This study examined findings from the 1999 National Survey of America's Families about primary child care arrangements for children under age 13 years while the adults most responsible for them are employed. It compared arrangements made by lower- versus higher-income parents and single- versus two-parent families and examines differences across selected states in 1999 and changes between 1997 and 1999 for the nation overall. Results found significant differences by family type. Preschool children with single parents, regardless of income, were more likely than their two-parent counterparts to use center-based care. School-age children with single parents were more likely to use before- and after-school programs than children with two parents. Within each of group, higher-income families used center-based programs more than lower-income families. Between 1997 and 1999, center-based care declined for preschool children as the use of relatives increased. Among school-age children, the use of relatives increased as self-care declined. While the economy prospered, low-income single parents' wages increased, welfare programs changed, and child care funding expanded in the late 1990s, types of child care accessed by low-income, single parent households with preschool children remained constant, while low-income, two-parent families with preschool children experienced shifts in distribution of arrangements. (Contains 10 references.) (SM)
Primary Child Care Arrangements of Employed Parents: Findings from the 1999 National Survey of America's Families

Freya L. Sonenstein
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Assessing the New Federalism
An Urban Institute Program to Assess Changing Social Policies

The Urban Institute
2100 M Street, N.W.
Washington, DC 20037
Phone: 202.833.7200
Fax: 202.429.0687
E-Mail: paffairs@ui.urban.org
http://www.urban.org
This paper is part of the Urban Institute's Assessing the New Federalism project, a multiyear project to monitor and assess the devolution of social programs from the federal to the state and local levels. Alan Weil is the project director. The project analyzes changes in income support, social services, and health programs. In collaboration with Child Trends, the project studies child and family well-being.


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About the Series

Assessing the New Federalism is a multiyear Urban Institute project designed to analyze the devolution of responsibility for social programs from the federal government to the states, focusing primarily on health care, income security, employment and training programs, and social services. Researchers monitor program changes and fiscal developments. In collaboration with Child Trends, the project studies changes in family well-being. The project aims to provide timely, nonpartisan information to inform public debate and to help state and local decisionmakers carry out their new responsibilities more effectively.

Key components of the project include a household survey, studies of policies in 13 states, and a database with information on all states and the District of Columbia, available at the Urban Institute’s web site (http://www.urban.org). This paper is one in a series of occasional papers analyzing information from these and other sources.
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Primary Child Care Arrangements of Employed Parents: Findings from the 1999 National Survey of America’s Families

Introduction

The majority of all children in American families now regularly spend time under the care of someone other than their parents. The type of arrangement used, however, can vary depending on family income, household composition, and geographic location. Over time, the proportion of children in child care has grown and the types of arrangements have shifted. This occasional paper presents new findings from the 1999 National Survey of America’s Families about the primary child care arrangements used by children under the age of 13 while the adults most responsible for their care (usually their mothers) are employed. It updates earlier reports that used 1997 data. Because care needs change dramatically once children enter school, the paper describes arrangements separately for preschool children (those under age 5), for 5-year-olds (who are transitioning into school settings), and for school-age children (those 6 through 12 years old). It compares the arrangements made by low-income parents with those made by higher-income parents and compares the arrangements made by single-parent and two-parent families. It also examines differences across selected states in 1999 and changes between 1997 and 1999 for the nation as a whole.

A variety of factors can affect the arrangements that parents make for their children. The strong economy of the 1990s made the participation of women in the labor market more attractive and increased the demand for child care. Federal welfare reform legislation passed in 1996—the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA)—further encouraged low-income parents to work outside the home and reformed and increased child care funding. Additional investments in federal and state funds provided some low-income working parents with greater access to child care and more flexibility in the arrangements they chose. Information on how families were addressing their child care needs in the late 1990s provides a picture of how the strong economy and shifts in social welfare policies played out in terms of the types of arrangements families were accessing at that time.
The National Survey of America’s Families

The 1999 National Survey of America’s Families (NSAF) gathered information about a variety of child care arrangements, including child care centers, before- and after-school care, family child care providers, relatives, and babysitters or nannies. Respondents were asked to describe the arrangements they made for one of their children under age 6 and for a second child between the ages of 6 and 12, as applicable. When respondents had more than one child under age 6 or between the ages of 6 and 12, the “focal children” for the interview were randomly selected. Respondents regardless of their employment status were asked about all nonparental child care arrangements that were used regularly, defined as at least once a week during the past month. Some families used multiple child care arrangements. Respondents were also asked whether their children regularly cared for themselves or spent time alone with siblings under age 13. This situation was categorized as self-care.

