

Unsupervised Time

Family and Child Factors Associated with Self-Care

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Assessing
the New
Federalism

An Urban Institute

Program to Assess

Changing Social Policies

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This report is part of the Urban Institute's *Assessing the New Federalism* project, a multiyear effort 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 and studies of policies in 13 states, available at the Urban Institute's web site. This paper is one in a series of occasional papers analyzing information from these and other sources.

Contents

Data and Methods for Examining Self-Care	2
The Prevalence of Self-Care	4
The Context of Self-Care	7
Parents' Available Time	7
Family Resources	8
Child Demographic Characteristics	8
Child Health and Behavior	9
Family Risk	10
A Closer Look at the Factors Related to Self-Care	10
Findings on Family Income and Child Age	13
Do the Correlates of Self-Care Differ for Younger and Older Children?	14
Do the Correlates of Self-Care Differ for Low- and Higher-Income Children?	17
Stability of the Estimates	18
Correlates of the Extensive Use of Self-Care	19
Conclusions	19
Noteworthy Findings	20
Limitations	21
Implications for Policy, Programs, and Research	22

Appendix Tables	25
Notes	32
References	34
About the Authors	37



Unsupervised Time

Family and Child Factors Associated with Self-Care

The way children spend their time when they are not in school is an important issue for families, communities, and policymakers. In recent years, policymakers and parents have agreed that children's out-of-school time deserves attention at both a local and national level (Larner, Zippiroli, and Behrman 1999). New policies aimed at improving the affordability of school-age child care and state and local initiatives offering academic and enrichment activities for children after regular school hours are public acknowledgments of the importance of providing more supervised after-school options for children and their families. Nevertheless, for a variety of reasons, a substantial number of families with school-age children regularly leave them with a sibling or alone to care for themselves.

Often called "latchkey" care, self-care may place children at risk. Children in self-care may experience more accidents and injuries (Kerrebrock and Lewit 1999; Peterson 1989); externalizing behavior problems (Colwell et al. 2001; Vandell and Posner 1999); and lower social competence, GPAs, and achievement test scores (Pettit et al. 1997). Likewise, self-care in adolescence has been linked to an increased likelihood of cigarette smoking, alcohol consumption, and drug use (Mott et al. 1999; Mulhall, Stone, and Stone 1996). Thus, while self-care may reflect a step toward independence and autonomy for some children, it is often portrayed as a potentially dangerous arrangement for children that parents use as a last resort when they have no options for nonparental supervised care.

Yet self-care occurs under diverse circumstances, for a variety of reasons, and with different implications for different children (Kerrebrock and Lewit 1999; Vandell and Shumow 1999). For example, self-care is more prevalent among older children (Hofferth et al. 1991; Smith 2000). In addition, the use of self-care is less likely when parents have concerns about their child's maturity or about the safety of their neighborhood (Vandell and Shumow 1999). When outcomes such as social competence, behavior problems, and school performance are examined in relation to self-care, negative associations are more likely to be found for younger children and for children from low-income families, implying that these groups of children are at greater risk than other children (Marshall et al. 1997; Pettit et al. 1997; Vandell and Posner 1999). Clearly, the context in which self-care occurs makes a difference.

Despite the accumulation of evidence about self-care, a number of unanswered questions remain. In particular, while we know that factors such as children's maturity and family resources play a role in the use of self-care, we do not know which of these are most strongly related to self-care when a range of relevant family and



child characteristics is examined simultaneously. What matters most? Do the patterns of relevant factors differ for different groups of children?

This paper addresses these questions using data from the 1999 National Survey of America's Families (NSAF), a nationally representative household survey. Building on previous analyses conducted using other national surveys (Cain and Hofferth 1989; Casper and Smith 2002; Hofferth, Jankuniene, and Brandon 2000; Smith and Casper 1999), we seek to replicate and extend patterns that have emerged fairly consistently across datasets; explore patterns of findings that have been inconsistent, considering whether the patterns hold for specific populations of children but not others; and extend this body of work by examining correlates of self-care not examined previously.

We first describe our data and methods. Next, we provide a snapshot of the prevalence and extent of self-care in the United States. We then propose a set of family and child characteristics that are likely to be associated with self-care and, using NSAF data, report how the prevalence of self-care varies for children with different characteristics.

Next, we use multivariate analyses to estimate the size and statistical strength of the relationship between each factor and self-care, controlling for the other relevant factors. These analyses are meant to disentangle important associations between individual factors and the likelihood of self-care, not to identify causal links (acknowledging especially the limitations of data from a single point in time for considering such links). We also explore whether the patterns of associations found for all children differ for important subgroups. For example, because older children are much more likely than younger children to be placed in self-care, we examine whether the patterns of correlates differ for younger and older children. In addition, we investigate whether the patterns differ for children living in families with different income levels. Finally, we conduct exploratory analyses to examine the pattern of family and child characteristics associated with spending longer amounts of time in self-care. We conclude with a summary of key findings and the implications for families, programs, and policymakers.

Data and Methods for Examining Self-Care

Data for the analyses in this paper are from the 1999 National Survey of America's Families (NSAF).¹ In households with children under 18, up to two focal children, one under age 6 and one between the ages of 6 and 17, were randomly selected to be the focus of questions about a range of topics including children's health, behavior, and child care arrangements. Our sample consists of all focal children between the ages of 6 and 12 whose parents were interviewed during non-summer months (since child care patterns are likely to differ during the summer). The NSAF respondent was the adult most knowledgeable about the child. Since this adult was the child's mother in more than three-quarters of the interviews and the father in almost one-fifth of the interviews, we refer to this adult as the child's parent.

In the NSAF, parents answered questions about their children's nonparental care arrangements—including the time children spent unsupervised by an adult—in

the past month. Self-care is defined as a child regularly spending time alone or with a sibling younger than 13.² Our analyses focus on the regular use of *any* self-care, regardless of the weekly amount of time a child spent alone. The fact that the definition of self-care is based on *regular* occurrences is important to reiterate. Respondents report only those self-care arrangements happening “on a regular basis” for the past month. Parents do not report the reason for using self-care, so, although we refer to self-care as an “arrangement,” it may not have been an active choice by parents, and it may not represent parents’ preferences for their children’s care (Capizzano, Tout, and Adams 2000).

Parents also answered questions about their children’s regular participation in the following nonparental supervised arrangements: before- and after-school programs, family child care (care by a nonrelative provider in the provider’s home), relative care (care by a relative in the child’s or the relative’s home), and nanny/baby-sitter care (care by a nonrelative in the child’s home).³ “Regular participation” in nonparental supervised arrangements was defined in the survey as “at least once a week for the last month.”

Finally, parents answered questions about the number of hours per week children spent in the various types of nonparental supervised arrangements and in self-care.

Our definitions of self-care and supervised nonparental arrangements are slightly different than those used in some previous ANF reports on child care.⁴ Instead of looking only at arrangements that were used while the child’s parent was working, looking for work, or in school, we consider all self-care or supervised nonparental arrangements, regardless of the parent’s work or school status.

The conclusions we can draw from analyses of the NSAF data are limited by some key factors. First, the factors we examine are assessed concurrently with self-care, so we cannot determine whether they are predictors or outcomes of children’s use of self-care. That is, if a particular factor is associated with the use of self-care, we have no way of knowing whether that factor antedates and contributes to the use of self-care, or results from it.

A second limitation to these data is that self-care is likely underreported. Although the wording of the survey question encourages the reporting of self-care, parents may still be reluctant to reveal that they leave their children unsupervised or in the care of other young children (O’Connell and Casper 1995).

A third limitation to our analyses is that several factors that we suspect are related to children’s use of self-care are not available in the NSAF. For example, we are only able to include one measure of neighborhood or residential context in our models (metropolitan status of county of residence). To fully understand the factors associated with self-care, it would be important to examine the availability of supervised care options in children’s communities, neighborhood safety and cohesiveness, and the presence of other adults in the neighborhood who could assist with monitoring when parents are not at home. Similarly, it would be useful to include measures of parenting practices in our analyses, but these are also missing from the NSAF. For example, Hofferth and colleagues (2000) found that parental monitoring was negatively related to self-care, such that children whose parents reported high levels of monitoring were less likely to be in self-care than other children.



Despite these limitations, the NSAF provides a unique opportunity to examine the prevalence and correlates of self-care in a recent, nationally representative sample of children.

In the following section, we examine basic associations between family and child characteristics and the use of any self-care. We use t-tests to compare the use of self-care for children with and without various family and child characteristics. All differences noted within the text are statistically significant at the $p < .10$ level. All estimates are weighted to compensate for survey respondents' probability of selection into the sample and to account for the fact that only non-summer interviews were included.⁵ We used WesVar, a statistical software package that can deal with complex sample designs involving stratification and clustering, to produce all estimates from the NSAF data.⁶

The Prevalence of Self-Care

Spending time alone is not a rare phenomenon for school-age children. According to the 1999 NSAF, approximately 3.3 million school-age children (15 percent of 6- to 12-year-olds) regularly spend time in self-care (figure 1).

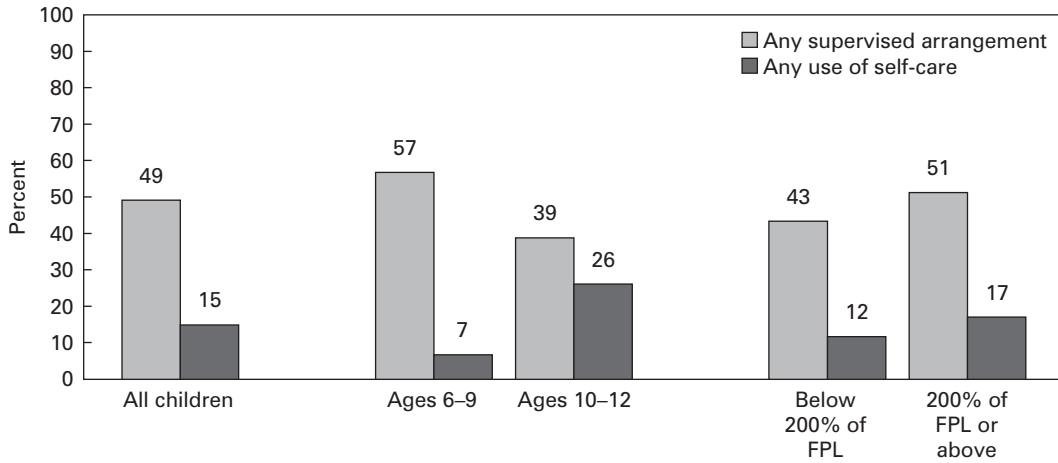
The use of self-care is more common for older children than for younger children. In 1999, approximately 7 percent of 6- to 9-year-olds spent regular time in self-care compared with 26 percent of 9- to 12-year-olds.⁷ Evidence from other national surveys indicates that the use of self-care continues to increase as children move into adolescence: For example, in 1997 almost half (47 percent) of 14-year-olds regularly spent time in self-care (Smith 2002).

The prevalence of self-care also differs by family income. According to the NSAF, 12 percent of children from families with low incomes (below 200 percent of the federal poverty level, or FPL) use self-care, compared with 17 percent of higher-income children.

