poor, mediocre, and good quality. This analysis was particularly successful in identifying poor-quality centers, and only moderately helpful in discriminating between mediocre care and good-quality care. The most important discriminators were average teacher wage rates, and teaching staff education and specialized training.

FINDING 4: *States with more demanding licensing standards have fewer poor-quality centers. Centers that comply with additional standards beyond those required for licensing provide higher quality services.*

More poor-quality centers were found in North Carolina than in the other three states. Of the four states included in the study, North Carolina is the state with the least stringent child care standards. For example, at the time of data collection, North Carolina allowed 1 adult to every 6 infants or 15 three-year-olds, while the other states required 1 adult to every 4 or 5 infants or 10 or 12 three-year-olds. Similarly, North Carolina required far less early childhood education of its center staff than did the other three states.

In addition, centers that meet higher standards than required of all centers in their state in order to receive public funding pay higher wages, provide better benefits and working conditions and have higher overall quality. Finally, accredited centers, those that voluntarily meet a higher set of standards specified by an outside organization, have higher quality than do nonaccredited centers.

FINDING 5: *Three specific types of centers provide higher than average overall quality. The financial characteristic these centers share is that they have access to extra resources that they use to improve quality.*

The 24 centers operated by a variety of public agencies (in public schools, state colleges, and universities, or operated by municipal agencies), the 16 worksite centers, and the 30 centers with public funding tied

FIGURE 4:
Expended Cost per Child Care Hour
by State

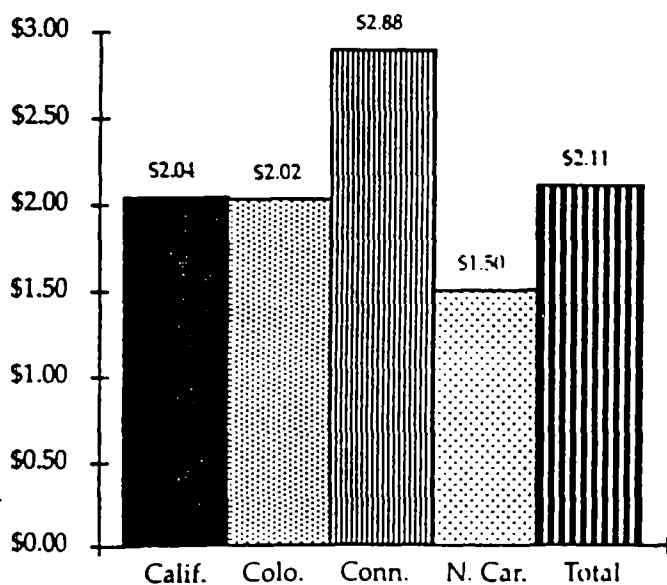
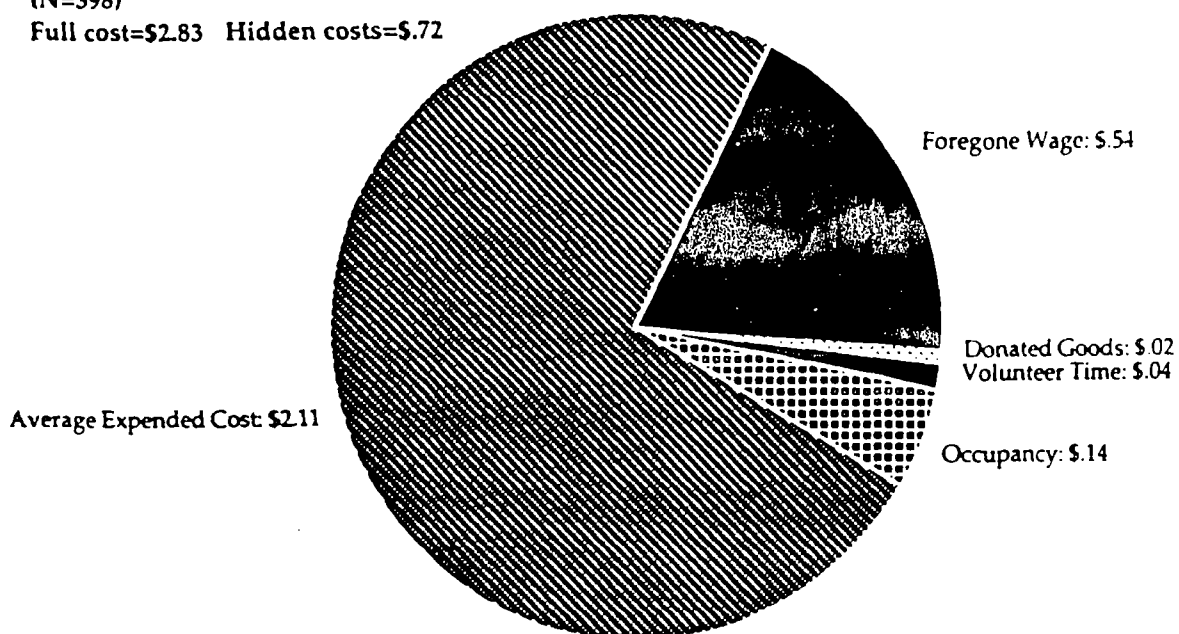


FIGURE 5:
Full Cost of Child Care per Child Hour
(N=398)
Full cost=\$2.83 Hidden costs=\$.72



FINDING 10: *There are differences between for-profit and nonprofit sectors. Overall quality of services, however, is not significantly different between the two sectors except in the one state with very lax licensing standards.*

Quality is not significantly different between for-profit and nonprofit centers except in North Carolina, where for-profit centers provide much lower quality care. In addition, our econometric analysis indicates that there is no significant difference in variable costs per child hour (see footnote 4 for definition) between the two sectors, holding constant the number of hours of service, quality, wage rates paid, and size of facility. This means that the nonprofit sector is about as efficient in the use of resources as the for-profit sector.

Despite overall similarities, there are also differences. In nonprofit centers staff-to-child ratios in preschool rooms are higher than those in for-profit centers; teachers and teacher-directors have more specialized training and formal education; assistant teachers and teacher directors have more prior experience; staff have worked more months at the center; and annual turnover rates are lower. Nonprofit centers pay higher wages, and foregone wages of their staff are lower than those in for-profit centers. While these findings replicate those of earlier studies (Phillips & Howes, 1987; and Whitebook, Howes & Phillips, 1989) that nonprofit centers have higher structural quality measures and higher wages than for-profit centers, it is the first to find such limited differences between sectors with respect to process quality.

FINDING 11: *Within each sector, particularly the nonprofit sector, there is variation by subsectors in center characteristics and quality.*

To examine differences *within* each sector we divided the nonprofits into three subsectors: 1) independent nonprofit, 2) church-affiliated nonprofit, and 3) publicly operated nonprofit. We divided the for-profits into three subsectors: 1) independent for-profits, 2) local chains, and 3) national systems.

Within the for-profit sector, there is considerable homogeneity among the three subsectors with regard to staffing ratios and staff quality. In addition, the different subsectors do not significantly differ in their costs, revenues, and overall quality of services. National systems do, however, offer more staff benefits such as health insurance, maternity leave, and staff child care discounts, and they pay lower wages in California and Connecticut.

Nonprofits are less homogeneous; indeed, there are important differences among subsectors. Centers operated by public agencies have higher costs, revenues, and quality than other nonprofit centers. Church-affiliated centers have lower staff-to-child ratios, lower levels of trained and educated staff, lower wages, lower cost and revenues per child hour, and most importantly, lower overall quality than other nonprofits. These centers seem to resemble for-profit centers more closely than centers in the nonprofit sector. Indeed, the lower quality of church centers, which are proportionately represented in this study, but not in previous studies, accounts for our finding that for-profit, nonprofit sectors do not differ significantly in quality.

These findings dispel the notion that quality (or lack thereof) is crisply aligned with a particular sector. To the contrary, these findings suggest that it is difficult to associate any given level of quality with a sector overall; rather, levels of quality may be more clearly aligned with subsectors.

THE ECONOMIC ENVIRONMENT:

A unique focus of this study was to learn more about the effects of market conditions on the cost and quality of care. Differences in demand and supply conditions faced by different kinds of centers (that is, for-profit and nonprofit sectors or subsectors) may affect the quality of care provided in the market.⁵

⁵ It should be noted that this study was not designed to make a thorough comparison of the long-run advantages and disadvantages of a particular profit status. We did not collect data on capital invested in centers; nor did we investigate tax advantages and disadvantages of profit status.

Summary and Implications

We found that only 1 in 7 centers provides a level of child care quality that promotes healthy development and learning, and that quality of child care affects children across all levels of maternal education. These findings confirm earlier reports about the quality of child care available to the average family in the United States, presented in the National Child Care Staffing Study (Whitebook, Howes & Phillips, 1989) and the Study of Children in Family and Relative Care (Galinsky, Howes, Kontos & Shinn, 1994). Our results indicate that care for infants and toddlers may be even lower quality than previously thought.

This does not mean that good-quality care does not exist or that the early childhood profession does not know how to provide it. We know that high staff-to-child ratios, more highly educated staff, administrators with more experience, and staff stability together do much to create good-quality services.

This study provides evidence of market competitive characteristics and imperfections that we have reason to believe affect the cost and provision of quality. Efficient markets require that buyers have full information. Until parents and other purchasers of care can easily distinguish good from mediocre and poor-quality centers, and demand higher quality, centers cannot increase their fees to cover the increased costs of providing better care. Since most centers have limited budgets, they cannot afford to provide better quality, given the existing fee structure.

Other conditions affect quality of services. First, weak licensing standards seem to induce some for-profit centers and church-affiliated centers to provide lower quality services. Second, accredited centers have higher quality. Third, publicly operated centers, worksite centers, and centers that conform to higher standards in order to receive public funding have higher quality; those centers seem to have sizeable donations or cash contributions, which they use to raise quality. Fourth, larger centers, or centers that maintain full capacity, can reduce costs and increase revenue, thus permitting an increase in quality.

Lower quality centers pay lower wages. We also found that wages of women working in child care are low, even compared to women's wages that already are lower than men's wages. Foregone wages are lower in Connecticut and California, the states where quality is higher. They are also lower in publicly operated and worksite centers where quality is higher. There is every reason to believe that higher foregone wages reduce staff job satisfaction and increase turnover. In the nonprofit centers studied, longer staff tenure is related to higher quality.

- Encourage centers to seek and maintain voluntary professional center accreditation based on high standards.
- Give state and federal financial incentives for centers to provide care that meets higher standards, eliminating federal regulations that restrict the ability of states to pay higher prices for higher quality care.

ACTION STEP 3: Increase investments in child care staff to assure a skilled and stable workforce.

- Invest more federal, state, and local government funds and private sector funds in the education and training of child care teaching staff and administrators.
- Provide all child care staff compensation appropriate to their training, experience, and responsibility.

ACTION STEP 4: Assure adequate financing and support of child care.

- Increase investment in child care by federal, state, and local government as well as the private sector, to help families pay the cost of good-quality care.
- Tie all federal and state child care funding to standards that demonstrably produce high-quality care.
- Provide financial incentives that enable centers to hire experienced administrators and skilled staff and to learn how to keep them.
- Tailor employee benefits to provide significant help to employees with young children, as part of the private sector's support of child care.

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Competence Scale (Stipek, 1993). The children's teachers completed ratings of children's social skills using the *Classroom Behavior Inventory* (Schaefer & Edgerton, 1976). They rated the teacher-child relationship using the *Student-Teacher Relationship Scale* (Pianta, 1992; Pianta & Steinberg, 1992). Finally, parents completed demographic surveys.

All measures were studied descriptively to determine whether there were reliable differences related to region, auspice, or three measures of program scope: the proportion of center full-time-equivalent children who were subsidized, the proportion who were infants/toddlers, and whether the center offered a before-school and after-school program.

The econometric analysis involved estimating short-run total cost functions and quality production functions. We employed multiproduct translog cost functions where the services provided for infants-toddlers, preschoolers, and school-aged children are distinguished. Quality of the child care is controlled by the quality index described above. A vector of dummy variables, representing center attributes, is included to capture efficiency differentials due to center characteristics.

