

# Who are the eligible non-recipients of child care subsidies? ☆

Chris M. Herbst

*School of Public Affairs, Arizona State University, United States*

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## Abstract

Given the highly devolved nature of the U.S. child care subsidy system, recent studies have devoted considerable attention to exploring family-level correlates of subsidy receipt. However, most studies in this literature are limited in two respects. First, by focusing exclusively on the characteristics of recipients, previous research has neglected a group with important policy implications: *eligible* non-recipients of child care subsidies. Second, previous work compares recipient households to a heterogeneous population of non-recipients, many of whom are ineligible for child care assistance. This paper provides the first detailed examination of eligible non-recipients of child care subsidies, and uses this group to make more appropriate comparisons to those receiving benefits. Using data from the 2002 National Survey of America's Families, I begin by simulating states' eligibility rules for 2001. Although many of the differences between recipients and non-recipients disappear when the analysis is limited to eligible households, a number of key differences persist. With eligibility status serving as a *de facto* control for financial need and preferences for work, I argue that many of the remaining differences between recipients and non-recipients are due to rationing by states, low parental awareness of benefits, and difficulties navigating the subsidy system.

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## 1. Introduction

The 1996 overhaul of the U.S. welfare system ushered in equally dramatic changes to the way the federal government provides child care assistance to low-income families. Congress consolidated the patchwork child care subsidy system, which included four distinct programs, into a single block grant called the Child Care and Development Fund (CCDF). Expenditures on the programs that eventually became the CCDF grew steadily throughout the early-1990s, but exploded after the passage of welfare reform. By 2004, approximately \$9.4 billion was spent through the CCDF, serving 1.7 million children per month (Besharov & Higney, 2006; U.S. DHHS, 2005). The explicit goal of the new unified system is to help families transition from welfare to work and to keep employed families from becoming welfare dependent.

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*E-mail address:* [Chris.Herbst@asu.edu](mailto:Chris.Herbst@asu.edu).

Given the highly devolved nature of the CCDF, considerable research attention has focused on estimating take-up rates for child care subsidies—defined as the fraction of eligible families receiving assistance—and exploring correlates of subsidy receipt.<sup>1</sup> Findings from these studies suggest that, although a large fraction of low-income families are eligible for child care subsidies, states serve between 15% and 30% of the eligible population. Furthermore, receipt of child care assistance is associated with a combination of familial preferences and need for non-parental care, employment and welfare participation status, and characteristics of states' subsidy regimes.

Studies in this literature generally suffer from two related limitations, both of which are addressed in this paper. First, previous research focuses only on the characteristics of families receiving child care subsidies, neglecting systematic treatment of those that do not. Although this appears to be a minor point, an explicit analysis of non-recipient families may provide clues as to whether family-level preferences differ from their recipient counterparts in ways that make child care subsidies undesirable. Furthermore, such a focus may clarify the role of states' policies in determining which families receive and do not receive assistance. For example, if recipients and non-recipients are observed to have similar demographic and human capital characteristics, then states may not be rationing as aggressively as some researchers argue. However, if the opposite is the case—that is, both families appear different—it could reflect a systematic practice by states to selectively choose some families to receive child care assistance.

The second limitation is less subtle. Previous studies compare the characteristics of recipient families against a heterogeneous population of non-recipient families, many of which are ineligible for subsidies and are at little or no risk of ever receiving these benefits.<sup>2</sup> Such comparisons are not only conceptually unsatisfying, but they are likely to produce misleading estimates of the effects of family characteristics on subsidy receipt. An alternative approach is to examine the distribution of characteristics across recipients and non-recipients within the population of *eligible* families. Eligible non-recipients are equivalent in their level of need, and thus provide the ideal “comparison group” to evaluate the importance of family-level determinants of subsidy receipt.

The purpose of this paper is to provide a descriptive portrait of eligible non-recipients of child care subsidies. It begins by simulating state-specific eligibility rules for a sample of households with children under age 13. Eligibility is based on state policies in 2001 and focuses on rules defining “acceptable” work activities and income eligibility. It then presents simple descriptive statistics comparing demographic, economic, and child care characteristics of eligible recipient and non-recipient families, followed by a formal multivariate analysis of these groups. The analyses use data from the 2002 National Survey of America's Families (NSAF) collected by the Urban Institute. This dataset is ideal for the goals of this paper, since it oversamples low-income households and collects detailed information on subsidy receipt and child care arrangements.

The remainder of the paper is organized as follows. Section 2 provides an overview of current child care subsidy policy and summarizes previous research evaluating the correlates of receipt. Section 3 describes the NSAF dataset and discusses the process by which eligibility is simulated. Section 4 presents the results, and Section 5 concludes.

## 2. Overview of U.S. Child Care Subsidy Policy and related research

The barrier to employment posed by child care costs gained increased prominence in the wake of historic welfare reform passed in 1996. The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) eliminated the legal entitlement to cash welfare by imposing a 60-month lifetime time limit on benefit receipt and requiring individuals, even those with young children, to leave welfare for work after 2 years.<sup>3</sup> Due to its strong work mandates, the PRWORA restructured the federal government's role in providing child care assistance. Congress repealed three

<sup>1</sup> The “take-up rate” applied to child care subsidies has been criticized by a number of researchers, and with good reason [See Witte and Queral (2002), for example, who suggest using “service rate” instead]. Such assistance is not a universal entitlement, as is the case with the Earned Income Tax Credit (EITC), and so states cannot guarantee that all eligible families will receive benefits. The potential for excess demand has come into sharp focus recently, as many states now have waiting lists for child care subsidies. Furthermore, the block grant nature of the CCDF implies that states ration benefits according to specific family characteristics, and hence an *offer* must be made to a family before it can decide whether to take-up benefits. Because offer rates are likely to be very low in some states, take-up rates are also likely to be much lower than if benefits were structured as a universal entitlement.

<sup>2</sup> It is common for studies to report that subsidy recipients are more likely to have X characteristic. The implicit “comparison group” commingles eligible non-recipients and ineligible non-recipients. These two groups are very different with respect to demographic and human capital characteristics.

<sup>3</sup> States have the option to exempt from the work requirement time limit families with young children and those unable to locate child care.

Title IV-A programs, and along with money from the Child Care and Development Block Grant (CCDBG), consolidated these funding streams into a single Child Care and Development Fund (CCDF).<sup>4</sup> There are three primary elements to CCDF funding. Each state receives a pre-determined share of federal *mandatory* funds, which remains constant over time. States also qualify for *matching* grants, provided they meet certain Maintenance of Effort (MOE) requirements (i.e., maintain or exceed pre-CCDF spending levels). Finally, the legislation authorizes nearly \$1 billion in *discretionary* money that does not require a state match (Long & Clark, 1997).

Critical to this study is the trademark of the new child care subsidy system: states now have substantial freedom to determine rules governing eligibility and benefits. For example, federal eligibility for subsidies is set at 85% of the state median income (SMI), although states can and do establish lower ceilings. In fact, just three states (Maine, Mississippi, and Texas) and the District of Columbia establish income eligibility at or above 85% of SMI (Schulman & Blank, 2006). Eligibility is further determined by states' choices regarding the types and amount of income to apply toward the threshold. Income deductions and disregards are the primary methods for lowering countable income, and there is substantial variation in how these tools are used to determine the amount a family can earn and remain eligible for subsidies.

Families also experience significant variation in the depth of subsidy benefits, largely determined by copayment and reimbursement policies. Most states require subsidy recipients to cover a portion of their child care costs through a sliding scale fee that varies with income. Some families may be exempt from this requirement, for example, if family income is below the federal poverty line. Reimbursement rates—or the maximum amount states will pay a given child care provider—vary substantially within states, urban–rural designations, ages and number of children served, and the type of provider. Market rate surveys are conducted periodically to ensure that subsidy families have “equal access” to high-quality providers, defined as reimbursements that cover 75% of the local child care price distribution and copayments that do not exceed 10% of family income (Greenberg, Lombardi, & Schumacher, 2000).

