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The Years Before School: Children's Nonparental Care Arrangements From 2001 to 2012

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Statistics in Brief publications describe key findings from statistical tables to provide useful information to a broad audience, including members of the general public. They address simple and topical issues and questions. They do not investigate more complex hypotheses, account for inter-relationships among variables, or support causal inferences. We encourage readers who are interested in more complex questions and in-depth analysis to explore other NCES resources, including publications, online data tools, and public- and restricted-use datasets. See nces.ed.gov and references noted in the body of this document for more information.

Nearly 24 million children

age 5 and under resided in the United States in 2014 (Federal Interagency Forum on Child and Family Statistics 2015).

Previous research has shown that about 60 percent of these children have some type of nonparental care arrangement before entering kindergarten (Mamedova and Redford 2013; Mulligan, Brimhall, and West 2005).

Studies of nonparental care arrangements are important because it is through such arrangements that many children receive basic care while their parents are at work, school, or otherwise not able to care for them. They are also where children may learn early literacy and numeracy skills that are important for kindergarten entry (Flanagan and McPhee 2009).

Policymakers have focused on establishing broader access to quality preschool and kindergarten programs. Four in five states now have public prekindergarten programs, and enrollment has expanded rapidly over the past decade (Barnett, Carolan, Fitzgerald, and Squires 2012). In 2010, over 50 percent of children entering kindergarten had attended a center care arrangement in the previous year (Federal Interagency Forum on Child and Family Statistics 2013). This Statistics in Brief examines the nonparental care

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arrangements of children in the United States, from birth through age 5, who are not yet enrolled in kindergarten. The report draws on data from the National Household Education Surveys Program (NHES) Early Childhood Program Participation (ECPP) Surveys of 2001, 2005, and 2012.

Previous reports have shown that children's nonparental care arrangements vary by age, with higher percentages of older children participating in center care

arrangements (Mamedova and Redford 2013; Mulligan, Brimhall, and West 2005). The evidence suggests that this may be because as children get older, their parents begin to focus more on their academic skills. Younger children's parents, in contrast, may be more concerned about practical factors such as cost and arrangement reliability as well as factors related to caregivers' trustworthiness and ability to form caring, home- or family-like relationships with children (Chaudry et al. 2011; Kim and Fram 2009).

Given the emphasis in recent years on young children's early learning and nonparental care arrangements, it is important to better understand where children are spending their time during the years before school entry. This report presents findings on nonparental care over time, specifically on the arrangements children participate in, the time they spend in these arrangements, and the out-of-pocket expense for these arrangements.

Types of Nonparental Care Arrangements

RELATIVE CARE is care provided by a relative (e.g., grandparent, aunt/uncle, brother/sister, or another relative) in either the child's home or another home. Relative care does not include the child's parents or guardians (e.g., a father or mother caring for the child).

NONRELATIVE CARE is care provided by a nonrelative, either in the child's home or another home. It includes care provided by home child care providers or neighbors, but not day care centers or preschools.

CENTER-BASED CARE is care provided by day care centers, preschools, prekindergarten programs, Head Start programs, and other early childhood programs.

Considerations for Readers

When reviewing this report, readers should keep in mind several considerations. For more information, see the [Technical Notes](#) at the end of the report.

Children with more than one type of nonparental care arrangement

The ECPP survey collected detailed information on children’s participation in relative care, nonrelative care, and center-based care arrangements, including hours spent in care and out-of-pocket expenses. Children may participate in more than one type of care arrangement (e.g., center-based care and relative care) and may have more than one care provider within a particular type of care (e.g., two relative care arrangements). Children with multiple care arrangements are counted in each type of arrangement in which they participate.

Children with multiple sources of a single type of arrangement (e.g., two different relatives caring for them)—discussed in more detail below—are counted only once in that arrangement. In this brief, children are considered to be participants in a particular care arrangement if the arrangement is regularly scheduled at least once each week.

Children with more than one care provider within a particular type of nonparental care arrangement

In some cases, children have more than one care provider within a particular type of care arrangement. For instance, a child who has more than one relative care arrangement may spend most of his or her nonparental care time with a grandparent but may also, at times, receive care from another relative, such as an aunt. The manner in which the ECPP survey collected information about children with multiple providers within one category of care arrangement differed across time. In 2001 and 2005, the ECPP survey was administered using a telephone survey. Over the phone, interviewers collected information on every care provider within a given type of care arrangement (e.g., two relative care arrangements). In 2012, the ECPP survey was administered using a paper questionnaire that respondents received in the mail. To reduce the burden on respondents, the paper questionnaire did not collect detailed information about secondary care providers within the larger categories of relative, nonrelative, and center-based care arrangements.

In order to present comparable estimates for 2001, 2005, and 2012, the estimates on hours and expenses in this report relate only to the hours and expenses for the primary care provider within each type of care arrangement (i.e., relative, nonrelative, and center-based care). For example, if a child has two relative care arrangements (as in the example above), hours and expenses are reported for the primary relative care arrangement (in this example, the grandparent only). Accordingly, the estimates presented for study question 2 may underestimate the number of hours that children spend in a particular type of care arrangement. Likewise, the estimates presented for study question 3 may underestimate the out-of-pocket expenses that households pay for a particular type of care arrangement. Despite this potential shortcoming, the choice to limit the analysis to the primary care provider within each larger category allows for comparisons over time of important aspects of the use of nonparental care and illuminates important patterns related to changes in these characteristics over time. To review estimates related to the percentages of children who participated in two or more care arrangements within a particular type of arrangement, please see the [Technical Notes](#) at the end of this report.

Considerations for Readers—Continued

Since this report presents estimates on hours and expenses only for the primary care provider within each type of care arrangement, and because some families have more than one care arrangement within a given type, the estimates in this report should not be considered as a total number of hours or expenses.

Estimates related to hours in care and expenses for care

This report presents the average number of hours that children spend in their care arrangements and the average out-of-pocket hourly expenses that households pay for the primary source of each type of care arrangement.

The advantages of presenting averages for these estimates are that (a) averages are straightforward and easy to understand; and (b) averages are consistent with previous ECPP reports (see Mamedova and Redford 2013; Mulligan, Brimhall, and West 2005; and Iruka and Carver 2006).

Still, other types of estimates (e.g., the median) may provide readers with different types of information about the characteristics of the nonparental care arrangements highlighted in the report. This can be particularly true for expenses, since some households may report paying more extreme amounts for care arrangements relative to other households. Accordingly, readers should keep in mind that this report presents averages rather than other types of estimates.

In some cases, children's parents reported out-of-pocket hourly expenses for more than one child. In these cases, the reported out-of-pocket expenses for each arrangement were divided by the number of children for whom care was paid in order to obtain the amount paid for the sampled child. To the extent that different children in the same household are charged a different hourly rate for care (e.g., due to different charges for children of different ages), the estimates in this report may over- or under-estimate average hourly out-of-pocket expenses. For specific estimates on the percentages of families to whom this applies, please see the [Technical Notes](#) at the end of the brief.

Change in mode of data collection across time

As noted above and in the [Technical Notes](#), the ECPP survey used a phone survey in 2001 and 2005 but a paper questionnaire mailed to respondents in 2012. The differences reported in this brief, therefore, may be due to actual changes in nonparental care arrangements over time, the change in the mode of data collection, or a combination of both.

This report focuses on changes from 2001 to 2012 and differences within 2012, in nonparental care arrangements for children overall, as well as in three age groups: under 1 year old, 1 to 2 years old, and 3 to 5 years old (this report only includes children who are not yet enrolled in kindergarten).¹ Presenting within-year differences for 2012 (i.e., examining overall differences and differences by age for 2012 only) provides the most recent snapshot of nonparental care arrangements and highlights important differences

between groups' participation in nonparental care. For example, older children participate in different nonparental care arrangements than do younger children.

Results are provided for children's participation in any type of nonparental care arrangement, as well as for the three specific types for which information is collected in the ECPP survey—relative, nonrelative, and center-based care. For each study question, the brief provides a

discussion of overall trends in nonparental care arrangements followed by a discussion of how children's participation in care arrangements varies by age.

The comparisons highlighted in the text are statistically significant at the $p < .05$ level. No adjustments were made for multiple comparisons. For additional information about the data or methods used in this study, see the **Technical Notes** at the end of the report.

¹ This brief focuses on differences from 2001 to 2012. Estimates from 2005 are provided as a reference, but not discussed.

STUDY QUESTIONS

1

How did participation in nonparental care arrangements change from 2001 to 2012, overall and by children's age?

2

How did the number of hours spent in nonparental care arrangements change from 2001 to 2012, overall and by children's age?