The quality production function is estimated using ordinary least squares, where the center quality index is explained by standard structural inputs (e.g., staff-child ratio, staff education, and experience) and the composition of programs offered by the center, as well as variables capturing center-specific idiosyncracies, such as an administrator's involvement in the center's organization and curriculum. The model also includes controls for the financial, regulatory, and institutional constraints surrounding the center's operation.

A psychometric analysis of correlates of quality was also performed using hierarchical regressions in which process quality was regressed onto 7 sets or "chunks" of structural variables. Seven sets of regression models were fit to the data. The first included the first set of variables, state and profit status. The second included the first two sets of variables—state, profit, and the teacher's background variables. Each successive regression involved adding another chunk of variables to the model.

A third analysis was performed, a discriminant analysis to identify the factors that are most able to classify centers offering poor, mediocre, or developmentally appropriate care.

Hierarchical linear regression models were used to test the concurrent relationship between children's developmental outcomes and the quality of their child care. The initial model for each outcomes variable included all main effects and two-way interactions to determine whether child and family functions, center auspice, or geographic location mitigated the association between developmental outcomes and quality. Non-significant interaction terms were omitted one at a time until the model included all main effects, the state by auspice interaction (which constituted the sampling frame) and all other significant two-way interactions.

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Women's Bureau Special Reports

CARE AROUND THE CLOCK:

DEVELOPING CHILD CARE RESOURCES BEFORE NINE AND AFTER FIVE

U.S. Department of Labor

Robert B. Reich, Secretary

Women's Bureau

Karen Nussbaum, Director

1995

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Acknowledgements



CARE AROUND THE CLOCK -- Executive Summary

In the fall of 1993, a Western Idaho child care resource and referral agency received reports that workers at a round-the-clock food processing plant were using their cars as the "child care" of last resort. Young children were put to sleep and left in unattended cars in the plant's parking lot.

Child Care Around the Clock

While it is difficult for many working parents to find affordable and high-quality child care, the problem is magnified when they work non-standard hours.

"Child Care Around the Clock" is a resource guide for parents, child care providers, employers, and community organizations facing this child care challenge. It profiles a range of practical approaches to making child care more available and affordable for parents who work non-standard hours.

An Emerging Issue

The issue of child care during non-standard hours is growing in importance due to several major trends:

- Nearly one in five full-time workers - 14.3 million - worked non-standard hours in 1991.
- It has been estimated that more than 1,000 different work schedules are in use in the U.S. today.

The problem is likely to become increasingly serious as more employers operate around the clock and as more women with children work non-standard hours.

Our economy is fast becoming a 24-hour operation:

- The long-term trend toward a service-based economy has led to the operation of during early mornings, evenings, nights, and weekends.
- Employers in all sectors are changing their schedules for reasons ranging from ir to enhanced customer satisfaction to reduced air pollution.

A significant percentage of the employees working non-standard hours are women - and ...

- Sixty percent of women with children under age six, and 76% of women with school age children, are in the workforce.
- In 1991, 5 million of the full-time workers with non-standard hours - more than one in three - were women.
- In 1990, 7.2 million mothers with 11.7 million children under 15, worked full- or part-time during non-standard hours.
- Service jobs overall, which have the highest and fastest growing percentage of shift workers (42%), include many jobs held traditionally by women. For example, jobs for medical assistants, nurses aides, and psychiatric aides are expected to increase by 47% between 1995 and 2005, and jobs for home health aides are expected to increase by 136%.

Parents with a variety of jobs, work schedules and family situations report that it is hard, and sometimes impossible, to find child care:

- A single father who works the regular day shift but travels 50 miles to work couldn't find a child care facility with the right hours. He reluctantly hired a provider without experience or training to care for his children at her home.
- A woman with pre-school children was forced to drop out of college because she couldn't find affordable care during her morning and night classes. She found providers who would take her children, but only if she paid the full-time, full- week fee for many fewer hours of care.
- One respondent to the Women's Bureau's "Working Women Count!" survey wrote that she and her husband had worked different shifts for the past eight years so that one of them could be at home with the children. "I feel like a single parent, and so does my husband," she says. "But it's the only way. Before we did this we had five different sitters for our kids in one year."

Promising Practices

The Western Idaho Community Action Program conducted phone surveys of providers, met with parents and raised the awareness of the employer community to deal with that region's non-standard hours child care problem; but there is no one-size-fits-all solution. The report identifies and provides examples of three general models for developing comprehensive, non-standard hours child care:

Single Employer Model A single employer designs a child care program to fit the company's work schedule.

- Toyota Motor Manufacturing of Georgetown, KY, has opened an "on site" 24-hour-a-day child care center licensed for 230 children ages 6 weeks to 13 years.
- The Massachusetts Bay Transportation Authority (MBTA) contracts with 32 licensed child care centers to meet employees' diverse child care needs, and offers tuition subsidies on a sliding scale.

Employer Consortium Model A group of employers come together on an industry or geographic basis to share knowledge and may, over time, pool resources and conduct joint child care projects.

- Close to Home, a consortium of employers from Phoenix, recruited and trained child care providers who would accommodate non-standard schedules. Some of their members recently funded a provider resource lending library.
- A group of employers from the hotel industry in Atlanta, Georgia, formed Central Atlanta Hospitality Childcare, Inc., to address the child care difficulties of hospitality industry employees. They are developing the Children's Inn, which will provide family services and an early learning center for the families of low-income hotel workers.

Community Partnership Model A variety of stakeholders (e.g. employers, parents, providers, unions, resource organizations, local government) join together to identify community child care needs and solutions, pool resources and share skills and expertise.

- Palcare is a non-profit organization that worked with unions, employers, local governments, and community groups to establish a 24-hour-day, seven-day-a-week, child care center for employees at the San Francisco International Airport and in surrounding communities.
- The Tri-County Child Care Task Force in upstate New York includes local employers, the school district, referral

agencies, United Way, and other non-profits. It is assessing the supply and demand of non-traditional child care and compiling possible solutions.

Conclusions

Communities, employers, and providers are coming together to address the lack of non-traditional hour child care. However, much remains to be done. For more information or copies of this report, call the Women's Bureau Clearinghouse at 1-800-827-5335.

INTRODUCTION

Working Women Speak Out

The Women's Bureau of the U.S. Department of Labor, created by Congress in 1920 to "promote the welfare of wage-earning women," is a voice for working women in the public policy process. For 75 years, the Women's Bureau has pioneered policies and legislation to set fair wages and hours, ensure health and safety standards, expand training opportunities, and increase dependent care options.

In 1994, the Women's Bureau conducted a historic survey, "Working Women Count!," asking America's working women to identify what they like and do not like about their jobs and what they think needs to be changed. More than 250,000 women responded, demonstrating the depth of their concern about workplace issues.

One survey question asked women, "If you could tell President Clinton one thing about what it's like to be a working woman today, what would it be?" **The number one issue women wanted to bring to the President's attention was how hard it is to hold together a family while holding down a job.**

Through "Working Women Count!," respondents told us that child care is key to their ability to balance work and family. In fact, 56% of mothers with children age five and under identified "finding affordable child care" as a serious problem, and 53% said that "information about and support for dependent care" is a high priority for change.

What is in this Report

Finding affordable, quality child care in the United States is a challenge for all working parents. "Care Around the Clock" looks at one piece of the child care challenge: the mismatch between workers' changing schedules and available child care services. This report is for parents, child care providers, employers, and community organizations that want to address the growing need for child care during non-standard hours.

Part One describes why the issue of non-standard hours child care is becoming more important as we move toward the 21st century and an economy that is increasingly a 24-hour operation. It draws on a Western Idaho case study to illustrate how the mismatch between work schedules and available child care services is affecting the families and employers in one community.

Part Two profiles a variety of models for expanding the supply of non-standard hours child care, some based in the workplace and others based in the community.

Additional resources, including contact information for individual programs, are listed in Appendices A, B and C.



PART ONE - CHILD CARE BEFORE NINE AND AFTER FIVE: AN EMERGING ISSUE

Changing Child Care Needs and the Changing Workplace

The American economy is changing, and so is the American workplace. To remain competitive, businesses are experimenting with how and when work gets done. As work schedules are adapted to the needs of specific product lines and services and more businesses run around the clock, both employers and employees face a variety of new challenges. One of the most significant is the need for child care services during parents' working hours, whenever they may be.

The issue of child care during non-standard hours is growing in importance due to five major trends:

- Structural change toward a service-based economy - which has been occurring over several decades - means that more businesses are operating during early mornings, evenings, nights, and weekends. Service occupations with a high proportion of shift workers are projected to produce more new jobs than any other sector over the next decade.<1>
- Employers in many sectors, not just the service sector, are increasingly implementing schedules other than eight-hour days and five-day weeks -- from compressed work weeks to rotating shifts. Their reasons range from increasing flexibility to enhancing customer satisfaction to reducing air pollution.
- In recent years, starting in the early 1980s, the work week of many Americans has gotten longer. This includes workers across occupations, from top-level professionals to factory workers.<2>
- For some workers, particularly production workers in manufacturing, the use of overtime is higher than at any time since World War II. This is due to a combination of factors such as downsizing and economic expansion.<3>
- More women with children are working for wages than ever before: 60% of women with children under six are in the workforce, and 76% of women with school age children are working. Finding safe and affordable child care is critical to the economic well-being of both dual earner and single parent families.

Who Works Non-Standard Hours?

Non-standard hours include early mornings, evenings, nights, and weekends, as well as all shifts longer than eight hours. It has been estimated that more than 1,000 different work schedules are in use in the U.S. today.<4> Nearly one in every five full-time workers, or 14.3 million, worked non-standard hours in the U.S. in 1991 - 5 million of them were women.<5>

Service jobs overall, which include many jobs traditionally held by women, have the highest percentage of shift workers (42%). [See Chart 1] Occupations with high proportions of shift workers are expected to grow significantly in the coming years. For example, jobs for medical assistants, nurses aides, and psychiatric aides are expected to increase by 47% between 1995 and 2005, and jobs for home health aides are expected to increase by 136%. [See Table 1]

Many mothers are working non-standard hours. In 1991, 7.2 million mothers worked non-standard hours on a full-time or part-time basis. These mothers had 11.7 million children under the age of 15 who needed some type of non-standard hours child care. In addition, 71% of these mothers indicated that they work non-standard hours because it is a job requirement, while only 14% chose non-standard work hours to seek better child care arrangements.<6>

Who is Caring for our Children Before Nine and After Five?

As women continue to enter and remain in the paid workforce, the need for sufficient, safe and affordable child care services during all hours will continue to rise. Neighbors and grandmothers, the traditional sources of informal child care when the parent is not available, are also less likely to be found at home. They too are increasingly in the labor force.

For parents whose hours extend beyond the standard workday, locating and paying for quality child care is particularly difficult. Despite the fact that nearly one in five married workers work non-standard hours, most child care providers still offer only "day care" for the traditional nine to five work day. While scientific surveys on 24-hour child care centers are non-existent, it has been estimated that there are roughly a dozen of these centers across the country.<7>

Many workers with non-standard schedules earn low to moderate incomes and cannot afford to pay a lot for child care. Some parents chose to work opposite shifts in order to avoid child care costs and/or ensure that both parents have time with their children - this is often called "tag-team parenting." [Sidebar: *Patsy Cornell is a mother of three from Michigan and a Working Women Count! respondent. She has been a "tag-team" parent for eight years because she and her husband can't afford quality child care. Says Cornell, "I feel like a single parent, and so does my husband. But it's the only way. Before we did this we had five different sitters for our kids in one year."*]<8> Tag-team parenting is a delicate balancing act and, in most cases, far from a perfect long-term solution. Assuming that parents are able to match their shifts, they are rarely together as a couple or with their children; minor changes in either's schedule can cause serious problems; and there is still a need for back-up child care systems during illnesses and emergencies.

The majority of mothers who work non-standard hours, whether full- or part-time, do so because it is required by their jobs, not because it fits their child care needs.<9> Most of these mothers use family day care providers, while others use center based care or a provider who comes into their own home. A surprising number care for their children at work. [See Chart 2]

Recent studies on the quality of formal and informal child care indicate that many children are in mediocre

Recent studies on the quality of formal and informal child care indicate that many children are in mediocre or poor care arrangements.<10> While many parents have difficulty finding quality child care, the choices are fewer and the search harder for those who work non-standard hours.