This paper focuses on the “primary” arrangement used, that is, the arrangement in which the child spent the most hours while employed parents worked. Some employed primary caregivers did not report a child care arrangement for the focal child. In these cases the child is considered to be in “parent/other care.” For preschool children, this category may include parents who watch their children while at work, parents who arrange their work schedules around each other, or parents who use several arrangements on an irregular basis. For example, two-thirds of preschoolers with two employed parents who were categorized in the parent/other category of care had parents who reported arranging their work schedules to meet their child care needs. The NSAF statistics for the percentage of preschool children in parental care closely match the share in father or mother care calculated from the Survey of Income and Program Participation (Casper 1997).

For school-age children, this parent/other care category may include children who join their parents at work after school, children with parents who arrange their work schedules around school hours, and/or children in lessons, sports, or other activities that do not occur on a regular basis.

Because the NSAF focuses on regular child care arrangements, preschool-age and school-age children in the parent/other category may also be from families in which the primary caretaker is patching together a series of child care arrangements, none of which would be considered regular. In addition, some of these children may actually be left alone but the parents are uncomfortable reporting this situation to the interviewer. These cases are included in the parent/other care category, but the extent of their prevalence is unknown.

The NSAF is representative of the noninstitutionalized, civilian population of persons under age 65 in the nation as a whole and in 13 states: Alabama, California, Colorado, Florida, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, New York, Texas, Washington, and Wisconsin. Together, these states are home to more than half the nation’s popula-
tion. A “balance of nation” sample was added to provide unbiased national
estimates. The following analyses focus on those households in the sample
with at least one child under age 13. Only child care arrangements used dur-
ing non-summer months are examined. Differences across groups are cited
in this report when they exceeded the lower or upper bounds of the 90 per-
cent confidence interval.

**Child Care Arrangements by Age**

**Preschool Children**

In 1999 nearly three-quarters (73 percent) of children under age 5 with
employed parents were in an arrangement other than care by a parent (fig-
ure 1). This statistic represents 8.7 million preschool children in child care
arrangements. These arrangements include child care centers, family child
care providers, baby-sitters, and relatives. The most common primary
arrangements used for preschoolers were center-based care and care by rela-
tives. Twenty-eight percent of preschool children with employed parents
were in center-based care as their primary arrangement and 27 percent were
cared for primarily by relatives. Fourteen percent were in family child care
homes and 4 percent were cared for primarily by nannies or baby-sitters. In
addition, 27 percent of these children were in parent care.

**Five-Year-Olds**

Five represents the usual age that children in the U.S. enter the formal school
system by attending kindergarten. Indeed 45 percent of the 5-year-olds with
employed primary caretakers were in kindergarten or first grade in 1999. For
the most part, kindergarten is a part-day program with shorter hours
than grades 1 through 6. For example, in 1999 children in kindergarten
attended school for an average of 26 hours per week compared with 34 hours
per week for children in grades 1 through 6. Thus the child care needs of 5-
year-olds are diverse since some are in kindergarten and some are not; and
for those in kindergarten, child care needs vary substantially from the needs
of somewhat older children because of the shorter school hours. For these
reasons, the child care arrangements of 5-year-olds are described separately
here.

More than three-quarters (80 percent) of children age 5 with an
employed primary caregiver were in some form of child care other than
school in 1999. These arrangements included child care centers, before- and
after-school programs, family child care providers, baby-sitters, and relatives.
Compared with preschool children, a larger proportion of 5-year-olds were
in center-based care (40 percent); and an additional 8 percent were in before-
and after-school programs. Care by relatives was less common; 19 percent
were primarily cared for by relatives. The use of family child care and nannies
or baby-sitters was comparable to the patterns seen among preschool-age
Figure 1. Primary Child Care Arrangements of Children with an Employed Parent, 1999

**Preschool children (0-4)**

- Parent/other care: 27%
- Center-based care: 28%
- Family child care: 14%
- Relative care: 27%
- Nanny/baby-sitter: 4%

**Five-year-olds**

- Parent/other care: 19%
- Before- and after-school program: 8%
- Center-based care: 40%
- Family child care: 11%
- Relative care: 19%
- Nanny/baby-sitter: 3%

**School-age children (6-12)**

- Parent/other care: 41%
- Before- and after-school program: 15%
- Family child care: 7%
- Nanny/baby-sitter: 4%
- Relative care: 23%
- Self-care: 10%
children. The proportion estimated to be in parent care was slightly lower, at 19 percent.

**School-Age Children**

As children grow older, fewer are in child care arrangements outside of school hours. Forty-nine percent of children age 6 through 12 with an employed primary caregiver in 1999 were in some type of arrangement. The most common primary arrangement was care by relatives (23 percent). In addition, 15 percent attended before- or after-school programs, and 7 percent were in family child care settings. Ten percent of school-age children primarily cared for themselves or spent time alone with siblings younger than age 13 while their parents were employed. A large proportion (41 percent) were estimated to be in parent/other care only. This category could include children whose parents arrange work schedules around school hours to provide child care coverage, children in enrichment activities not considered child care, children whose parents piece together care from various sources on an irregular basis, and children whose parents did not want to admit that their children were in self-care.