3

How did out-of-pocket expenses for nonparental care arrangements change from 2001 to 2012, overall and by children's age?

KEY FINDINGS

- Children's overall participation in nonparental care arrangements was statistically unchanged from 2001 to 2012, with 60 percent of children from birth to age 5 who are not yet in kindergarten receiving nonparental care (figure 1).
- Twenty-six percent of children in 2012 had a relative care arrangement, compared with 22 percent in 2001 (figure 1).
- In 2012, the greatest percentage of children were enrolled in center-based care (34 percent), which was not measurably different from the 33 percent in 2001 (figure 1).
- From 2001 to 2012, the percentage of children who participated only in relative care increased from 14 to 16 percent, and the percentage of children who participated only in nonrelative care decreased from 11 to 8 percent (figure 2). Meanwhile, 12 percent of children participated in more than one type of care arrangement in 2012 (an increase from 10 percent in 2001) (figure 2).
- From 2001 to 2012, the number of hours that children spent per week in their primary care arrangement declined by 3 hours for relative care, 2 hours for nonrelative care, and 2 hours for center-based care (figure 5).
- In 2012, 3- to 5-year-olds spent fewer hours in center-based care (21 hours) than children less than a year old (28 hours) and children 1 to 2 years old (26 hours) (figure 6).
- After adjusting for inflation, out-of-pocket hourly expenses for care were higher in 2012 than they were in 2001 for children in relative (\$4.18 vs. \$2.66), nonrelative (\$5.28 vs. \$4.23), and center-based (\$6.70 vs. \$4.23) care arrangements in 2012 dollars (figure 7).
- In 2012, the families of children in nonrelative care and center-based care arrangements generally paid more for care for younger children than for older children (figure 8).

1

How did participation in nonparental care arrangements change from 2001 to 2012, overall and by children's age?

This section presents findings regarding children's participation in types of nonparental care arrangements, overall and by children's age. The findings show that the total percentage of children who participated in any nonparental care arrangement did not change measurably across survey years, but participation varied during this time by arrangement type and children's ages. Under each heading, the discussion first describes changes in participation from 2001 to 2012, then differences within 2012.

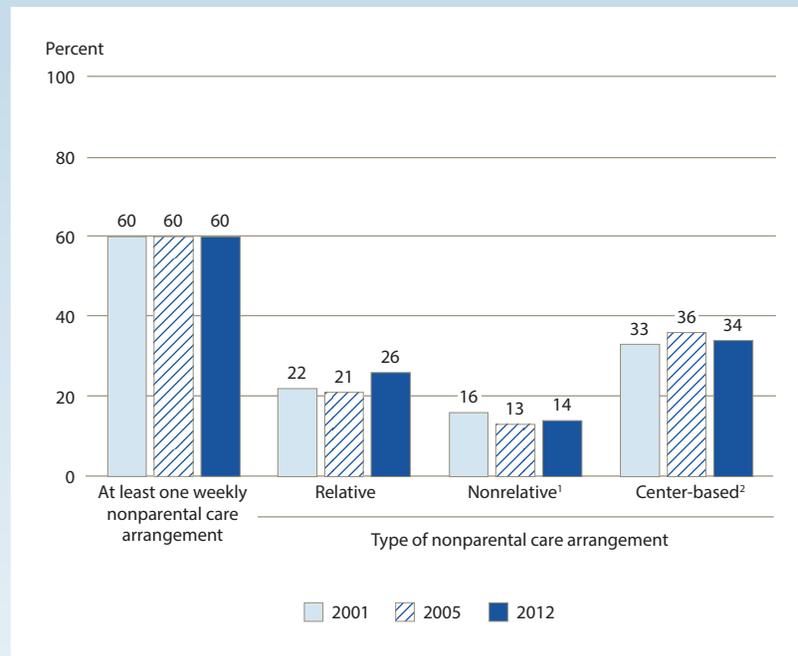
Overall Differences in Participation

The percentage of children participating in at least one weekly nonparental care arrangement has remained steady for more than a decade. In 2012, three in five children (60 percent) had some type of weekly care arrangement provided by someone other than a parent, a percentage that was not measurably different from 2001 (figure 1).

However, children's participation in various types of care arrangements—relative care, nonrelative care, and center-based care—has shifted from 2001 to 2012. There was an increase in the percentage of children receiving care from relatives: 26 percent of children in 2012 had a relative

FIGURE 1.

Percentage of children from birth to age 5 who are not yet in kindergarten, by type of nonparental care arrangement: 2001, 2005, and 2012



¹ Nonrelative arrangements include any care the child receives from a nonrelative, either in the child's home or another home. It includes care provided by home child care providers or neighbors, but not day care centers or preschools.

² Center-based arrangements include day care centers, Head Start programs, preschools, prekindergartens, and other early childhood programs.

NOTE: Children with multiple care arrangements are counted in each type of arrangement in which they participate. Children with multiple sources of a single arrangement (e.g., two different relatives caring for them) are counted only once in that arrangement.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECPP) Survey, 2001, 2005, and 2012.

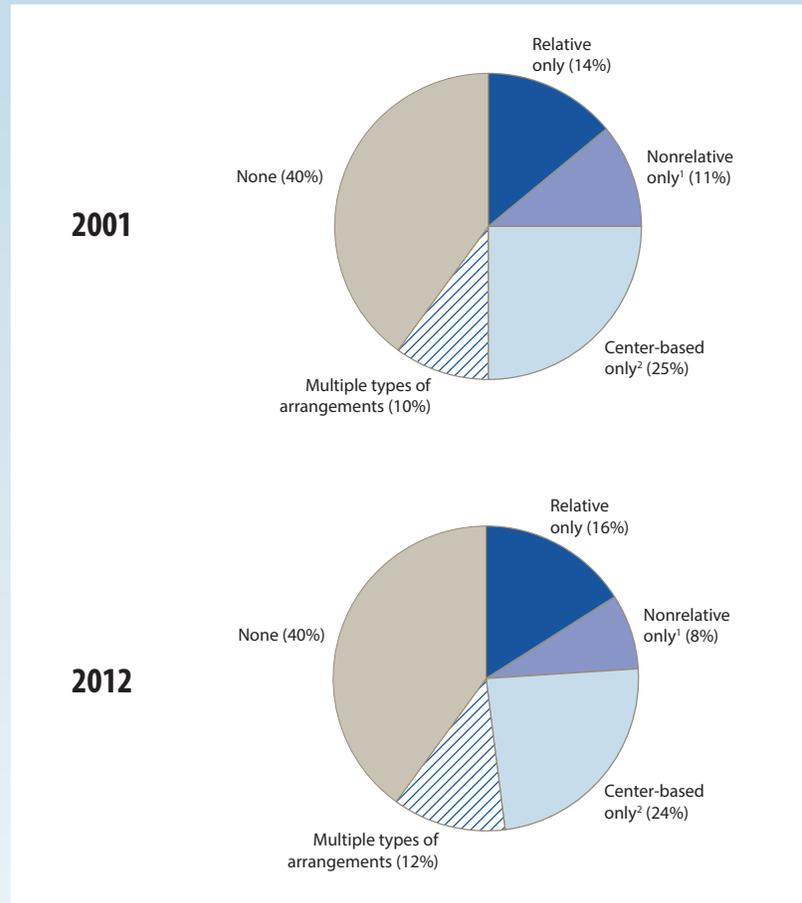
care arrangement, compared with 22 percent in 2001. On the other hand, there was a decrease in the percentage of children receiving care from nonrelatives: 14 percent of children received nonrelative care in

2012, compared to 16 percent in 2001. Nevertheless, the greatest percentage of children in 2012 (34 percent) were enrolled in center-based care, which was not measurably different from the 33 percent in 2001.

Twelve percent of children participated in more than one type of care arrangement in 2012 (an increase from 10 percent in 2001) (figure 2). Twenty-four percent of children participated only in center-based care in 2012, which was not measurably different from the percentage in 2001. However, the percentage of children who participated only in nonrelative care decreased from 11 to 8 percent from 2001 to 2012, and the percentage of children who participated only in relative care increased from 14 to 16 percent.

FIGURE 2.

Percentage distribution of children with none, one type, and multiple types of weekly nonparental care arrangements: 2001 and 2012



¹ Nonrelative arrangements include any care the child receives from a nonrelative, either in the child's home or another home. It includes care provided by home child care providers or neighbors, but not day care centers or preschools.

² Center-based arrangements include day care centers, Head Start programs, preschools, prekindergartens, and other early childhood programs.