A Case Study from Western Idaho

While the trend towards non-standard work hours is evident on a national scale, the effects are most keenly observable at the local level. Mismatches between worker schedules and available services vary considerably from one community to another, along with demographics, major industries, and local resources. In many communities, the need for non-standard hours child care is still a "sleeper" issue, unknown or ignored until the problem becomes a crisis.

That is what happened in Western Idaho. In the fall of 1993, the local child care resource and referral agency, housed in the Western Idaho Community Action Program (WICAP), received reports from several sources that workers at a round-the-clock food processing plant were using their cars as the "child care" of last resort. Young children were put to sleep and left unattended in cars in the plant's parking lot. This alarming news served as the catalyst for an investigation into the availability of child care for shift workers, such as those at the food processing plant, as well as others working non-standard hours in six Western Idaho communities.

Although the situation in Western Idaho is in some ways particular to that region, the frustrations and concerns of parents and community organizations in that state mirror those in many other parts of the country where people work before nine and after five.<11>

Western Idaho: From Farming to Fast Food

Western Idaho is a largely rural region, where people are spread out and communities are small. It includes six counties to the west and north of Boise -- Adams, Canyon, Gem, Owyhee, Payette, and Washington. Some people work on farms or ranches, growing potatoes and raising cattle; while others work in the expanding food processing industry, making french fries and hamburgers for fast food restaurants.

Most food processing plants have some non-day shifts, and many have round-the-clock schedules to keep up with the demand from national fast food chains. Several other major industries in Western Idaho also have high levels of non-standard work hours, including retail, mobile home and RV construction, and electronics manufacturing. The 58 largest employers in the region employ approximately 25% of the region's workers. More than half of these employees, 7,932, work evening or night shifts.<12> This count, while dramatic, does not fully capture the extent of non-standard hours work in Western Idaho, since data on weekend work and other non-standard hours, such as overtime, are not available.

In Western Idaho, a large percentage of workers with non-standard hours are women with children. In Idaho overall, 59.2% of women work full or part time, which is slightly higher than the national average (57.9%). Nearly one in five working women in Idaho (18.9%) has a child under age six, and almost half (44.9%) have at least one child under 18.<13>

Taking the Lead

The Western Idaho Community Action Program, (WICAP) is a non-profit corporation established by the 1964 Economic Opportunity Act. It serves approximately 22,000 low and moderate income people and provides comprehensive family services, including child care resource and referral information. WICAP mobilizes and coordinates public and private resources to provide child care to working parents in the

mobilizes and coordinates public and private resources to provide child care to working parents in the region's urban and rural areas. Until WICAP learned of the problem at the food processing plant, however, they had not focused on the need for child care during non-standard hours.

With a contract from the U.S. Department of Labor Women's Bureau, WICAP began gathering information from parents and child care providers about the needs for, and availability of, care during non-standard hours.

Few Providers Available

To assess the supply of non-standard hours care, WICAP conducted a telephone survey during the spring of 1994 of the 180 providers in their service area who are either licensed by the state or registered with a community agency. Most of these child care workers provide care in their own homes. Of the 160 providers who responded, just over 75% cared for children Monday through Friday only. Eight percent cared for children Monday through Saturday, and 11% cared for children seven days a week.

Most of the providers were open 12 hours a day, from 6:00 am to 6:00 pm. Five facilities opened by 4:30 am, and an additional 27 opened by 5:30 am. Twenty-one facilities were still open at 7:00 pm. By 8:00 pm, 12 facilities were open, and by 11:00 pm, the number dwindled to four. No facilities were open after 11:30 pm.

Providers gave four main reasons why they did not provide evening or weekend care: 1) they need more personal time or time with their own families; 2) they only provide non-standard hours child care as a favor to a friend or relative; 3) there is not enough demand from parents; and 4) it is difficult to recruit and retain staff for non-standard hours. Providers also mentioned that evenings and weekends are the only time they have for additional training and education. Seventy-eight percent of the providers surveyed, some of whom had offered non-standard hours care in the past, said they would not be willing to provide it in the future.

The survey did not capture the extent to which informal and unlicensed child care was available during non-standard hours. It did, however, clearly illustrate that parents who seek licensed care during early mornings, evenings, nights, and weekends had very little to choose from, and that providers see substantial obstacles to offering such care.

For Parents, Frustration and Worry

WICAP held a series of meetings with local working parents in their service area to learn more about their dependent care needs. Parents' stories all carried the same basic message: they are frustrated by the lack of safe, affordable, and dependable child care during non-standard hours. Given the choice, most said they would prefer a stable child care arrangement with a relative or neighbor. But parents repeatedly emphasized that such informal arrangements are rarely stable enough to count on. Instead, they find themselves constantly searching for new and better options, and worrying about the lack of continuous care in their children's lives.

Parents with a variety of jobs, work schedules and family situations spoke out about how hard, and sometimes impossible, it is to find the child care they need:

- A woman who works for a computer company from 2:00 pm to 10:00 pm cannot find a caregiver for her preschool child during these hours. A relative has agreed to care for the child for now, but the mother is constantly worried about having to leave her job if this arrangement falls through.

- the mother is constantly worried about having to leave her job if this arrangement falls through.
- A woman who works in a food processing plant from 6:00 am to 2:30 pm can not find child care for her infant, particularly for the early hours. Since English is not her primary language, she finds it very difficult to get information and assistance about non-standard child care options or to find a Spanish-speaking provider.
 - A single father who works the regular day shift in an electronics plant travels 50 miles to work. He has three children under the age of four and needs a child care program that opens early and closes late. Unable to find a licensed facility with the right hours, he reluctantly hired a woman without prior child care experience or training who cares for the children at her home.
 - A woman with a 13-month-old child works from 3:00 pm to 11:00 pm, and her husband works from 6:00 am to 4:00 pm. They have tried to meet their child care needs through "tag-team" parenting -- having one parent at home while the other is at work. The problem is the gap of one to two hours every day when their shifts and travel times overlap. Both parents believe that their jobs are in jeopardy because they have been unable to find regular child care for just those afternoon hours.
 - A single mother with a pre-school child attended college classes, some in the morning and some at night. She needed child care part-time during the day and part-time during the evening. Every child care provider she talked to insisted that she pay the full-time, full-week rate for day care, even if she did not use it all day or every day. Because she could not afford both evening and full-day care, she was forced to drop out of college and indefinitely postpone her plans for improving her economic future.

The problems that parents and providers in Western Idaho describe are daunting, and they raise many important and difficult questions. What can parents do if their jobs require hours that no child care provider will meet? What can fairly be asked of providers, many of whom are also working parents? What is the responsibility of employers who use non-standard schedules? Who else in the community can make a difference in expanding child care options during evenings, nights, and weekends?

WICAP has begun to look for ways to answer some of these questions.

Seeking Solutions

WICAP concluded from their provider survey and parent meetings that many working families in Western Idaho need non-standard hours child care services, and that the supply is inadequate. Whether it is care in the early mornings, evenings, nights, weekends, or "in between" times, parents reported that their options were very limited. And parents revealed that problems with finding affordable, quality child care can result in constant worry and even diminished economic and career prospects.

WICAP also learned that child care providers face a set of barriers that must be addressed if the supply of non-standard hours care is to be expanded. They need time to spend with their own families, time and financial support for training, and methods for recruiting and retaining staff.

Since WICAP conducted their investigations, they have begun to make progress in expanding the supply of non-standard hours care. For example, 15 day care providers in their service area have changed hours and now provide care to children of shift workers in the region.

WICAP has also begun to raise awareness of the problem in the employer community by building links between employers and other stakeholders such as parents, child care providers, and community service agencies. They recently sponsored a "Work/Family Forum" that brought together all these parties and began the process of developing creative, local solutions. Eighteen businesses attended the forum, including two businesses that participated on the panel and spoke to their peers about the importance of

including two businesses that participated on the panel and spoke to their peers about the importance of non-standard hours child care. There are plans to involve other businesses from Boise in future activities.

PART TWO - MAKING IT WORK: PROMISING PRACTICES IN DEVELOPING NON-STANDARD HOURS CHILD CARE

Introduction

Problems with the availability of non-standard hours child care are not unique to Western Idaho. In the second part of this report, we describe a number of promising efforts to address this problem in different places around the country. These examples provide useful information to other employers and communities working to resolve their own non-standard hours child care needs.

Many of the non-standard hours child care programs profiled in this report require significant time and resources, and are the product of long-term planning efforts. However, there are many less costly ways for companies and communities to begin to address the issue.

Employers can be responsive in a variety of ways, such as:

- Facilitating information sharing among employees through support groups and parenting seminars during work hours.
- Providing accessible resource information to parents, such as an "Employee Handbook" which includes the phone numbers of local child care resource and referral agencies.
- Conducting training seminars for employees, supervisors and managers on coping strategies for easing the impact of non-standard work schedules on personal and family life.
- Promoting flexible work policies and protecting the option of overtime pay after 40 hours of work a week.
- Creating a work/family committee with representation from labor and management to discuss issues like balancing work and family, insuring quality child care, and helping individual employees resolve work/family dilemmas that arise because of non-standard work hours.

Communities can also address the issue through a variety of activities such as:

- Encouraging a local organization, such as a PTA or Chamber of Commerce, to host a public education forum on non-standard hours child care.
- Providing information to parents and employers on existing child care resources through articles in local newspapers and public service announcements on local radio stations.
- Recognizing or publicizing successful programs that meet the child care needs of parents who work non-standard hours.
- Creating a community task force involving key stakeholders to assess the supply of and demand for quality non-standard hours child care in a particular urban or rural area.

Each of these ideas requires only a small investment in dollars and cents. But the return may be substantial, enabling employees to meet their work and family responsibilities and employers to maintain their competitive edge in an ever-changing economy.

Expanding Child Care Hours and the Employer's Bottom Line

Neither employers nor families benefit when the demands of work and family become mutually exclusive. Some employers have come to acknowledge the importance of providing non-standard hours child care

Economic Perspectives on Child Care Quality

September 15, 1997

Summary

An important question for evaluating the uses of limited federal child care funds is the extent to which our policies should emphasize improving child care *quality*. The purpose of this memo is to provide an economic perspective on funding for child care quality improvements. We make three central points:

- Attempts to measure the effects of quality on child care are complicated because of difficulty in measuring the important variables, and unmeasured factors correlated with quality. As a result, it is inherently difficult to influence underlying quality with federal policy levers, and to know what benefits accrue from quality subsidies or standards.
- Mandating quality improvements through standards is not a “free” option: more stringent standards result in higher prices and therefore decreased utilization of licensed care.
- Providing greater information to parents and providers on the attributes of quality care are likely to be the most cost-effective methods of improving quality.

How Much Does Quality Matter?

Child care can be thought of as one input where output is children’s cognitive and social development. A large body of literature has found that quality care is positively associated with children’s current cognitive and social development. But there are a number of problems in interpreting these results:

- It is difficult to measure the desired outcome, cognitive and social development, and the marginal impact of child care on this development.
- Family background is the most important influence on child development, and it is correlated with child care: parents who invest in high quality care are also likely to provide their children with other opportunities for development. Studies of the effect of quality often do not properly control for family background and other characteristics that are correlated with quality of care. As a result, they may attribute the beneficial effects of excellent family background to higher quality care, making that care appear more valuable than it is in reality.
- It is difficult to measure the quality inputs of child care. One approach is to use components of child care that can be measured objectively, such as the child to staff ratio and group size (*structural measures*). However, there is little evidence that these factors have any measurable effect on children’s development. A second approach defines quality in terms of children’s experience in care, such as care giver empathy or behavior (*child experience measures*). However, these measures are largely subjective and

difficult to obtain, particularly for regulatory authorities.

As a result of these problems, there is little solid basis for the claim that there are sizeable returns to subsidizing child care quality. In addition, direct government interventions to enhance quality are rendered difficult by the ambiguous nature of what determines quality care.