Children who regularly spend at least some time in self-care spend an average of about 4 hours per week in self-care (figure 2). Older children spend slightly over 1 hour more per week in self-care than younger children (4.7 hours for 10- to 12-year-olds compared with 3.5 hours for 6- to 9-year-olds). Low- and higher-income children relying on self-care on a regular basis spend about the same amount of time in self-care on average (4.2 and 4.4 hours, respectively). Overall, children spend substantially more time in supervised arrangements than in self-care, particularly when they are younger or in families with low incomes. Low-income children, for example, spend over 3.5 hours more per week in supervised care than higher-income children.

Although most children spend a relatively small amount of time unsupervised, some use self-care more extensively. Of all children who use any self-care, 16 percent use self-care for 10 or more hours per week. Not surprisingly, older children are more likely than younger children to use self-care for 10 or more hours per week

Figure 1. 6- to 12-Year-Olds Using Any Nonparental Supervised Care and Any Self-Care, by Age and Income Level



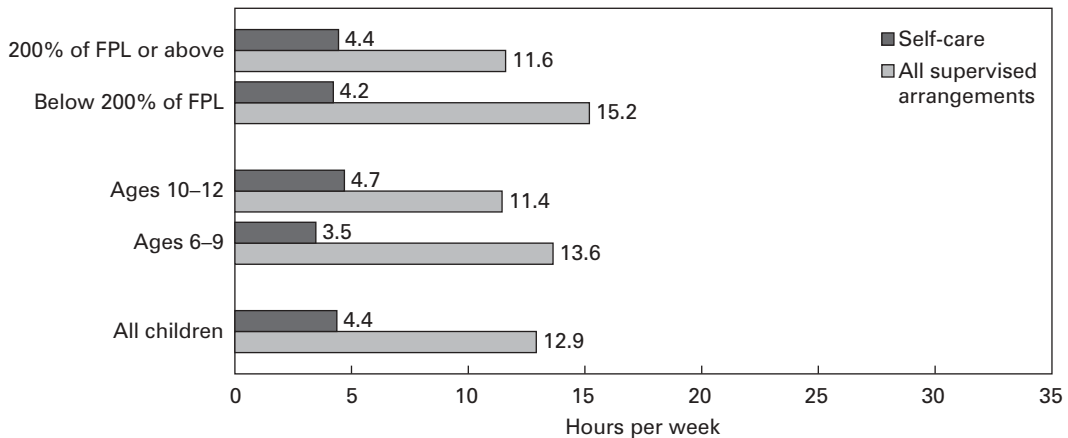
Source: Child Trends analyses of data from the 1999 National Survey of America’s Families.
FPL = federal poverty level.

Note: The “any supervised arrangement” and “any self-care” categories are not mutually exclusive.

(17 percent versus 11 percent). Higher-income children also are more likely than low-income children to care for themselves 10 or more hours per week (17 percent compared with 13 percent).

Some parents rely on self-care as their child’s primary arrangement—the non-parental arrangement in which the child spends the most hours per week. Appendix

Figure 2. Mean Total Weekly Hours Spent by 6- to 12-Year-Olds in Nonparental Supervised Care and Self-Care, by Age and Income Level



Source: Child Trends analyses of data from the 1999 National Survey of America’s Families.
FPL = federal poverty level.

Note: Means do not include children who spent no time in self-care or no time in any supervised arrangements.

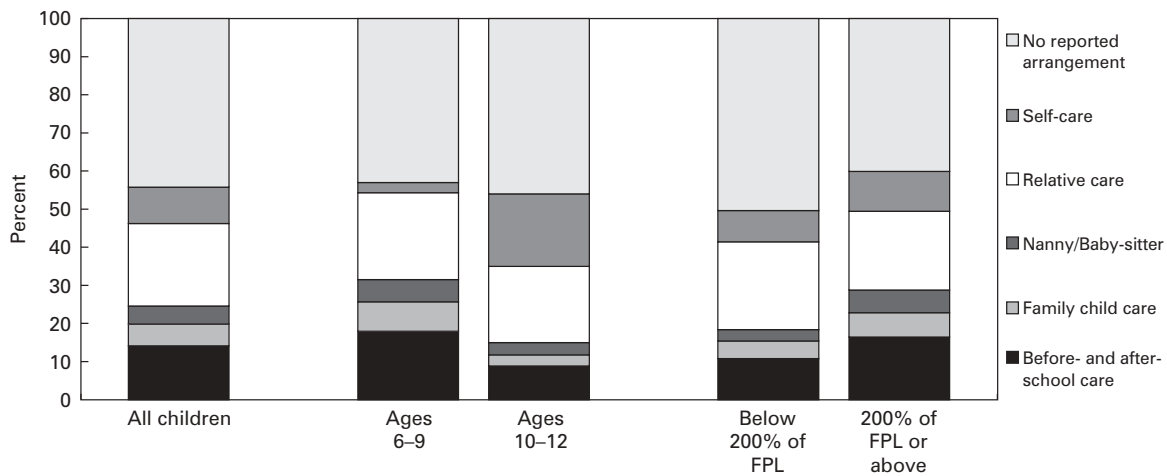
table A.1 outlines the primary nonparental arrangements used by all children 6 to 12 as well as their use of *any* nonparental supervised care or self-care (regardless of whether these were the children’s primary arrangements). It also provides a breakdown of these arrangements for children of different ages and incomes.

Across all children age 6 to 12, 10 percent use self-care as their primary arrangement while almost half (46 percent) use a supervised nonparental primary arrangement.⁸ The remaining 44 percent are assumed to be cared for by their parents since they have no reported regular nonparental arrangement.⁹

Only 3 percent of younger children use self-care as a primary arrangement compared with 19 percent of older children (figure 3). But among those with self-care as a primary arrangement, older and younger children spend about the same amount of time each week in self-care (5 hours). Looking at children by family income, 11 percent of higher-income children use self-care as a primary arrangement, compared with 8 percent of low-income children. Higher-income children who use self-care as their primary arrangement spend about an hour more per week unsupervised than low-income children (5.5 hours versus 4.4 hours).

This descriptive examination of regular self-care use among 6- to 12-year-olds shows that the majority of school-age children *do not* use self-care. Children spend more time in supervised arrangements than in self-care, and only small percentages of children who are at greater risk for experiencing negative consequences related to self-care use—young children and low-income children—are relying on self-care as a primary arrangement. Yet 3.3 million children do use self-care on a regular basis. What are the characteristics of these children? Are they different from children who do not spend time without adult supervision? We now turn to these questions.

Figure 3. Children’s Primary Child Care Arrangements, by Age and Income Level



Source: Child Trends analyses of data from the 1999 National Survey of America’s Families.
FPL = federal poverty level.

The Context of Self-Care

Based on a review of the literature on self-care, we identified five broad sets of inter-related factors—including children’s age and family income—that are associated with children’s use of self-care:

- *Parents’ available time*, which takes into account parents’ employment status and family structure. This block of variables includes parents’ marital and partner status as well as the presence of other adults and children in the household.
- *Family resources*, including family income and parents’ educational attainments.
- *Children’s demographic characteristics*, including gender, age, and race/ethnicity.
- Measures of *children’s health and behavior*, such as their health status, school engagement, and behavior problems.
- *Family risk*, which considers parental symptoms of poor mental health and parenting stress.

In the following sections, we note how the prevalence of self-care differs among groups of children with various characteristics (see appendix tables A.2 and A.3). As noted above, each of these factors will be examined in multivariate models later in the paper.

Parents’ Available Time

One set of interrelated factors that likely influences the use of self-care is the amount of time parents have available to care for their children (Cain and Hofferth 1989; Capizzano, Tout, et al. 2000; Smith 2002; Smith and Casper 1999). A simple way to conceptualize available time is as a function of parents’ employment and family structure. In the NSAF, we examined whether parents and their spouses or partners were employed, and if so, whether the adults worked full-time (35 hours per week or more). We also considered whether neither, one, or both adults were working. We find that children who live with a single parent working full-time, or with two parents working full-time, are more likely to be in self-care (21 percent) than children who live with a single nonworking parent or with two nonworking parents (10 percent) or children whose parents have some other work schedule (11 percent).

The presence of other members of the household can also influence families’ abilities to care for their children. For example, a parent may have a spouse or partner or other adults in the family with whom they can share child care responsibilities. Older children may be able to care for their siblings, while younger children may present an additional need in the family for child care.¹⁰ In fact, children whose parent has a spouse or partner (14 percent) are less likely than those who do not (18 percent) to be in self-care, though having an additional adult in the household who is not the parent’s spouse or partner does not seem to decrease the likelihood of self-care. The presence of additional children in the household is also related to the likelihood of self-care, though the associations differ depending on the age of the children. When there are no other children under 13 in the household, a child is



twice as likely to use self-care as when there is at least one other child under 13 present (23 percent versus 11 percent). Self-care is also more likely when there is at least one adolescent (age 13 to 17) in the household than when there are no adolescents (20 percent versus 12 percent).

Family Resources

Economic resources may constrain or expand family choices about the types of regular supervised arrangements children use. In our analyses, we compared children who lived in families with incomes below the poverty level in 1998 with those living in families with incomes 100 to 199 percent, 200 to 299 percent, and 300 percent and above the poverty level. Contrary to popular perception but consistent with other research (e.g., Cain and Hofferth 1989), we find that children with higher family incomes are *more* likely than children with lower incomes to be in self-care. For example, children whose family incomes are at or above 300 percent of FPL are almost twice as likely to be in self-care (19 percent) as children whose family incomes are below the poverty level (10 percent).

Parents with more education may perceive self-care (and their children's ability to care for themselves) differently than parents with less education (Hofferth et al. 2000). In the NSAF, the responding parent's educational status is related to children's use of self-care, with higher education (specifically, college degree or higher) related to a higher likelihood of self-care (19 percent) than a high school degree (14 percent) or less than a high school degree (13 percent).

Child Demographic Characteristics

Although the correlation is imperfect, age is a useful indicator of a child's maturity. As described above, older children are more likely than younger children to be in self-care.

Gender is another child characteristic that may be associated with parental perceptions of maturity. Evidence from the NSAF indicates that boys (16 percent) are slightly more likely than girls (13 percent) to be in self-care.

Ethnicity and cultural differences may also play a role in children's use of self-care. Parents' race and ethnicity, along with their age and education, could influence parents' beliefs about the level of supervision that children need at various ages (Casper and Smith 2002; Hofferth et al. 2000). Overall, Hispanic children (10 percent) are less likely than black children (16 percent) and white children (16 percent) to be in self-care.

We also looked at a measure indicating the metropolitan status of the child's county of residence to identify geographic differences in the use of self-care or availability of supervised care options for school-age children.¹¹ The share of children who use self-care in nonmetropolitan areas does not differ from the share in metropolitan areas.

Child Health and Behavior

Related to parents' perceptions of children's maturity, parents likely weigh the potential danger to their children of being alone or unsupervised with siblings by considering children's health and behavioral characteristics. Alternatively, health and behavioral problems may be a negative consequence of self-care. Using the NSAF, we looked at whether children who are showing limited engagement in school or behavioral and emotional problems were more or less likely than other children to be in self-care.