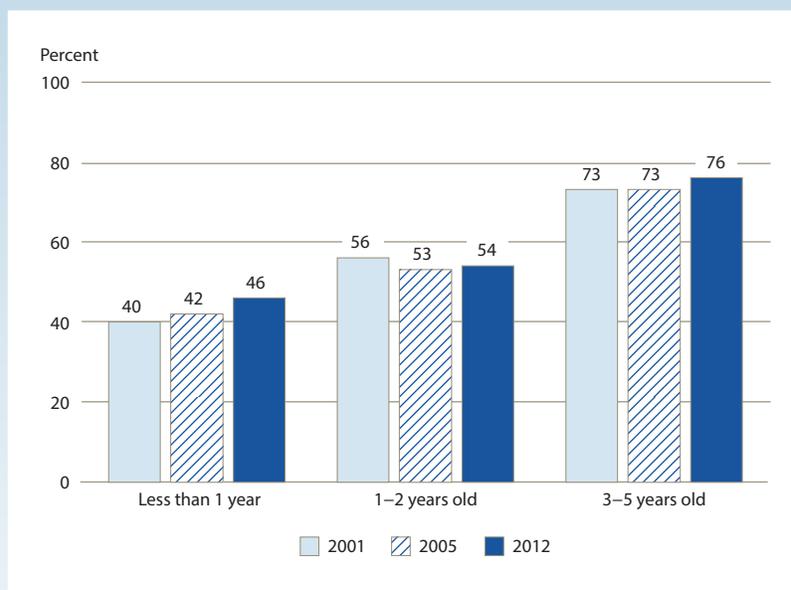
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECPP) Survey, 2001 and 2012.

Differences in Participation by Child's Age

Participation in at least one type of nonparental care arrangement increased from 2001 to 2012 among children less than 1 year old (from 40 to 46 percent) and children 3 to 5 years old (from 73 to 76 percent) (figure 3). In 2012, a higher percentage of children 3 to 5 years old had at least one nonparental care arrangement than did children 1 to 2 years old and children less than 1 year old.

FIGURE 3.

Percentage of children from birth to age 5 who are not yet in kindergarten and who have at least one weekly nonparental care arrangement, by child's age: 2001, 2005, and 2012



NOTE: Children with multiple care arrangements are counted in each type of arrangement in which they participate. Children with multiple sources of a single arrangement (e.g., two different relatives caring for them) are counted only once in that arrangement.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.

Looking at the different types of care arrangements, the percentage of children who participated in relative care increased from 2001 to 2012 among children less than 1 year old (from 21 to 27 percent) and among 1- to 2-year-olds (from 22 to 26 percent) (figure 4). The percentage

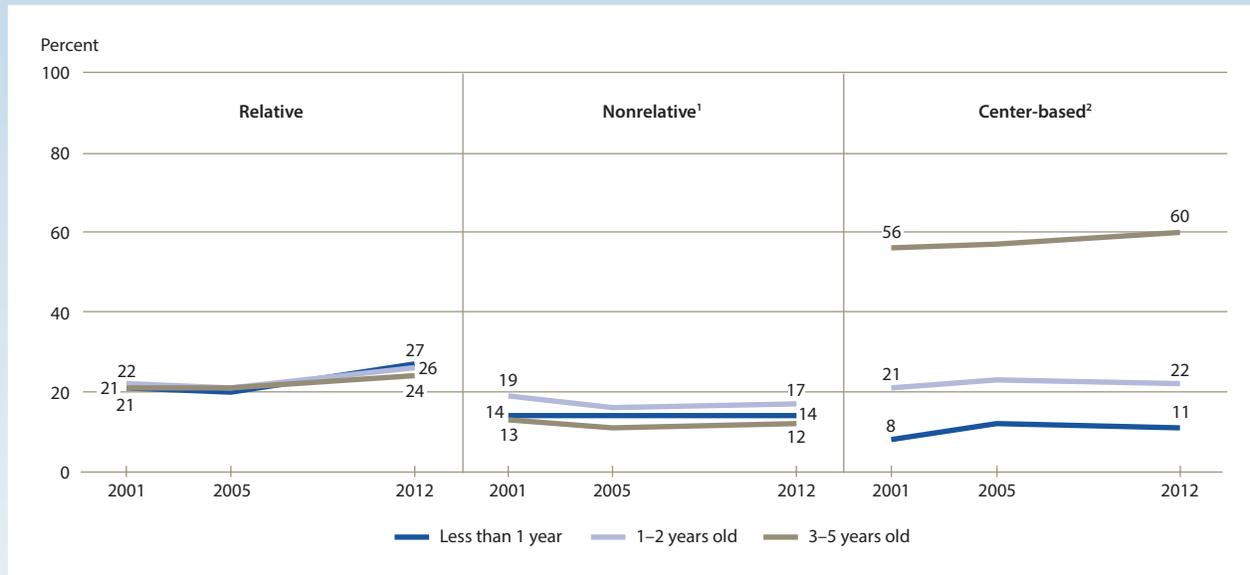
of 3- to 5-year-olds who participated in center-based care also increased (from 56 to 60 percent).

In 2012, a higher percentage of children less than 1 year old (27 percent) and 1 to 2 years old (26 percent) participated in relative care

than did children 3 to 5 years old (24 percent). The opposite pattern was found for center-based care, where a higher percentage of 3- to 5-year-olds (60 percent) participated than did children less than 1 year old (11 percent) or 1 to 2 years old (22 percent).

FIGURE 4.

Percentage of children from birth to age 5 who are not yet in kindergarten, by type of weekly nonparental care arrangement and child's age: 2001, 2005, and 2012



¹ Nonrelative arrangements include any care the child receives from a nonrelative, either in the child's home or another home. It includes care provided by home child care providers or neighbors, but not day care centers or preschools.

² Center-based arrangements include day care centers, Head Start programs, preschools, prekindergartens, and other early childhood programs.

NOTE: Children with multiple care arrangements are counted in each type of arrangement in which they participate. Children with multiple sources of a single arrangement (e.g., two different relatives caring for them) are counted only once in that arrangement.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.

2 How did the number of hours spent in nonparental care arrangements change from 2001 to 2012, overall and by children’s age?

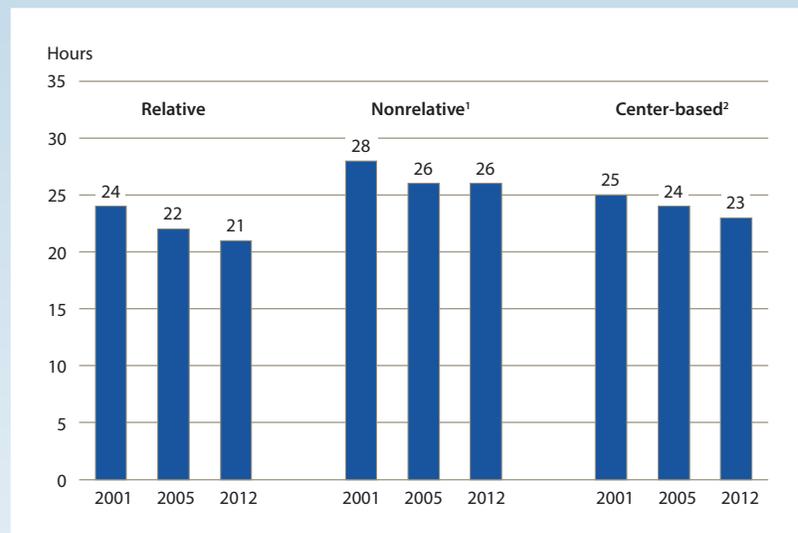
This section reports on the number of hours that children spend in their nonparental care arrangements each week. The findings show that while there have been changes in the types of care that children received from 2001 to 2012 (see study question 1), there has been an overall decline in the number of hours each week that children spend in these care arrangements.

Overall Differences in Hours Spent in Nonparental Care

From 2001 to 2012, the number of hours that children spent per week in their primary care arrangement declined by 3 hours for relative care, 2 hours for nonrelative care, and 2 hours for center-based care (figure 5). Although only 14 percent of children participated in a nonrelative care arrangement in 2012—making it the least common type of care arrangement—children spent more hours per week in a nonrelative care arrangement (26 hours) than in relative care (21 hours) or center-based care (23 hours).

FIGURE 5.

Average number of hours spent per week in primary weekly nonparental child care arrangements for children from birth through age 5 and not yet in kindergarten, by type of arrangement: 2001, 2005, and 2012



¹ Nonrelative arrangements include any care the child receives from a nonrelative, either in the child’s home or another home. It includes care provided by home child care providers or neighbors, but not day care centers or preschools.

² Center-based arrangements include day care centers, Head Start programs, preschools, prekindergartens, and other early childhood programs.