The Quality/Access Tradeoff

It is critical to recognize that there is a *tradeoff between government policies to improve quality, and those to improve access*:

- Most obviously, for a fixed total amount of government spending, spending on quality improvements represents dollars that cannot be transferred to individuals to pay for child care
 - As noted above, it is very difficult to define “quality” child care, and as a result difficult to target government spending
 - If the problem is that parents would like to purchase higher quality care, but cannot afford it, income transfers are the most efficient solution. Examples of income transfers include the Earned Income Tax Credit (which is a general transfer) and the voucher programs operated by states under the Child Care Development Fund. It is important to recognize that parents may not make choices over “quality” in exactly the same way that the government deems appropriate, but this does not necessarily reflect poor choices; it may instead reflect the difficulty to the government of measuring quality.
- Another approach to the underprovision of quality, from a societal view, is standards for child care providers, such as mandated child-to-staff ratios and educational requirements. But *standards are not costless: they raise the price of market (licensed) care, driving more families into the unlicensed care sector*
 - Economic studies indicate that higher standards result in higher costs: a recent study found that a 10 percent decrease in the child-to-staff ratio for four-year-olds increases the price of care by 8 percent. Similarly, requiring educational credentials of family day care providers increases the price of family care by 19 percent.
 - This same study found that, as a result, increasing quality standards lowers the demand for market care. For example, each 10 percent reduction in the child-to-staff ratio reduces use of market care by 2 percent, and requiring educational credentials for family day care providers lowers use of market care by 13%.

- Subsidies to the training of day care providers may be an attractive alternative to mandating education. Subsidizing training would increase the supply of quality child care providers, lowering the price of quality child care and thereby increasing access.
- But one area where there may be little tradeoff is education/information. A free market may not provide information to parents on the advantages and attributes of quality child care. Similarly, it may be difficult for parents to find out who provides day care in their area. Providers may be unable to obtain up-to-date information on how to ensure quality care.
 - This suggests that government referral agencies may be the most cost-efficient quality intervention. Child care offices can provide lists of providers and qualities parents should look for in selecting child care. This type of assistance is fairly inexpensive and non-controversial, because the goal is to *help parents* make better decisions, rather than interfering in parental child care choice. The same agencies may also help providers in *voluntarily* improving quality by recommending child care practices.

HHS Options: The Department of Health and Human Services offered 7 options to improve child care quality. Some reactions, in light of the discussion above:

- Options 6 (provider network) and 7 (parent network) in the HHS options look most promising. These are relatively low cost options that can help parents select high-quality care and give providers the necessary information to supply this care.
- But options 1 (set Federal standards), 2 (mandatory provider education), 3 (expand health and safety requirements of the CCDF program), 4 (require Federal child care programs to adhere to *Stepping Stones* and challenge states to match) and 5 (promote states adoption of *Stepping Stones*) should be approached with extreme caution. These efforts are likely to increase the cost of care and reduce its use. Careful analysis of the costs and benefits of raising standards is required before these policies should be adopted.
- HHS should instead use increased funds to improve access to the child care market through income-based subsidies; these subsidies will be used to some extent by individuals to buy higher quality care than they now use.
- Alternatively, HHS could use the funds to subsidize training of child care providers, which will lower the market price of care and increase access.
- Any program should set aside a non-trivial share of increased funding for research into the effects of different government policies on child care access and quality choices, and the effects of these choices on subsequent child outcomes.

A Profile of the Child Care Work Force

Approximately three million child care teachers, assistants, and family child care providers in the U.S. care for 10 million children each day.

Who are the child care teaching staff?

97% are female
41% have children
10% are single parents

● Child care teaching staff earn an average of \$6.89 per hour or \$12,058 per year (based on 35 hours per week and 50 weeks per year) (data from *Cost, Quality and Child Outcomes in Child Care Centers*, Technical Report 1995, salary data are in 1993 dollars).

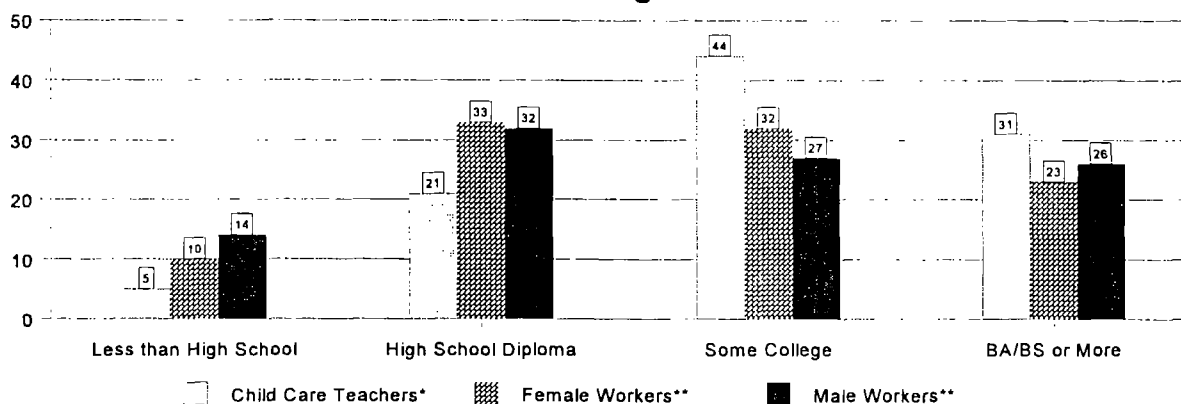
● Only 18 percent of child care centers offer fully paid health coverage to teaching staff.

● Although they earn lower wages, child care teachers are better educated than the general population.

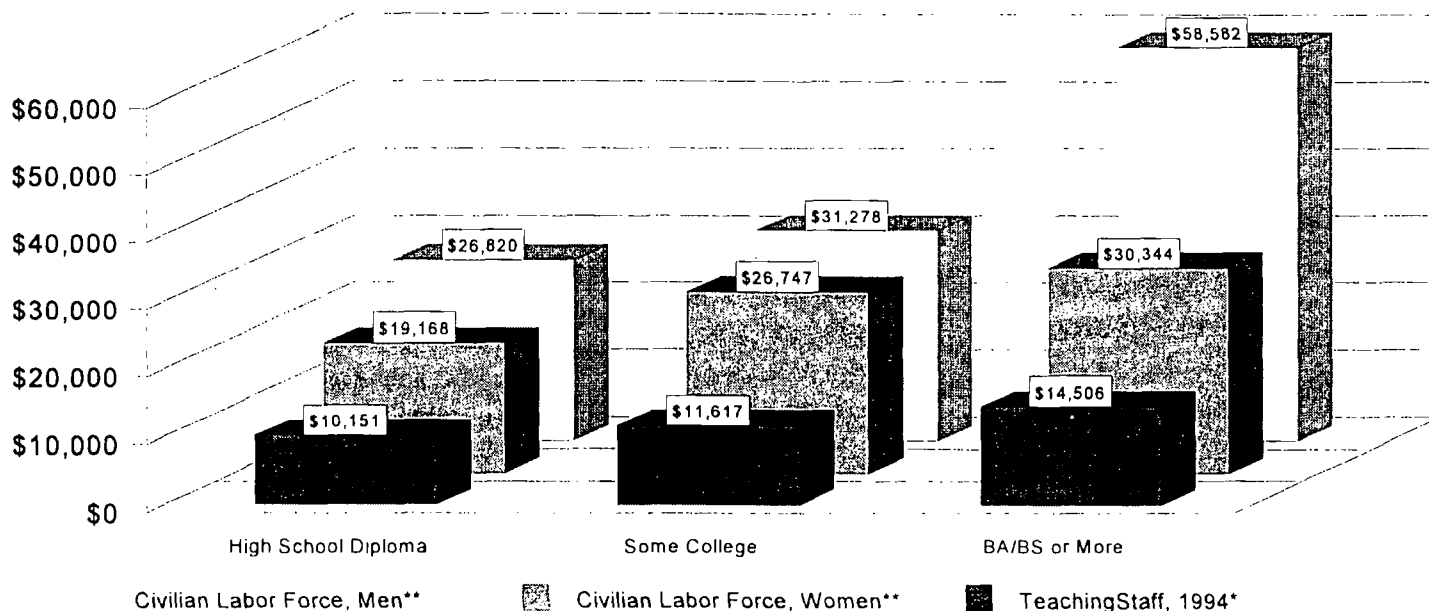
● One-third of all child care teachers leave their centers each year.

● Family child care providers who care for and educate young children in their homes also have very low earnings. Providers earn \$9,528 annually after expenses (data from *The Economics of Family Child Care Study*, a forthcoming publication from Wheelock College, earnings in 1996 dollars). Unregulated providers, who care for fewer children and are offered fewer supports, earned just \$5,132 after expenses.

Education of Child Care Teaching Staff Versus All Workers***



Annual Wages of Child Care Teaching Staff Versus All Workers***



***These charts only provide information on center-based teaching staff.

Child Care for Young Children: Demographics

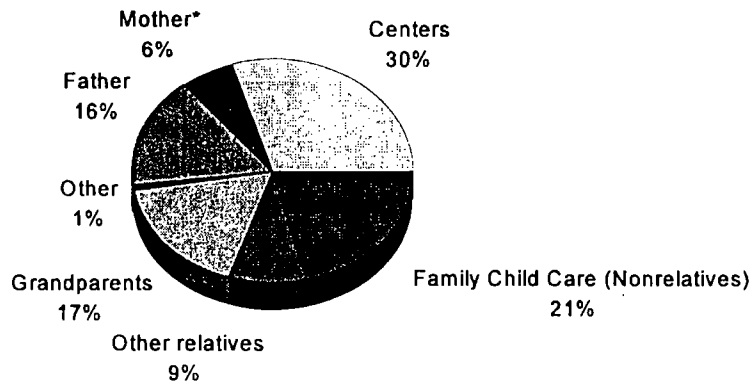
● According to the National Center for Education Statistics, in 1995 there were approximately 21 million infants, toddlers, and preschool children under the age of six in the U.S., more than 12.9 million of these children were in child care.[†]

● While use of center-based care increased from 1988 to 1993, most young children are still in a home-based setting, including family child care.^{**}

● Forty-five percent of children under age one were in child care on a regular basis.[†]

Primary Child Care Arrangements Used by Families with Employed Mothers for Preschoolers: 1993

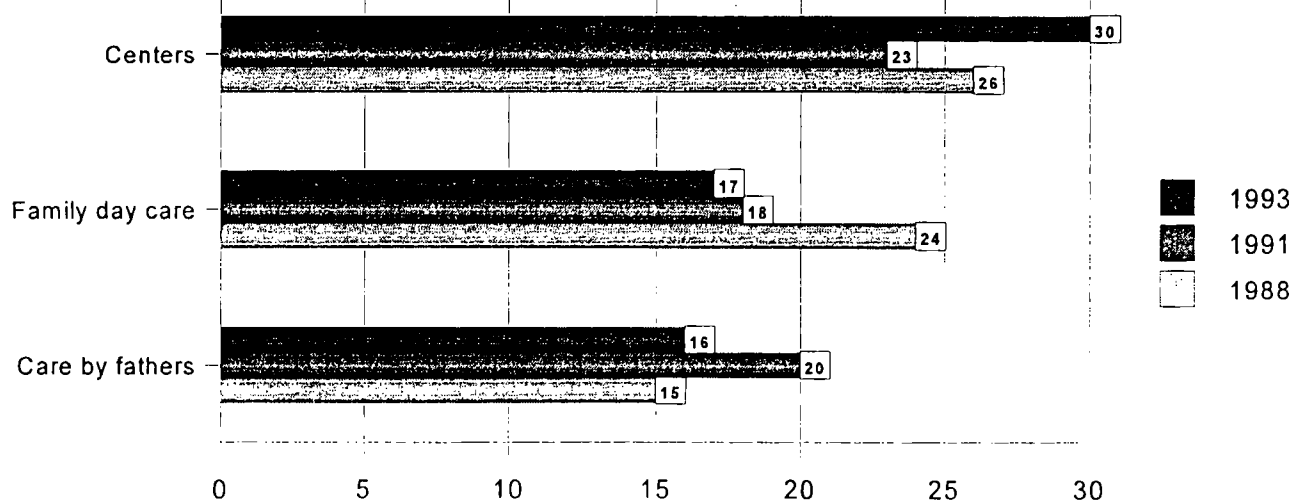
(Percent of preschoolers of working mothers in selected arrangements)



* Includes mothers working at home or away from home. Source: Casper, L.M. *Who's Minding Our Preschoolers?* U.S. Bureau of the Census, Current Population Reports, P-70, no. 53, Washington, DC 1996

Changes in Selected Child Care Arrangements: 1988 to 1993

(Percent of preschoolers of working mothers in selected arrangements)



Source: Casper, L.M. *Who's Minding Our Preschoolers?* U.S. Bureau of the Census, Current Population Reports, P-70, no. 53, Washington, DC 1996

This profile of child care demographics has been excerpted from information provided by the [†] National Center for Education Statistics, U.S. Department of Education and the ^{**}U.S. Bureau of the Census.