We also looked at children's participation in organized activities during the prior year. Parents who view their children as too young to care for themselves may enroll them in activities such as lessons or sports as a form of supervised care. Some parents may avoid relying on self-care for these children, or self-care may be used to fill in the gaps between supervised activities. On the other hand, parents may view children who are involved in organized activities as more mature than other children and capable of being responsible for themselves. It is also possible that some parents use a combination of organized activities and self-care to cover a larger number of hours outside of parental supervision. That is, self-care may be greater for children with more hours in organized activities because families with this combination generally have more hours without parental supervision yet are not using other regular supervised arrangements.

In the NSAF, low school engagement was assessed with a four-item scale asking about a child's interest in and willingness to do school work.¹² High levels of behavior problems were assessed with a six-item scale derived from the Child Behavior Checklist and used in the National Health Interview Survey.¹³ Finally, participation in activities was assessed by asking whether, in the past year, the child had participated in at least one of the following: sports, lessons, clubs, or any other organized activity.

Children with a high level of behavior problems are no more or less likely than other children to be in self-care. However, children rated as poorly engaged in school are more likely than other children to use self-care (18 percent compared with 14 percent). In addition, a larger proportion of children who participated in at least one activity during the prior year—lessons, clubs, sports, or some other organized activity—are in self-care (16 percent), compared with children who did not participate in any activities (10 percent). This association may be because participation in organized activities is linked to child age and income. That is, older children and higher-income children are more likely to participate in organized activities than are younger children and lower-income children. And, as we have seen, age and income are strongly associated with a child's likelihood of using self-care.

We also looked at the regular use of supervised arrangements and found that children who use any nonparental supervised care arrangement are less likely to use self-care than are other children (13 percent compared with 17 percent).

Children with poor health or a limiting condition may be less likely to be in self-care because parents perceive greater risks for these children than for healthier children. In the NSAF, parents responding to the survey rated their child's health as



excellent, very good, good, fair, or poor. They also noted whether the child had a physical, learning, or mental health condition that limits participation in activities or the ability to do regular school work. However, we found that children’s likelihood of using self-care does not differ according to their health or disability status.

Family Risk

In light of the possibility that family stress may limit a family’s ability to search for or make supervised care arrangements, we examined symptoms of poor parental mental health, as well as parenting stress. Parents with symptoms of poor mental health may also have misperceptions about their child’s maturity, making them more likely than other parents to use self-care for their children. On the other hand, parents’ inability to obtain supervised care for their children could be a source of stress and aggravation.

The NSAF measure of parental mental health is a five-item scale adapted from the Mental Health Inventory, a 38-item scale, and was similar to a scale used in the Medical Outcomes.¹⁴ We also looked at high parental aggravation, which was assessed with a four-item scale.¹⁵

Children of parents reporting symptoms of poor mental health are more likely to use self-care (19 percent versus 14 percent). In addition, having a parent with a high level of aggravation is related to the use of self-care (18 percent versus 15 percent).

Since we were also interested in how the relationships between self-care and each characteristic might differ for older and younger children and for children living in families with various income levels, we looked at the relationship between self-care and parents’ available time, family resources, children’s demographic characteristics, child health and behavior, and family risk separately by age of child (ages 6 to 9 versus 10 to 12) and by family income (below 200 percent of FPL versus at or above 200 percent of FPL). In general, the associations between the contextual characteristics and self-care followed the patterns described above, although older children and higher-income children are generally more likely to use self-care than younger children and lower-income children (see appendix tables A.2 and A.3).

A Closer Look at the Factors Related to Self-Care

Descriptive analyses like those presented above are important because they tell us the percentage of all children and of subgroups of children with various characteristics whose parents report that they use self-care. However, because many of these child and family characteristics are correlated with each other, it is difficult to disentangle the individual relationships between each characteristic and self-care.

To address this problem, we used multivariate analyses to parse out the independent association between each child and family characteristic and self-care. It is important to note again, however, that causality cannot be inferred from cross-sectional survey data like NSAF’s. Although multivariate analysis does not allow us

to identify causal relationships, it can help identify the strength of the independent associations of each characteristic with self-care. Accordingly, we first estimated a multivariate model taking into account both family income and child age, as well as other relevant child and family characteristics, to see how strongly child age and family income are related to the likelihood that a child uses self-care.

Next, we estimated a set of multivariate models that allowed us to focus on the two groups of children that may be particularly vulnerable when they lack regular adult supervision—the youngest school-age children and low-income children. Why these particular groups? The less mature children are, the more risky it is for them to spend time unsupervised. Most 6- to 9-year-olds are probably not ready developmentally to care for themselves regularly, and they are probably less prepared than older children to deal with household emergencies. Although few studies have examined the outcomes of self-care for children under age 10, one study found that third graders who spent time in self-care had more behavior problems in third and fifth grades, while self-care among fifth graders was not linked to behavior problems (Vandell and Posner 1999). Dwyer et al. (1990) suggested that the younger children are when they begin spending time unsupervised, the more likely they are to use alcohol and report risk-taking tendencies as adolescents. In another study, Colwell et al. (2001) found that self-care in first grade was modestly but significantly associated with externalizing problems in sixth grade, as rated by teachers.

For low-income children, lack of adult supervision or opportunities to benefit from regular high-quality child care or after-school programs may be particularly risky because of disadvantages that low-income children more often face, such as living in unsafe neighborhoods. Vandell and Posner (1999) found that a link between self-care with lower social competence and lower academic grades was stronger for low-income children than for other children. Further, Marshall et al. (1997) found that children from low-income households displayed more externalizing behaviors if they were experiencing more self-care, after controlling for maternal well-being, child gender, and ethnicity. Self-care was not related to behavior problems among children in middle- or high-income families.

To shed light on self-care and the circumstances under which these two vulnerable groups of children are likely to spend time unsupervised, we estimated separate multivariate models for two child age subgroups (6- to 9-year-olds and 10- to 12-year-olds) and two family income subgroups (below 200 percent of FPL and 200 percent of FPL and above). Because the associations between self-care and family characteristics might occur in opposite directions for children of different ages or living in families with different incomes, or might be apparent for one group of children but not another, the associations might be obscured if they were examined in a model that includes all children. Therefore, the subgroup models also allow us to identify the strength of the relationship of each child and family characteristic with self-care, while holding the other factors constant. In other words, these models can help us understand which factors are associated with the greatest likelihood of self-care for subgroups of children who may be especially vulnerable.

We used a statistical technique called logistic regression to examine the associations between the variables in our five categories and the use of self-care. Table 1 summarizes the findings from the logistic regression models, indicating the direction



Table 1. Significant Correlates of Children Age 6–12 Using Any Self-Care, by Age and Income

	All ages and income levels	Ages 6–9	Ages 10–12	Below 200% of FPL	200% of FPL or above
Parents' available time					
No parents work (reference)					
Parent(s) work full time	+++	+	+++	+++	++
Other work schedule					
No spouse/partner (reference)					
Parent has spouse or partner	--		---		-
No other adults in household (reference)					
Adults other than parent and parent's spouse/partner in household			--		
No other children age 13–17 in household (reference)					
Any children age 13–17 in household		+++			++
No other children under 13 in household (reference)					
Any other children under 13 in household	---		---	--	---
Family resources					
Below 100% of FPL (reference)				—	—
100–199% of FPL				—	—
200–299% of FPL				—	—
300% of FPL or above	++	+		—	—
Parent has no high school diploma (reference)					
Parent has high school diploma or GED					
Parent has bachelor's degree or higher					
Child demographic characteristics					
Age 6–9 (reference)		—	—		
Age 10–12	+++	—	—	+++	+++
Female (reference)					
Male					
Non-Hispanic white (reference)					
Non-Hispanic black					
Hispanic	--		---	--	-
Other race		-			
County is outside metropolitan statistical area (reference)					
County is in metropolitan statistical area					
Children's health and behavior					
Excellent, very good, good health (reference)					
Fair/poor health					
No limiting condition (reference)					
Limiting physical, mental, or health condition			---		
Not a high level of problems (reference)					
High level of behavior and emotional problems					
Not low school engagement (reference)					
Low school engagement					
No supervised care (reference)					
Any supervised care	--		---		-
No extracurricular activities (reference)					
Any extracurricular activities			+		
Family risk					
No symptoms of poor parent mental health (reference)					
Parent reports symptoms of poor mental health	+++	++	+++	+++	
Parent not highly aggravated (reference)					
Parent highly aggravated	+		++		

Source: Child Trends analyses of data from the 1999 National Survey of America's Families, multivariate logistic regression results.

FPL = federal poverty level

— not calculated

+ likelihood of self-care significantly higher than the reference group at the $p < .10$ level.

++ likelihood of self-care significantly higher than the reference group at the $p < .05$ level.

+++ likelihood of self-care significantly higher than the reference group at the $p < .01$ level.

- likelihood of self-care significantly lower than the reference group at the $p < .10$ level.

-- likelihood of self-care significantly lower than the reference group at the $p < .05$ level.

--- likelihood of self-care significantly lower than the reference group at the $p < .01$ level.



of the association and statistical significance of each factor (an empty box indicates that the factor was not statistically significant in the model). Appendix table A.4 presents more detailed results, including the parameter estimates and their standard errors.

In the following sections, we first describe the results from the multivariate model including all 6- to 12-year olds to examine associations between self-care and age and income, controlling for other factors. We then compare the correlates of self-care for two pairs of subgroups: 6- to 9-year-olds versus 10- to 12-year-olds, and low-income versus higher-income children.

Findings on Family Income and Child Age

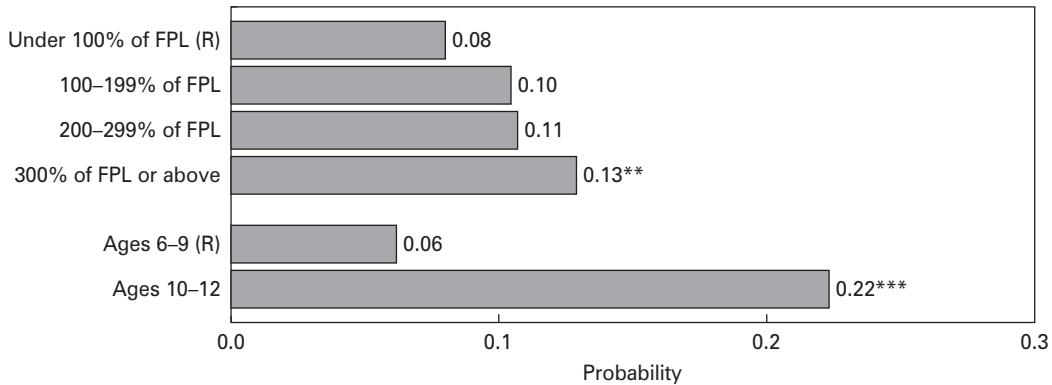
Figure 4 shows the relative strength of the relationships of income and age with self-care, based on the multivariate model for all 6- to 12-year-olds, with all variables considered simultaneously.¹⁶ As expected, child age and family income are related to self-care use.