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**Child Care Arrangements by Family Structure and Family Income**

Families with two parents and higher incomes generally have more resources in terms of time, money, and people power to arrange their children's child care. Low-income working single parents face tighter resources that can constrain their child care arrangement choices. Recognizing the difficulty that many low-income families face arranging and paying for child care, federal and state governments have focused efforts on subsidizing care for at least some of these families, especially those headed by single parents on welfare or at risk of moving onto welfare. Below, we show the differences in child care arrangements used in 1999 by two-parent and single-parents families, contrasting those with low and higher incomes.

**Preschool Child Care Arrangements**

Figure 2 displays how preschool-age children in two-parent and single-parent families at different income levels are primarily cared for when the primary caretaker is employed. It demonstrates that primary child care arrangements vary by family income and family structure.

**Center Care.** Among families with preschool children, two-parent families used center-based care as a primary arrangement less frequently than single-parent families. Within each of these family types, lower-income children used center care less than higher-income children. Only 16 percent of children in two-parent families with low incomes—those at or below 200 percent of the federal poverty level (FPL)—used center-based care compared with 35 percent of children in single-parent families at the same low-income
Figure 2. Primary Child Care Arrangements of Preschool Children (0–4) with an Employed Parent, by Income and Family Structure, 1999

At the low-income level, children from single-parent families were therefore more than twice as likely to use centers as their primary arrangement compared with their counterparts from two-parent families. Among higher-income children—those above 200 percent of FPL—the difference by family type was similar although not as pronounced. Twenty-nine percent of these children who had two parents used a center compared with 39 percent of children with a single parent.

Relative Care. Care by relatives was also less common among children in two-parent families at either income level compared with children with single parents. Approximately one-quarter of children with two parents had relatives as their primary child care arrangement compared with approximately one-third of children from single-parent families.

Parent/Other Care. Children in two-parent low-income homes were the most likely (43 percent) to use parental care while their primary caregiver was employed. The use of parent/other care decreased to 26 percent for children in two-parent higher-income homes. As expected, because fewer adult resources are available, only 16 percent of children in single-parent low-income households were in parent/other care, while 8 percent of children in single-parent higher-income homes were in such care.

School-Age Child Care Arrangements

As among preschool-age children, school-age children with two parents were much less likely to use care by relatives or care in such formal group settings as before- and after-school programs than children from single-parent families. They were also more likely to be in parent/other care. The primary out-
of-school arrangements of children from two-parent and single-parent homes at different income levels are shown in figure 3.

**Before- and After-School Programs.** For families with school-age children (6 through 12 years old), the use of before- and after-school care programs as a primary arrangement shows a pattern similar to that observed with the usage of center-based care by families with preschool-age children. Children in two-parent families were less likely to use before- and after-school programs than their counterparts in single-parent families. Among each of these types of families, higher-income children used these programs more than low-income children. While only 7 percent of school-age children in two-parent low-income households attended before- and after-school care programs, 16 percent of children in two-parent higher-income families did. This proportion is similar to the share of children in single-parent low-income families using before- and after-school programs (15 percent). School-age children in single-parent higher-income families were the most likely (25 percent) to attend before- and after-school programs as a primary care arrangement.

**Relative Care.** Children in two-parent families were much less likely than children in single-parent families to use relatives for care, regardless of income. This pattern was also found among preschool children. While only 21 and 19 percent of school-age children in low- and higher-income two-parent households, respectively, had relatives caring for them, 36 and 30 percent of school-age children in low- and higher-income single-parent families were cared for by relatives.

**Parent/Other Care.** The highest use of parental care was among two-parent families, especially low-income families. Over half of children from two-parent low-income families (58 percent) appeared to use parent care or
other activities, such as sports or lessons, as the primary out-of-school child care arrangement. Among higher-income children in two-parent families 43 percent had parent/other care. Among single-parent families the use of parent/other care was substantially lower. Twenty-seven percent of low-income children with a single parent used parent/other care; 19 percent of higher-income children with a single parent used this form of care.

**Self-Care.** Self-care is often controversial for school-age children, especially younger children in the early elementary grades. Self-care is defined as a situation in which the child regularly spends time alone or with siblings younger than age 13 while a parent is employed. In this paper the focus is on self-care when it is the primary way a child of an employed parent spends out-of-school time while the parent is working or engaged in job readying activities. In general, higher-income families were slightly more likely to report using child self-care as the primary care situation than low-income families, but there was little difference with regard to single- versus two-parent families.7 Seven percent of school-age children in two-parent low-income families and 11 percent of those in similar higher-income families were reported as caring for themselves as a primary arrangement. Similarly, 9 percent of children in single-parent low-income families and 12 percent of children in single-parent higher-income families cared for themselves.