For additional information, contact the National Child Care Information Center at (800) 616-2242 or visit the Web site at <http://ericps.crc.uiuc.edu/nccic/nccichome.html>

Child Care for Young Children: Quality

"Recent brain research suggests that warm, responsive child care is not only comforting for an infant; it is critical to healthy development."

- *Rethinking the Brain: New Insights into Early Development*
Families and Work Institute (1997)

● **Higher quality child care for very young children (0 to 3) was consistently related to high levels of cognitive and language development.** "Mother-Child Interaction and Cognitive Outcomes Associated with Early Child Care", NICHD Early Child Care Research Network (1997)

● **Studies have raised concerns about the quality of care:**

- A four-state study of quality in child care centers found **only one in seven (14%) were rated as good quality.** *Cost, Quality and Child Outcomes in Child Care Centers, (Executive Summary)* University of Colorado at Denver (1995)
- **Thirteen percent of regulated and 50 percent of nonregulated family child care providers offer care that is inadequate.** *The Study of Children in Family Child Care and Relative Care*, Families and Work Institute (1994)
- **"The quality of services provided by most centers was rated as barely adequate."** *The National Child Care Staffing Study* (Executive Summary), National Center for the Early Childhood Workforce (1989)

● **"[M]any children living in poverty receive child care that, at best, does not support their optimal development and, at worst, may compromise their health and safety."** *New Findings on Children, Families, and Economic Self-Sufficiency*, National Research Council, Institute of Medicine (1995)

What Works to Improve the Quality of Child Care

● **Children who receive warm and sensitive caregiving are more likely to trust caregivers, to enter school ready and eager to learn, and to get along well with other children.** . . . To ensure that child care settings nurture children, protect their health and safety, and prepare them for later school success, better qualified staff are essential." *Starting Points: Meeting the Needs of Our Youngest Children*, Carnegie Task Force on Meeting the Needs of Young Children (1994)

● **"[S]maller group sizes, higher teacher/child ratios and higher staff wages result in quality child care.** Outcomes for children are also better when they attend programs that include a curriculum geared to young children, well prepared staff and where parents are involved in programming." *Early Childhood Care and Education: An Investment That Works*, National Conference of State Legislatures (1997)

● **Any child care setting will benefit from a health consultant.** . . . to advise on potential infectious diseases, explain symptoms and treatments to families, plan health alert procedures when infectious disease occurs, and assist with public health reporting requirements. *Caring for Infants and Toddlers in Groups, Zero to Three*: National Center for Infants, Toddlers and Families (1995)

● **States with stronger licensing requirements had a greater number of good-quality centers** according to recent research. *Cost, Quality and Child Outcomes in Child Care Centers*, University of Colorado at Denver (1995)

● **Voluntary conformity to higher standards through professional center accreditation or through meeting another set of quality standards also increased the likelihood of higher classroom quality.** *Cost, Quality and Child Outcomes in Child Care Centers*, University of Colorado at Denver (1995)

For additional information, contact the National Child Care Information Center at (800) 616-2242 or visit the Web site at <http://ericps.crc.uiuc.edu/nccic/nccichome.html>

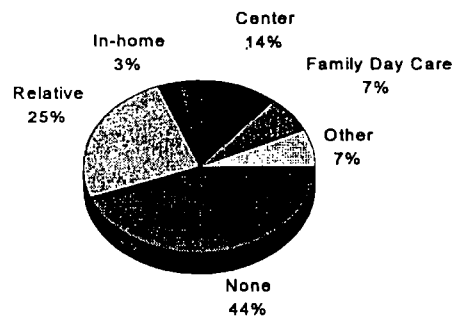
Out-of-School Time School-Age Care

According to the Bureau of the Census, in 1997 there were 38.8 million children between the ages of 5 and 14 years living in the U.S. There are approximately 24 million school-age children with parents in the workforce or pursuing education (based on 1993 SIPP data from the Bureau of the Census).

Care Arrangements of School-Age Children

- Experts estimate that **nearly 5 million school-age children spend time as latchkey kids without adult supervision during a typical week.**
- **Approximately 1.7 million children in kindergarten through grade 8 were enrolled in 49,500 formal before- and/or after-school programs in 1991,** according to the National Study of Before and After School Programs.
- In 1993-94, according to the National Center for Education Statistics, there were 18,111 before- or after-school programs in public schools—70% of public schools did not offer extended learning programs.
- School-age children are likely to spend time in many different care arrangements. According to the National Child Care Survey (1990), **76 percent of school-age children with an employed mother spend time in at least two child care arrangements during a typical week, in addition to their time in school.**
- According to the National Child Care Survey, children aged 5 to 12 with employed mothers use the following types of supplemental care: 7% are in family day care; 14% are in centers, 3% are cared for by in-home providers, 25% are cared for by relatives and 44% do not use supplemental care.

Use of Supplemental Care, Children 5 to 12 with Employed Mothers



The Effects of Out-of-School Time on Children

- Children under adult supervision in a formal program during after-school hours have demonstrated improved academic achievement and better attitudes toward school than their peers in self- or sibling care. Miller and Marx, 1990 in *Supplement to the National Assessment of Chapter 1*
- Youth are at greatest risk of violence after the regular school day. Youth between the ages of 12 and 17 are most at-risk of committing violent acts or being victims between 2:00 pm and 6:00 pm—a time when they are not in school. *Fight Crime: Invest in Kids*, 1997

The most frequently mentioned barrier to participation is the parents' inability to pay the tuition and fees charged by programs. Other barriers include availability, quality of activities, inadequate facilities, transportation, high staff turnover, hours of the program and lack of resources.

Components of Successful Before- and After-School Programs include: linkages between after-school and regular school programs, children's participation in age appropriate learning activities, hiring of qualified staff, low student-staff ratio, involvement of parents, program evaluation and coordination with the schools and other community organizations.

For information on what states and communities are doing to meet the need for school-age care, contact the National Institute on Out of School Time (formerly the School-Age Child Care Project), Center for Research on Women, Wellesley College at (617) 283-2547 or visit the World Wide Web site at: <http://www.wellesley.edu/WCW/CRW/SAC/>. For additional information on extended learning in after-school programs in schools, contact the U.S. Department of Education, please call (800) USA-LEARN or visit the World Wide Web site at: <http://www.ed.gov/PFIE>.

Economics of Child Care

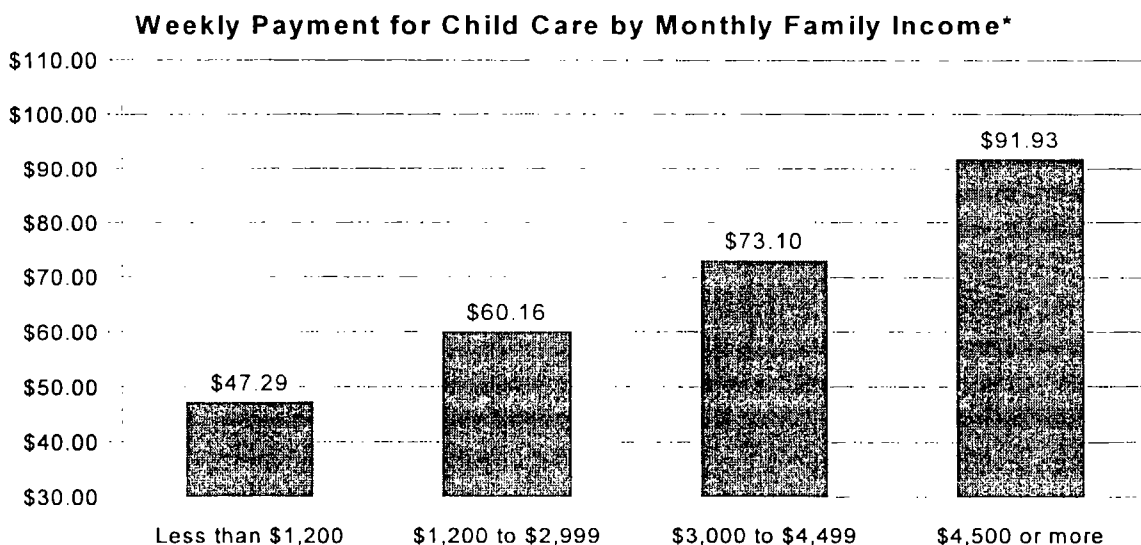
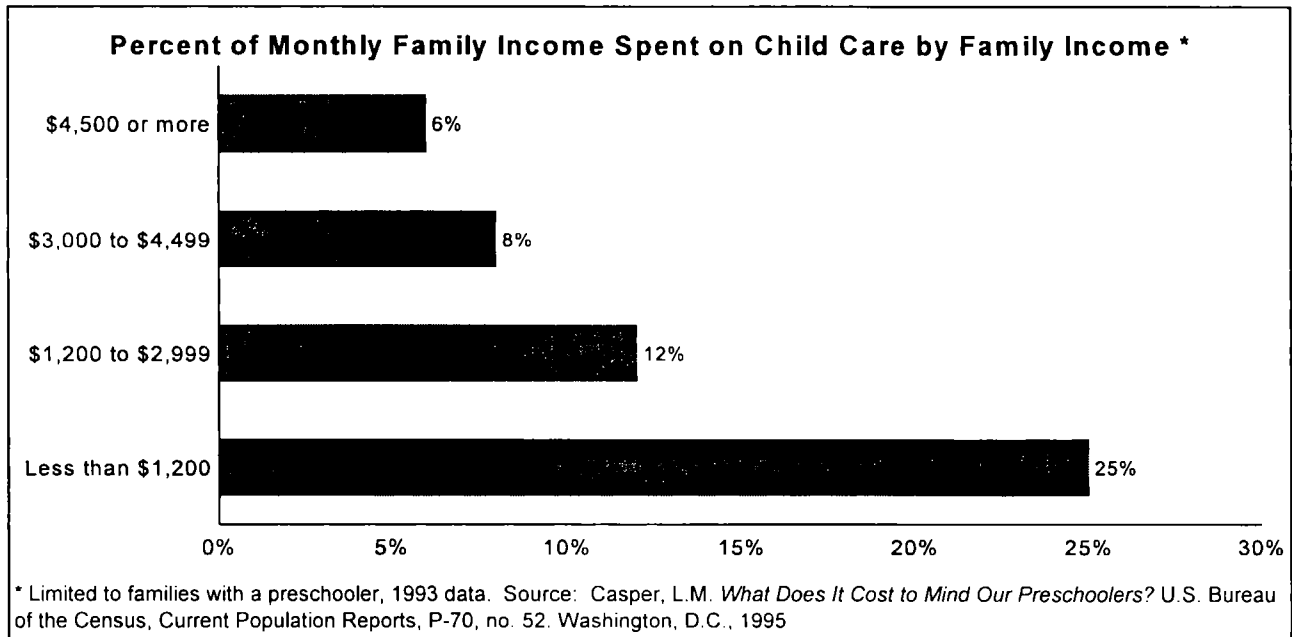
● In 1994, 62% of married mothers with a child under age six were in the workforce, compared with 30% in 1970.[†]

● The increased employment of mothers outside the home has led to a sharp increase in the use of child care over the past several decades. Eight of 10 employed mothers with children under six are likely to use some form of nonparental child care arrangement.[†]

● In 1990, 7.2 million mothers with 11.7 million children under age 15 worked full or part time during nonstandard hours.^{**}

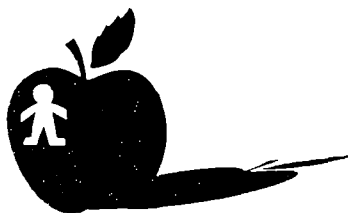
● In 1993, the average family with an employed mother and a child under age five spent about \$74 per week for child care for all preschoolers in the family.*

● Families with annual incomes under \$14,400 that paid for care for children under five spent 25% of their income on child care, compared with 6% for families with incomes of \$54,000 or more.*



Information in this fact sheet is excerpted from [†] Sandra L. Hofferth, "Child Care in the United States," *The Future of Children*, vol. 6, no. 2 Summer/Fall 1996, with additional information from: National Center for Education Statistics, U.S. Department of Education; *U.S. Bureau of Census; **Women's Bureau, U.S. Department of Labor.