NOTE: Children with multiple care arrangements are counted in each type of arrangement in which they participate. Children with multiple sources of a single arrangement (e.g., two different relatives caring for them) are counted only once in that arrangement. Hours of care are reported only for the primary care arrangement in each category (i.e., relative, nonrelative, and center-based). While hours of care for children using multiple types of arrangements are captured for each type of arrangement, additional hours associated with a secondary provider for the same type of care (e.g., a secondary relative care arrangement) are not included.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.

Differences in Hours Spent in Nonparental Care by Child's Age

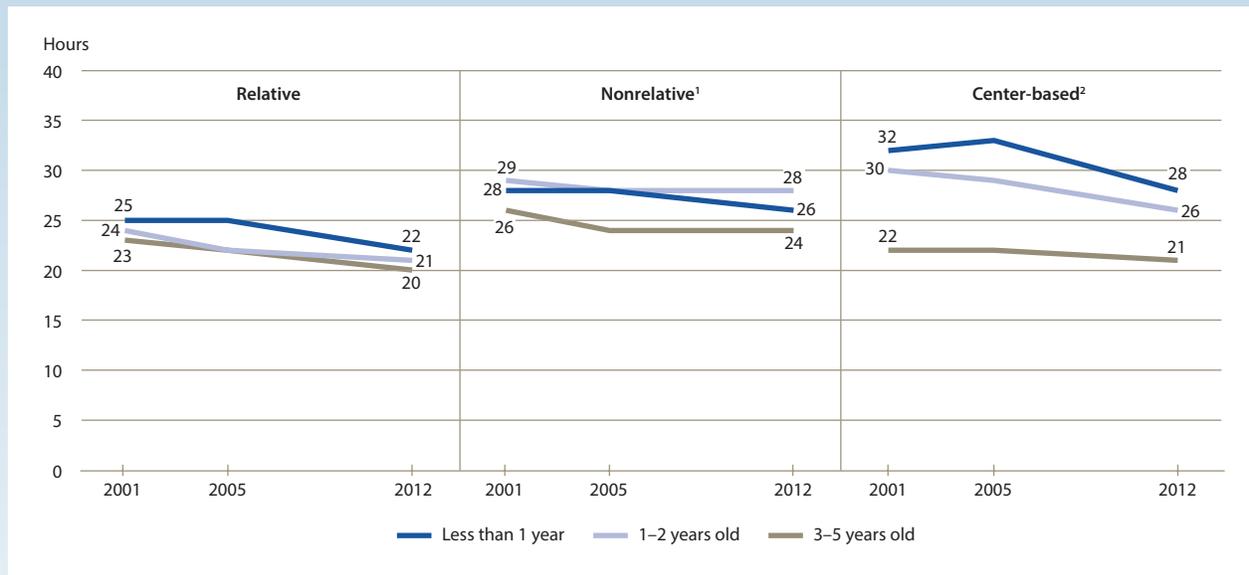
Generally, differences by age for hours spent in relative care and center-based care arrangements mirrored the overall trend toward fewer hours in nonparental child care (figure 6). The number of hours spent per week in relative care arrangements declined from 2001 to 2012 for children in each age group. For center-based care

arrangements, the number of hours spent per week in care declined from 2001 to 2012 for 1- to 2-year-olds and 3- to 5-year-olds (from 30 to 26 hours and from 22 to 21 hours, respectively). No measureable change was found for children under 1. For children in nonrelative care arrangements, there were no measurable changes by child's age from 2001 to 2012 in the number of hours spent in care each week.

In 2012, 3- to 5-year-olds spent fewer hours in center-based care (21 hours) than children less than a year old (28 hours) and children 1 to 2 years old (26 hours). Similarly, 3- to 5-year-olds spent fewer hours in nonrelative care (24 hours) than 1- to 2-year-olds (28 hours). There was no measurable difference in the average number of hours that children less than a year old, 1 to 2 years old, and 3 to 5 years old spent in relative care.

FIGURE 6.

Average number of hours spent per week in primary weekly nonparental child care arrangements for children from birth through age 5 and not yet in kindergarten, by type of arrangement and child's age: 2001, 2005, and 2012



¹ Nonrelative arrangements include any care the child receives from a nonrelative, either in the child's home or another home. It includes care provided by home child care providers or neighbors, but not day care centers or preschools.

² Center-based arrangements include day care centers, Head Start programs, preschools, prekindergartens, and other early childhood programs.

NOTE: Children with multiple care arrangements are counted in each type of arrangement in which they participate. Children with multiple sources of a single arrangement (e.g., two different relatives caring for them) are counted only once in that arrangement. Hours of care are reported only for the primary care arrangement in each category (i.e., relative, nonrelative, and center-based). While hours of care for children using multiple types of arrangements are captured for each type of arrangement, additional hours associated with a secondary provider for the same type of care (e.g., a secondary relative care arrangement) are not included.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.

3 How did out-of-pocket expenses for nonparental care arrangements change from 2001 to 2012, overall and by children's age?

The final section of this report highlights the rising average out-of-pocket hourly expenses that households bear when caring for their young children.² After adjusting for inflation, out-of-pocket hourly expenses increased from 2001 to 2012 for each type of care arrangement. In 2012, center-based programs were the most expensive for families.

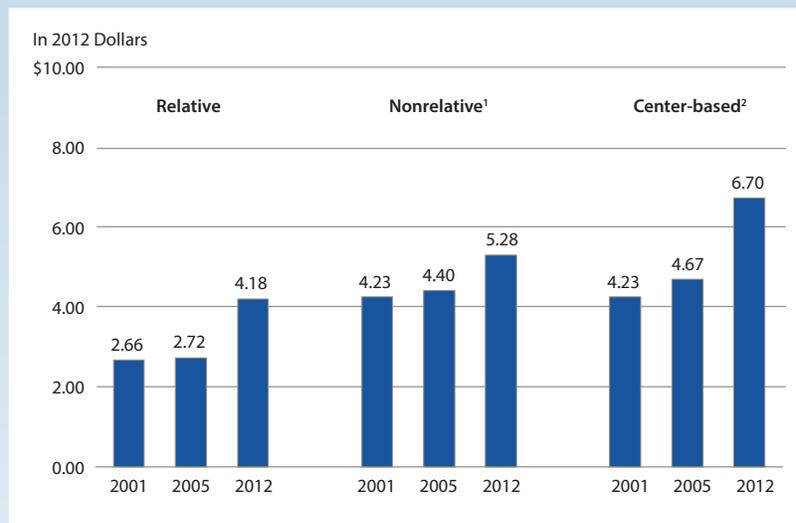
Overall Differences in Expenses for Nonparental Care

There were higher out-of-pocket hourly expenses for care in 2012 than in 2001 for children in relative, nonrelative, and center-based care arrangements. The expense for center-based care increased by 58 percent and that of relative care by 57 percent, while the expense for nonrelative care increased by 25 percent (figure 7).

In 2012, out-of-pocket hourly expenses for children in center-based programs were the most expensive for families, averaging \$6.70 per hour—60 percent higher than relative care (\$4.18 per hour) and 27 percent higher than nonrelative care (\$5.28 per hour).

FIGURE 7.

Average per child out-of-pocket hourly expense for primary weekly nonparental child care arrangements for children from birth through age 5 and not yet in kindergarten: 2001, 2005, and 2012 (in 2012 dollars)



¹ Nonrelative arrangements include any care the child receives from a nonrelative, either in the child's home or another home. It includes care provided by home child care providers or neighbors, but not day care centers or preschools.

² Center-based arrangements include day care centers, Head Start programs, preschools, prekindergartens, and other early childhood programs.

NOTE: Children with multiple care arrangements are counted in each type of arrangement in which they participate. Children with multiple sources of a single arrangement (e.g., two different relatives caring for them) are counted only once in that arrangement. Data converted to 2012 dollars using Consumer Price Index for all Urban Consumers. Parents' expenses for care are reported only for the primary arrangement in each category (i.e., relative, nonrelative, and center-based). While expenses for children using multiple types of arrangements are captured for each type of arrangement, additional expenses associated with a secondary provider for the same type of care (e.g., a secondary relative care arrangement) are not included. Parents indicated whether there was a charge or fee related to the nonparental care arrangement. If parents reported a charge, they were asked to report the household's out-of-pocket expenses for each nonparental care arrangement the child participated in. Children for whom no fee was charged, for whom another source paid the entire fee, or for whom the period of time covered by the amount indicated (e.g., per hour) could not be determined, are excluded from the estimates.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.