Older children (ages 10 to 12) are over four times more likely to be in self-care than are younger children (ages 6 to 9), even controlling for other relevant factors. As noted earlier, previous research has consistently shown that the use of self-care increases as children get older (Capizzano, Tout, et al. 2000; Hofferth et al. 2000; Smith 2000). This finding is not surprising in light of the developmental and family changes that occur in middle childhood. As children strive to achieve autonomy and independence, parents and children engage in a process of co-regulation, with parents providing overall monitoring and supervision while allowing children to take greater responsibility for their own behavior and well-being (Collins, Harris, and Susman 1995; Eccles 1999). Even so, the majority of 6- to 12-year-olds are *not* reported to spend regular time alone, and some 6- to 9-year-olds (7 percent) *do* spend time in care. We must, therefore, consider factors beyond age that might play a role in the use of self-care.

Family income is also related to the use of self-care, even after other child and family characteristics are taken into account. Specifically, children living in families with incomes at or above 300 percent of the poverty level are over one-and-a-half times more likely than poor children to use self-care. Our findings are somewhat surprising (although similar findings have been observed in some previous research), considering that higher-income families have more economic resources to pay for supervised care options. On the other hand, higher-income families may be more likely to live in neighborhoods that are perceived as safe for children who are taking care of themselves. Casper and Smith (2002) found that perceptions of neighborhood safety were positively associated with self-care among 5- to 7-year-olds (but not among older groups of children) such that younger children in neighborhoods rated at medium and high levels of safety were more likely to be in self-care. Hofferth and colleagues (2000), however, did not find that a parent rating of neighborhood quality was related to the use of self-care in their models, once other factors were controlled and when combining age groups in their model.



Figure 4. Predicted Probability That 6- to 12-Year-Olds Will Use Any Self-Care, by Age and Income Level



Source: Child Trends analyses of data from the 1999 National Survey of America’s Families.

FPL = federal poverty level; R = reference group.

** difference from reference group is statistically significant at the $p < .05$ level.

*** difference from reference group is statistically significant at the $p < .01$ level.

Note: Predicted probability is based on results of multivariate logistic regression model.

Previous evidence on the association between family income and self-care, controlling for other factors, is mixed. Hofferth and colleagues (2000) found that family income was negatively associated with self-care, with children in higher-income families less likely to use self-care than children in lower-income families. In contrast, Cain and Hofferth (1989) found a positive association between income and the use of self-care, similar to what we find in this paper. Using the 1995 SIPP, Smith and Casper (1999) found income was not significantly related to the use of self-care after controlling for other factors, though descriptive analyses of the 1995 SIPP (not controlling for other factors) showed that self-care was twice as likely for children at or above 200 percent of FPL than for children below the poverty level (Smith 2000). Thus, the association between income and self-care is still somewhat unclear.

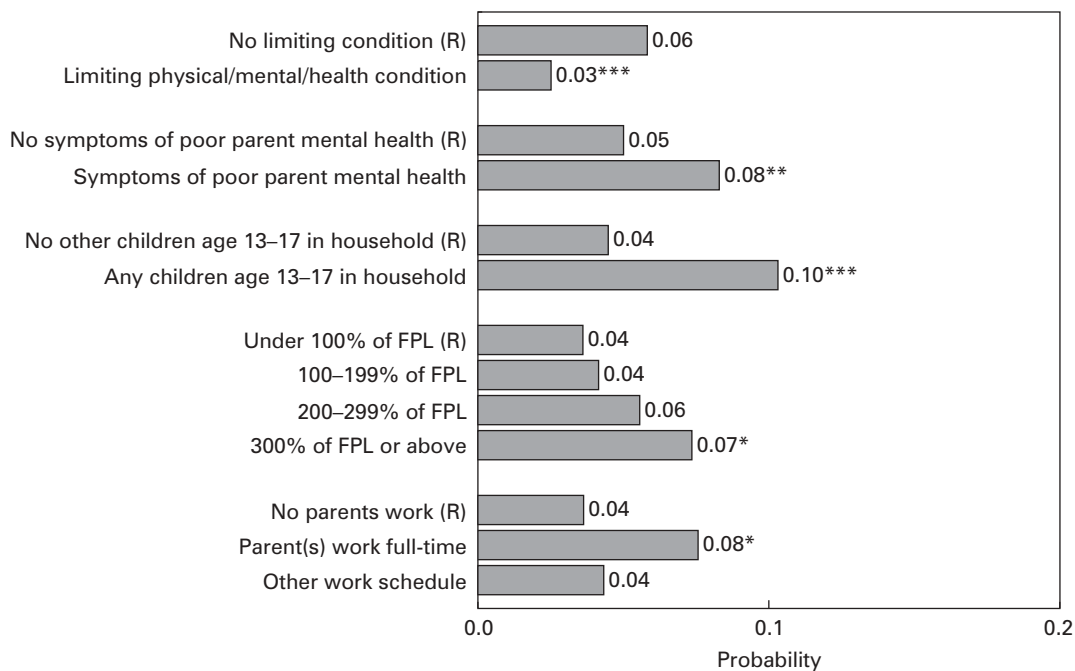
Do the Correlates of Self-Care Differ for Younger and Older Children?

Whether parents are willing to leave children with a sibling or alone to care for themselves likely depends, in part, on their perceptions of children’s maturity and ability to be responsible for their own behavior (Hofferth et al. 1991, 2000). Though we have classified age as a demographic characteristic, it is one of the strongest indicators to parents of a child’s vulnerability and maturity. Most parents likely feel that 6- to 9-year-olds are simply too young to be left unsupervised, no matter what. For example, a recent survey of parents in Minnesota found that fewer than 5 percent of parents felt that a child 9 years old or younger could safely care for himself or herself (Chase and Shelton 2001). Because the use of self-care by young children is infrequent and less socially acceptable than the use of self-care by older children, we expected that the pattern of self-care correlates for young children might reflect greater family hardship or inflexibility (in terms of work and availability of other supervised options) than the pattern for older children.

Our hypothesis was not supported by our results. In fact, the factors associated with an increased likelihood of self-care among younger and older children have two notable similarities. First, controlling for other factors, full-time parental employment is associated with a greater likelihood of self-care for both age groups. Among 10- to 12-year-olds, those with parents employed full-time are over two-and-a-half times more likely than those with nonemployed parents to use self-care, while 6- to 9-year-olds are about twice as likely to use self-care if their parents were fully employed (see figure 5).¹⁷ Second, symptoms of poor parental mental health are associated with a greater likelihood of self-care among both age groups. Those children whose parent reported symptoms of poor mental health are nearly twice as likely (1.7 times for 6- to 9-year-olds and 1.8 times for 10- to 12-year-olds) to use self-care as those whose parent did not report symptoms. Additionally, for 10- to 12-year-olds, high levels of parent aggravation and stress are associated with a greater likelihood of self-care, controlling for other factors. Thus, on two indicators of family inflexibility and hardship, self-care patterns are similar for younger and older children.

Additional factors were associated with the use of self-care among 6- to 9-year-olds that were not found for 10- to 12-year-olds. For example, controlling for the

Figure 5. Predicted Probability That 6- to 12-Year-Olds Will Use Any Self-Care



Source: Child Trends analyses of data from the 1999 National Survey of America’s Families. FPL = federal poverty level; R = reference group.

Note: Predicted probability is based on results of multivariate logistic regression model. Non-significant factors are not shown.

* difference from reference group is statistically significant at the $p < .10$ level.

** difference from reference group is statistically significant at the $p < .05$ level.

*** difference from reference group is statistically significant at the $p < .01$ level.



effect of other factors, young children who have a condition that limits their activities are less than half as likely as children without a limiting condition to use self-care. Families may feel that disabled children are particularly vulnerable if left unsupervised.¹⁸ Parents may also have gained access to other support services that assist them in securing supervised care for their disabled children.

The presence of teenagers in the household is also associated with the increased likelihood of self-care among 6- to 9-year-olds, even after controlling for other factors. Some parents may rely on older children to care for their younger siblings, but in the NSAF, care by siblings age 13 and older should be categorized as relative care rather than self-care. Correspondingly, children's parents are much more likely to report that they use relative care when they have 13- to 17-year-olds in their household. Though we cannot determine that the caretaker is in fact the teen, 89 percent of 6- to 12-year-olds who have teens in their households are reported to use relative care, compared with only 40 percent of 6- to 12-year-olds who do not live with teens. Perhaps when parents rely on sibling care for younger children, children have an increased likelihood of caring for themselves either because there are gaps in time when the older siblings are not available, or because parents allow children to care for themselves if they know an older sibling can check on the child occasionally.

Having teenagers in the household does not increase the likelihood of self-care for 10- to 12-year-olds. For them, self-care is more likely when there are no other children under age 13 in the household than when there are multiple children.¹⁹ Perhaps parents feel that leaving one child under 13 at home alone is safer than leaving several children at home alone, particularly if that child is older.²⁰

Finally, for younger children, income is related to the use of self-care when other factors are controlled. In particular, 6- to 9-year-olds with family income above 300 percent of FPL are more likely than 6- to 9-year-olds living in poverty to use self-care.

For older children, we found that those who participated in some type of supervised child care are about half as likely as other 10- to 12-year-olds to use self-care, controlling other factors.²¹ Self-care may be less likely for these children because the availability of supervised care reduces the parents' need to rely regularly on self-care. Or parents whose children are enrolled in nonparental supervised arrangements may believe that their children are not sufficiently mature to care for themselves regularly.

Hispanic 10- to 12-year-olds are half as likely as non-Hispanic white 10- to 12-year-olds to use self-care. This finding is consistent with the work of Casper and Smith (2002), who found that Hispanic and non-Hispanic black children age 11 to 13 are less likely than non-Hispanic white children to use self-care.²² Casper and Smith did not find similar patterns by race and ethnicity among children age 5 to 7 or 8 to 10.

Also, we found that older children who have two parents in their household, or who have an additional nonparental adult in the household, are less likely to be in self-care than are older children with a single parent.²³ Finally, for older children, a number of factors that have been noted in previous research were *not* found to be related to self-care, including parent's education,²⁴ child's gender,²⁵ and child's

behavioral and emotional problems.²⁶

Do the Correlates of Self-Care Differ for Low- and Higher-Income Children?

The patterns of correlates of self-care among low- and higher-income children seem to be more similar than the patterns for younger and older children, based on our multivariate analyses. Neither Casper and Smith (2002) nor Hofferth et al. (2000) estimated separate models for children of different income levels. However, we hypothesized that because low-income families may be more constrained in their child care options than higher-income families, parents who are financially disadvantaged might be less able than other parents to base their child care choices on their perceptions of their children's risk and maturity. Yet evidence from the NSAF does not support this hypothesis. None of the child behavioral and health characteristics (except participation in a regular supervised arrangement, for higher-income children) were significantly associated with self-care in either model.

In fact, age is the strongest predictor of self-care among both income groups, controlling for other child and family factors. Among low-income children, 10- to 12-year-olds are six times more likely than 6- to 9-year-olds to use self-care, while among the higher-income group, older children are almost four times more likely than younger children to use self-care.

Having parents that work full-time and the absence of other children under age 13 in the household were both associated with an increased likelihood of self-care for low-income and higher-income children. Among both low-income and higher-income children, those with parents that work full-time are nearly three times more likely than children whose parents are not employed to use self-care.