Unlike its predecessor programs, the CCDF does not administer benefits as an entitlement. Moreover, the block grant nature of the new system implies that the availability of subsidies does not change in tandem with demand. Therefore, states use eligibility rules and other administrative functions to ration benefits according to specific household characteristics. Rationing is expected to be intense when states cannot meet the demand for subsidies, and these fiscal constraints may prompt the start of waiting lists or frozen intake. Currently, 18 states implement one or both of these policies and two-thirds of single mothers live in states with waiting lists, suggesting that such practices are important factors determining access to child care assistance (Herbst, 2006; Schulman & Blank, 2006).

The above policy design features have sparked intense research interest in subsidy participation rates and the determinants of receipt. Although it appears that states are serving a large number of children in any given month, evidence suggests that only 12% to 15% of eligible children receive assistance (U.S. DHHS, 1999). Findings from a U.S. General Accounting Office (1999) study confirm this, estimating that states are serving no more than 15% of the CCDF-eligible population. These national estimates, however, mask significant variation across states. For example, one study of 17 states finds that a small number of states serve between 20% and 25% of eligible children, while a larger number of states serve no more than 15% of children (Collins, Layzer, Kreader, Werner, & Glantz, 2000). A recent study of Illinois, Maryland, and Massachusetts estimates take-up rates as high as 35% (Illinois and Massachusetts) and as low 24% (Maryland) (Lee et al., 2004). Finally, a study of Rhode Island single mothers finds that nearly 40% of eligible mothers participate in subsidy programs (Witte & Queralt, 2002).

Rates of subsidy receipt have also been estimated for various sub-groups. For example, Schumacher and Greenberg's (1999) analysis of welfare leaver studies determines that less than 30% of employed leavers receive subsidies in a majority of states. This is corroborated by Loprest (1999), who finds that 20% of welfare leavers receive a subsidy in the first 3 months after exiting. An analysis of California's welfare recipients finds that 18% of mothers employed or in job preparation programs receive child care assistance (Meyers, Heintze, & Wolf, 2002). This estimate is lower than the one provided by Giannarelli, Adelman, and Schmidt (2003), who use the nationally representative NSAF to calculate a participation rate of 34% among TANF families. These authors also estimate that 28% of single

<sup>4</sup> The predecessor programs to the CCDF were created under two pieces of legislation, with funding authorized by two streams. The four programs were called Aid to Families with Dependent Children Child Care (AFDC-CC), Transitional Child Care (TCC), At Risk Child Care (ARCC), and Child Care and Development Block Grant (CCDBG). The first two programs were created by the Family Support Act of 1988, and the latter two were created by the Omnibus Budget Reconciliation Act of 1990. In terms of funding, the first three programs received funding authorization under Title IV-A of the Social Security Act, while the CCDBG had its own dedicated funding stream.

parents receive subsidies, while Tekin (2007), using the same data, finds that approximately 13% employed single mothers participate in subsidy programs.

As previously stated, recent studies have also devoted considerable attention to examining family-level determinants of child care subsidy receipt (Blau & Tekin, 2007; Burnstein, Layzer, & Cahill, 2001; Danziger, Ananat, & Browning, 2004; Durfee & Meyers, 2006; Herbst, 2006; Huston, Chang, & Gennetian, 2002; Lee et al., 2004; Lemke, Witt, & Witte, 2004; Meyers et al., 2002; Tekin, 2007, 2005).<sup>5</sup> Results from this body of work are remarkably consistent. An interesting pattern emerging from these studies is that subsidy recipients are simultaneously more likely to be employed and have some association with the welfare system. Furthermore, the likelihood of receiving a subsidy is greater among families below the federal poverty line as well as those with relatively high levels of education. These patterns imply a dual focus on the part of states: encourage families with significant welfare histories to move from welfare to work, and provide financial support to those who might be at risk of becoming welfare dependent. Research also finds that single mothers with greater numbers of young children are more likely to receive child care assistance. This reflects a combination of states' decisions about whom to target as well as individual preferences for non-parental child care. Finally, a number of studies show that subsidy receipt is greater among younger mothers and those who are African American, which again is indicative of differential preferences for non-parental child care in order to balance childrearing and work demands.

### 3. Data sources and method for simulating eligibility

#### 3.1. Data

Data for this paper come from several sources, principally the 2002 wave of the National Survey of America's Families (NSAF).<sup>6</sup> The 2002 NSAF was conducted during the early part of 2002, focusing on the health, economic, and social well-being of children and households more generally. Interviews were conducted with over 40,000 families, producing detailed information on over 100,000 individuals. The survey is representative of the civilian, non-institutional population under age 65. Among the distinctive sampling features of the NSAF are its foci on families in 13 states and families below 200% of the federal poverty line.

This paper draws extensively from the NSAF's "focal child" file, which contains information on child care arrangements, expenditures, and subsidy receipt. This file is structured such that up to two randomly selected focal children were targeted during the initial household screening. Information was then gathered on one child under the age of 6 and another child between ages 6 and 17.<sup>7</sup> Questions on all non-parental child care arrangements—including child care centers, family-based providers, relatives, and Head Start—were directed at respondents with children ages 0 to 12, regardless of the caretaker's employment status. All analyses of child care arrangements focus on the regular, primary arrangement, defined as the one used at least once per week during the previous month and which the focal child spent the greatest number of hours while the respondent worked. Questions on child care expenditures were also asked of each respondent, but the reported amounts reflect what was paid for all child care arrangements and children in the household.

The baseline sample consists of 19,066 households with at least one child under age 13.<sup>8</sup> Table 1 provides summary statistics for the sample of NSAF households. Approximately 88% of household heads are employed, and 14% of

<sup>5</sup> A recent development in this literature is to examine the dynamics of child care subsidy receipt (for example, see Lee et al., 2004; Meyers et al., 2006). In the latter study, the authors examine five states and find that 50% of children end a subsidy receipt spell within 7 months, with median spell lengths ranging from 3 months in Oregon to 7 months in Texas.

<sup>6</sup> These individual-level data are supplemented by publicly available policy data to determine eligibility for subsidies. The Children's Defense Fund's *A Fragile Foundation* (Schulman, Blank, & Ewan, 2001) report provides information on work requirements, while the *State Developments* (Ewan, Blank, Hart, & Schulman, 2001) report yields information on income and earnings deductions. Income eligibility limits and other state-specific eligibility data were gathered from the Child Care Bureau's biennial *State Plans* (U.S. DHHS, 2002) report, as well as unpublished data from the Bureau.

<sup>7</sup> Irrespective of the number of children in each age group, just one child per age category was sampled. Data on the focal children were collected from the "most knowledgeable adult," the individual in the household who knows the most about each child's health and education. Often, but not always, the MKA is the householder, and there are cases in which each child has a different MKA.

<sup>8</sup> Deletions from the sample were made for the following reasons: the householder was under age 18 or over age 64; total household earnings were less than zero; and the householder's marital status was unknown. These deletions provide the baseline sample.