² Parents reported household expenses related to the sampled child's participation in a given care arrangement. In each year, parents answered a follow-up question confirming the number of children for whose care those expenses covered. For children living in households in which parents paid for care for more than one child, the reported out-of-pocket expenses for each arrangement were divided by the number of children for whom care was paid to obtain a dollar amount paid for care for the sampled child. Average per child-out-of-pocket hourly expenses assume the same hourly rate per child. See **Technical Notes** for more information regarding the calculation of average per child-out-of-pocket hourly expenses.

Differences in Expenses for Nonparental Care by Child's Age

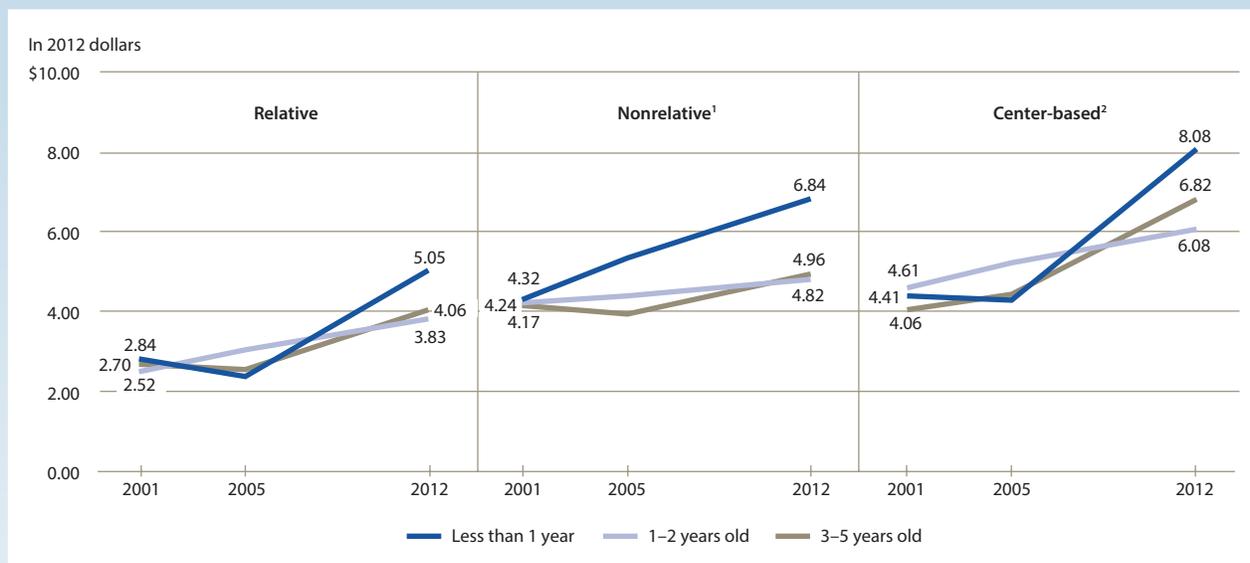
From 2001 to 2012, expenses increased for relative care and center-based care for households with children in any age group (figure 8). For nonrelative care, expenses increased for households with children less than a year old (from \$4.32 per hour to \$6.84 per hour).

In 2012, the families of children in nonrelative care and center-based care arrangements generally paid more for care for younger children than for older children. For example, nonrelative care for children less than a year old cost households more per hour than did nonrelative care for 1- to 2-year-olds and 3- to 5-year-olds (\$6.84 vs. \$4.82

and \$4.96, respectively). Center-based care for children less than a year old cost households more per hour than center-based care for 1- to 2-year-olds (\$8.08 vs. \$6.08). There were no measurable differences in household expenditures by age for relative care.

FIGURE 8.

Average per child out-of-pocket hourly expense for primary weekly nonparental child care arrangements for children from birth through age 5 and not yet in kindergarten, by type of arrangement and child's age: 2001, 2005, and 2012 (in 2012 dollars)



¹ Nonrelative arrangements include any care the child receives from a nonrelative, either in the child's home or another home. It includes care provided by home child care providers or neighbors, but not day care centers or preschools.

² Center-based arrangements include day care centers, Head Start programs, preschools, prekindergartens, and other early childhood programs.

NOTE: Children with multiple care arrangements are counted in each type of arrangement in which they participate. Children with multiple sources of a single arrangement (e.g., two different relatives caring for them) are counted only once in that arrangement. Data converted to 2012 dollars using Consumer Price Index for all Urban Consumers. Parents' expenses for care are reported only for the primary arrangement in each category (i.e., relative, nonrelative, and center-based). While expenses for children using multiple types of arrangements are captured for each type of arrangement, additional expenses associated with a secondary provider for the same type of care (e.g., a secondary relative care arrangement) are not included. Parents indicated whether there was a charge or fee related to the nonparental care arrangement. If parents reported a charge, they were asked to report the household's out-of-pocket expenses for each nonparental care arrangement the child participated in. Children for whom no fee was charged, for whom another source paid the entire fee, or for whom the period of time covered by the amount indicated (e.g., per hour) could not be determined, are excluded from the estimates.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.

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<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2017096>

More detailed information on children's early care and education can be found in the following publications produced by the National Center for Education Statistics (NCES):

- Iruka, I.U., and Carver, P.R. (2006). *Initial Results From the 2005 NHES Early Childhood Program Participation Survey* (NCES 2006-075). <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006075>.
- Mamedova, S., and Redford, J. (2013). *Early Childhood Program Participation, From the National Household Education Surveys Program of 2012* (NCES 2013-029.REV). <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2013029>.
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TECHNICAL NOTES

The National Household Education Surveys Program (NHES) is a set of household surveys sponsored by the U.S. Department of Education's National Center for Education Statistics (NCES). By collecting data directly from households, the NHES has allowed NCES to gather data on a wide range of issues, such as early childhood care and education, children's readiness for school, before- and afterschool activities of school-age children, adult education, parents' involvement in education, school choice, and homeschooling. These topics are addressed through a series of topical survey modules.

The Early Childhood Program Participation (ECP) survey, one of the NHES's topical surveys, is used to collect information on children from birth through age 6 who are not yet enrolled in kindergarten. (Typically, 6-year-old preschoolers are too few in number to support separate estimates and, therefore, they have been excluded from this report.) The respondent to the ECP questionnaire is a parent or guardian in the household who knows about the sampled child.

The ECP asks detailed questions about children's participation in relative care, nonrelative care, and center-based care arrangements.

In 2012, the NHES was conducted using an address-based sample covering the 50 states and the District of Columbia. Earlier administrations of the NHES used a random-digit-dial (RDD) sample

of landlines and computer-assisted telephone interviewing (CATI) to conduct interviews. However, due to declining response rates for all telephone surveys, and the increase in households that only or mostly use a cell phone instead of a landline, the data collection method was changed to a self-administered paper-and-pencil mail survey. Data users should take the potential impact of the change in data collection mode into consideration when comparing estimates from NHES:2012 to estimates from prior years. Measurable differences in estimates between 2012 and prior years could reflect actual changes in the population, or the changes could be due to the mode change from telephone to mail. This Statistics in Brief presents child care data released from the ECP survey of the 2001, 2005, and 2012 NHES. When weighted, the ECP data in this report are nationally representative of children between birth and the age of 5 not yet enrolled in kindergarten.

Below is an overview of information regarding NHES data reliability, data collection and response rates, nonresponse bias analyses, and imputation for 2001, 2005, and 2012. Readers interested in learning more about these topics may consult the NHES data file user's manuals for the applicable years of interest (Hagedorn et al. 2003; Hagedorn et al. 2006; McPhee et al. 2015).

Variables Used in This Report

The derived variables for child's age that are available in each wave of the ECP data file were used in this report.

Other NHES variables used in this report are described below.

Enrollment in nonparental care by arrangement, hours in care, and expense. Children were identified as enrolled in at least one nonparental care arrangement through the derived variables ANYCARE2 (for 2001 and 2005) and ANYCARE2X (for 2012). For table A-2, parents reported directly whether the sampled child participated in a regularly scheduled relative, nonrelative, or center-based care arrangement. For tables A-4 and A-5, the estimates for average number of hours and average out-of-pocket expenses, respectively, include the first relative, nonrelative, and center care arrangement reported by the parent.

In 2001 and 2005, for relative care arrangements, telephone interviewers asked parents, "How many hours each week does (Child) receive care from (his/her) (Relative)?" For nonrelative care arrangements, parents were asked, "How many hours each week does (Child) receive care from that person?" For center-based care arrangements, parents were asked, "How many hours each week does (Child) go to that program?"

In 2012, for relative care arrangements, parents responded to a questionnaire item that asked, "How many hours each week does this child receive care from this relative?" For nonrelative care arrangements, parents were asked, "How many hours each week does this child receive care from this person?" For center-based care arrangements, parents were asked, "How many hours

each week does this child go to this program?”