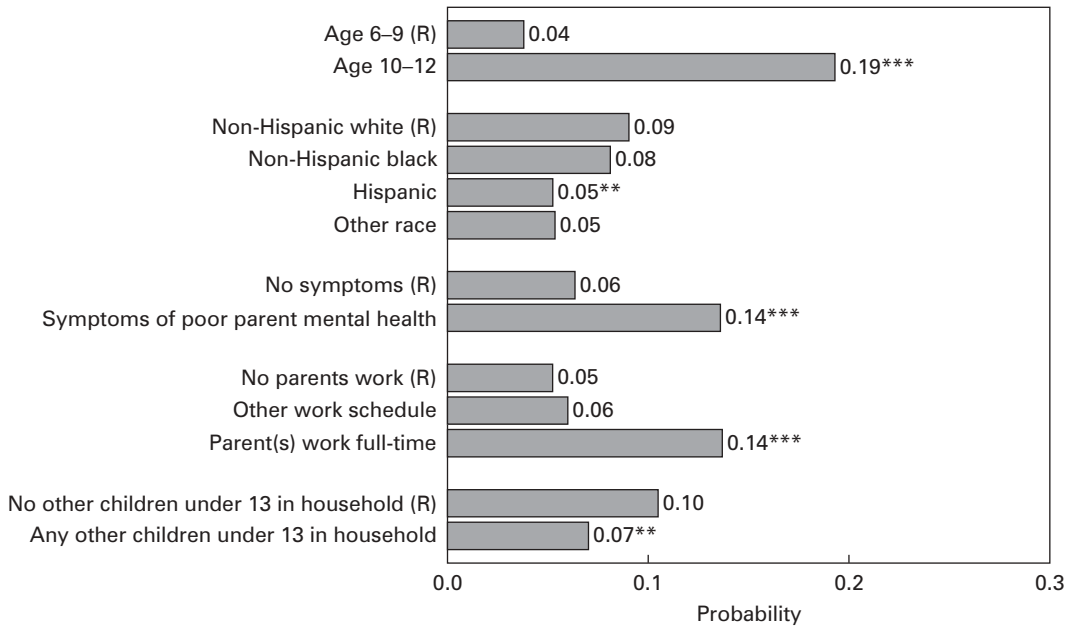
Also, in both income subgroups Hispanic children are somewhat less likely than non-Hispanic white children to use self-care.

There are several differences between the models for low- and higher-income children in our multivariate models. The most noteworthy is that, among low-income children, symptoms of poor parental mental health are positively associated with self-care (figure 6).²⁷ For higher-income children only, the presence of teenagers, the lack of any regular supervised arrangement, and the absence of any adults other than the parent(s) in the household are associated with an increased likelihood of self-care.

Low-income children whose parents reported symptoms of poor mental health were more than twice as likely to use self-care as other low-income children, even after controlling for other relevant child and family characteristics. As previously noted, we cannot determine whether symptoms of poor parental mental health lead to increased use of self-care, or whether having a child in self-care worsens a parent's mental health. It is also possible that relevant factors that we were not able to include in our analyses could be responsible for the apparent relationship between parent mental health and self-care. In any case, the findings highlight the stress surrounding child care issues for many working families. Neither Casper and Smith



Figure 6. Predicted Probability That Low-Income 6- to 12-Year-Olds Will Use Any Self-Care



Source: Child Trends analyses of data from the 1999 National Survey of America's Families.

FPL = federal poverty level; R = reference group.

Note: Predicted probability is based on results of multivariate logistic regression model. Non-significant factors not shown.

** difference from reference group is statistically significant at the $p < .05$ level.

*** difference from reference group is statistically significant at the $p < .01$ level.

(2002) nor Hofferth et al. (2000) included a measure of parental symptoms of poor mental health in their analyses.

Among higher-income children, those who have 13- to 17-year-olds in their households are nearly one-and-a-half times more likely than other higher-income children to use self-care. Additionally, higher-income children are about three-quarters as likely to use self-care if they also used a regular supervised arrangement. They are also somewhat less likely to use self-care if their household includes a non-parental adult in addition to their parent(s).

Stability of the Estimates

As one way to gauge the stability of our 1999 estimates, we re-estimated all our models using 1997 NSAF data.²⁸ We felt that comparing our estimates to those generated from a different sample would inform us about the stability of our estimates. In general, the 1997 models corroborated results from the 1999 data, with a few exceptions. In the 1997 multivariate analyses, high behavioral and emotional problems in children are associated with an increased likelihood of self-care, and (in two subgroups only) non-Hispanic black children are less likely than non-Hispanic white children to use self-care. Also, 1997 results suggest that children who are in

fair or poor health are less likely than other children to use self-care. None of these three factors were significant correlates of self-care in the 1999 multivariate models, although the 1997 finding regarding fair or poor health seems consistent with the 1999 finding that having a child with a disability is related to self-care for younger children.

Correlates of the Extensive Use of Self-Care

Because the consequences of self-care may depend on the amount of time children spend unsupervised, we explored the correlates of the amount of time spent in self-care. Children who experience longer periods of self-care may be more at risk than children who experience shorter amounts of time (Colwell et al. 2001; Vandell and Posner 1999). For example, Colwell et al. (2001) found that children with higher levels of externalizing behavior problems in sixth grade had experienced a greater amount of self-care in first grade and more unsupervised involvement with peers in sixth grade.

Using the sample of all 6- to 12-year-olds who used self-care, we estimated a linear regression model of the number of hours of self-care used per week.²⁹ After controlling for other relevant child and family characteristics, we find that significant correlates of weekly hours in self-care come from three of the five sets of characteristics: children's demographic factors, parents' available time, and perceptions of children's maturity and risk. Not surprisingly, age is a significant factor. Older children spend 17 percent more time in self-care, on average, than do younger children.

One factor from the set assessing parents' available time is associated with the time children spent in self-care, controlling for other factors. Children who have two parents spend 36 percent less time in self-care than do children with single parents.

Looking at variables that tap child health and behavior and family risk, several factors are associated with the amount of time children spend in self-care. Children whose parents have a high school diploma or general equivalency diploma spend 46 percent more time in self-care than do children whose parents have not completed high school. Children who use some form of supervised care spend 42 percent less time in self-care than do other children. Children with fair or poor health spend 36 percent less time in self-care than children with excellent, very good, or good health. The amount of time children spend in self-care does not vary by income.

Conclusions

Each week in the United States, 3.3 million children under age 13 are regularly left without adult supervision. Of those children who use self-care, 7 percent are under the age of 10, and 12 percent are living in low-income families, two groups that may be particularly vulnerable when spending time unsupervised. Furthermore, while children using self-care spend on average less than an hour each weekday unsuper-

vised by adults or teenagers (that is, 4 hours per week), 16 percent spend 10 or more hours a week unsupervised.

Leaving a child without adult supervision is undoubtedly a decision that depends on a variety of factors. The child, the family, the neighborhood, the school, and the community all contribute to the decision in direct and indirect ways, with some factors weighed more heavily than others depending on circumstances and family resources. The findings presented in this paper, as well as findings from previous research, attempt to illuminate how a range of child and family characteristics are related to the use of self-care. Our findings replicate, clarify, and extend the previous research on the correlates of self-care:

- The present report replicates previous work in its consistent finding that older children, as well as children whose parents are employed full-time, are more likely than other children to use self-care. Consistent with one previous report (Cain and Hofferth 1989), we find that, controlling for other factors, family income is positively related to the use of self-care. Yet, other reports have found no association (Smith and Casper 1999) or a negative association (Hofferth et al. 2000) between income and self-care.
- The present report clarifies previous work by looking at subgroups of children by income and by age. Analyses of subgroups help identify why certain patterns have not been found in previous research, and to identify whether factors that have been associated with self-care in previous research are different for different populations of children.
- The present report extends previous work by looking at the relationship of parental stress and symptoms of poor parental mental health with self-care, and by analyzing more recent, nationally representative data from 1999.

Noteworthy Findings

Even after controlling for potentially relevant factors, we find that a child's age is the strongest correlate of his or her use of self-care. Self-care is also more likely among children with higher family incomes.

We were particularly interested in the correlates of self-care among younger and low-income children, who might be more vulnerable than other children to negative consequences of self-care. Among 6- to 9-year-olds, full-time parental employment, parental symptoms of poor mental health, and the presence of teenagers in the household are related to an increased likelihood of self-care, while the presence of a limiting physical, mental, or health condition is related to a decreased likelihood of self-care. Among low-income children, parental symptoms of poor mental health, full-time parental employment, and child age are positively related to self-care, while Hispanic ethnicity and the presence of other children under age 13 are related to a decreased likelihood of self-care.

When comparing subgroups of children by age and by income, we find no instances in which a factor associated with an increased likelihood of self-care in one subgroup is associated with a decreased likelihood of self-care in another subgroup,

or vice versa. However, in several instances a factor associated with self-care within one subgroup is not significantly associated with self-care in another subgroup.

For example, the relationship between parent mental health and self-care holds true for all groups except higher-income children, with the association strongest for low-income children. This was true even after controlling for a set of possible confounding factors. Also, as expected, parents' full-time employment is strongly related to self-care for all four age and income subgroups of children. A number of other factors are associated with the use of self-care among older children, controlling for other child and family factors, but have no relationship with self-care among the younger children, including living with a single parent; having no other adults in the household beyond the parents; having no other children under age 13 in the household; Hispanic ethnicity; the absence of any regular, supervised care; and high parental aggravation.

Because the consequences of self-care may partly depend on the extent of its use, it is important to understand not only the predictors of the use of any care, but also the circumstances that are associated with extensive time in self-care. Our exploratory analyses suggest that a child's age, health, and participation in supervised care, and whether his or her parent is single and has completed high school are all related to the amount of time a child spends in self-care. Yet the full set of factors from our five categories (parents' available time, family resources, children's demographic characteristics, child health and behavior, and family risk) accounts for only 17 percent of the variation in the time children spend in self-care. Clearly, many other factors are related to the time spent in self-care, and it will be important to begin to identify these in future research.

Limitations

Causal inferences are impossible based on our analyses. Self-care and the child and family factors associated with it were assessed concurrently in the NSAF. Additionally, we were not able to examine several factors that may be associated with both children's use of self-care and child and family factors. For instance, we cannot use the NSAF to examine such contextual variables as the availability of supervised care options or the quality of neighborhoods. We need to know more about how neighborhood circumstances (such as housing characteristics, population density, and the presence of adults who can check in on children caring for themselves), the availability of before- and after-school programs and relatives, and government policies and programs might be linked to the use of self-care.

As noted earlier, the NSAF does not have measures of parental monitoring and supervision, and previous research has shown these measures are important correlates of self-care. In general, more information about parents' childrearing attitudes, practices, and preferences, as well as the constraints parents face, would shed light on the process by which self-care decisions are made.

Additionally, a child's own preferences for care and activities are not considered in the present analyses but likely play a significant role in the decision to leave a child unsupervised. Further research assessing children's perceptions of self-care,



their preferences for various types of child care settings and activities, and their perceptions about the safety or danger of self-care is necessary to understand the role children play in family decisions.