Table 1  
Summary statistics for NSAF households with children under age 13

Variable	All households (N=19066)	Two parent households (N=14199)	Female-headed households (N=4179)	Male-headed households (N=688)
Employed (%)	0.876 (0.329)	0.888 (0.315)	0.829 (0.375)	0.892 (0.309)
Receives TANF/food stamps (%)	0.140 (0.347)	0.077 (0.266)	0.361 (0.480)	0.173 (0.378)
Household headship (%)				
Two-parent	0.749 (0.433)	1.00	0.00	0.00
Single, Female-headed	0.208 (0.406)	0.00	1.00	0.00
Single, Male-headed	0.041 (0.200)	0.00	0.00	1.00
Householder's age	36.70 (8.43)	37.01 (7.89)	35.35 (9.85)	37.85 (9.23)
Householder's race/ethnicity (%)				
White	0.632 (0.482)	0.684 (0.464)	0.452 (0.497)	0.607 (0.488)
Black	0.145 (0.352)	0.086 (0.281)	0.344 (0.475)	0.211 (0.408)
Hispanic	0.175 (0.380)	0.173 (0.378)	0.183 (0.387)	0.160 (0.366)
Other	0.046 (0.210)	0.055 (0.228)	0.019 (0.138)	0.021 (0.143)
Householder's education (%)				
Less than High School	0.127 (0.333)	0.113 (0.316)	0.179 (0.383)	0.126 (0.332)
High School/GED	0.306 (0.460)	0.291 (0.454)	0.360 (0.480)	0.295 (0.456)
Some College	0.294 (0.456)	0.274 (0.446)	0.345 (0.475)	0.409 (0.492)
College+	0.271 (0.444)	0.320 (0.466)	0.114 (0.318)	0.168 (0.374)
Non-wage income (1000s)	3.54 (7.61)	3.14 (7.67)	4.96 (7.44)	3.48 (6.56)
No. children ages 0–5	0.860 (0.815)	0.904 (0.812)	0.768 (0.829)	0.539 (0.688)
No. children ages 6–17	1.17 (1.08)	1.16 (1.09)	1.22 (1.07)	1.13 (1.00)
Presence of child ages 0–5 (%)	0.381 (0.485)	0.392 (0.488)	0.352 (0.477)	0.319 (0.466)
Presence of child ages 6–12 (%)	0.373 (0.483)	0.344 (0.475)	0.438 (0.496)	0.561 (0.496)
Presence of children ages 0–5 and 6–12 (%)	0.245 (0.430)	0.262 (0.440)	0.209 (0.407)	0.119 (0.324)
Other adult ages 55+ (%)	0.034 (0.182)	0.036 (0.186)	0.027 (0.162)	0.034 (0.183)
Householder is U.S. born (%)	0.826 (0.378)	0.810 (0.392)	0.877 (0.328)	0.877 (0.328)
Child care arrangements (%)				
Center-based	0.270 (0.444)	0.254 (0.435)	0.357 (0.479)	0.256 (0.438)
Family-based	0.111 (0.314)	0.107 (0.309)	0.120 (0.325)	0.168 (0.375)
Nanny/babysitter	0.037 (0.190)	0.036 (0.188)	0.040 (0.197)	0.048 (0.215)
Relative	0.249 (0.432)	0.231 (0.422)	0.327 (0.469)	0.319 (0.467)
Parent	0.330 (0.470)	0.368 (0.482)	0.153 (0.360)	0.206 (0.405)
Paying for care (%)	0.456 (0.498)	0.423 (0.494)	0.600 (0.490)	0.596 (0.491)
Monthly expenses (\$)	429 (407)	461 (437)	336 (279)	308 (236)

Source: Author's calculations from the 2002 NSAF.

Notes: Standard deviations are in parentheses. Data are weighted to obtain population averages. Child care statistics are summarized for households with children ages 0–4.

households receive TANF, food stamps, or both. Female-headed households are more likely to receive public assistance (36%). In addition, these women are slightly younger and have fewer years of education than other household heads. Table 1 also reports information on child care arrangements for families with children under age 5. The predominant modes of non-parental child care among working families are center-based and relative care, but there are important differences by marital status. Single parents are more likely to use center-based and family-based child care than two-parent families. Because of these differences, single parents are substantially more likely to pay for care (60%) than their married counterparts (42%). However, among those that pay, single parents have lower monthly expenditures.

Given its importance, construction of the indicator for child care subsidy receipt warrants some attention. If child care arrangements are used while parents work or attend school, several questions are asked about expenses and sources of help paying for care. Following Giannarelli, Adelman, and Schmidt (2003), NSAF households are coded as receiving a subsidy if the following conditions are met: the household reports receiving government assistance in paying for child care; the household reports paying child care costs according to a sliding scale fee; and the household

uses only paid sources of child care, does not report any expenses, and does not report help from a nonresident parent, relative, or friend.<sup>9</sup>

### 3.2. Simulating eligibility for child care subsidies

This section describes the process by which NSAF households were deemed eligible for CCDF child care subsidies. The methodology described here produces a measure of “technical eligibility,” meaning that states’ rules are applied strictly, consistently, and without regard to budget status or administrative idiosyncrasies.<sup>10</sup> As previously stated, this paper simulates state-specific work activity and income eligibility rules for 2001. Evidence suggests that states began responding to deteriorating fiscal conditions around this time by making significant changes to their subsidy regimes (GAO, 2003).<sup>11</sup> Therefore, some of the eligibility rules applied in this paper likely changed at some point during 2001, and so the forthcoming simulations should be viewed as a snapshot of states’ subsidy regimes.

Eligibility is determined along three dimensions: the age of the child in question, parental work status, and household income. Generally speaking, a child must be under age 13, but special needs children are eligible until they reach age 19. States also stipulate that parents must be involved in an acceptable work activity. Significant variation exists in types of work activities deemed acceptable, the households to which these activities apply, and the number of hours per week that a parent must participate in a given activity. Generally speaking, states accept formal employment and job search activities, as well as enrollment in post-secondary education and job training programs. Furthermore, states treat TANF and non-TANF households differently when defining acceptable work activities and the amount of time one must spend performing them. The final set of rules deals with household income. States first determine countable income by applying income deductions and disregards to total income. Then, countable income is compared to and must be lower than the state’s income eligibility threshold. As noted in the previous section, federal rules dictate that household income cannot exceed 85% of SMI, but states may set their eligibility threshold lower than the federal limit.

It is important to note that the unit of analysis is the household, and therefore eligibility is determined at the household level. This nomenclature is slightly different from previous studies, which define subfamilies as separate family units (Giannarelli et al., 2003; Oliver, Phillips, Giannarelli & Chen, 2002). However, given the small number of subfamilies in the NSAF and the assumption that primary and secondary families function as one economic unit, determining eligibility at the household level appears to be a reasonable approach. Moreover, this approach is bolstered by the fact that a plurality of states considers income from all household members when determining eligibility (U.S. DHHS, 2002).

Another critical point, stated in Oliver et al. (2002), is that in practice eligibility for CCDF subsidies is determined on a monthly basis. Although states authorize payments for 6 or 12 months, after which the household undergoes a recertification process, some states require households to report changes in employment and income on a monthly basis. This stands in contrast to the present study, which considers the householder’s employment status at a single point in time and sums income over 12 months. The lack of monthly employment and income data means that I classify as ineligible some high-income households with very small incomes in some months; conversely, I classify as eligible some low-income households with very large incomes in some months. Clearly, it would be imprudent to assume from the results in this paper that a given household was eligible for the entire year.

Fig. 1 displays the process by which NSAF households were determined to be eligible for child care subsidies. Since the sample includes only households with at least one child under age 13, every household meets the first major eligibility criterion. Nearly every state allows special needs children ages 13 to 18 to receive subsidies, and at least one

<sup>9</sup> There is likely to be some measurement error in the question on sliding scale fees, since the government is not the only entity that uses such a benefit schedule. Therefore, non-profit organizations that charge a co-payment could be misclassified in this coding scheme. Another source of measurement error arises because other individuals or organizations (non-governmental entities) could pay child care expenses, but the household simply did not report these sources and are therefore classified as receiving help from a government agency. Finally, although respondents were asked to omit help from the Dependent Care Tax Credit, several high-income families still report receiving government assistance in paying for child care. See Herbst (2006) for additional details on the construction of the subsidy receipt variable.

<sup>10</sup> Only published and clearly-defined eligibility rules are applied in this methodology. It ignores requirements that are presented inconsistently or are indiscernible in published materials, and it obviously does not account for the informal and idiosyncratic procedures applied by states.

<sup>11</sup> For example, 23 states altered eligibility and benefits rules that lead to decreases in the availability of child care assistance. Among these changes include lowering income eligibility limits, initiating waiting lists, and raising co-payment rates.

study attempted to include these children in its eligibility calculations (Oliver et al., 2002). However, the official language defining “special needs” is convoluted, making it difficult to operationalize in the NSAF dataset. Therefore, I do not include older, special needs children in this study.

The first major task was to simulate states’ rules for acceptable work activities. A key step here involved separating households according to their association with the welfare system. As shown in Fig. 1, splitting up the sample in this manner is important because states define work requirements differently for TANF and non-TANF households.<sup>12</sup> This study focuses on the work participation of the householder, and it simulates the following activities: formal employment, job searching, participation in post-secondary education, and enrollment in a job training program.<sup>13</sup> Note that several work activities (e.g., post-secondary education and job training) require participants to be employed as well, and many states specify a minimum number of work hours per week in order to maintain eligibility. However, this study simulates only participation in formal employment, and not hours of participation, among those in post-secondary education and job training. If the householder fulfills the work requirements in his/her state of residence, income eligibility rules are then applied to the household’s income, a process described next. Householders who do not meet the state’s work activity rules are deemed ineligible for subsidies.