**Child Care Arrangements by State**

Demographic characteristics of families in a state, labor market conditions, the cost and supply of providers—as well as state-specific policies and regulations—may affect the use of certain kinds of child care arrangements. As found in earlier NSAF research, there were substantial differences among states in the distribution of types of care used for both preschool and school-age children from low-income families. Figures 4 and 5 illustrate this variation, focusing on center-based care and before- and after-school programs as examples of more regulated types of child care arrangements. The appendix tables provide more complete information about the broad distribution of child care arrangements in each state for 0- through 4-year-olds, 5-year-olds, and 6- through 12-year-olds. Among children under age 5 in low-income families the proportion in center-based care as a primary arrangement varies dramatically across states (figure 4). Although 23 percent of low-income children were in center-based care nationwide, the proportions were significantly lower in Michigan (10 percent), New York (14 percent), and Texas (16 percent). They were significantly higher in Mississippi (32 percent) and Alabama (37 percent).

The out-of-school child care arrangements made for children age 6 through 12 in low-income families also vary considerably across states. Figure 5 shows the proportion of low-income children in before- or after-school care programs as a primary out-of-school arrangement. While 11 percent of school-age children in low-income families attended before- and after-school programs nationwide, this proportion was significantly lower in Wisconsin (6 percent) and higher in both Florida (16 percent) and New Jersey (17 percent).17
Figure 4. Use of Center-Based Care among Preschool Children (0–4) with a Low-Income Employed Parent, by State, 1999

Michigan: 10%
New York: 14%
Texas: 16%
California: 17%
Colorado: 17%
Wisconsin: 20%
Minnesota: 22%
US: 23%
New Jersey: 24%
Washington: 26%
Massachusetts: 27%
Florida: 29%
Mississippi: 32%
Alabama: 37%

Figure 5. Use of Before- and After-School Care among School-Age Children (6–12) with a Low-Income Employed Parent, by State, 1999

Wisconsin: 6%
Mississippi: 7%
Alabama: 8%
Minnesota: 9%
Texas: 10%
US: 11%
New Jersey: 11%
Colorado: 13%
New York: 15%
Massachusetts: 16%
Florida: 16%
California: 17%
New Jersey: 17%
Changes in Child Care Arrangements between 1997 and 1999

The child care arrangements used by children shifted somewhat in the late 1990s. The patterns of change varied by age of the children, family structure and income, and state of residence.

Preschool Children Age 0 through 4

Among preschool children with employed parents a smaller proportion were in center-based care (28 percent compared with 32 percent in 1997) and a larger proportion were cared for by relatives (27 percent compared with 23 percent in 1997). *(See appendix table 1.)* As shown in figure 6 these shifts primarily occurred among two-parent families. Regardless of income, we observe virtually no change between 1997 and 1999 in the pattern of arrangements for preschool children in single-parent households.

Preschool children in two-parent families regardless of income level were less likely to be in center-based care in 1999 compared with 1997 (26 percent compared with 31 percent). Among low-income two-parent families, parent care increased, and among higher-income families relative care increased. No changes were observed among children from single-parent families.

Within the 13 Assessing the New Federalism (ANF) focal states, the patterns of child care use across the two-year period were fairly stable. Some states, however, showed greater shifts in child care arrangements than others. For example, both Michigan and Texas experienced a significant decline in

Figure 6. Selected Primary Child Care Arrangements of Preschool Children (0–4) with an Employed Parent, 1997 and 1999

![Diagram showing changes in child care arrangements between 1997 and 1999 for two-parent and single-parent families, with differences significant at 0.10 level.](image)
center-based primary arrangements for lower-income preschool children while Alabama had a significant increase. Reliance on relatives increased significantly for higher-income children in Florida, Minnesota, and Washington (see appendix table 1).

School-Age Children Age 6 through 12

The distribution of arrangements used for the majority of school-age children remained fairly stable between 1997 and 1999. The proportion of those in parent/other care, family child care, and before- and after-school care all remained similar. Two notable exceptions to this stability were observed. The proportion of 6- through 12-year-olds who regularly spent time alone or with siblings younger than age 13 while a parent was employed declined significantly from 13 to 10 percent and the share regularly cared for by relatives increased from 19 to 23 percent (see appendix table 1). The increase in the use of relatives occurred primarily among children in single-parent families, regardless of income level (figure 7). For these families the use of relatives as the primary out-of-school child care arrangement increased substantially, by 10 percentage points. No such change occurred among children in two-parent families. In addition, the use of before- and after-school programs for children of employed low-income single parents decreased from 1997 to 1999, a pattern not found among low-income two-parent families or among higher-income families of either type. The only significant change apparent among children in higher-income two-parent families was a slight decline in self-care from 1997 to 1999.