Implications for Policy, Programs, and Research

What are the implications of these findings for policymakers and those working to promote positive youth development? First, the sizeable number of school-age children spending time unsupervised warrants increased public attention to the issue of self-care. Of particular concern are the younger school-age children and the children from low-income families who regularly spend time in self-care (Capizzano, Tout, et al. 2000). Children who spend time on their own at younger ages may be setting the stage for increased time spent with other unsupervised children and involvement in risky behaviors as they get older. They may also resist future opportunities to participate in supervised settings. Similarly, for low-income children, the risks of self-care may be elevated if they live in unsafe neighborhoods or miss out on the academic and social enrichment provided by some before- and after-school programs. While time spent unsupervised may be risky for all school-age children, it may be useful to focus especially on filling the gaps in supervision for these vulnerable children.

While older school-age children—those ages 10 to 12—may be more capable of caring for themselves than younger children, there is still reason to be concerned about the one in four children in this age group who regularly spend time unsupervised. It is important that children know how to access adult help when necessary, take precautions to prevent accidents and injuries, and determine appropriate activities for their unsupervised time. Before- and after-school programs should acknowledge the developmental needs of older school-age children and young adolescents—the growing desire for autonomy and the increasing significance of friendships and peers—and determine appropriate ways to tailor program activities to promote attendance and satisfaction.

The link between symptoms of poor parental mental health and an increased likelihood of self-care that emerged in our analyses is an additional worrisome finding. We cannot determine if the lack of supervised care for a child is a cause of poor parental mental health or if poor mental health hinders parents' ability to secure supervised care for their child. Another possible explanation could hinge on parents' perceptions of children's maturity or of neighborhood safety. Rather than compromising parents' ability to locate or secure supervised child care, parents' poor mental health may cause them to overlook the necessity or usefulness of supervised care. In either case, the finding suggests the importance of simultaneously targeting the needs of both children and parents when developing or improving programs for children and families. For example, building linkages and "multiple entry points" into various programs and services may help parents better navigate before- and after-school options for their children while also receiving services to improve their own well-being (Knitzer 2000).

Other than the systematic rise in the use of self-care as children get older, we did not identify a clear "profile" of a child who is likely to spend time unsupervised. Therefore, it is unlikely that any single policy or programmatic solution can compre-

hensively address the issue of self-care. Families rely on a variety of informal and formal arrangements—including care at home or in home-based settings, before- and after-school programs, and clubs, sports, and lessons—to cover children’s out-of-school time. In fact, almost 42 percent of the children spending time in self-care also spend time each week in one or more supervised arrangements (this percentage is likely underestimated since the NSAF did not assess regular participation in clubs, sports, and lessons, which could also be considered supervised arrangements). Thus, one important policy objective might involve minimizing the gaps between the hours that children are involved in out-of-school programs and activities and the hours that parents and other adults are available to care for their school-age children.

Another policy objective might be the continued development of formal before- and after-school programs for children. When these programs are well-staffed, well-managed, stable, and engaging, they can provide needed supervision as well as opportunities for social, cultural, and academic enrichment. Since the use of self-care is associated with a range of individual, family, and contextual factors, programs may need to employ a variety of outreach strategies to encourage families and children to participate.

Despite the limitations of our research, the analyses presented here, when taken together with previous research on self-care, highlight a number of intriguing hypotheses to pursue about the factors associated with self-care among school-age children. For example, it will be important to pursue, in longitudinal analyses, the hypothesis that poor parental mental health compromises parents’ ability to locate appropriate child care and supervision (a possibility suggested in the research on quality of child care for younger children). The findings also underscore the need to further understand how the diverse circumstances surrounding self-care may be linked with different consequences of self-care for children.

Appendix Tables





Table A.1. Child Care Arrangements of Children Age 6–12 (percentage using various arrangements and mean hours in care)

	By age of child						By income level			
	All children		Ages 6–9		Ages 10–12		Below 200% of FPL		200% of FPL and above	
	percent	st error	percent	st error	percent	st error	percent	st error	percent	st error
Total	100.0	0.0	57.9	0.6	42.1	0.6	59.7	0.9	40.3	0.9
PRIMARY CHILD CARE ARRANGEMENTS										
Supervised	46.2	0.8	54.3	1.3	34.9	1.3	41.4	1.2	49.4	1.0
Before- and after-school care	14.1	0.5	18.0	0.9	8.8	0.8	10.8	0.8	16.4	0.7
Family child care	5.7	0.4	7.7	0.7	2.9	0.5	4.6	0.6	6.4	0.6
Nanny/Baby-sitter	4.8	0.4	5.9	0.6	3.2	0.5	3.0	0.5	5.9	0.6
Relative	21.6	0.7	22.8	0.9	20.0	1.7	23.0	1.2	20.7	0.8
Unsupervised										
Self-care	9.6	0.4	2.7	0.3	19.1	1.0	8.2	0.8	10.5	0.6
Parent/Other care										
No reported supervised or unsupervised arrangement	44.3	0.9	43.0	1.3	46.0	1.5	50.4	1.4	40.1	1.0
ANY SUPERVISED CARE										
Any supervised arrangement	48.0	0.8	55.5	1.3	37.8	1.3	43.3	1.3	51.2	1.1
ANY UNSUPERVISED CARE										
Any use of self-care	14.8	0.6	6.7	0.6	26.1	1.1	11.6	0.9	17.0	0.8
Amount of time per week in self-care										
1 to 4 hours	61.8	2.5	74.4	3.8	57.3	2.6	63.3	4.7	61.0	3.1
5 to 9 hours	22.7	2.1	14.3	2.9	25.7	2.6	23.5	4.0	22.4	2.5
10 or more hours	15.5	2.0	11.3	3.1	17.0	2.2	13.2	3.0	16.6	2.8
MEAN HOURS SPENT PER WEEK IN EACH ARRANGEMENT										
Hours per week in supervised primary arrangement	11.5	0.3	11.8	0.3	10.7	0.6	13.6	0.6	10.3	0.3
Hours per week in self-care primary arrangement	5.1	0.2	5.0	0.6	5.1	0.2	4.4	0.5	5.5	0.3
Hours per week in all supervised arrangements	12.9	0.4	13.6	0.4	11.4	0.6	15.2	0.7	11.6	0.4
Hours per week in any self-care	4.4	0.2	3.5	0.3	4.7	0.2	4.2	0.4	4.4	0.3

Source: Child Trends analyses of data from the 1999 National Survey of America's Families.

Note: For calculations of means, this table excludes children NOT using a particular arrangement. That is, values of 0 are not included in the calculation of mean hours. This is true for self-care as well.

Table A.2. Children Age 6–12 Using Any Self-Care, by Factors Related to Parental Time and Family Resources

	By age of child						By income level			
	Any self-care N = 9,926		Ages 6–9 N = 5,970		Ages 10–12 N = 3,956		Below 200% of FPL N = 3,797		200% of FPL and above N = 6,129	
	percent	st error	percent	st error	percent	st error	percent	st error	percent	st error
Total	14.8	0.6	6.7	0.6	26.1	1.1	11.6	0.9	17.0	0.8
PARENTS' AVAILABLE TIME										
Parents' employment										
No parents working	10.2	2.0	3.2	1.0	19.1	4.1	10.0	2.0	12.0	5.4
Other work schedule	10.6	0.8	4.9	0.8	18.9	1.5	8.5	1.0	11.9	1.1
Full-time (single parent or both)	20.8	1.1	9.6	1.0	35.5	2.3	17.5	1.9	22.2	1.4
Parent has spouse or partner										
Yes	13.9	0.6	6.8	0.7	23.7	1.2	9.9	1.0	15.7	0.9
No	17.7	1.3	6.4	1.0	33.1	2.8	14.1	1.4	25.4	2.7
Other adult(s) in household besides parent and parent's spouse/partner										
Yes	14.0	1.6	7.3	1.9	21.6	2.6	10.0	1.9	17.2	2.5
No	15.0	0.6	6.6	0.6	27.1	1.3	12.0	1.1	17.0	0.8
Presence of at least one other child age 0–12 besides focal child										
Yes	11.4	0.6	6.0	0.7	19.9	1.2	9.8	1.0	12.7	1.0
No	23.3	1.5	8.6	1.3	37.5	2.5	18.3	2.1	25.5	1.8
Presence of at least one child age 13–17										
Yes	20.4	1.4	11.6	1.8	26.7	2.0	14.6	1.8	24.8	2.0
No	12.4	0.6	5.3	0.5	25.6	1.3	10.2	1.0	13.9	0.8
FAMILY RESOURCES										
Family income										
Below 100% of FPL	10.1	1.3	3.9	0.9	18.4	2.6	—	—	—	—
100–199% of FPL	12.8	1.2	4.9	1.0	24.7	2.7	—	—	—	—
200–299% of FPL	13.9	1.5	6.6	1.1	24.0	3.0	—	—	—	—
300% of FPL or above	18.5	1.0	9.0	1.2	31.1	1.9	—	—	—	—
Parent's highest education level										
Less than high school	12.6	2.1	4.1	1.2	22.5	3.9	11.3	2.2	17.8	4.7
High school degree	13.6	0.7	6.6	0.7	23.6	1.5	10.6	1.0	15.8	1.0
College degree	19.0	1.4	8.1	1.3	33.8	2.5	20.0	3.2	18.8	1.5

Source: Child Trends analyses of data from the 1999 National Survey of America's Families.
 FPL = federal poverty level.
 — not calculated.

Table A.3. Children Age 6–12 Using Any Self-Care, by Factors Related to Children’s Risk and Maturity

	By age of child						By income					
	All children N = 9,926		Ages 6–9 N = 5,970		Ages 10–12 N = 3,956		Below 200% of FPL N = 3,797		200% of FPL and above N = 6,129			
	percent	st error	percent	st error	percent	st error	percent	st error	percent	st error	percent	st error
Total	14.8	0.6	6.7	0.6	26.1	1.1	11.6	0.9	17.0	0.8		
CHILD DEMOGRAPHIC CHARACTERISTICS												
Child age												
6–9	6.7	0.6	—	—	—	—	4.5	0.7	8.2	0.9		
10–12	26.1	1.1	—	—	—	—	21.8	1.9	28.8	1.4		
Child gender												
Female	13.4	0.9	6.2	0.9	23.4	1.8	11.0	1.4	15.1	1.3		
Male	16.2	0.9	7.1	0.8	28.6	1.8	12.2	1.3	18.8	1.3		
Child’s race												
White non-Hispanic	15.8	0.7	7.2	0.8	28.2	1.3	12.4	1.3	17.2	0.8		
Black non-Hispanic	16.1	2.0	6.3	1.4	28.3	3.9	13.7	2.3	20.4	3.1		
Hispanic	9.6	1.3	5.5	1.4	14.7	2.5	7.9	1.5	12.0	2.4		
Other non-Hispanic	14.0	3.3	3.8	1.3	26.2	6.3	8.7	2.6	16.6	4.6		
County of residence												
Metropolitan	14.8	0.6	6.2	0.6	26.7	1.3	11.6	1.0	16.7	0.8		
Non-metropolitan	15.0	1.7	8.7	1.9	23.6	2.9	11.6	1.8	18.3	2.6		
CHILD HEALTH AND BEHAVIOR												
Child’s health												
Excellent, very good, good	14.9	0.6	6.9	0.6	26.2	1.1	11.8	0.9	16.8	0.8		
Fair, poor	13.9	3.5	1.8	1.1	24.0	6.4	9.1	2.7	21.9	7.6		
Limiting health condition												
Yes	14.6	1.8	2.8	0.7	25.6	3.4	10.4	2.0	21.2	3.5		
No	14.9	0.6	7.1	0.6	26.1	1.2	11.9	0.9	16.7	0.8		
High behavior problems												
Yes	16.8	2.5	6.2	2.2	25.8	4.6	13.4	2.8	22.7	4.8		
No	14.7	0.6	6.7	0.6	26.2	1.2	11.6	0.9	16.7	0.8		