The second step involved the application of states’ income eligibility rules to households that met the work requirements described above. As shown in Fig. 1, two steps characterize this process: first, countable household income was calculated by applying income deductions and disregards, and second, countable income was compared to state-specific income eligibility limits. Households with total countable income below the state’s eligibility threshold were deemed eligible for child care subsidies. Deductions and disregards are used by states to lower a household’s countable income. The former typically subtracts a flat percent of earned income or medical expenses, while the latter excludes sources of non-wage income, such as cash assistance and child support. In 2001, five states used an income deduction, and nearly every state disregarded at least one source of income. Once countable income was calculated for each household, states’ income eligibility thresholds (which vary by family-size) were compared to household income.<sup>14</sup> Households meeting the work activity *and* income eligibility rules for a given state were coded as being eligible for CCDF child care subsidies. Of the 19,066 baseline sample households, this paper focuses on the 5692 eligible households, of which 816 are eligible recipients and 4876 are eligible non-recipients.

#### 4. Results

To set the stage for the descriptive and multivariate analyses, this section begins by presenting results from the simulation exercise described above. Specifically, I report eligibility and participation rates for the NSAF sample of households with children under age 13. A unique feature of this analysis is a presentation of eligibility and participation across several household-types and policy-relevant sub-groups. As will be shown, the *overall* take-up rate commonly reported in previous studies masks substantial variation across some of these narrowly defined sub-groups. The discussion then turns to a detailed description of eligible non-recipients of child care subsidies. It does so through a combination of simple descriptive statistics and multivariate models comparing the characteristics of eligible recipients and non-recipients.

##### 4.1. Eligibility and take-up rates for child care subsidies

As shown in Table 2, nearly 3 in 10 households (28%) are eligible for child care subsidies, with an overall take-up rate of 14%. This finding is similar to earlier estimates based on nationally representative samples, but it also offers a

<sup>12</sup> Although 16 states apparently provide a legal entitlement to subsidies among TANF families, eligibility still hinges on the fulfillment of work requirements, participation in job training programs, or formal job search activities. Families with no formal attachment to the welfare system still must meet the requirements for an acceptable work activity, which often differs from the requirements for TANF families, in addition to meeting income eligibility limits.

<sup>13</sup> In some cases, the householder is not the biological parent of the child in question. However, this is of little consequence because CCDF rules provide a very broad definition of “parent” in its final ruling: “a parent by blood, marriage, or adoption...also a legal guardian, or other person standing in loco parentis” (<http://www.acf.hhs.gov/programs/ccb/policy1/current/finalrul/fr072498.pdf>).

<sup>14</sup> Unfortunately, the income eligibility data only cover households with up to five members. Although it would be ideal to have these data for households of all sizes, I am still able to cover approximately 90% of all NSAF families with the available information. Households of six and over are assigned the same income eligibility limit as those with five members.

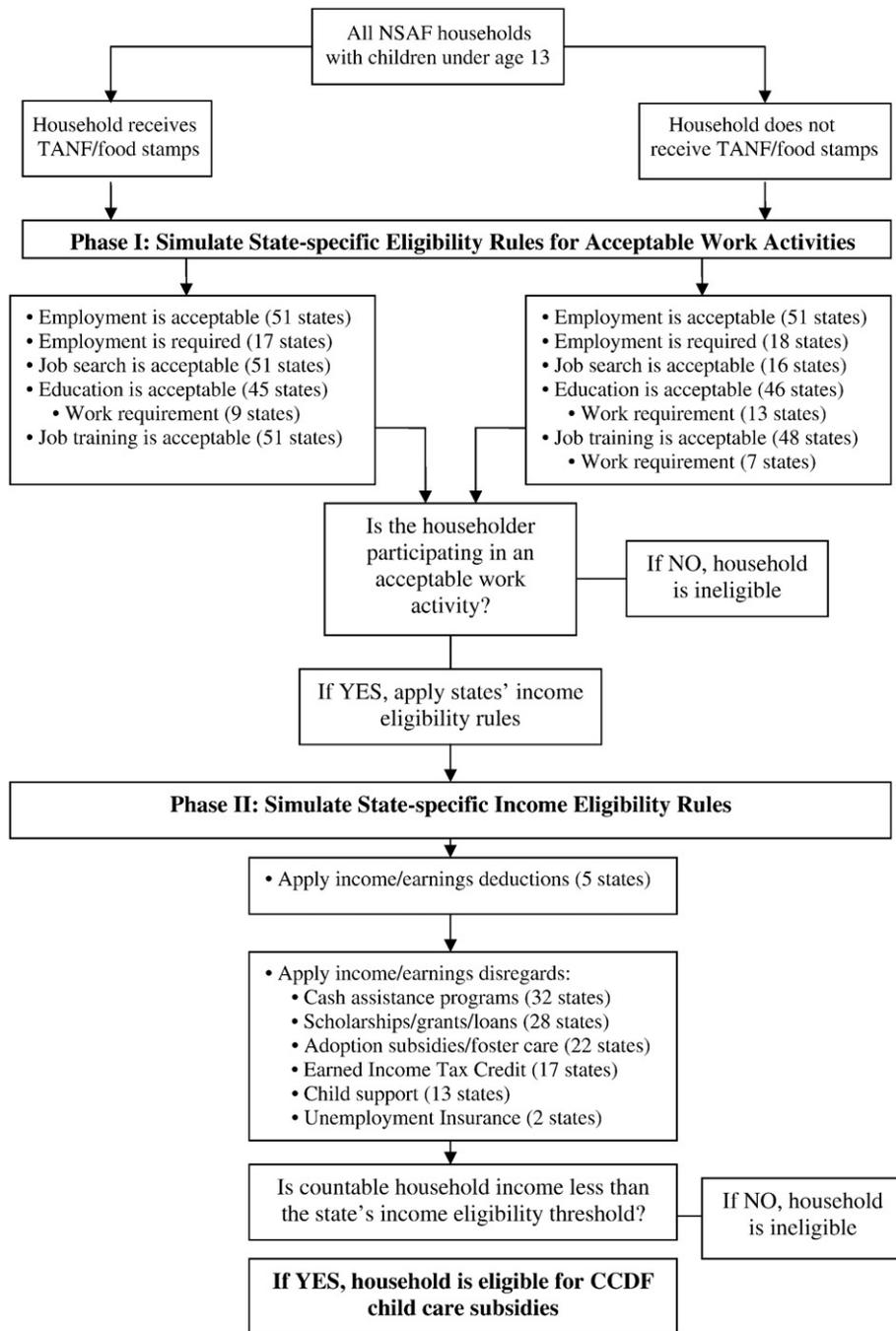


Fig. 1. Simulation of technical eligibility for CCDF child care subsidies.

blunt approximation for households likely to be targeted by states' outreach efforts. Female-headed households are more likely to be eligible and participate (52% and 23%, respectively) than their male-headed and two-parent counterparts. Eligibility and take-up rates are also higher among TANF households and those below the poverty line, but a substantial fraction of near-poor households continue to be eligible for and receive subsidies. For example, 71% of female-headed TANF households are eligible for subsidies, and just under one-third (29%) receive assistance. Nearly identical proportions of poor and near-poor single mothers are eligible and report receiving subsidies, suggesting that both groups are targeted about equally by states.

Table 2  
Simulated eligibility and take-up rates for child care subsidies

	All households	Two parent households	Female-headed households	Male-headed households
All households				
Eligible (%)	0.276	0.207	0.524	0.287
Take-up (%)	0.139	0.079	0.225	0.138
TANF households				
Eligible	0.639	0.547	0.711	0.617
Take-up	0.218	0.109	0.286	0.175
Non-TANF households				
Eligible	0.217	0.179	0.418	0.218
Take-up	0.101	0.071	0.167	0.116
TANF leavers <sup>1</sup>				
Eligible	0.707	0.573	0.788	0.678
Take-up	0.266	0.151	0.316	0.252
“Cut-off” leavers				
Eligible	0.690	0.495	0.778	–
Take-up	0.207	0.070	0.234	–
“Decision” leavers				
Eligible	0.719	0.614	0.794	–
Take-up	0.303	0.185	0.373	–
Household income <100% of FPL				
Eligible	0.753	0.775	0.745	0.610
Take-up	0.165	0.082	0.239	0.182
Household income 100%–200% of FPL				
Eligible	0.703	0.664	0.784	0.732
Take-up	0.128	0.077	0.223	0.117
Employed				
Eligible	0.299	0.226	0.582	0.300
Take-up	0.142	0.079	0.236	0.148
Presence of child ages 0–5				
Eligible	0.277	0.212	0.526	0.359
Take-up	0.159	0.091	0.277	0.114
Presence of child ages 6–12				
Eligible	0.242	0.166	0.469	0.192
Take-up	0.089	0.034	0.135	0.180
Presence of children ages 0–5 and 6–12				
Eligible	0.328	0.254	0.635	0.545
Take-up	0.168	0.102	0.293	0.111

Source: Author’s calculations from the 2002 NSAF.