For additional information, contact the National Child Care Information Center at (800) 616-2242 or visit the Web site at <http://ericps.crc.uiuc.edu/nccic/nccichome.html>



child care and
early education

GOOD QUALITY CHILD CARE AND EARLY EDUCATION: A DRAMATIC OPPORTUNITY TO PROMOTE LEARNING AND PREVENT DAMAGE IN OUR YOUNGEST CHILDREN

The social, emotional, and cognitive development of as many as 12 million children under the age of six is dependent on their access to safe, reliable child care and early education that provides them with the opportunity to form stable relationships with caring adults and other children and to engage in interesting and stimulating activities. Such good quality child care and early education is strongly linked to school achievement and the development of social skills that enable a child to grow into a happy, productive adult. Such child care has been used successfully to prepare at-risk children for school. It also improves educational and social development for children from middle- and low-income families (Berrueta-Clement, Schweinhart, Barnett, Epstein, & Weikart, 1984; Burchinal, Lee, & Ramey, 1989; Campbell & Ramey, 1994; Carnegie Corporation of New York, 1994; Doherty, 1991; Hayes, Palmer, & Weikart, 1980; Lazar, Darlington, Murray, Royce, & Snipper, 1982; Schweinhart & Weikart, 1980).

Poor quality child care and early education can harm children. Their intellectual and social development can be stunted. In extreme cases, children have been harmed physically. The Carnegie Corporation's Starting Points Task Force, citing new scientific research on brain development in the first three years of life, found that "an adverse environment can compromise a young child's brain function and overall development, placing him or her at greater risk of developing a variety of cognitive, behavioral, and physical difficulties. In some cases these effects may be irreversible. But the opportunities are equally dramatic: a good start in life can do more to promote learning and prevent damage than we ever imagined" (Carnegie Corporation, *Starting Points*, abridged, p.4, 1994).

Most child care and early education is not of good quality

Tragically, several recent studies have documented that the quality of most child care and early education available to working families in the United States is mediocre to poor. Independent observers for *The Cost, Quality, and Child Outcomes Study in Child Care Centers* (Helburn, Culkin, Howes, Clifford, Cryer, Kagan *et al.*, 1995) found that in 40 percent of the infant and toddler rooms, caregivers did not follow basic sanitary practices. In these poor quality settings, children were rarely held, cuddled, or talked to by their providers. The rooms lacked toys and other materials that encourage development. *The Study of Children in Family Child Care and Relative Care* by the Families & Work Institute in 1994 found that "only nine percent of the [family child care]

et al., *National Child Care Staffing Study Revisited: Four Years in the Life of Center Based Child Care*, Oakland, CA: Child Care Employee Project, 1993).

Cost of good quality child care and early education is out of reach for most

Most working families cannot afford to pay what it costs to *produce* good quality child care and early education. This is true despite the fact that the wages of child care providers, which account for 60 to 70 percent of the cost of producing child care, are below what individuals with similar education and experience earn in other settings (*Cost, Quality, and Child Outcomes*). Families who pay for child care spend, on average, about \$3,700 per year for one or more preschool children (U.S. Census Bureau, "What Does it Cost to Mind Our Preschoolers?," in *Current Population Reports*, September 1995). By contrast, national experts peg the cost of **providing** good quality care at \$6,300 to \$8,500 **per child per year** (National Association for the Education of Young Children, "Estimating the full cost of quality," in *Reaching the full cost of quality in early childhood programs*, 1990). The latter figures represent 26 to 44 percent of the gross income for a family of four earning the median income and paying for child care for two children.

Providers struggle, too often unsuccessfully, to get by on fees that parents can afford. Whether in a center or family child care home, revenue from parent fees alone do not allow the typical child care provider to offer children the trained staff, small group sizes, and low child-to-adult ratios that encourage frequent, responsive adult interactions with each child that are at the heart of good quality child care and early education.

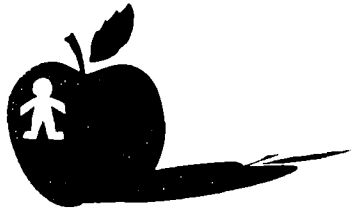
Parents need help paying for good quality child care and early education

Parents need help bridging the gap between what they can afford and what good quality child care and early education cost. There are a number of ways that federal, state, and local governments can help more parents pay for good quality child care: by expanding the Dependent Care Tax Credit, and making it refundable; by extending child care subsidies to a broader range of working families; by extending tax incentives to employers who provide child care subsidies or on-site child care; and by linking child care with public school systems to improve the quality of the child care and early education our youngest children receive.

Businesses benefit when they play a role in helping parents find and pay for good quality child care and early education. The most important role for business is as a partner of local or state public agencies for investment in child care and early education resources, so that all families have good quality child care choices they can afford in their communities. Public-private partnerships of this nature sustain child care and early education growth and improvement in communities. Businesses also can provide employees with the Dependent Care Assistance Plan pre-tax payroll deduction, link parents with child care resource and referral agencies in their communities, or invest directly in child care and early education resources in or near the work site for their employees.

Choices for children and parents

More and more emphasis has been placed on consumer education: arming parents with the knowledge that they need to make informed decisions regarding child care and early education. But, parents often feel that they do not have a choice about the care they use. Sixty-two percent of parents using family child care and relative care said that they had looked for alternatives to the child care they presently use. Sixty-five percent of these same parents said they found no other acceptable options (Galinsky et al., *The Study of Children in Family Child Care and Relative Care*, 1994).



child care and
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THE STATE OF THE STATES: A PATCHWORK OF COMMITMENTS AND APPROACHES TO CHILD CARE AND EARLY EDUCATION

States set standards for child care and early education

Decision-making about child care and early education policies has long been under the jurisdiction of states and localities. Each state sets its own standards for child care, including which child care settings will be subject to licensing and regulation. States determine what the ratio of child care staff to children should be, and set the minimum health and safety standards for regulated child care settings. Regulations vary widely; in Maryland, for example, there must be one child care provider for every three babies, while Idaho and several other states permit one child care teacher to care for six babies. Nearly all states set staff:child ratios for child care centers, but fewer than half of all states regulate group size. A study by Children's Defense Fund found that 43 percent of all children in out-of-home care are in care settings that are exempt from state regulations (Children's Defense Fund, *Who Knows How Safe?* 1990).

Parent fees cover 70 to 75 percent of the cost of child care and early education, with public subsidies making up most of the balance. States and the federal government invest in the provision of child care and early education because they recognize the public benefits of good quality child care. Government support for child care and early education takes the form of both expenditure-based subsidies, mostly targeted to low- and moderate-income families, and tax-based subsidies. Expenditure-based subsidies generally are designed to help people enter the labor force or to keep them in the labor force and off welfare, in recognition of the fact that low-income working parents need help paying for child care. Many states provide tax-based subsidies, including dependent care tax credits, which benefit parents, and employer tax credits, which allow employers to claim up to 50 percent of the cost of an employee child care benefit. States also put up matching funds to draw down federal funds designated for child care and early education initiatives. They invest in public pre-school programs for four-year-olds, and some states have subsidized special programs such as child care for teen parents and for school-age child care. States also support programs to increase the quality and expand the supply of child care and early education, including training, licensing, and monitoring efforts (Stoney and Greenberg, "The Financing of Child Care: Current and Emerging Trends," *The Future of Children*, Summer/Fall 1996).

Study finds state commitments inadequate

While numerous studies have demonstrated that children need good quality child care and early education to grow, thrive, and enter school ready to learn, and that parents need accessible, affordable good quality child care programs to get and keep jobs, not

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children's earliest years shows that the need for good quality care and early education starts immediately; yet recent studies have found most infant care to be dangerously poor (Helburn, S. et al., *Cost, Quality and Child Outcomes*, University of Colorado at Denver, 1995; Families & Work Institute, *Study of Children in Family Child Care and Relative Care*, 1994). This lack of attention to our children's earliest years is a high stakes gamble; studies show that every \$1 spent on early education saves \$7 in remediation, incarceration, and special education (Barnett, W.S., "Benefit-cost Analysis of Preschool Education: Findings from a 25-year Follow-Up," *American Journal of Orthopsychiatry*, 1993).

Examples of state initiatives

A number of states are choosing to make the well being of children their priority, and are often undertaking bold initiatives to support child care and early education. Some of the most exciting and innovative state programs are going beyond the distinction between child care and early education, offering coordinated curricula and joint training of teachers. Below are some of the noteworthy state efforts in child care and early education. (A state may appear more than once if its programs fall into more than one category.)

PROGRAMS RESPONDING TO LOCAL NEEDS :

North Carolina's Smart Start is designed to provide every child in North Carolina who needs it access to affordable early childhood education and other crucial services. Smart Start is built on the concept of empowering and supporting local communities to develop, implement, and fund a plan for children and families. The state spends almost \$57 million annually to support and implement the work of the 42 counties that have brought together planning groups to participate in Smart Start. When Smart Start was passed by the North Carolina legislature in 1993, it was accompanied by other efforts to improve quality and affordability of child care and early education. Licensing changes improved staff:child ratios for young children, and additional staff was hired to monitor and assist the child care program. A special program, TEACH, was funded to help child care workers obtain training at community colleges and is linked to increases in salaries and compensation. Affordability was addressed by increasing, on a sliding scale, the amount of the state's child care tax credit for families earning less than \$40,000.

New Jersey's Governor Whitman's Bright Beginnings is an \$8.5 million initiative that will create 8,600 additional child care slots in the state, which has a waiting list for subsidized care of 24,000. The initiative will expand the capacity of Head Start and licensed child care centers by 1,650 slots, will register an additional 1,600 family child care providers (creating openings for an additional 6,000 children), will issue planning grants to promote "full coordination and partnership" for pre-K programs among schools, Head Start and non-profit child care providers, will fund parenting education, and will expand training, development and accreditation for child care providers to boost quality. Grants and loans will create 950 additional slots at licensed centers for children from low- and middle-income families. The initiative will be funded with federal money and "savings from administrative efficiencies."

SCHOOL-AGE CHILD CARE:

Hawaii's After-School Plus, or A+, program is the nation's first statewide, after-school child care program. It provides low-cost, after-school care to children in every elementary school district in the state. It is accessible to all families: low-income families are served free; all others pay a flat fee.

TAX BREAKS/CREDITS:

Arkansas doubles the state dependent care tax credit (a supplement to the existing tax credit) from 10 to 20 percent if parents enroll their children in a child care program that has received a good quality rating or is accredited.

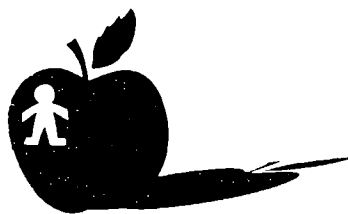
Colorado parents will once again be able to claim a child care tax credit on their state income tax return, thanks to a bill passed by the state legislature in 1996, and Colorado citizens will have the opportunity to use a new voluntary income tax check-off that will help fund quality enhancement in licensed child care facilities, particularly for staff training and development and accreditation. Both the tax credit and check-off were among the recommendations of the 25-member Business Commission on Child Care Financing, created by Governor Romer in 1995 to examine financing structures for early care and education from a business perspective. A related bill that would have made the tax credit refundable was defeated.

Minnesota anticipates that the demand for child care and early education will continue to be greater than the funds available in welfare reform. The state is considering eliminating the dependent care deduction in favor of tax credits, consolidating all funding sources, and making child care funds equally available to all families at particular income levels. Minnesota proposes to maximize the funds available through parent co-payments, tax credits, and child support enforcement. State child care and earned income tax credits, combined with federal tax credits, would create the potential for "substantial financial assistance" to many families. Minnesota also is exploring "tax credit express," which would make funds available on a monthly basis to help minimize the impact of higher co-payments (Child Care Action Campaign, *Wisconsin and Minnesota: Approaches to Welfare Reform and Child Care*, 1996).