Low school engagement											
Yes	17.7	1.8	7.9	1.8	27.4	3.3	12.8	2.0	24.0	2.5	
No	14.4	0.6	6.6	0.6	25.7	1.2	11.4	1.0	16.1	0.9	
Any supervised care arrangement											
Yes	12.8	0.9	7.8	0.8	22.9	1.9	10.1	1.2	14.4	1.3	
No	16.7	0.9	5.3	0.7	28.0	1.7	12.8	1.4	19.8	1.1	
Participated in activities in prior year											
Yes	15.9	0.6	6.9	0.6	27.5	1.1	13.4	1.1	17.3	0.8	
No	9.8	1.2	5.7	1.4	17.8	3.0	8.0	1.4	13.7	2.6	
FAMILY RISK											
Symptoms of poor parent mental health											
Yes	19.1	1.8	8.0	1.4	32.0	3.3	17.4	2.3	21.9	2.7	
No	14.1	0.6	6.5	0.6	25.0	1.3	10.0	1.0	16.4	0.9	
High parental aggravation											
Yes	18.4	2.0	6.7	1.5	30.4	4.0	17.0	2.9	20.4	3.6	
No	14.5	0.6	6.7	0.6	25.6	1.2	10.9	0.9	16.7	0.8	

Source: Child Trends analyses of data from the 1999 National Survey of America's Families.
— not calculated.



Table A.4. Logistic Regression Models Predicting the Likelihood of Children Age 6–12 Using Any Self-Care, by Age and Income

	Ages 6–12 N = 9,623		Ages 6–9 N = 5,791		Ages 10–12 N = 3,832		Below 200% of FPL N = 3,650		200% of FPL and above N = 5,973	
	parameter estimate	standard error	parameter estimate	standard error	parameter estimate	standard error	parameter estimate	standard error	parameter estimate	standard error
Intercept	-2.9***	0.4	-3.9***	0.6	-1.2**	0.5	-3.2***	0.5	-2.4***	0.6
PARENTS' AVAILABLE TIME										
No parents work (reference)										
Parent(s) work full-time	0.9***	0.2	0.8*	0.4	1.0***	0.3	1.1***	0.3	1.1**	0.4
Other work schedule	0.2	0.2	0.2	0.4	0.2	0.3	0.1	0.3	0.4	0.4
Parent has no spouse/partner (reference)										
Parent has spouse or partner	-0.4**	0.1	-0.1	0.3	-0.5***	0.2	-0.2	0.2	-0.4*	0.2
No other adults in household (reference)										
Adults other than parent and parent's spouse/partner in household	-0.2	0.2	0.1	0.3	-0.4**	0.2	-0.3	0.2	-0.2	0.2
No other children age 13–17 in household (reference)										
Any other children age 13–17 in household	0.2	0.1	0.9***	0.2	-0.1	0.1	-0.1	0.2	0.3**	0.1
No other children under 13 in household (reference)										
Any other children under 13 in household	-0.5***	0.1	0.1	0.2	-0.7***	0.1	-0.4**	0.2	-0.5***	0.1
FAMILY RESOURCES										
Below 100% of FPL (reference)										
100–199% of FPL	0.3	0.2	0.1	0.4	0.3	0.3	—	—	—	—
200–299% of FPL	0.3	0.2	0.5	0.4	0.2	0.3	—	—	—	—
300% of FPL or above	0.5**	0.2	0.8*	0.4	0.4	0.3	—	—	—	—
Parent has no high school diploma (reference)										
Parent has high school diploma or GED	-0.2	0.2	0.2	0.3	-0.3	0.3	-0.2	0.3	-0.2	0.3
Parent has bachelor's degree or higher	0.1	0.2	0.3	0.4	0.1	0.3	0.5	0.3	0.1	0.3
CHILD DEMOGRAPHIC CHARACTERISTICS										
Age 6–9 (reference)										
Age 10–12	1.5***	0.1	—	—	—	—	1.8***	0.2	1.3***	0.1
Female (reference)										
Male	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2
Non-Hispanic white (reference)										
Non-Hispanic black	-0.1	0.2	-0.1	0.3	-0.1	0.2	-0.1	0.3	-0.1	0.2
Hispanic	-0.5**	0.2	-0.1	0.3	-0.7***	0.2	-0.6**	0.3	-0.5*	0.3

Other race	-0.3	0.3	-0.7*	0.4	-0.2	0.3	-0.6	0.4	-0.2	0.4
County is outside metropolitan statistical area (reference)										
County is in metropolitan statistical area	-0.1	0.2	-0.4	0.3	0.2	0.2	0.1	0.2	-0.1	0.2
CHILDREN'S BEHAVIOR AND HEALTH										
Excellent, very good, good health (reference)										
Fair/poor health	-0.1	0.3	-1.1	0.8	0.0	0.4	-0.5	0.4	0.1	0.5
No limiting condition (reference)										
Limiting physical, mental, or health condition	-0.2	0.2	-0.9***	0.3	-0.1	0.3	-0.5	0.3	0.0	0.3
Not a high level of problems (reference)										
High level of behavior and emotional problems	-0.1	0.2	0.3	0.4	-0.2	0.3	-0.2	0.4	0.0	0.3
Not low school engagement (reference)										
Low school engagement	0.2	0.2	0.3	0.3	0.0	0.2	-0.1	0.2	0.3	0.2
No supervised care (reference)										
Any supervised care	-0.3**	0.1	0.2	0.2	-0.6***	0.2	-0.3	0.2	-0.3*	0.2
No extracurricular activities (reference)										
Any extracurricular activities in prior year	0.2	0.2	-0.1	0.3	0.4*	0.2	0.4	0.2	0.1	0.3
FAMILY RISK										
No symptoms of poor parent mental health (reference)										
Parent reports symptoms of poor mental health	0.6***	0.1	0.5**	0.2	0.6***	0.2	0.8***	0.2	0.3	0.2
Parent not highly aggravated (reference)										
High level of parent aggravation	0.3*	0.2	0.1	0.3	0.4**	0.2	0.5	0.3	0.2	0.2

Source: Child Trends analyses of data from the 1999 National Survey of America's Families, multivariate logistic regression results.
— not calculated.

* difference from reference group is significant at the $p < .10$ level.

** difference from reference group is significant at the $p < .05$ level.

*** difference from reference group is significant at the $p < .01$ level.

Notes

1. The NSAF is part of the *Assessing the New Federalism* project, a multiyear research effort by the Urban Institute and Child Trends to monitor child and family well-being in the context of changing federal and state policies. The NSAF is a nationally representative, cross-sectional survey of the civilian, noninstitutionalized population under 65 and their families. The survey collected economic, health, and social data for approximately 42,000 households. The survey oversamples families with incomes below 200 percent of the federal poverty level, allowing detailed analyses of children from low-income families. The first two waves of the NSAF occurred in 1997 and 1999, and a third wave took place in 2002.
2. Specifically, interviewers asked parents: “Sometimes it is difficult to make arrangements to look after children all the time. During the last month, did [your child] take care of him/herself or stay alone with his/her brothers or sisters who are under 13 years old on a regular basis, even for a small amount of time?”
3. Unlike the 1990 National Child Care Survey and the 1995 Survey of Income and Program Participation, the NSAF did not ask respondents to report on children’s regular participation in lessons, sports, or other enrichment activities. These questions were asked in the 2002 NSAF.
4. See Capizzano, Tout, and Adams (2000); Capizzano, Adelman, and Stagner (2002); Sonenstein et al. 2002; Ehrle, Adams, and Tout (2001); Capizzano and Adams (2000a, b); and Capizzano, Adams, and Sonenstein (2000).
5. See Scheuren et al. (2000) for more information on weighting procedures in the NSAF.
6. See Westat (2000) for more information about WesVar.
7. Estimates from other surveys, including the 1990 National Child Care Survey (Hofferth et al. 1991) and the 1995 and 1997 Survey of Income and Program Participation (Smith 2000, 2002) are consistent with these figures and highlight the increase in the use of self-care as children get older.
8. Supervised arrangements here include before- or after-school care outside the home, as well as care in the child’s home or elsewhere by someone other than the parent or the parent’s spouse or partner.
9. Parents were not asked about their child’s regular use of lessons, sports, and activities as a nonparental care arrangement. Therefore, the percentage of children with no reported arrangement is likely overestimated, while the percentage of children with a supervised care arrangement is likely underestimated. The 2002 NSAF asked parents about the regular use of lessons, sports, and activities, so future NSAF estimates will provide a more accurate picture of school-age children’s nonparental care arrangements.
10. In the NSAF, care by a sibling age 13 or older is considered relative care, while care by a sibling under age 13 is categorized as self-care.
11. This is a county-level measure defined by the U.S. Office of Management and Budget. See <http://www.census.gov/population/www/estimates/aboutmetro.html> for more information.
12. A scale was created based on parents’ responses about the extent to which their children did schoolwork only when forced to, did just enough schoolwork to get by, always did homework, and cared about doing well in school. The scale scores ranged from 4 to 16, with scores under 10 indicating low school engagement. See Ehrle and Moore (1999) for more information.
13. A scale was created based on parents’ reports about the extent to which, in the past month, their children displayed signs of external distress (not getting along with other kids, acting too young for their age, or lying or cheating) and internal distress (sadness, depression, or feelings of worthlessness). The scale scores ranged from 6 to 18, with scores less than or equal to 12 indicating high levels of behavioral and emotional problems. See Ehrle and Moore (1999) for more information.
14. The NSAF asked parents how much of the time in the past month they have been a very nervous person, felt calm and peaceful, felt downhearted and blue, been a happy person, and felt so down in the dumps that nothing could cheer them up. Scale scores ranged from 25 to 100, and those scoring 67 or lower were classified as having symptoms of poor mental health. See Ehrle and Moore (1999) for more information.
15. The scale was based on parents’ ratings of how often they felt their children were much harder to care for than most, felt their children were doing things that really bothered them a lot, felt they were giving up more of their life to meet their children’s needs than they ever expected, and felt angry with their children. Scale scores ranged from 4 to 16, with scores under 11 indicating high levels of aggravation. See Ehrle and Moore (1999) for more information.