Notes: <sup>1</sup>A TANF leaver is defined as any individual in a given household (but in most cases is the householder or his/her spouse, if present) who reported receiving TANF at some point after 2000, but was not receiving TANF at the time of the survey (early 2002). All leavers are included here, irrespective of whether they left on their own or whether the “welfare office cut them off.” Blank cells indicate that there are an insufficient number of observations on which to base the estimate.

A nontrivial fraction of TANF leavers as a whole are eligible for and take-up child care subsidies, but important differences exist by the stated reason for leaving welfare. While nearly identical proportions of “decision” and “cut-off” leavers are eligible (70%)—indicating similar levels of need—decision leavers are much more likely to take-up.<sup>15</sup> This suggests that households forced off TANF by the welfare office feel stigmatized and will not attempt to secure additional government benefits, or they are under the impression that the receipt of child care subsidies is tied to the receipt of welfare. The latter reason appears to be consistent with evidence documenting a decline in food stamp enrollments among welfare leavers, because many individuals believe they are no longer eligible for such benefits (Zedlewski, 2004).<sup>16</sup> Finally, in line with previous estimates, the findings in Table 2 imply that subsidy participation

<sup>15</sup> As stated in Table 2, “cut-off” leavers are those who were forced off TANF by the welfare office, while “decision” leavers are those who left on their own. Those who were cut-off exceed the income eligibility limit for welfare, were sanctioned, or reached the state-defined time limit.

<sup>16</sup> The food stamp caseload declined 40% between 1994 and 2000, but has recently started growing again.

Table 3  
Demographic characteristics of households simulated to be eligible for child care Subsidies

Characteristic	All households		Female-headed households	
	Eligible recipients	Eligible non-recipients	Eligible recipients	Eligible non-recipients
<b>Household headship</b>				
Two-parent	0.319	0.601*	–	–
Single, female-headed	0.637	0.354*	1.0	1.0
Single, male-headed	0.043	0.043	–	–
<b>Householder's age</b>				
18–27	0.351	0.215*	0.397	0.279*
28–37	0.430	0.432	0.389	0.381
38–47	0.175	0.281	0.179	0.269
48–57	0.028	0.059*	0.025	0.050*
58+	0.013	0.011	0.007	0.019
<b>Householder's race/ethnicity</b>				
White	0.324	0.434*	0.264	0.379*
Black	0.384	0.202*	0.501	0.391*
Hispanic	0.262	0.332*	0.211	0.216
Other	0.028	0.031	0.022	0.012*
<b>Householder's education</b>				
Less than High School	0.175	0.274*	0.138	0.239*
High School/GED	0.402	0.381	0.412	0.390
Some College	0.366	0.261*	0.395	0.322
College+	0.055	0.083*	0.054	0.047
Other adult ages 55+	0.019	0.027*	0.014	0.023
No. children ages 0–5	1.13	0.94*	1.11	0.769*
No. children ages 6–17	1.16	1.29*	1.14	1.35*
Presence of child ages 0–5	0.438	0.373*	0.433	0.329*
Presence of child ages 6–12	0.209	0.345*	0.235	0.438*
Presence of children ages 0–5 and 6–12	0.352	0.281*	0.330	0.232*
<b>Householder's place of birth</b>				
U.S. born	0.795	0.709*	0.888	0.861
Foreign born	0.204	0.290*	0.111	0.138

Source: Author's calculations from the 2002 NSAF.

Notes: All figures are weighted using the appropriate NSAF weight. \*indicates that the difference between eligible recipients and non-recipients is statistically significant at the 0.05 level.

decreases as the child's age increases: 16% of eligible households with children ages 0 to 5 receive subsidies, compared to 9% among households with children ages 6 to 12.

#### 4.2. Who are the eligible non-recipients of child care subsidies?

Tables 3–5 provide information on the distribution of demographic, economic, and child care characteristics for eligible recipient and non-recipient households. The analyses are conducted separately for all households and female-headed households, but the forthcoming discussion, like most studies in the literature, focuses on the latter.

Looking first at Table 3, I find that within the population of subsidy-eligible households, non-recipients are substantially more likely to be headed by two parents, making recipients more likely to be comprised of single mothers. Among eligible female-headed households, non-recipients tend to be older and less likely to be African American. Single mothers of Hispanic ethnicity are equally represented among the recipient and non-recipient populations. A striking finding is the educational heterogeneity with the eligible population. Specifically, there appears to be a dramatic mismatch at the lowest and highest levels of educational attainment. Fully 24% of non-recipient single mothers have less than a high school degree, compared to 14% among recipients. In terms of higher-education, 37% of non-recipients have at least some college experience, while 45% of recipients attained some college education. Consistent with previous results suggesting that subsidy benefits are targeted at families with younger children, I find that 76% of eligible recipients have at least one child under age six, compared to 56% among non-recipients.

Table 4  
Economic characteristics of households simulated to be eligible for child care subsidies

Characteristic	All households		Female-headed households	
	Eligible recipients	Eligible non-recipients	Eligible recipients	Eligible non-recipients
<b>Work activities</b>				
Employed	0.969	0.944	0.968	0.909*
Received help looking	0.107	0.070*	0.139	0.129*
Job training courses	0.103	0.082	0.141	0.124
HS/GED courses	0.031	0.025*	0.038	0.047
College courses	0.107	0.069*	0.130	0.096
<b>Weeks worked</b>				
1–13 weeks	0.066	0.060	0.075	0.077
14–26 weeks	0.115	0.099	0.135	0.138
27–39 weeks	0.090	0.096	0.111	0.119
40–52 weeks	0.727	0.743	0.678	0.664
<b>Weekly hours worked</b>				
1–35 hours	0.332	0.259*	0.421	0.376
36+ hours	0.667	0.740*	0.578	0.623
Recent TANF leaver	0.182	0.081*	0.228	0.143*
<b>Health insurance</b>				
Uninsured	0.285	0.360*	0.251	0.323*
Insured by public program <sup>1</sup>	0.358	0.200*	0.448	0.324*
<b>Public assistance</b>				
TANF	0.223	0.108*	0.289	0.195*
Amount received	3159	3435	3171	3396
Food stamps	0.487	0.281*	0.608	0.432*
Amount received	2024	2119	2065	2174
SSI	0.073	0.061	0.095	0.093
Amount received	5184	6072	5392	6162
Unemployment insurance	0.098	0.092	0.088	0.094
Amount received	2192	2539	1722	2420
Child support	0.298	0.179*	0.369	0.363
Amount received	2408	3211*	2695	3375

Source: Author's calculations from the 2002 NSAF.

Notes: All figures are weighted using the appropriate NSAF weight. <sup>1</sup>This includes Medicaid, SCHIP, and state health insurance programs. \*indicates that the difference between eligible recipients and non-recipients is statistically significant at the 0.05 level.

Turning to [Table 4](#), I find equally dramatic differences with respect households' economic characteristics. Consistent with the “strings attached” nature of child care subsidies, a significantly greater proportion of eligible recipient households are involved in at least one work activity. Specifically, single mothers in eligible recipient households are six percentage points more likely to be employed and over three percentage points more likely to be enrolled in college courses, although the latter difference is not statistically significant. The story changes, however, when we consider the extent of work effort. Part-time work, for example, is more prevalent among eligible recipients, and full-time work is more prevalent among non-recipients. This finding is consistent with economic theory on the incentives created by child care subsidies: as earnings grow, copayment rates—acting as implicit taxes on work—also increase, thereby creating a disincentive to increase hours of work. However, the inverse interpretation may also be true: as copayments rise, households are more likely to leave the subsidy system and switch to unpaid sources of child care. Intriguing as these interpretations might be, they must be viewed cautiously given the descriptive nature of the analyses underlying them. [Table 4](#) also shows that eligible non-recipients are less likely to be a recent TANF leaver and currently attached to other sources of government assistance. Among female-headed, eligible non-recipient households, 14% recently exited the welfare system, compared to 23% among their recipient counterparts. Moreover, 20% of non-recipients still receive cash assistance, while 29% of recipients do. Such disparities are even more pronounced for food stamp receipt.