Within the ANF focal states there were very few shifts in the patterns of child care arrangements for school-age children across the two years. Between 1997 and 1999, however, the use of relatives increased in Florida for low-income children and for higher-income children in Alabama, Wash-

Figure 7. Selected Primary Child Care Arrangements of School-Age Children (6–12) with an Employed Parent, 1997 and 1999
Assessing the New Federalism

Although there were a few other examples of significant changes isolated to a particular state and a particular arrangement type, no other overall patterns emerge in the state-by-state analysis of change, suggesting an overall pattern of stability across the period.

Conclusions

This descriptive paper provides the most recent portrait of child care arrangements used in the United States. There were significant differences in arrangements used by family type. For example, preschool children with single parents regardless of their income levels were more likely than their two-parent counterparts to use center-based care. School-age children with single parents were more likely to use before- and after-school programs than children with two parents. However, within each of these groups of families, higher-income families used these group-based programs more than lower-income families. Two-parent families appear to provide more opportunities for parent/other care than single-parent families, given the availability of an additional adult; but low-income two-parent families were more likely to rely on this situation than their higher-income counterparts.

The types of arrangements made by employed parents for the primary care of their children shifted somewhat between 1997 and 1999. The use of center-based care declined for preschool-age children as the use of relatives and parent/other care increased. Among school-age children the use of relatives increased as self-care declined somewhat. These reports of shifts in arrangements rely on reports from two surveys conducted two years apart. But it is useful to put these data into a wider historical context. Information collected periodically between 1965 and 1993 indicates that employed mothers increasingly relied on center-based care for their youngest preschool child across this period. In 1965, for example, 6 percent of employed mothers used centers as their primary care arrangement; by 1993, the proportion had risen fivefold to 30 percent. More recent data from 1995, however, indicate a slight drop in the use of centers between 1993 and 1995 (Smith 2000). These new data from NSAF provide further evidence that in the late 1990s, the reliance on center-based care decreased somewhat. It is also important to note that there is substantial variation across states in the distribution of arrangements used for both preschool and school-age children. As the state data from NSAF indicate, national trends can look very different from shifts observed in individual states.

The analyses of NSAF data also show that the types of families affected by shifts in child care arrangements can vary substantially. Among preschool children, for example, two-parent families are the ones reporting declines in the use of center-based care, and among these families the drop is greater among low-income families compared with higher-income families. Among school-age children, single parents are the ones reporting declines in the use of before- and after-school programs as their use of relatives increased. Again low-income families within this group appear to have experienced the most change.
These findings suggest that while the economy prospered, employment rates of low-income single parents increased, welfare programs changed, and child care funding expanded in the latter part of the 1990s, the primary types of child care accessed by low-income single-parent households with preschool children remained relatively constant. At the same time low-income two-parent families with preschool children experienced shifts in the distribution of arrangements. One possible explanation is that the expanded and reformulated child care subsidies that accompanied PRWORA changes may have buffered low-income single-parent households with preschool children from experiencing shifts in their arrangements such as the declines in center-based care observed among those from two-parent low-income households. But among school-age children, those with single parents at both income levels appear to have experienced a decline in the use of before- and after-school programs. This finding indicates that child care subsidy expansion and the increased investment in before- and after-school programs through the 21st Century Learning Centers may not have been sufficient to meet the need of single parents with older children. These findings suggest that in order to provide low-income families access to similar types of care regardless of their family situations, child care policy may need to address specifically the needs of preschool children in low-income two-parent families and school-age children in single-parent families.
Notes

4. Single-parent families are those in which the family head has no spouse or partner in the household. Some of the families classified as "single-parent" are in fact headed by a grandparent or another relative. Note that unmarried family heads with a partner in the household are also classified as two-parent families.
5. Including Head Start, nursery school, preschool, and pre-kindergarten programs.
6. Care by a nonrelative in the provider's home.
7. Interviews in 1999 were obtained from more than 42,000 households, yielding information on more than 109,000 persons under age 65. The scope and design of the 1997 survey was similar, with more than 44,000 interviewed households and again about 109,000 nonelderly persons.
8. Summer interviews were handled differently in the 1997 and 1999 NSAF child care samples. In 1997, the length of the field period extended well beyond the planned completion date in June. As a result, a non-random sample of respondents (17 percent) was interviewed during the summer months. Preliminary analyses indicated that the types of child care arrangements used by parents during the school year and the summer months differed significantly for both preschool and school-age children. As a result, analyses of the 1997 data were restricted to interviews completed during the non-summer months. These observations were weighted to provide representative data on child care during the school year.