In 2001 and 2005, the NHES collected information on every care arrangement that the parent reported. For example, if a child had two relative care arrangements, detailed questions about the hours spent and the expense would be asked about both arrangements. In both years, the questionnaire asked the parent to first report on the arrangement that provided the most care (i.e., the primary care arrangement). In 2012, the self-administered questionnaire collected information only about one relative care arrangement, one nonrelative care arrangement, and one center-based care arrangement—in each case, the primary care arrangement. For 2012 estimates to be comparable to those from 2001 and 2005, only the data for primary care arrangements from all 3 years were used in this report to estimate average numbers of hours and expenses.

The estimates in table A-4 reflect the average number of hours that parents reported for each primary care arrangement. Hours of care are reported only for the primary care arrangement in each category (i.e., relative, nonrelative, and center-based). While hours of care for children using multiple types of arrangements are captured for each type of arrangement, additional hours associated with a secondary provider for the same type of care (e.g., a secondary relative care arrangement) are not included.

In 2001, 17 percent of children received care on a weekly basis from two or more relatives; the corresponding percentages for nonrelative and center-based care were 4 and 3 percent, respectively.³ In 2005, 13 percent of children received care on a weekly basis from two or more relatives; the corresponding percentages for nonrelative and center-based care were 6 and 4 percent, respectively.⁴ In 2012, 15 percent of children received care from two or more relatives; the corresponding percentages for nonrelative and center-based care were 8 and 9 percent, respectively.⁵ In keeping with the remainder of this report, the estimates in this paragraph illustrate weekly care arrangements for 2001 and 2005. The 2012 questionnaire did not distinguish whether the additional care arrangements occurred on a weekly basis.

For table A-5, parents indicated whether there was a charge or a fee for each primary care arrangement. Parents' expenses for care are reported only for the primary arrangement in each category (i.e., relative, nonrelative, and center-based). While expenses for children using multiple types of arrangements are included for each type of arrangement, additional expenses associated with a secondary provider for the same type of care (e.g., a secondary relative care arrangement) are not included.

³ The standard errors for these estimates are 1.37, 0.76, and 0.48, respectively.

⁴ The standard errors for these estimates are 1.24, 0.87, and 0.44, respectively.

⁵ The standard errors for these estimates are 1.00, 0.99, and 0.73, respectively.

If parents indicated that there was a charge or fee for a care arrangement, they were asked about how much the household pays for that arrangement. Specifically, in 2001, when interviewers conducted the ECPP over the telephone, parents were asked, “How much does your household pay for (CHILD’S) (RELATIVE) to care for (him/her)? [IF NOTHING, ENTER ZERO.]” For nonrelative care arrangements, parents were asked, “How much does your household pay this person to care for (CHILD)? [IF NOTHING, ENTER ZERO.]” For center-based care arrangements, parents were asked, “How much does your household pay for (CHILD) to go to that program? [IF NOTHING, ENTER ZERO.]”

ECPP interviews were also conducted over the telephone in 2005. However, questions about payment for care were modified from 2001. In 2005, for relative care arrangements, parents were asked, “How much does your household pay for (CHILD’S) (RELATIVE) to care for (him/her), not counting any money that you may receive from others to help pay for care? [IF NOTHING, ENTER ZERO.]” For nonrelative care arrangements, parents were asked, “How much does your household pay this person to care for (CHILD), not counting any money that you may receive from others to help pay for care? [IF NOTHING, ENTER ZERO.]” For center-based care arrangements, parents were asked, “How much does your household pay for (CHILD) to go to that program, not counting any money that you may receive from others to help pay for care? [IF NOTHING, ENTER ZERO.]”

In 2012, as noted above, the ECPP survey was administered using a paper questionnaire that respondents received in the mail. For relative care arrangements, parents were asked, “How much does your household pay for this relative to care for this child, not counting any money that may be received from others to help pay for care? Write ‘0’ if your household does not pay this relative for care.” For nonrelative care, parents were asked, “How much does your household pay for this person to care for this child, not counting any money that may be received from others to help pay for care? Write ‘0’ if your household does not pay this nonrelative for care.” For center-based care arrangements, parents were asked, “How much does your household pay for this child to go to this program, not counting any money that you may receive from others to help pay for care? Write ‘0’ if your household does not pay for this program.”

In addition, parents were asked to indicate how many children from the household participated in the care arrangement. In all three years, parents were asked to confirm whether the out-of-pocket expenses were for the sampled child only, or if the expenses included another child as well. For children living in households in which parents paid for care for more than one child, the reported out-of-pocket expenses for each arrangement were divided by the number of children for whom care was paid to obtain a dollar amount paid for care for the sampled child. All expenses were converted to an hourly unit per child for table A-5

by first creating an hourly expense and then dividing it by the number of children in the care arrangement.

Please note that, to the extent that families are charged different rates for different children, this calculation may over- or underestimate average hourly out-of-pocket expenses, and the strategy of dividing expenses evenly across children results in an unknown amount of error in the average estimates. In 2001, 34 percent of children in relative care had parents whose reported expenses were for more than one child; the corresponding percentages for nonrelative and center-based care were 23 and 4 percent, respectively.⁶ In 2005, 27 percent of children in relative care had parents whose reported expenses were for more than one child; the corresponding percentages for nonrelative and center-based care were 21 and 6 percent, respectively.⁷ In 2012, 36 percent of children in relative care had parents whose reported expenses were for more than one child; the corresponding percentages for nonrelative and center-based care were 28 and 9 percent, respectively.⁸

Data Reliability

Estimates produced using data from the NHES are subject to two types of errors: nonsampling errors and sampling errors.

⁶ The standard errors for these estimates are 3.45, 1.76, and 0.54, respectively.

⁷ The standard errors for these estimates are 4.11, 1.88, and 0.96, respectively.

⁸ The standard errors for these estimates are 2.85, 1.81, and 0.87, respectively.

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 such as unit and item nonresponse, the differences in respondents’ interpretations of the meaning of survey questions, response differences related to the particular month or time of the year when the survey was conducted, the tendency for respondents to give socially desirable responses, 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. For each NHES survey, efforts were made to prevent such errors from occurring and to compensate for them, where possible. For instance, during the survey design phase, cognitive interviews were conducted to assess respondents’ knowledge of the survey topics, their comprehension of questions and terms, and the sensitivity of items.

Sampling Errors

For NHES:2001 and NHES:2005, the sample of households selected based on landline telephone numbers—and for NHES:2012, the sample of households selected based on addresses—is just one of many possible samples that could have been selected from all households. Therefore, estimates produced from

these surveys 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 rather than all households.

The standard error is a measure of the variability that results from sampling when estimating a statistic; standard errors for estimates presented in this report were computed using a jackknife replication method. 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 is about 95 percent.

Standard errors for all of the estimates are presented in the standard errors tables in appendix B and can be used to produce confidence intervals. For example, an estimated 27 percent of children less than a year old had a relative care arrangement in 2012 (table A-2). This estimate has an estimated standard error of 1.6. Therefore, the estimated 95 percent confidence interval for this statistic is approximately 24 to 30 (27 percent \pm [1.96 * 1.6]). If repeated samples were drawn from the same population and confidence intervals were constructed for the percentage of children less than a year old in a weekly relative care arrangement, these intervals would contain the true population parameter 95 percent of the time.

Weighting

To produce unbiased and consistent estimates of national totals, all the responses in this report were weighted using the probabilities of selection of the respondents and other adjustments to account for nonresponse and coverage bias. The weight used in this Statistics in Brief is FEWT, which is the weight variable available in the ECPP data file for each year that is used to estimate the characteristics of children between birth and the age of 5 not yet enrolled in kindergarten. In addition to weighting the responses properly, special procedures for estimating the standard errors of the estimates were employed because the NHES data were collected using a complex sample design. Complex sample designs result in data that violate some of the assumptions that are normally made when assessing the statistical significance of results from a simple random sample. For example, the standard errors of the estimates from these surveys may vary from those that would be expected if the sample were a simple random sample and the observations were independent and identically distributed random variables. The estimates and standard errors presented in this report were produced using SAS 9.2 software and the jackknife 1 (JK1) option as a replication procedure.

Data Collection and Response Rates

The NHES:2001 sample was drawn from the civilian, noninstitutionalized population in households with telephones in the 50 states and the

District of Columbia. It was selected using a multiple-stage sampling framework. The first stage of selection in NHES:2001 involved the selection of a list-assisted RDD sample of telephone numbers. Households from this list were contacted, and a screener interview was used to enumerate household members and to collect demographic and educational information that determined eligibility for the ECPP survey. For this survey, children age 6 and younger who were not yet enrolled in kindergarten or above were sampled from the households contacted by telephone, and their parents or guardians provided information about their early childhood care and education arrangements. The 2001 NHES completed screening interviews with 48,385 households. The response rate for the screener was 69.2 percent. For the ECPP survey in 2001, 6,749 interviews were completed for a unit response rate of 86.6 percent. Thus, the overall response rate for the interview was 59.9 percent (the product of the screener response rate and the ECPP unit response rate). Data collection occurred from January through April of 2001.