The final table, [Table 5](#), focuses on the child care arrangements and expenditures of eligible recipient and non-recipient households. Given the evidence that child care arrangements vary by the age of the child, three sets of findings are presented: those for children ages 0 to 4, children age 5, and children ages 6 to 12 ([Sonenstein, Gates, Schmidt, &](#)

Table 5  
Child care arrangements and expenses of households simulated to be eligible for child care subsidies

Characteristic	All households		Female-headed households	
	Eligible recipients	Eligible non-recipients	Eligible recipients	Eligible non-recipients
Children ages 0–4				
Child care arrangements (%)				
Center-based	0.399	0.179*	0.466	0.283*
Family-based	0.128	0.069*	0.129	0.091
Nanny/babysitter	0.031	0.030	0.036	0.050
Relative	0.325	0.267	0.304	0.409*
Parent	0.114	0.453*	0.062	0.165*
Paying for care (%)	0.744	0.273*	0.788	0.489*
Monthly expenses (\$)	261	314*	262	319*
Share of income (%)	0.287	0.235	0.378	0.305
Children age 5				
Child care arrangement (%)				
Center-based	0.557	0.425*	0.593	0.542*
Family-based	0.063	0.043*	0.084	0.106
Nanny/babysitter	0.035	0.037	0.058	0.017
Relative	0.210	0.180	0.210	0.159
Parent	0.101	0.301*	0.038	0.149*
Before-/after-school program	0.031	0.010*	0.014	0.023
Paying for care (%)	0.637	0.280*	0.640	0.360*
Monthly expenses (\$)	257	324	198	258
Share of income (%)	0.135	0.188	0.131	0.198
Children ages 6–12				
Child care arrangement (%)				
Before-/after-school program	0.356	0.093*	0.373	0.137*
Family-based	0.110	0.056*	0.127	0.094*
Nanny/babysitter	0.065	0.030*	0.093	0.043
Relative	0.253	0.203	0.237	0.328*
Parent	0.158	0.540*	0.120	0.308*
Self-care	0.055	0.074*	0.046	0.088*
Paying for care (%)	0.713	0.238*	0.718	0.368*
Monthly expenses (\$)	287	276	271	268
Share of income (%)	0.188	0.171	0.206	0.199

Source: Author's calculations from the 2002 NSAF.

Notes: All figures are weighted using the appropriate NSAF weight. \*indicates that the difference between eligible recipients and non-recipients is statistically significant at the 0.05 level.

[Bolshun, 2002](#)). Across all three age groups, we find that recipient households are more likely to use formal sources of child care, such as center- and family-based services. For example, nearly 60% of female-headed, eligible recipient households use center or family care for their children under age five, while just 37% of non-recipients use these child care modes.

Given the distribution of child care arrangements across eligible recipients and non-recipients, it is not surprising that a greater fraction of recipients are observed paying for care. Among children under age five, over three-quarters of single mother recipients pay for child care, compared to under half among non-recipients. Differences of this magnitude are evident across all three age groups. However, among households with expenses, eligible recipients pay less per month. Interestingly, the gap in expenditures between recipients and non-recipients narrows as children age, so that among children ages 6 to 12, expenditures are nearly identical for these groups. This is most likely due to the declining importance of center-based care and the emergence of before- and after-school programs as a critical child care mode. Many of these programs operate out of public schools, and are not as expensive as private day care centers.

The analyses reported in [Tables 6 and 7](#) formalize the descriptive comparisons in the previous tables. Specifically, I estimate probit regressions of subsidy receipt as a function of several demographic and economic variables discussed above. The first model in both tables examines subsidy receipt among all households, while the second model limits the analysis to the comparatively homogeneous sub-sample of eligible households. This analysis, therefore, provides an

Table 6  
 Probit results for child care subsidy receipt: All households

Variable	Model 1: All households		Model 2: All eligible households	
	Marginal effect	Standard error	Marginal effect	Standard error
Age	−0.0010	(0.0010)	−0.0024	(0.0063)
Age-squared	0.0007	(0.0013)	0.0008	(0.0087)
Female-headed household	0.0417	(0.0059)***	0.1070	(0.0173)***
Male-headed household	0.0188	(0.0116)**	0.0613	(0.0515)
Black	0.0172	(0.0047)***	0.0601	(0.0206)***
Hispanic	0.0084	(0.0041)**	0.0247	(0.0211)
Other race/ethnicity	0.0039	(0.0067)	0.0339	(0.0428)
High school	0.0049	(0.0040)	0.0426	(0.0208)**
Some college	0.0086	(0.0046)**	0.0883	(0.0251)***
B.A.+	−0.0087	(0.0038)**	0.0402	(0.0346)
Any child ages 0–5	0.0111	(0.0046)***	0.0752	(0.0283)***
Any child ages 6–12	0.0152	(0.0053)***	0.0910	(0.0277)***
No. children ages 0–5	0.0023	(0.0019)	0.0010	(0.0122)
No. children ages 6–17	0.0023	(0.0011)**	0.0019	(0.0072)
Presence of other adult ages 55+	−0.0010	(0.0057)	0.0010	(0.0411)
U.S. born	−0.0115	(0.0048)***	−0.0162	(0.0212)
Employed	0.0185	(0.0018)***	0.0852	(0.0140)***
TANF leaver	0.0076	(0.0059)	0.0237	(0.0257)
Receives public insurance	0.0144	(0.0053)***	0.0289	(0.0187)
Receives TANF/food stamps	0.0279	(0.0067)***	0.0564	(0.0189)***
Non-wage income	−0.0006	(0.0002)***	−0.0014	(0.0017)
Number of observations	18371		5567	
Log-likelihood	−2291.92		−2019.90	

Source: Author's calculations from the 2002 NSAF.

Notes: Marginal effects are reported, along with robust standard errors (in parentheses). Model 1 includes all NSAF households, and Model 2 includes only eligible households. All models include region dummy variables. All analyses use appropriate NSAF weights. \* $p < 0.10$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$ .

opportunity to compare estimates from models using two different “comparison groups”: all non-recipients of child care subsidies and eligible non-recipients. Table 6 reports marginal effects for the full sample, and Table 7 does so for female-headed households.

Looking first at Model 1 in Table 6, the results essentially corroborate what previous studies have found. In terms of family-level characteristics, recipients and non-recipients of child care subsidies are quite different. Specifically, the likelihood of subsidy receipt is greater among female- and male-headed households, those headed by racial and ethnic minorities, and those with relatively high levels of education. High school graduates are equally likely to receive child care assistance as high school drop-outs, but householders with some college education are significantly more likely to do so. The probability of subsidy receipt is greater among households with young children, presumably because of a greater need for non-parental child care. As borne out by the descriptive analyses, employed householders and those interacting with other means-tested programs are simultaneously more likely to receive child care assistance. Working parents are 1.9 percentage points more likely to receive subsidies, while those receiving cash assistance and/or food stamps are 2.8 percentage points more likely.

Turning to Model 2, it is immediately clear that many of the differences between recipients and non-recipients in the previous model are no longer present. Limiting the sample to eligible households leads to different estimates of the effects of family characteristics on subsidy receipt. This is not surprising given that the estimates in Model 2 are derived from sample members who are economically equivalent in their need for subsidies. Using eligibility as a *de facto* control for need leads to a clearer picture of how recipients and non-recipients differ. Such differences revolve around five key sets of family characteristics: the likelihood of assistance is greater among female-headed households, those headed by African Americans, those with at least a high school diploma (but less than a B.A. degree), households with young children, and working households with some attachment to the welfare system. It is interesting to note that in each case the magnitude of the coefficient is substantially greater than in Model 1, suggesting that such characteristics are much stronger predictors of subsidy receipt within the eligible population. As a check on the eligibility simulation, it is also interesting to observe that non-wage income becomes statistically insignificant, as one would expect, when the sample is limited to eligible households.