In 1999, we redesigned our data collection approach so that we could describe arrangements made during the school year and the summer separately. A predictor sample of respondents, the first two release groups of telephone numbers, was worked and completed prior to June 30. This sample provides a relatively clean estimate of school-year arrangements. Another release group was released and interviewed during the summer months, providing a relatively clean estimate of summer arrangements. The bulk of the sample, however, was in the other release groups, which were worked during the school year and summer months. Those respondents whose interviews were not completed until the summer months, about 20 percent of respondents, were asked about their child care arrangements in the month of May. Two papers (Capizzano, Adelman, and Stagner forthcoming; Schmidt and Sonenstein 2001) describe these methods and results more fully. These papers demonstrate that the use of a retrospective May methodology for summer interviews appears to provide a relatively good estimate of child care arrangements in the school year when these interviews are combined with the interviews actually conducted during the school year. The analyses contained in this paper only use the data from respondents in 1999 who were interviewed about their school-year child care arrangements either concurrently or retrospectively about May.

The question is whether the changes in child care arrangements observed between 1997 and 1999 in this paper are the result of a shift in child care or a shift in our sampling methods. To cross-check our findings we have compared the results of the 1997 predictor sample with the results of the 1999 predictor sample. Although the sample sizes are relatively small because they constitute about 5 percent of each year's sample, the comparisons can be useful for indicating whether trends seen in the overall samples are also evident in the two relatively similar predictor samples. The decline in the use of centers for preschool children in two-parent low-income families was found in the predictor sample comparison. Among school-age children the decline in the use of before- and after-school programs was found among children from single-parent families in the predictor sample comparisons. Thus, we think that the shifts reported for the 1997 and 1999 school-year samples primarily reflect shifts in underlying behavior, since they conform to recent trends observed in other studies (Smith 2000). Of course all findings based on sample surveys contain some level of error.

10. For the sake of simplicity, employed primary caretakers are referred to here as employed parents.
11. Care by fathers is classified as parental care, not relative care.
12. In October 1999, 74 percent of 5-year-olds in the United States were reported to be in kindergarten (National Center for Education Statistics 2001). Because the NSAF field period was from February through October 1999 the estimate of kindergarten participation is much lower. Many of the 5-year-olds in the NSAF survey would be age-eligible for kindergarten starting in October 1999.

13. Before- and after-school programs can be run by child care centers. In the survey instrument respondents were asked about their child's participation in a before- and after-school program before they were asked about care in child care centers. The arrangement reported here is the one in which the child spent the most time.

14. Family income was annual income in calendar year 1998.

15. The number of 5-year-olds in the sample precludes detailed analyses of this population.

16. Other research has found that children in self-care are more likely to have higher family incomes (Smith 2000). Recent multivariate analyses indicated that once demographic and neighborhood variables are also examined simultaneously, family income is no longer a significant independent predictor of the use of self-care (Smith and Casper 1999).

17. Although the proportion of low-income children in California using after-school care appears similar to the proportion in New Jersey, there is no significant difference between the proportion in California and the national average because of the size of the standard error for the California statistic.

18. All changes cited in the text were at least significant at the 0.10 level.

19. Data from prior time periods suggest that the share using center-based care has shown some instability across years. Between 1993 and 1995, the share of preschoolers in center-based care declined from 30 percent to 25 percent (Smith 2000).

References


Appendix—Tables
Table A1. Primary Child Care Arrangements of Preschool and School-Age Children with an Employed Parent in 1997 and 1999 by State (percentage)

| CHILDREN UNDER AGE 5 | AL | CA | CO* | FL | MA | MI | MN | MS | NJ | NY | TX | WA | WI | US |
|----------------------|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|
| 97 | 99 | 97 | 99 | 97 | 97 | 99 | 97 | 99 | 97 | 99 | 97 | 99 | 97 | 99 |
| 24 | 37* | 17 | 17 | 17 | 32 | 29 | 38 | 27 | 20 | 10* | 21 | 22 | 34 | 32 | 27 |
| 15 | 8 | 16 | 10 | 17 | 13 | 15 | 9 | 12 | 12 | 17 | 9 | 9 | 12 | 15 | 14 |
| 38 | 23* | 28 | 25 | 24 | 21 | 25 | 24 | 25 | 39 | 47 | 32 | 34 | 43 | 37 | 29 |
| 3 | 4 | 3 | 3 | 1 | 2 | 1 | 2 | 3 | 6 | 13 | 20 | 21 | 24 | 25 | 18 |
| 1 | 2 | 9 | 4 | 2 | 2 | 3 | 4 | 5 | 3 | 6 | 3 | 5 | 6 | 5 | 3 |
| 22 | 32 | 36 | 45 | 39 | 28 | 26 | 22 | 34 | 25 | 28 | 31 | 23 | 14 | 21 | 31 |
| 13 | 12 | 34 | 25 | 29 | 24 | 20 | 34 | 27 | 18 | 25* | 26 | 16 | 28 | 22 | 22 |
| 12 | 10 | 32 | 17 | 16 | 17 | 13 | 10 | 13 | 13 | 12 | 12 | 12 | 18 | 19 | 24 |
| 4 | 2 | 6 | 8 | 3 | 8 | 9* | 3 | 8 | 10 | 3 | 9 | 6 | 5 | 3 | 5 |
| 13 | 12 | 34 | 25 | 29 | 24 | 20 | 34 | 27 | 18 | 25* | 26 | 16 | 28 | 22 | 22 |
| 12 | 13 | 34 | 31 | 32 | 26 | 23 | 32 | 29 | 20 | 28* | 24 | 21 | 15 | 19 | 27 |
| 40 | 43 | 19 | 22 | 25 | 38 | 36 | 27 | 24 | 33 | 22* | 38 | 28* | 38 | 40 | 26 |