Similar to the procedure for the 2001 sample, the NHES:2005 sample was selected using RDD procedures, and the data were collected using CATI technology. The first stage of sampling in NHES:2005 was the selection of a sample of telephone numbers. Telephone numbers in areas with high percentages of Black and Hispanic residents were sampled at a higher rate than those in areas with low

percentages of Black and Hispanic residents. Telephone numbers that could be matched to mailing addresses were sampled at a higher rate than those that could not be matched to addresses. ECPP interviews were completed for 7,209 children, for a weighted unit response rate of 84.4 percent and an overall estimated unit response rate (the product of the screener unit response rate and the ECPP unit response rate) of 56.4 percent. Data collection occurred from January through April of 2005.

The NHES:2012 was an address-based sample covering the 50 states and the District of Columbia. Because of declining response rates for all telephone surveys and the increase in households that only or mostly use a cell phone instead of a landline phone, the data collection method was changed to a mail survey. Data collection activities for the NHES:2012 were conducted between January and August of 2012, with the last completed questionnaires accepted in July.

The NHES:2012 sample is a two-stage probability sample selected using an address-based sampling frame. The first sampling stage selected residential addresses, and the second sampling stage selected an eligible child from information provided in the household mail screener. To increase the number of Black and Hispanic children in the sample, Black and Hispanic households were sampled at a higher rate than other households by identifying census tracts with higher percentages

of these residents. After the sample was selected, the data were collected using printed questionnaires that were mailed to the sampled respondents. In the NHES:2012 data collection, the household mail screener questionnaire was sent to all sampled households to determine whether any eligible children resided in the household. Screener questionnaires were completed by 99,426 households, for a weighted screener unit response rate of 73.5 percent. The ECPP survey had a weighted unit response rate of 78.7 percent and an overall response rate of 57.8 percent.

Nonresponse Bias Analysis

The NHES:2001, NHES:2005, and NHES:2012 included a bias analysis to evaluate whether nonresponse at the unit and item levels had an impact on the estimates. The term “bias” has a specific technical definition in this context: the expected difference between the estimate from the survey and the actual population value. For example, if all households were included in the survey (i.e., if a census had been conducted rather than a sample survey), the difference between the estimate from the survey and the actual population value (which includes persons who did not respond to the survey) would be the bias that results from unit nonresponse. Because the NHES is based on a sample, the bias is defined as the expected or average value of this difference over all possible samples.

Unit nonresponse bias, or the bias that results from the failure of some

persons or households in the sample to respond to the survey, can be substantial when two conditions hold. First, the differences between the characteristics of respondents and nonrespondents must be relatively large.

Second, the unit nonresponse rate must be relatively high. If the nonresponse rate is very low relative to the magnitude of the estimates, the unit nonresponse bias in the estimates will be small, even if the differences in the characteristics between respondents and nonrespondents are relatively large. For example, if the unit nonresponse rate is only 2 percent, estimates of totals that compose 20 or 30 percent of the population will not be greatly affected by nonresponse, even if the differences in these characteristics between respondents and nonrespondents are relatively large. However, if the estimate is for a small domain or subgroup (of about 5 or 10 percent of the population), even a relatively low overall rate of nonresponse can result in important biases if the differences between respondents and nonrespondents are large.

Bias analyses were conducted for NHES:2005 and NHES:2012. In 2005, the analyses showed no evidence of bias in the estimates. The statistical adjustments used in weighting may have corrected at least partially for biases that might have existed due to differential unit nonresponse. In 2012, the analysis of unit nonresponse bias showed evidence

of bias based on the distributions of the sample characteristics for the survey respondents compared to the full eligible sample. However, this bias was greatly reduced by the nonresponse weighting adjustments. In the postadjusted screener estimates, the number of estimates showing measurable and practical differences was reduced by approximately half. The percentage of estimates with measurable survey and sample differences greater than 1 percentage point was reduced from 22 to 6 percent for the ECPP survey by the nonresponse weighting adjustments. When key survey estimates generated with unadjusted and nonresponse-adjusted weights were compared, only a small number of measurable differences were observed. This suggests that none of these variables was a powerful predictor of unit response. Therefore, the unit nonresponse adjustment had limited effect on the potential bias, but it is also possible that there was little bias to be removed. Chapter 10 of the NHES:2012 Data File User's Manual contains a detailed description of the nonresponse bias analysis (for more information, see McPhee et al. 2015).

Statistical Tests

All specific statements of comparisons have been tested for statistical significance at the .05 level using Student's *t* statistics to ensure that the differences are larger than those that might be expected as a result of sampling variation. No adjustments were made for multiple comparisons. Readers are cautioned not to draw

causal inferences on the basis of the results presented. Also, many of the variables examined in this report may be related to one another, but the complex interactions and relationships among them have not been explored. The variables examined here are also just a few of those that can be examined in these data.

The tests of significance used in this report are based on Student's *t* statistics for the comparisons of percentages. To test for a difference between the percentages of two subgroups in the population having a particular characteristic, say p_1 versus p_2 , the test statistic is computed as

$$t = \frac{P_2 - P_1}{\sqrt{[s.e.(P_1)]^2 + [s.e.(P_2)]^2}}$$

where p_1 and p_2 are the estimates being compared and $s.e.(p_1)$ and $s.e.(p_2)$ are their corresponding standard errors. Thus, among children who have at least one nonparental care arrangement, if p_1 is the 46 percent of children less than a year old who have a weekly nonparental care arrangement in 2012, with a standard error of 1.9, and p_2 is the 76 percent of 3- to 5-year-olds who have a weekly nonparental care arrangement in 2012, with a standard error of 1.0, the *t* value is equal to -14.0.

The decision rule is to reject the null hypothesis if there is a measurable difference between the two groups in the population in terms of the percentage having the characteristic, if $|t| > t$, where *t* is the value such that the probability that a Student's

t random variable with *df* degrees of freedom exceeds that value is $\alpha/2$. All tests in this report are based on a significance level of .05 (i.e., $\alpha = 0.05$). When the degrees of freedom are large, greater than 120, $t_{0.025;df} \approx 1.96$. In the example above, the *t* value is large enough for the null hypothesis to be rejected ($14.0 > 1.96$), so we conclude that there is a measurable difference between the percentage of children less than a year old and 3- to 5-year-olds who have a weekly nonparental care arrangement.

Imputation

In the NHES:2001, NHES:2005, and NHES:2012, as in most surveys, responses were not obtained for some question items in the survey. There are numerous reasons for item nonresponse. Some respondents may not have known the answer to a question or simply did not wish to respond. In 2001 and 2005 (when NHES was administered using an interviewer on the telephone), some item nonresponse arose when an interview was interrupted and not continued later, leaving items at the end of the interview blank.

Item nonresponse also may have occurred if internal inconsistencies were discovered in the editing stage of data processing. In many cases, items that were not internally consistent were set to "missing" during the editing stage. Generally, item nonresponse is low in the NHES. However, the NHES items that were set to missing during editing, or that were missing due to nonresponse, were imputed.

Unweighted sequential hot deck imputation is used for imputing most of the missing data in the NHES. In this procedure, a nonmissing value for an item from one respondent is donated to a respondent with similar characteristics for whom the value for the item is missing. Two sets of variables are used in hot deck imputation: "boundary" variables and "sort" variables. Boundary variables are used to identify respondents

considered similar enough to group donors for imputation. Sort variables are used to identify the best match within groups for donation and imputation. All respondents are placed into homogeneous cells based on the values of the boundary variables. Within each cell, the respondents are matched by the sort variables.

During sequential hot deck imputation, the last encountered respondent's

data from within the same cell are substituted for the recipient's missing value when a missing response is encountered for a particular data item. Readers interested in learning more about the imputation methodology are referred to the data file user's manuals for the specific year of data (Hagedorn et al. 2003; Hagedorn et al. 2006; McPhee et al. 2015).

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APPENDIX A: DATA TABLES

Table A-1. Percentage of children from birth to age 5 who are not yet in kindergarten who have at least one weekly nonparental care arrangement, by child's age: 2001, 2005, and 2012

Characteristic	At least one weekly nonparental care arrangement		
	2001	2005	2012
Total	60	60	60
Child's age			
Less than 1 year	40	42	46
1–2 years old	56	53	54
3–5 years old	73	73	76

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.