Table 7  
 Probit results for child care subsidy receipt: Female-headed households

Variable	Model 1: All female-headed households		Model 2: Eligible female-headed households	
	Marginal effect	Standard error	Marginal effect	Standard error
Age	0.0075	(0.0049)	0.0201	(0.0106)*
Age-squared	-0.0123	(0.0066)*	-0.0295	(0.0146)**
Black	0.0699	(0.0170)***	0.1076	(0.0317)***
Hispanic	0.0592	(0.0237)***	0.1016	(0.0444)**
Other race/ethnicity	0.0683	(0.0553)	0.1953	(0.1080)**
High school	0.0345	(0.0193)*	0.0741	(0.0377)**
Some college	0.0666	(0.0225)***	0.1483	(0.0412)***
B.A.+	0.0202	(0.0285)	0.1838	(0.0749)***
Any child ages 0–5	0.0372	(0.0247)	0.0844	(0.0542)
Any child ages 0–5 and 6–12	0.0530	(0.0259)**	0.1171	(0.0520)**
No. children ages 0–5	0.0204	(0.0119)*	0.0282	(0.0276)
No. children ages 6–17	0.0002	(0.0070)	-0.0211	(0.0151)
Presence of other adult ages 55+	-0.0032	(0.0362)	-0.0356	(0.0663)
U.S. born	-0.0034	(0.0187)	0.0161	(0.0391)
Employed	0.1033	(0.0088)***	0.1688	(0.0232)***
TANF leaver	0.0154	(0.0203)	0.0126	(0.0383)
Receives public insurance	0.0417	(0.0170)***	0.0351	(0.0304)
Receives TANF/food stamps	0.0913	(0.0182)***	0.1040	(0.0297)***
Non-wage income	-0.0021	(0.0011)*	-0.0004	(0.0031)
Number of observations	3970		2268	
Log-likelihood	-1211.51		-1087.80	

Source: Author's calculations from the 2002 NSAF.

Notes: Marginal effects are reported, along with robust standard errors (in parentheses). Model 1 includes all female-headed households in the NSAF sample, and Model 2 includes only eligible female-headed households. All models include region dummy variables. All analyses use appropriate NSAF weights. \* $p < 0.10$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$ .

Results in Table 7 are derived from identical models estimated on a sub-sample of female-headed households. A different story emerges from these data. Specifically, differences in subsidy receipt between all female-headed households and eligible households are not as pronounced. This is due to the fact that a sample of female-headed households is relatively homogeneous even before distinctions are made with respect to eligibility status. Over half of these households are eligible, and so an analysis of eligible female-headed households retains most of the observations included in an analysis of all such households. However, there remain a few important differences between the estimates in Models 1 and 2. Age of the household head appears to be more important in predicting subsidy receipt among eligible female-headed households, and educational attainment at all levels shares a powerful association with subsidy receipt. It is striking that eligible single mothers with a B.A. degree are significantly more likely to receive child care assistance. Finally, as one would expect, the coefficient on non-wage income becomes statistically insignificant when the sample is constrained to eligible single mothers.

#### 4.3. Discussion of descriptive and multivariate results

Given that the approach taken in this paper differs in important ways from previous studies, it is useful to make some interpretations about the results and place them in the context of the broader literature. First, it is interesting that several differences persist within the more homogenous population of eligible households. Two in particular warrant attention: educational attainment and child care arrangements. That eligible households with higher levels of education are more likely to receive subsidies implies that state administrators are “creaming,” such that those with higher skills are given priority over individuals with potential barriers to employment. Rationing in this manner is not surprising, given that administrators operate in an environment in which work participation rates and welfare time limits must be met. The differential use of paid and unpaid sources of child care is also striking. If one assumes that eligibility status is a *de facto* control for financial resources and preferences for work, it is possible that much of observed difference in child care modes is due to the incentives created by child care subsidies. These benefits are found to initiate a switch from

unpaid to paid sources of child care (Blau, 2001; Tekin, 2005). Of course, this interpretation should be evaluated against the possibility that recipient households were using paid sources of care prior to receiving a subsidy, and so these benefits became necessary to defray expenses.

It is also clear that households with young children are substantially more likely to receive assistance. Comparing eligible recipients with non-recipients, we find at least a doubling of the effect size for those with any young children. While some of this difference is certainly accounted for by states' targeting practices, it is also the case that family-level preferences and child care needs differ across households with younger and older children. Child care demand is greater before children begin formal school, usually around age five, and purchased care tends to be more expensive among younger children. Therefore, demand for subsidies should also be higher for these households, and states appear to be shifting financial resources to meet this demand.

Given the presence of large differences in educational attainment between eligible recipients and non-recipients, it is intriguing that recipients are simultaneously more likely to receive public supports through the welfare system and be employed or involved in other work activities. One interpretation is that households already involved with the cash assistance system do not feel as stigmatized about participating in another program. Another interpretation is that once households are enrolled in one public program, it is easier for agencies to identify others for which individuals are eligible. Still another explanation is that it reflects a deliberate practice by states to ration benefits according to specific household characteristics.

Results in this study differ in some important respects from previous research. Age is often found to be an important predictor of subsidy receipt, but this is not consistently the case in the present study. The effects of age are quantitatively similar for recipients and non-recipients when considering all households, but appear to be different for single mothers. Furthermore, when the sample is limited to eligible households, the effects of education increase dramatically above what previous studies find. In fact, eligible single mothers with a full college education continue to be more likely to receive child care assistance. Another difference between the present study and others is the effect of other adults in the household. This variable captures the presence of informal caregivers who might provide free child care, thus reducing the need for government subsidies. A number of studies find that informal caregivers are indeed negatively related to subsidy receipt, but the present study finds no such effect (i.e., the coefficient is usually negative as expected but is never statistically significant). The evidence on immigrant status also diverges somewhat from previous work, which finds that non-immigrants are more likely to receive subsidies. However, the present study finds that among all households, U.S. householders are less likely to receive assistance. This negative effect becomes statistically insignificant when examining eligible households, but the coefficient is never positive and significant.

## 5. Conclusion and discussion of policy implications

This paper began with the observation that, despite the substantial literature exploring correlates of child care subsidy receipt, most studies are limited in two important respects. First, there lacks an explicit focus on the characteristics of non-recipients, specifically *eligible* non-recipients. Characteristics of eligible non-recipients are important because they provide clues as to the relative importance of family-level preferences for subsidies versus states' roles in allocating these benefits. Second, previous research compares the characteristics of subsidy recipients to a broad population of non-recipients. A significant fraction of this non-recipient "comparison group" is ineligible for means-tested child care benefits, making such comparisons problematic. Therefore, this study provides the first detailed examination of eligible non-recipients of child care subsidies, and uses this group to make more appropriate comparisons to those receiving benefits.

Results from the multivariate analysis reveal some key differences between eligible recipients and non-recipients of child care subsidies. Recipient households are more likely to be headed by an African American single parent with relatively high levels of education and young children. In addition, these households are simultaneously more likely to be employed and receiving TANF and food stamps. However, the descriptive analyses suggest that among eligible households, a greater proportion of non-recipients are observed working full-time. Also revealed by the descriptive analyses are different preferences for child care. For example, eligible recipients are more likely to use formal child care, such as center- and family-based services, while non-recipients are more likely to rely on parents. These patterns persist across children in all age groups.

Several policy implications are raised by the differences between eligible recipients and non-recipients. Even with eligibility status essentially controlling for financial need and preferences for work, a number of differences remain between these households. A critical question is: What accounts for these differences? One candidate explanation is that states are

rationing benefits in a way that, conditional on being eligible, favors some households with well-defined characteristics. Some of these targeted characteristics are explicit: as of 2004, 22 states guaranteed subsidies for TANF families, another 18 states deemed such families a “priority,” and 15 states guaranteed assistance for families transitioning from welfare to work (U.S. DHHS, 2005). However, the fact that eligible householders with high levels of education are more likely to receive subsidies implies that states’ targeting practices are also tacit, and are meant to “cream” the eligible population for high-skilled workers. A potential problem created by rationing benefits is that prospective applicants may become aware that certain groups receive priority. Such an awareness could have a “chilling effect” on the perception of eligibility and in turn on the willingness to apply for subsidies. Indeed, research by Schlay, Weintraub, Harmon, and Tran (2004) reports that 68% of eligible non-recipients perceive that some groups are targeted by administrators to receive subsidies.