Notes: The symbol * represents statistically significant differences between 1997 and 1999 at the 0.10 confidence level.
FPL = federal poverty level.

Above 200% of FPL

Center-based care
| 50 | 47 | 20 | 24 | 29 | 38 | 40 | 24 | 24 | 39 | 28* | 44 | 30* | 42 | 47 | 25 |
| 13 | 10 | 16 | 15 | 19 | 15 | 14 | 10 | 15 | 16 | 15 | 19 | 17 | 15 | 13 | 9 |
| 20 | 28 | 24 | 28 | 21 | 16 | 24* | 25 | 24 | 24 | 30 | 6 | 14* | 21 | 17 | 26 |
| 4 | 2 | 6 | 8 | 3 | 8 | 9* | 3 | 8 | 10 | 3 | 9 | 6 | 5 | 3 | 5 |
| 13 | 12 | 34 | 25 | 29 | 24 | 20 | 34 | 27 | 18 | 25* | 26 | 16 | 28 | 22 | 22 |
| 12 | 13 | 34 | 31 | 32 | 26 | 23 | 32 | 29 | 20 | 28* | 24 | 21 | 15 | 19 | 27 |
| 40 | 43 | 19 | 22 | 25 | 38 | 36 | 27 | 24 | 33 | 22* | 38 | 28* | 38 | 40 | 26 |
| 14 | 9 | 16 | 13 | 18 | 14 | 14 | 10 | 15 | 16 | 15 | 17 | 28* | 13 | 13 | 14 |

Parent care
| 27 | 26 | 26 | 27 | 22 | 18 | 25* | 25 | 25 | 28 | 36* | 13 | 19* | 32 | 26 | 27 |
| 3 | 1 | 5 | 7 | 3 | 7 | 3 | 8 | 8 | 4 | 4 | 6 | 5 | 2 | 1 | 4 |
| Parent care
| 17 | 20 | 34 | 31 | 32 | 26 | 23 | 32 | 29 | 20 | 28* | 26 | 21 | 15 | 19 | 27 |

CHILDREN AGE 6-12

Below 200% of FPL

Before/after-school program
| 11 | 8 | 13 | 17 | 13 | 16 | 16 | 14 | 16 | 13 | 11 | 9 | 7 | 9 | 16 | 17 |
| 5 | 4 | 7 | 5 | 7 | 4 | 5 | 4 | 5 | 8 | 8 | 11 | 10 | 3 | 9 |
| 34 | 41 | 23 | 23 | 22 | 21 | 30* | 21 | 24 | 28 | 39 | 14 | 17 | 18 | 38 |
| 39 | 46 | 41 | 43 | 47 | 36 | 45 | 42 | 44 | 34 | 51 | 42 | 42 | 37 | 47 |
| 20 | 23 | 32 | 29 | 20 | 28* | 26 | 21 | 15 | 19 | 27 | 25 | 30 | 20 | 26* |

Above 200% of FPL

Before/after-school program
| 19 | 17 | 20 | 23 | 24 | 28 | 27 | 17 | 17 | 12 | 14 | 19 | 17 | 14 | 21 |
| 5 | 4 | 7 | 5 | 7 | 4 | 5 | 4 | 5 | 8 | 8 | 11 | 10 | 3 | 9 |
| 18 | 26* | 20 | 24 | 15 | 15 | 12 | 14 | 18 | 20 | 18 | 9 | 11 | 25 | 21 |
| 38 | 41 | 37 | 40 | 37 | 43 | 45 | 46 | 45 | 46 | 45 | 46 | 45 | 39 | 40 |