Table A-2. Percentage of children from birth to age 5 who are not yet in kindergarten, by type of weekly nonparental care arrangement and child's age: 2001, 2005, and 2012

Characteristic	Relative			Nonrelative ¹			Center-based ²		
	2001	2005	2012	2001	2005	2012	2001	2005	2012
Total	22	21	26	16	13	14	33	36	34
Child's age									
Less than 1 year	21	20	27	14	14	14	8	12	11
1–2 years old	22	21	26	19	16	17	21	23	22
3–5 years old	21	21	24	13	11	12	56	57	60

¹ Nonrelative arrangements include any care the child receives from a nonrelative, either in the child's home or another home. It includes care provided by home child care providers or neighbors, but not day care centers or preschools.

² Center-based arrangements include day care centers, Head Start programs, preschools, prekindergartens, and other early childhood programs.

NOTE: Children with multiple care arrangements are counted in each type of arrangement in which they participate. Children with multiple sources of a single arrangement (e.g., two different relatives caring for them) are counted only once in that arrangement.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.

Table A-3. Percentage distribution of children with none, one type, and multiple types of weekly nonparental care arrangements: 2001, 2005, and 2012

Year	Relative only	Nonrelative only ¹	Center-based only ²	Multiple types of arrangements	None
2001	14	11	25	10	40
2005	14	9	28	10	40
2012	16	8	24	12	40

¹ Nonrelative arrangements include any care the child receives from a nonrelative, either in the child's home or another home. It includes care provided by home child care providers or neighbors, but not day care centers or preschools.

² Center-based arrangements include day care centers, Head Start programs, preschools, prekindergartens, and other early childhood programs.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.

Table A-4. Average number of hours spent per week in primary weekly nonparental child care arrangements for children from birth through age 5 and not yet in kindergarten, by type of arrangement and child's age: 2001, 2005, and 2012

Characteristic	Relative			Nonrelative ¹			Center-based ²		
	2001	2005	2012	2001	2005	2012	2001	2005	2012
Total	24	22	21	28	26	26	25	24	23
Child's age									
Less than 1 year	25	25	22	28	28	26	32	33	28
1–2 years old	24	22	21	29	28	28	30	29	26
3–5 years old	23	22	20	26	24	24	22	22	21

¹ Nonrelative arrangements include any care the child receives from a nonrelative, either in the child's home or another home. It includes care provided by home child care providers or neighbors, but not day care centers or preschools.

² Center-based arrangements include day care centers, Head Start programs, preschools, prekindergartens, and other early childhood programs.

NOTE: Children with multiple care arrangements are counted in each type of arrangement in which they participate. Children with multiple sources of a single arrangement (e.g., two different relatives caring for them) are counted only once in that arrangement. Hours of care are reported only for the primary care arrangement in each category (i.e., relative, nonrelative, and center-based). While hours of care for children using multiple types of arrangements are captured for each type of arrangement, additional hours associated with a secondary provider for the same type of care (e.g., a secondary relative care arrangement) are not included.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.

Table A-5. Average per child out-of-pocket hourly expense for primary weekly nonparental child care arrangements for children from birth through age 5 and not yet in kindergarten, by type of arrangement and child's age: 2001, 2005, and 2012 (in 2012 dollars)

Characteristic	Relative			Nonrelative ¹			Center-based ²		
	2001	2005	2012	2001	2005	2012	2001	2005	2012
Total	\$2.66	\$2.72	\$4.18	\$4.23	\$4.40	\$5.28	\$4.23	\$4.67	\$6.70
Child's age									
Less than 1 year	2.84	2.40	5.05	4.32	5.35	6.84	4.41	4.30	8.08
1–2 years old	2.52	3.06	3.83	4.24	4.41	4.82	4.61	5.23	6.08
3–5 years old	2.70	2.57	4.06	4.17	3.95	4.96	4.06	4.45	6.82

¹ Nonrelative arrangements include any care the child receives from a nonrelative, either in the child's home or another home. It includes care provided by home child care providers or neighbors, but not day care centers or preschools.

² Center-based arrangements include day care centers, Head Start programs, preschools, prekindergartens, and other early childhood programs.

NOTE: Children with multiple care arrangements are counted in each type of arrangement in which they participate. Children with multiple sources of a single arrangement (e.g., two different relatives caring for them) are counted only once in that arrangement. All data shown in this table were converted to 2012 dollars using the Consumer Price Index for all Urban Consumers. The expenses shown are for parents who indicated that there was a charge or fee for their child care arrangement. Children may have multiple care arrangements. Parents' expenses for care are reported only for the primary arrangement in each category (i.e., relative, nonrelative, and center-based). While expenses for children using multiple types of arrangements are captured for each type of arrangement, additional expenses associated with a secondary provider for the same type of care (e.g., a secondary relative care arrangement) are not included. Parents indicated whether there was a charge or fee related to the nonparental care arrangement. If parents reported a charge, they were asked to report the household's out-of-pocket expenses for each nonparental care arrangement the child participated in. Children for whom no fee was charged, for whom another source paid the entire fee, or for whom the period of time covered by the amount indicated (e.g., per hour) could not be determined, are excluded from the estimates.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.

APPENDIX B: STANDARD ERROR TABLES

Table B-1. Standard errors for table A-1: Percentage of children from birth to age 5 who are not yet in kindergarten and who have at least one weekly nonparental care arrangement, by child's age: 2001, 2005, and 2012

Characteristic	At least one weekly nonparental care arrangement		
	2001	2005	2012
Total	0.6	0.8	0.8
Child's age			
Less than 1 year	1.5	1.8	1.9
1–2 years old	1.2	1.4	1.2
3–5 years old	0.7	0.9	1.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.

Table B-2. Standard errors for table A-2: Percentage of children from birth to age 5 who are not yet in kindergarten, by type of weekly nonparental care arrangement and child's age: 2001, 2005, and 2012

Characteristic	Relative			Nonrelative			Center-based		
	2001	2005	2012	2001	2005	2012	2001	2005	2012
Total	0.6	0.7	0.7	0.5	0.5	0.6	0.5	0.6	0.7
Child's age									
Less than 1 year	1.2	1.6	1.6	1.1	1.0	1.2	0.9	1.1	1.1
1–2 years old	0.9	1.0	1.0	0.9	0.9	0.9	0.9	1.0	0.9
3–5 years old	0.9	1.0	0.9	0.7	0.7	0.7	0.6	0.9	1.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.

Table B-3. Standard errors for table A-3: Percentage distribution of children with none, one type, and multiple types of weekly nonparental care arrangements: 2001, 2005, and 2012

Year	Relative only	Nonrelative only	Center-based only	Multiple types of arrangements	None
2001	0.5	0.4	0.5	0.3	0.6
2005	0.6	0.4	0.6	0.5	0.8
2012	0.6	0.4	0.6	0.4	0.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.

Table B-4. Standard errors for table A-4: Average number of hours spent per week in primary weekly nonparental child care arrangements for children from birth through age 5 and not yet in kindergarten, by type of arrangement and child's age: 2001, 2005, and 2012

Characteristic	Relative			Nonrelative			Center-based		
	2001	2005	2012	2001	2005	2012	2001	2005	2012
Total	0.6	0.6	0.4	0.5	0.6	0.6	0.3	0.4	0.4
Child's age									
Less than 1 year	1.2	1.0	1.0	1.4	1.5	1.4	2.1	1.6	1.6
1–2 years old	0.7	0.8	0.7	0.7	0.9	0.9	0.8	0.7	0.7
3–5 years old	1.0	1.0	0.6	0.8	1.1	0.7	0.4	0.4	0.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.

Table B-5. Standard errors for table A-5: Average per child out-of-pocket hourly expense for primary weekly nonparental child care arrangements for children from birth through age 5 and not yet in kindergarten, by type of arrangement and child's age: 2001, 2005, and 2012 (in 2012 dollars)

Characteristic	Relative			Nonrelative			Center		
	2001	2005	2012	2001	2005	2012	2001	2005	2012
Total	\$0.16	\$0.26	\$0.28	\$0.27	\$0.17	\$0.22	\$0.13	\$0.15	\$0.27
Child's age									
Less than 1 year	0.40	0.25	0.81	0.34	0.52	0.48	0.50	0.47	0.84
1–2 years old	0.22	0.42	0.47	0.44	0.19	0.30	0.36	0.43	0.31
3–5 years old	0.24	0.35	0.52	0.40	0.18	0.30	0.14	0.11	0.41

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES), Early Childhood Program Participation (ECP) Survey, 2001, 2005, and 2012.