PUBLIC-PRIVATE PARTNERSHIPS FOR CHILD CARE FINANCING:

Florida's legislature passed the Child Care Partnership Act in 1996 that created a state fund of child care subsidy dollars for working families. Private employers, whose employees directly benefit from child care subsidies, can draw on these dollars by matching them one to one. The Act allocates \$2 million for a child care purchasing pool in 10 counties, and will be administered by child care resource and referral agencies. The act will allow an additional 1,500 children or low-income working families now on the waiting list to receive child care, with the price of care to be shared by the state, employers, and families. A precedent is being established for employers to provide at least some child care subsidy support. The CEO who chairs the governor's board for the Partnership Act has become so concerned about Florida's looming child care crisis that he recently appeared at a press conference with Governor Chiles to call for an increase in state child care subsidy funding. The idea for this budget increase had emerged earlier, during a series of state and local meetings for business leaders that Child Care Action Campaign helped to plan and carry out in partnership with the Florida Children's Forum.

Indiana has hosted two Child Care Financing Symposiums, the cornerstones in a multi-year effort to bring together county-based teams comprised of business, early childhood professionals, educators, and community organizations to create ways to improve the quality and expand the supply of child care in Indiana. This collaborative effort between the Child Care Action Campaign (CCAC) and the Indiana Family and Social Services Administration (FSSA), launched the Indiana Child Care Fund to raise and channel private funding for investments in child care provider training and other improvements in child care quality. The fund operates under the aegis of the Indiana Donors Alliance, representing 70 community foundations, which has agreed to become the home of the Indiana Child Care Fund.



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CORPORATE PRODUCTIVITY, CHILD CARE, AND WORK-FAMILY POLICIES

The changing workforce

In the past forty years, the nature of the American work force has changed dramatically, bringing with it equally dramatic changes in family life:

- Fewer than 10 percent of all households are headed by a male breadwinner with a wife at home.
- Half of all mothers with children under one year of age are working outside their homes.
- Eighty-seven percent of American workers--men and women--have some day-to-day responsibility for family members and 47 percent have dependent (child or elder) care responsibilities (Galinsky *et al.*, *The Changing Workforce*, 1993, Families & Work Institute).
- By the year 2005, more than 70 percent of women in the work force will have children in need of child care or after-school care, based on current population projections.

(Source: Census Bureau, Bureau of Labor Statistics, unpublished data, 1993, 1995; Fullerton, Howard J, "The 2005 Labor Force: Growing, but Slowly," *Monthly Labor Review*, p.30, Table 1, November 1995.)

A survey of 5,000 employees at five major U.S. corporations found that 82 percent of working parents missed days at work, were tardy, had left work early, or had used work time to deal with various child care problems. A number of national surveys have estimated such lost work time to be between six and eight days per parent annually (Fernandez, *Child Care and Corporate Productivity*, 1986). This translates into a \$3 billion loss annually for American businesses, according to the Child Care Action Campaign.

The changing workplace

The workplace, too, is changing dramatically. In the past decade, many companies have restructured, drastically scaling back on their workforces to increase profitability and competitiveness. Companies continue to search for ways to cut costs, improve quality, and maintain flexibility.

creation of dependent care programs that may involve a consortium of corporations and, in some cases, unions.

The largest of these investors in community resources is the American Business Collaboration for Quality Dependent Care (ABC), a coalition of 156 major U.S. corporations, government entities, and non-profit organizations established in 1992. During the first phase of the ABC's initiative, in 1992, members of the group invested more than \$27 million in 45 communities in 25 states and the District of Columbia. In September 1995, 21 "champion" corporations of the original group pledged to invest a total of \$100 million over the next 10 years to develop and strengthen school-age child care and child care projects in communities across the country. This is believed to represent the largest single investment in dependent care ever by the private sector.

Examples of corporate dependent care programs

Based in Charlotte, North Carolina, **NationsBank** offers resource and referral services, numerous dependent care assistance policies, and a near-site child care facility for its headquarters, and has provided more than \$900,000 in seed money for a center for its employees in Atlanta. In addition, Nations Bank has invested \$25 million to provide child care benefits, such as income-based subsidies.

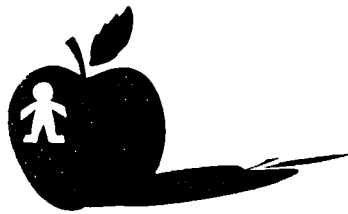
Other corporations are addressing the child care needs of lower income workers. A division of CONAGRA Refrigerated Foods Company, **Butterball Turkey**, has invested corporate funds into on-site and near-site child care centers for low-income employees at its Arkansas and Missouri plants. Prompted by concerns about worker loyalty and productivity and by employee surveys that found that child care was a workers' second greatest expense, CONAGRA now provides care for all shifts (6:00 a.m. - midnight), operates after-school and summer school programs for children and infants, and subsidizes employee expenses through pre-tax payroll deductions.

Fel-Pro Incorporated, a Skokie, Illinois-based manufacturer of automobile sealing products, employs approximately 2,000 people in three states and overseas, and expresses its commitment to them through the benefits it offers. Its work and family benefits package -- costing about \$700 per employee -- includes: on-site child care, an elder care resource and referral service, a sick child care and adult emergency care service, and subsidized tutoring and college scholarships for employees' children. A University of Chicago study of 882 Fel-Pro employees found that 92 percent of the respondents indicated that the company's benefits make it easier to balance their work and their personal lives. Of those with children, 72 percent agreed that Fel-Pro's benefits have helped their children do things they would not otherwise have been able to do (*Added Benefits: The Link Between Family Responsive Policies and Job Performance*, University of Chicago, 1993).

Small businesses respond too

Almost 37 million Americans work for companies with fewer than 100 employees, according to the U.S. Small Business Bureau. However, a company's small size does not have to limit its ability to provide child care benefits to its employees. With proper planning and strong commitment on the part of the employer, the goal of meeting employees' child care needs can be achieved. Moreover, the benefits to small employers are much the same as those commonly reported by large corporations: improved employee productivity and morale, an increased ability to attract and retain skilled workers, and a better image in the community. Child care options that work especially well for many small businesses include:

- Child care subsidies.



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KEY FACTS ON CHILD CARE AND EARLY EDUCATION

How many children need child care in the U.S.?

12 million children under age 6 and 17 million children between the ages of 6 and 13 have both parents or their only parent in the work force.

(Source: composite figure of Bureau of Labor Statistics data, *National Child Care Survey*, 1990, Hofferth, *et al.* Urban Institute Press, Washington, DC, 1990, and Child Care Action Campaign calculations)

How many children have received child care and early education before they enter kindergarten?

By the age of six, 84% of children have received supplemental care and education.

(Source: U.S. Department of Education, National Center for Education Statistics, *National Household Education Survey*, 1995)

What kind of child care do families use?

According to the U.S. Census Bureau, of the 9.937 million preschoolers (under age 5) with employed mothers in 1993:

- 29.9%, or 2,972,000, were cared for in child care facilities (*i.e.*, child care centers, nursery schools, preschools).
- 25.3%, or 2,516,000, were cared for by relatives either in the child's home or in the relative's home.
- 22.2%, or 2,201,000, were cared for by their own parents (mothers while working at home or away from home: 6.2% or 616,000; fathers caring for children at home: 16% or 1,585,000).
- 16.6%, or 1,645,000, were cared for in the home of a non-relative provider.
- 5.0%, or 492,000, were cared for in their own homes by non-relatives.
- 1.0%, or 111,000, were cared for in other arrangements.

(Source: Casper, Lynn M., *Current Population Reports: Who's Minding Our Preschoolers?*, U.S. Census Bureau, March 1996)

What is the average salary for child care providers?

Teachers, Assistant Teachers, and Teacher-Directors working in child care centers earn an average of \$6.89 per hour, \$12,057.50 for 35 hours/week, 50 weeks/year.

(Source: *Cost, Quality & Child Outcomes*, University of Colorado at Denver, 1995)

What is the average turnover rate for child care providers?

The turnover rate for all providers in child care centers is 36% per year.

(Source: *Cost, Quality & Child Outcomes*, University of Colorado at Denver, 1995)

In contrast, average turnover in other professions is much lower. The turnover rate for public school teachers is 5.6% per year.

(Source: *National Child Care Staffing Study Revisited: Four Years in the Life of Center-Based Child Care*, 1993)

How much does American business lose each year due to child care problems?

U.S. employers lose \$3 billion annually due to child care-related absences.

(Source: Reisman, Barbara, *Child Care: The Bottom Line*, p. 66, Child Care Action Campaign, 1988, based on Bureau of Labor Statistics data, 1988)

How many U.S. businesses offer work-family benefits to their employees?

Approximately 6,000 employers nationwide offer work-family benefits to their employees. Four percent of all employees are eligible for employer-assisted child care benefits in the U.S.

(Source: Bureau of Labor Statistics, *Employee Benefits in the United States 1993-94*, March 1995)

How many U.S. businesses provide on-site or near-site child care for employees who pay for it?

Approximately 2,200 employers sponsor child care centers.

(Galinsky, E., *The Changing Workforce*, Families & Work Institute, 1993)

Public sector: The U.S. Government operates over 800 on- or near-site centers in the U.S. and abroad. Six hundred forty-four of these are sponsored by the U.S. Armed Forces.

(Source: Wohl, Faith, interview in "Uncle Sam Leads the Way on Worksite Child Care," *Child Care ActionNews*, January-February 1996)

Rethinking the Brain

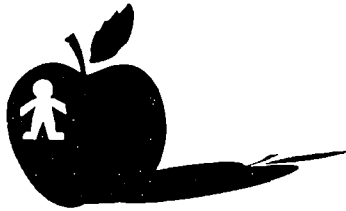
New Insights into Early Development

Families and Work Institute

New insights into brain development suggest that as we care for our youngest children, as we institute policies or practices that affect their day-to-day experience, the stakes are very high. But we can take comfort in the knowledge that there are many ways that we as parents, as caregivers, as citizens, and as policy makers can raise healthy, happy smart children. We can take heart in the knowledge that there are many things that we as a nation can do, starting now, to brighten young children's future and ours.

Research shows that:

- ❶ **Human development hinges on the interplay between nature and nurture.**
 - How humans develop and learn depends critically and continually on the interplay between nature (an individual's genetic endowment) and nurture (the nutrition, surroundings, care, stimulation, and teaching that are provided or withheld).
 - The impact of environmental factors on the young child's brain development is dramatic and specific, not merely influencing the general direction of development, but actually affecting how the intricate circuitry of the human brain is "wired".
- ❷ **Early care has decisive and long-lasting effects on how people develop and learn, how they cope with stress, and how they regulate their own emotions.**
 - Babies thrive when they receive warm, responsive early care.
 - Warm and responsive care plays a vital role in healthy development.
 - Individuals' capacities to control their own emotional states appear to hinge on biological systems shaped by their early experiences and attachments
 - A strong, secure attachment to a nurturing adult can have a protective biological function, helping a growing child withstand the ordinary stresses of daily lives.
- ❸ **The human brain has a remarkable capacity to change, but timing is crucial.**
 - The brain itself can be altered - or helped to compensate for problems - with appropriately timed, intensive intervention. In the first decade of life, the brain's ability to change and compensate is especially remarkable.
 - There are optimal periods of opportunity - "prime times" during which the brain is particularly efficient at specific types of learning.
- ❹ **The brain's plasticity also means that there are times when negative experiences or the absence of appropriate stimulation are more likely to have serious and sustained effects.**
 - Early exposure to nicotine, alcohol, and drugs may have even more harmful and long lasting effects on young children than was previously suspected.
 - Many of these risk factors are associated with or exacerbated by poverty. For children growing up in poverty, economic deprivation affects their nutrition, access to medical care, and safety and predictability of their physical environment, the level of family stress, and the quality and continuity of their day-to-day care.
- ❺ **Evidence amassed by neuroscientists and child development experts over the last decade point to the wisdom and efficacy of prevention and early intervention.**
 - Well designed programs created to promote healthy cognitive, emotional, and social development can improve the prospects - and the quality of life - of many children.
 - The efficacy of early intervention has been demonstrated and replicated in diverse communities across the nation.



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NATIONAL OPINION POLL DATA ON CHILD CARE

The ability to find and afford good quality child care have been major concerns of American families ever since mothers began to enter the permanent workforce in large numbers. With the passage of welfare reform in 1996, the importance of child care in the public dialogue has grown further still. Various national polls show that Americans continue to care deeply about child care and they support child care assistance to working families and families making the transition to work.