Parent care
| 43 | 38 | 41 | 37 | 40 | 37 | 43 | 45 | 46 | 45 | 46 | 45 | 46 | 39 | 40 |
| 11 | 12 | 8 | 5 | 10 | 10 | 11 | 12 | 9 | 12 | 13 | 24 | 23 | 12 | 9 |
| 16 | 13 | 21 | 21 | 23 | 22 | 16 | 17 | 13 | 13 | 17 | 15 | 12 | 14 | 16 |
| 7 | 4 | 7 | 6 | 8 | 6 | 4 | 5 | 5 | 7 | 8 | 10 | 9 | 3 |
| 24 | 32* | 21 | 23 | 17 | 18 | 20 | 15 | 20 | 23 | 23 | 10 | 13 | 31 | 29 |
| 41 | 38 | 43 | 38 | 41 | 40 | 45 | 45 | 44 | 42 | 38 | 37 | 42 | 41 | 40 |

Notes: The symbol * represents statistically significant differences between 1997 and 1999 at the 0.10 confidence level.
Figures in bold represent values that are statistically significantly different from the 1999 national average at the 0.10 confidence level.
— = value too small to be represented accurately.
FPL = federal poverty level.

a. Because the initiation of the 1997 survey was delayed in Colorado, the data are not comparable to the data from the other states because of the overrepresentation of summer cases.
Table A2. School Attendance and Primary Out-of-School Child Care Arrangements for 5-Year-Old Children with an Employed Parent in 1999 by State (percentage)

<table>
<thead>
<tr>
<th></th>
<th>AL</th>
<th>CA</th>
<th>CO</th>
<th>FL</th>
<th>MA</th>
<th>MI</th>
<th>MN</th>
<th>NJ</th>
<th>NY</th>
<th>TX</th>
<th>WA</th>
<th>MS</th>
<th>WI</th>
<th>US</th>
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</thead>
<tbody>
<tr>
<td>In kindergarten/first grade</td>
<td></td>
<td>54</td>
<td>39</td>
<td>38</td>
<td>35</td>
<td>52</td>
<td>29</td>
<td>30</td>
<td>26</td>
<td>21</td>
<td>37</td>
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<tr>
<td>Primary nonschool arrangement</td>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Before-/-after-school/center</td>
<td>36</td>
<td>47</td>
<td>71</td>
<td>55</td>
<td>44</td>
<td>39</td>
<td>53</td>
<td>61</td>
<td>42</td>
<td></td>
<td></td>
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<td>44</td>
<td>48</td>
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<tr>
<td>Parent/other care</td>
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<td>24</td>
<td>14</td>
<td>25</td>
<td>14</td>
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<td>19</td>
<td>18</td>
<td>29</td>
<td>26</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other nonparent care</td>
<td>30</td>
<td>29</td>
<td>15</td>
<td>20</td>
<td>42</td>
<td>38</td>
<td>31</td>
<td>21</td>
<td>31</td>
<td>30</td>
<td>31</td>
<td>33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample size (not incl. missing values)</td>
<td>60</td>
<td>76</td>
<td>109</td>
<td>85</td>
<td>103</td>
<td>88</td>
<td>106</td>
<td>94</td>
<td>75</td>
<td>100</td>
<td>55</td>
<td>183</td>
<td>1,415</td>
<td></td>
</tr>
</tbody>
</table>

Figures in bold represent values that are statistically significantly different from the 1999 national average at the 0.10 confidence level.
— = not available because sample sizes are too small to be reliable.
About the Authors

Freya L. Sonenstein is the director of the Population Studies Center at the Urban Institute. From 1995 to 2001 she directed the social services research agenda of the Assessing the New Federalism project. Dr. Sonenstein’s research focuses on children, youth, and family policy issues. Her current work examines reproductive health policy, how biological parents, especially fathers, are involved in child welfare case planning, and the family formation behavior of men as they move from their teen years through their twenties.

Gary Gates is a research associate in the Population Studies Center at the Urban Institute. Dr. Gates’s research interests include urban community and economic development in the postindustrial economy, child care arrangements in low-income families, the demography of the gay and lesbian population, and adolescent male sexual behavior.

Stefanie Schmidt is an economist at the U.S. Department of Agriculture’s Food and Nutrition Service, where she researches the Women, Infants, and Children (WIC) program and the National School Lunch Program. Dr. Schmidt has researched a broad range of policy issues affecting low-income families and children, including child care, the basic skills of low-income workers, job security, and secondary education policies.

Natalya Bolshun is an analyst in the Education, Workforce, and Income Security team of the U.S. General Accounting Office, where she researches implementation of the federal employment and training programs, particularly as they relate to current and former welfare recipients. Her research interests include workforce development and worker protection issues, as well as child well-being and education.
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