16. To generate this figure, we used our regression model to estimate the probability that a child with specific characteristics would use self-care. We used the mean values for each variable. For example, the variable for child age normally takes on values of 0 (if a child is age 6 to 9) or 1 (if a child is age 10 to 12). We used a value of .4, the mean of the variable for age. (The mean is .4 because 40 percent of the children were 10- to 12-year-olds.) Next, we varied the child and family characteristics one by one to see how the probability of self-care for a child with a particular characteristic changes, while holding constant all the other characteristics. In our example with child age, this means that we made two calculations: one using a value of 0 for younger children, and a second using a value of 1 for older children, so that we could compare the relative probabilities of using self-care of the “average” 6- to 9-year-old and the “average” 10- to 12-year old. (Figures 5 and 6 were generated in a similar fashion.)
17. Hofferth et al. (2000) did not find a significant relationship between parental employment and self-care, but they only considered maternal work hours, whereas we considered both parents’ work status. Our findings are more consistent with Smith’s and Casper’s (1999), perhaps because we also used similar definitions for parental employment and because we looked at the relationship between parental employment and self-care separately by child age, as they did.
18. Hofferth et al. (2000) did not find that children’s likelihood of using self-care differs according to their health or disability status. However, this may be because they examined children age 5 to 12 together as a group, while our findings suggest that the effect of child disability status depends on a child’s age.
19. It is important to remember that self-care is defined as time spent unsupervised or in the care of a sibling under age 13. Regular care by a sibling older than 13 would be categorized as relative care, not self-care. Additionally, we have controlled for the presence of children over age 13 in the household.
20. Our findings contrast with those of Cain and Hofferth (1989), who found that families with more children under age 14 were *more* likely to use self-care than families with fewer children (Cain’s and Hofferth’s 1989 definition of self-care includes care by any person under age 14).
21. Hofferth et al. (2000) did not include participation in supervised care in their models. Smith and Casper (1999) did, and it was marginally associated with a decreased likelihood of self-care among 11- to 13-year-olds.
22. In fact, Casper and Smith (2002) found self-care was *more* common among Hispanic 5- to 7-year-olds than among non-Hispanic white 5- to 7-year-olds. They also found non-Hispanic black 5- to 7-year-olds were less likely than non-Hispanic white children to use self-care (Casper and Smith 2002; Smith and Casper 1999). But, according to the NSAF, white and black children are equally likely to use self-care among all subgroups of children examined.
23. Hofferth (2000) did not find the probability of self-care to differ depending on whether children had two parents, but Hofferth and her colleagues did not estimate separate models for younger and older children.
24. Hofferth et al. (2000) found that children whose mothers had at least a college degree were *more* likely than children whose mothers had less education to be in self-care, net the association of other child and family factors. Similarly, Casper and Smith (2002) found a positive relationship between maternal education and self-care, though only for 8- to 10-year-olds only in their 1999 study and for 5- to 7-year-olds in their 2002 study.
25. Hofferth et al. (2000) found that girls were less likely to be in self-care than boys.
26. This may be because the NSAF measure of behavioral and emotional problems combines internalizing and externalizing problems, which Hofferth et al. (2000) found to act in opposite directions on the likelihood of self-care. They found self-care to be more common among shy or withdrawn children, but less likely among aggressive children. In the regression models we estimated using a previous round (1997) of NSAF data, we found that having a high level of behavioral and emotional problems was associated with an increased likelihood of self-care.
27. Additionally, the multivariate models indicate that Hispanic ethnicity is associated with a decreased likelihood among low-income children ($p < .05$) and at a marginal level of statistical significance among higher-income children ($p < .10$). Further, among higher-income children only, the use of any supervised care is associated with a decreased likelihood of self-care ($p < .10$), and higher-income children whose parents had a spouse or partner were also less likely to be in self-care than were other higher-income children ($p < .10$).
28. Results are available from the authors.
29. Because the distribution of hours in care is skewed to the right, we used the natural log of hours spent in care as the dependent variable. Results are available from the authors.



References

- Cain, Virginia, and Sandra Hofferth. 1989. "Parental Choice of Self-Care for School-Age Children." *Journal of Marriage and the Family* 51(1): 65–77.
- Capizzano, Jeffrey, and Gina Adams. 2000a. "The Hours that Children under Five Spend in Child Care: Variation across States." Washington, D.C.: The Urban Institute. *Assessing the New Federalism* Policy Brief B-08.
- . 2000b. "The Number of Child Care Arrangements Used by Children under Five: Variation across States." Washington, D.C.: The Urban Institute. *Assessing the New Federalism* Policy Brief B-12.
- Capizzano, Jeffrey, Gina Adams, and Freya Sonenstein. 2000. "Child Care Arrangements for Children under Five: Variation across States." Washington, D.C.: The Urban Institute. *Assessing the New Federalism* Policy Brief B-07.
- Capizzano, Jeffrey, Sarah Adelman, and Matthew Stagner. 2002. *What Happens When the School Year Is Over? The Use and Costs of Child Care for School-Age Children during the Summer Months*. Washington, D.C.: The Urban Institute. *Assessing the New Federalism* Occasional Paper No. 58.
- Capizzano, Jeffrey, Kathryn Tout, and Gina Adams. 2000. *Child Care Patterns of School-Age Children with Employed Mothers*. Washington, D.C.: The Urban Institute. *Assessing the New Federalism* Occasional Paper No. 41.
- Casper, Lynne M., and Kristin Smith. 2002. "Dispelling the Myths: Self-Care, Class, and Race." *Journal of Family Issues* 23(6): 716–27.
- Chase, Richard, and Ellen Shelton. 2001. "Child Care Use in Minnesota: Report of the 1999 Statewide Household Childcare Survey." St. Paul, Minn.: Wilder Research Center.
- Collins, W. Andrew, Michael Harris, and Amy Susman. 1995. "Parenting during Middle Childhood." In *Handbook of Parenting*, edited by Mark H. Bornstein (65–89). Hillsdale, N.J.: Erlbaum.
- Colwell, Malinda J., Gregory S. Pettit, Darrell Meece, John E. Bates, and Kenneth A. Dodge. 2001. "Cumulative Risk and Continuity in Nonparental Care from Infancy to Early Adolescence." *Merrill-Palmer Quarterly* 47(2): 207–34.
- Dwyer, Kathleen M., Jean L. Richardson, Kathleen L. Danley, William B. Hansen, Steven Y. Sussman, Bonnie Brannon, Clyde W. Dent, C. Anderson Johnson, and Brian R. Flay. 1990. "Characteristics of Eighth-Grade Students Who Initiate Self-Care in Elementary and Junior High School." *Pediatrics* 86: 448–54.
- Eccles, Jacquelynne S. 1999. "The Development of Children Ages 6 to 14." *The Future of Children* 9(2): 30–44.
- Ehrle, Jennifer, and Kristin Moore. 1999. *1997 NSAF Benchmarking Measures of Child and Family Well-Being*. Washington, D.C.: The Urban Institute. NSAF Methodology Report No. 6.
- Ehrle, Jennifer, Gina Adams, and Kathryn Tout. 2001. *Who's Caring for Our Youngest Children? Child Care Patterns of Infants and Toddlers*. Washington, D.C.: The Urban Institute. *Assessing the New Federalism* Occasional Paper No. 42.
- Hofferth, Sandra L., Zita Jankuniene, and Peter Brandon. 2000. "Self-Care among School-Age Children." Unpublished paper.
- Hofferth, Sandra, April Brayfield, Sharon Deich, and Pamela Holcomb. 1991. *National Child Care Survey, 1990*. Washington D.C.: The Urban Institute.
- Kerrebrock, Nancy, and Eugene M. Lewit. 1999. "Children in Self-Care." *Future of Children* 9(2): 151–60.
- Knitzer, Jane. 2000. "Promoting Resilience: Helping Young Children and Parents Affected by Substance Abuse, Domestic Violence, and Depression in the Context of Welfare Reform." Children and Welfare Reform Issue Brief 8. New York: National Center for Children in Poverty.
- Larner, Mary B., Lorraine Zippiroli, and Richard E. Behrman. 1999. "When School Is Out: Analysis and Recommendations." *Future of Children* 9(2): 4–20.

- Marshall, Nancy L., Cynthia Garcia Coll, Fern Marx, Kathleen McCartney, Nancy Keefe, and Jennifer Ruh. 1997. "After-School Time and Children's Behavioral Adjustment." *Merrill-Palmer Quarterly* 43(3): 497-514.
- Mott, Joshua A., Paul A. Crowe, Jean Richardson, and Brian Flay. 1999. "After-School Supervision and Adolescent Cigarette Smoking: Contributions of the Setting and Intensity of After-School Self-Care." *Journal of Behavioral Medicine* 22(1): 35-58.
- Mulhall, Peter F., Donald Stone, and Brian Stone. 1996. "Home Alone: Is It a Risk Factor for Middle School Youth and Drug Use?" *Journal of Drug Education* 26(1): 39-48.
- O'Connell, Martin, and Lynne M. Casper. 1995. "Where Have All the Hours Gone? Uncovering and Resolving Problems in Questionnaire Design: The Case of Estimating Children's Self-Care." Paper presented at the annual meeting of the Population Association of America, San Francisco, Apr. 6-8.
- Peterson, Lizette. 1989. "Latchkey Children's Preparation for Self-Care: Overestimated, Under-rehearsed, and Unsafe." *Journal of Clinical Child Psychology* 18(1): 36-43.
- Pettit, Gregory S., Robert D. Laird, John E. Bates, and Kenneth A. Dodge. 1997. "Patterns of After-School Care in Middle Childhood: Risk Factors and Developmental Outcomes." *Merrill-Palmer Quarterly* 43(3): 515-38.
- Scheuren, Fritz, Stefanie Schmidt, Jeffrey Capizzano, James Barsimantov, Sheetal Matani, J. Michael Brick, Ismael Flores-Cervantes, Tom Hankins, and Sharon Vandivere. 2000. *1997 NSAF Impact of Census Undercount-Adjusted Weights on Survey Estimates*. Washington, D.C.: The Urban Institute. NSAF Methodology Report No. 14.
- Smith, Kristin. 2000. *Who's Minding the Kids? Child Care Arrangements: Fall 1995*. Current Population Reports, P70-70. Washington, D.C.: U.S. Census Bureau.
- . 2002. *Who's Minding the Kids? Child Care Arrangements: Spring 1997*. Current Population Reports, P70-86. Washington, D.C.: U.S. Census Bureau.
- Smith, Kristin E., and Lynne Casper. 1999. "Home Alone: Reasons Parents Leave Their Children Unsupervised." Paper presented at the annual meetings of the Population Association of America, New York, March 25-27.
- Sonenstein, Freya L., Gary Gates, Stefanie R. Schmidt, and Natalya Bolshun. 2002. *Primary Child Care Arrangements of Employed Parents: Findings from the 1999 National Survey of America's Families*. Washington, D.C.: The Urban Institute. *Assessing the New Federalism* Occasional Paper No. 59.
- Vandell, Deborah Lowe, and J. K. Posner. 1999. "Conceptualization and Measurement of Children's After-School Environments." In *Assessment of the Environment Across the Lifespan*, edited by S. L. Friedman and T. D. Wachs (167-97). Washington, D.C.: American Psychological Association Press.
- Vandell, Deborah Lowe, and Lee Shumow. 1999. "After-School Child Care Programs." *Future of Children* 9(2): 64-80.
- Westat. 2000. *WesVar 4.0 User's Guide*. Rockville, Md.: Westat.



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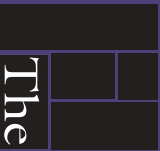
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