FINDING GOOD CARE IS CAUSE FOR CONCERN

Please tell me if you agree or disagree with the following statements:

*It is very difficult for parents to find child care that is both affordable and of good quality.
(Push) And would that be strongly (agree/disagree) or just somewhat (agree/disagree)?*

Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	DK
56%	23%	9%	5% 7%	

(R/S/M, Inc., conducted for the Child Care Action Campaign, 3/95)

How concerned are you, if at all, about not having adequate child care when you go to work?

Very concerned	Somewhat	Not too	Not at all concerned	D/A
30%	15%	11%	15%	29%

(Princeton Survey Research Associates, conducted for the *Times Mirror*, 10/25-30/95)

GOVERNMENT AND BUSINESS HAVE A ROLE

How do you feel about the following statement: the government has a responsibility to help improve the quality of family life by providing tax incentives to corporations to encourage them to provide parental leave and day care centers to their employees?

Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	DK
41%	25%	12%	17%	5%

(Michaels Opinion Research, conducted for Massachusetts Mutual Life Insurance Company, 8/9-26/95)

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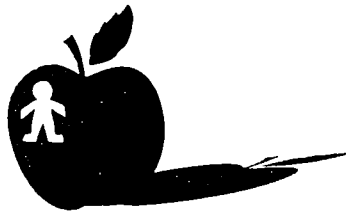
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WELFARE REFORM: SHIFTING RESPONSIBILITY TO THE STATES

A huge gamble

On August 22, 1996, President Clinton signed the Personal Responsibility and Work Opportunity Reconciliation Act into law. This new law not only ends the 60-year old guarantee of subsistence income for poor families and their children, it also eliminates the child care assistance that had been guaranteed to families who were moving from welfare into the work force, education, or training. The federal government will now provide capped block grants¹ to the states, which have a great deal of discretion as to how the funds are spent. Within six years, half the parents on welfare in every state will have to be working in private sector jobs or in some type of "workfare" program. This will create a huge need for child care, since two-thirds of all welfare recipients are children under 13, many of them very young. Their parents cannot get or keep a job unless they have reliable child care.

Painful choices: Which working families deserve child care help?

Each state can now determine how it will meet the child care and early education needs of families making the transition from welfare to work. These decisions will shape the entire system of subsidies for all low-income working families, including the millions of low-income working families who are not on welfare but who need help bridging the gap between what they can afford and what safe, reliable child care costs. Thirty-eight states and the District of Columbia already have waiting lists thousands of names long of working families who are eligible for help paying for child care, but for whom there isn't enough money (Children's Defense Fund, *Child care and welfare reform: More painful choices*, 1995). In fact, waiting lists understate the need for care; they include only the parents who know about the programs and have sought places for their children in them. Some states simply close their waiting lists to new applicants when they get too long.

States have an opportunity in next two years

The Congressional Budget Office estimates that child care funding in the Act is \$1.4 billion short of what will be necessary for states to maintain their current efforts and meet the needs of all the families who must move from welfare to work. But the big crunch will not come until the third year; during the first two years, many states will have more child care money than they had before. The states thus have a window of opportunity they can use to put systems into place and help all low-income working families pay for child care; to invest money to expand the supply and

¹ A state's block grant allocation will be based on its FY 1994 or FY 1995 expenditures, whichever is higher, or the average of its spending for the three years from FY 1992 to FY 1994.

According to *The Study of Children in Family Child Care and Relative Care*, care that is regulated is usually higher quality care, and care that is provided by people who **want** to work with children is more reliable and of higher quality. Parents need to have child care and early education options so that informal care is not their only choice; that's why states must use their window of opportunity to expand the quality and supply of child care and early education resources for all working families.

States will have to decide whether to establish a minimum requirement for informal providers who receive federal and state funds. Basic health and safety requirements would include having a telephone, passing a criminal background check, having smoke detectors, and passing a health screening. Child care resource and referral agencies are finding innovative ways to help parents assess such care and can make information resources available to the friends, relatives, and neighbors providing the informal care.

Welfare recipients as child care providers: A risky experiment

Many states have already tried to turn welfare recipients into child care providers. It has worked in some places but not all, and takes a lot of time and investment in order to succeed. While moving these parents into the work force as informal child care providers, working in their own homes, would seem to take care of both a state's work participation requirement and the increased demand for child care, a number of obstacles exist.

Recent reports like the *Family Child Care Training Study* (Families & Work Institute, 1995) have demonstrated the critical relationship between provider training and the quality of care, and some states and municipalities are encouraging former welfare recipients to become providers with no training. Care by unregulated providers is usually less reliable, causing working parents to miss work more frequently. Even child care providers who love their work still leave the field for lack of decent wages and health benefits. In addition, states are considering cutting the reimbursement rates for these providers, lessening their chances even more of earning a living wage as a child care provider.

Welfare recipients who become child care providers need ongoing support in order to succeed, as do other parents making the transition from welfare to work. Outreach, orientation, training, and continued investment and support are the foundations of success in this risky undertaking.

Child care for infants

The new law does permit states to exempt welfare recipients with children under six from the work requirements if they can't find affordable, available, and appropriate child care. Mothers of infants under one year of age also may be exempted. However, the five-year lifetime limit on welfare benefits will still apply to the mothers who are exempt. Even though they are not required to work, the "exempt" period of months or years that parents spend taking care of their children at home counts towards the five-year time limit.

Some states such as Michigan are requiring mothers with children as young as 12 weeks old to go to work. Child care for infants is scarce and very often of very poor quality; 40 percent of current infant care is of such low quality that it endangers the babies in care (*Cost, Quality and Child Outcomes*, 1995). But insufficient child care and early education funding means little hope exists for improving the quality and supply of available care.

Economic Surplus

Longer-term concerns show the public split on what to do with the possibility of additional money in the budget – 48% new programs (ed/infrastructure as an example); 51% reducing the debt and cutting taxes. One bill already suggests a split like this, though specific programs in specific areas will probably be sustainable if they are attractive. The polling however does illustrate the advantages of issues such as education and health over highways as a preference.

Due to the good economy, the government may have an extra \$15 billion next year above what was expected. Should this extra money go primarily to:	First Choice	Second Choice
New programs in areas such as education and health	42	22
Reducing the U.S. debt	35	22
Reduced taxes	16	27
Improving our infrastructure with new investments in transportation, highways or other structures	6	27

The Child Care Conference

The original research showed that people do not believe that child care is safe, available or affordable, and these are the three themes for expansion of child care.

Do you think that the Child Care in this country is adequate or inadequate?	Adequate	Inadequate
Child Care	29	64

What is the biggest priority?

	Total	Democrats	Republicans	Independents
Improving quality and safety	31	31	28	35
Increasing the availability of child care	22	27	23	17
Making it more affordable	39	39	42	16

All of the ideas tested on child care meet widespread public approval, starting with background checks, and improving safety standards.

The data again underscores that voters want an incentive for an employer to provide child care at their place of work. This is the class-neutral way to expand the availability of child care – rather than targeted just to poor families or to taking people off of welfare. 84% want help making it available where they work. They want work and family to go together, not be separated.

All of these add up to a major initiative to expand the safety, availability and affordability of child care. While parts of it can begin with the Child Conference, expanding quality child care would be a major initiative that could be fought for, even as a priority item with any new monies from a budget surplus.

I am going to read you some proposals for improving the quality of day care nationally. For each one, please tell me if you would strongly support, somewhat support, somewhat oppose or strongly oppose this proposal.	Strongly Support	Total Support	Total Oppose
Require background checks on all child care workers	88	92	3
Requiring any states that receive funds for child care to meet set safety regulations for their facilities	73	89	7
Provide a tax-credit for businesses that provide child care for their employees	63	84	13
Creating a commission of business people to make recommendations on how they can do a better job of providing child care for their employees and community members	60	83	13
Give funding to each state to use for expanding child care, including child care for low income families and after school programs for school-age children	59	81	15
Providing financial incentives, such as scholarships and loan forgiveness to qualified child care workers	47	74	20
Using 4 billion dollars per year from the federal budget to provide child care for one million children while their parents work, and after school programs for another million children	45	70	23

69% think that public schools should be kept open after hours with programs for children so that no after school child care would be necessary.

“Suppose President Clinton announced a \$5 billion program to broaden the availability of child care, making it available at low cost to the children in 1 million low income families who otherwise could not afford it and also providing funds to keep open more schools with after hours programs. Would you support or oppose this?”

71% support; 25% oppose
61/26 more/less favorable

But there are limits and the attack of big government is always possible if these are structured as anything but our conventional formula which is 1) rules to tighten safety and quality 2) helping those in need and 3) a middle class initiative (Kohl tax credit).

47% say that child care is the responsibility of parents and the role of the government in it should be kept very limited; **49%** say that child care has become so important as 70% of all mothers are now in the workforce, that the government has to play a role in making quality child care much more available or these children will lose out.

Care for Aged – Some surprising findings

In many ways we are not looking at the Medicare reforms process in the same way we looked at the balanced budget – the reform commission should not just be an opportunity to trim and contain Medicare with HMOs and CPI adjustments, but an opportunity to refocus its priorities to deal with the emerging problems of the 21st Century. And of the original list of issues identified years ago, increased, not decreased long-term care is so far the only one not addressed.

And most voters, particularly older voters, an eroding base of the Democratic party, put this at the top of their list of issues, it is even more important than the child care problem.

In many ways addressing these two issues together – doing right for both our children and our parents makes sense.

Do you think that the long-term care for our aged in this country is adequate or inadequate?	Adequate	Inadequate
Long Term Care	20	69

Which is a Greater Priority?	Child Care	Care for Aged
Total	42	45
Democrats	42	47
Republicans	42	56
Independents	44	32
Congressional Vote		
Dem	45	42
GOP	39	52
Don't Know	43	36
Likelihood to Vote		
Absolutely Certain	36	51
Very Likely	46	40
Possibly	56	33
18-24	76	17
25-34	41	42
35-49	50	37
50-64	23	61
65+	37	53

And safety, availability and affordability are the same three issues that again are part of the problem – the answer society has now is to impoverish any senior citizen to make them qualify the long-term care or to take away virtually everything they have built up is a hard one. And the public attitudes on this are quite strong – and can be mobilized in an electorally potent way as part of Medicare reform.

The numbers are astounding:

Do you think that Medicare should provide long-term care, either at home or in a nursing home for every senior citizen who cannot take care of him or herself?

Yes	88%
No	8%
DK	5%

If they cannot afford it? 91%

Do you think the government does that now?

Yes	26%
No	68%
Dk	6

Only 28% believes we do that now.

Suggest that this issue be reviewed as part of the reforms of Medicare and its financial stability or is this too impractical to consider?

Consider	81%
Impractical	12%

And while child care is considered a responsibility of the family, long term care of senior citizens is not – 16% say it is the responsibility of families, 80% say that government has a role in making the care available.

The point is that electorally we have moved over to the children, but we are letting go of senior citizens (we lose male senior citizens) and the oldest baby boomers.

And we have two major phenomena of the 21st Century affecting lifestyles – the growth of both single parent families and two career couples that created the need for child care, and the greater longevity of our population, creating the expanded need for senior nursing and home care. We should have clear proposals for both of those areas as part of reforms so that we continue to reorient the priorities of our government to solve the problems of the next century.

Misc. Issues

84% would support requiring country of origin labels on all fruits and vegetables sold in the United States.

82% support eliminating religious discrimination in the workplace by allowing all employees to practice their religion as long as it does not disturb others.

But needle exchanges are on the opposite end –

70% oppose and 25% support the availability of **needle exchanges** where drug addicts can receive free, sterile needles.

61% oppose and 34% support the **sale of hypodermic needles** at pharmacies (one alternative would be just to make needles available over the counter - their cost is insignificant compared to the cost of drugs).

This is seen by the public as totally inconsistent with a tough drug policy.

Presidential Message Schedule

Date	Event
Saturday, October 11	Radio Address (Taped)
Sunday, October 12 – Sunday, October 19	Foreign Travel
Wednesday, October 22	Volunteer event
Thursday, October 23	WH Conference on Child Care
Friday, October 24	Foreign Policy Speech
Thursday, October 30	STARBRIGHT Foundation Event
Friday, October 31	Education Event