Aside from states’ distributional and policy design considerations, two other factors may explain why eligible non-recipients do not receive assistance: lack of awareness and difficulties navigating eligibility and recertification rules. Both issues are the subject of increased attention from researchers (Adams, Snyder, & Sandfort, 2002; Fuller et al., 1999; Meyers & Heintze, 1999; Schlay et al., 2004). For example, one study finds that 44% of eligible individuals needing child care assistance do not apply for benefits because they are unaware of their eligibility (Schlay et al., 2004). These authors also report that 37% of eligible non-recipients do not apply for subsidies because of the perceived hassles. Recent work by Adams et al. (2002) corroborate the difficulties obtaining and retaining subsidies. Interviews with caseworkers and parents in 17 sites reveal a number of important determinants of subsidy receipt, ranging from simple interactions with caseworkers and agency office hours to misperceptions about the need to recertify eligibility.

An important caveat to bear in mind while interpreting these results is that means-tested subsidies are implemented within the context of a larger set of child care assistance policies. Federal and state governments are actively involved in helping families defray child care costs through the tax and educational systems. Specifically, the federal Child and Dependent Care Tax Credit partially offsets expenditures through a non-refundable tax credit, and many states now have their own version to offset state income taxes. Government funded preschool programs, some of which reach children as young as 3 years old, are increasingly important sources of child care assistance. Many of these programs explicitly target low-income families through means-testing and other methods (NIER, 2006). The largest federal assistance program, however, is Head Start, which serves 3- and 4-years-olds at risk of later educational disparities. Therefore, while the 1996 PRWORA substantially streamlined U.S. child care subsidy policy, it remains fragmented with respect to target populations, benefits, and policy tools. Such fragmentation is important to note when interpreting participation rates for CCDF subsidies, which in this paper are between 15% and 30%. Studies taking a broader view of child care assistance find that 40% to 50% of working families receive help paying expenses (Durfee & Meyers, 2006; Giannarelli et al., 2003).

In addition, analyses in this paper are limited in some important respects. While the NSAF data are quite detailed, it provides only a cross-sectional snapshot of child care subsidy receipt and the correlates of participation. This study is therefore descriptive and cannot determine the causal linkages between families and child care assistance. A related issue is that eligibility is determined at a single point in time with annual measures of employment and income. However, low-income families experience significant short-term fluctuations in financial resources. Such changes mean that I misclassify some households with very large or small incomes in some months. A further consideration is that eligibility is determined for 2001, a year during which states made adjustments to their subsidy regimes. If states lowered their eligibility ceilings or targeted different groups in order to avoid waiting lists, participation rates and the characteristics of families receiving subsidies could be different from those reported here. During this time, however, states still had to meet TANF work participation rates and welfare recipients had to comply with work requirements. With welfare reform ongoing, distributional choices regarding subsidies were still driven by similar considerations, and thus the mix of recipients likely did not change substantially. Finally, as is the case with any eligibility simulation, results are sensitive to the choice of which program rules to apply and omit. Eligibility in this study is determined conservatively, using only those rules that are clearly discernible and verifiable across multiple sources. Moreover, I conducted sensitivity tests to determine how eligibility and participation rates changed as program rules were altered. Results from these tests suggest that the eligibility measure is robust to alternative interpretations of program rules.

Future research in this area should focus on the effects of state policy choices on participation. The large literature on family-level correlates of subsidy receipt is useful to understand only the demand-side of subsidy provision, but little is known about the supply-side. The recent devolution of program authority from the federal to state governments created substantial policy variation that might drive cross-state differences in participation. Moreover, the block grant nature of the CCDF implies a strong role for states’ subsidy regimes in determining participation. An explicit focus on policy

choices is important to help disentangle whether observed differences between recipients and non-recipients are due to family-level preferences, state-level preferences, or some combination therein. Components such as reimbursement and copayment rates, tiered benefit structures for quality and hours of operation, and guarantees for TANF and other low-income families are interesting avenues to explore.

## References

- Adams, G., Snyder, K., & Sandfort, J. (2002). Navigating the child care subsidy system: Policies and practices that affect access and retention. *New federalism: Issues and options for states. Series A, No. A-50, March* Washington, DC: The Urban Institute.
- Besharov, D., & Higney, C. (2006). Federal and state child care expenditures (1997–2003): Rapid growth followed by steady spending. *Report prepared for Administration on Children, Youth, and Families; Administration for Children and Families; U.S. Department of Health and Human Services* College Park, MD: Welfare Reform Academy, University of Maryland School of Public Policy.
- Blau, D. (2001). *The child care problem: An economic analysis*. New York: The Russell Sage Foundation.
- Blau, D., & Tekin, E. (2007). The determinants and consequences of child care subsidies for single mothers in the USA. *Journal of Population Economics, 20*, 719–741.
- Burnstein, N., Layzer, J., & Cahill, K. (2001). *National study of child care for low-income families: Patterns of child care use among low-income families*. Washington, DC: Abt Associates.
- Collins, A., Layzer, J., Kreader, J., Werner, A., & Glantz, F. (2000). *National study of child care low-for income families: State and community sub-study interim report*. Boston, MA: Abt associates.
- Danziger, S., Ananat, E., & Browning, K. (2004). Child care subsidies and the transition from welfare to work. *Family Relations, 53*, 219–228.
- Durfee, A., & Meyers, M. (2006). Who gets what from government? Distributional consequences of child-care assistance policies. *Journal of Marriage and the Family, 68*, 733–748.
- Ewan, D., Blank, H., Hart, K., & Schulman, K. (2001). *State developments in child care, early education, and school-age care 2001*. Washington, DC: The Children's Defense Fund.
- Fuller, B., Kagan, S., McCarthy, J., Caspary, G., Lubotsky, D., Gascue, L. (1999). Who selects formal child care? The role of subsidies as low-income mothers negotiate welfare reform. Paper presented at the Society for Research in Child Development Meetings, Albuquerque, New Mexico.
- Giannarelli, L., Adelman, S., & Schmidt, S. (2003). *Getting help with child care expenses. Occasional Paper No. 62*. Washington, DC: The Urban Institute.
- Greenberg, M., Lombardi, J., & Schumacher, R. (2000). *The child care and development block grant: An overview*. Washington, DC: The Center for Law and Social Policy.
- Huston, A., Chang, Y., & Genetian, L. (2002). *Family and individual predictors of child care use by low-income families in different policy contexts. Working Paper, No. 9*. New York, NY: Manpower Demonstration Research Corporation.
- Herbst, C. (2006). Why is take-up for child care subsidies so low? Unpublished Doctoral Dissertation. College Park, MD: University of Maryland School of Public Policy.
- Lee, B., Goerge, R., Reidy, M., Kreader, J., Georges, A., Wagmiller, R., et al. (2004). *Child care subsidy use and employment outcomes of TANF mothers during the early years of welfare reform: A three-state study*. Chicago, IL: Chapin Hall Center for Children, University of Chicago.
- Lemke, R., Witt, R., Witte, A. (2004). The transition from welfare to work. Mimeo. Wellesley College: Wellesley Child Care Policy Research Partnership.
- Long, S., & Clark, S. (1997). *The new child care block grant: State funding choices and their implications. Policy Brief Series A, No. A-12*. Washington, DC: The Urban Institute.
- Loprest, P. (1999). *Families who left welfare: Who are they and how are they doing? Occasional Paper No. 99-02*. Washington, DC: The Urban Institute.
- Meyers, M., & Heintze, T. (1999). The performance of the child-care subsidy system. *Social Service Review, 73*, 37–65.
- Meyers, M., Heintze, T., & Wolf, D. (2002). Child care subsidies and the employment of welfare recipients. *Demography, 39*, 165–179.
- Meyers, M., Peck, L., Davis, E., Collins, A., Kreader, J., Georges, A., et al. (2006). The dynamics of child care subsidy use: A collaborative study of five states. In R. Cabera, L. Hutchens, & L. Peters (Eds.), *From welfare to childcare: What happens to young children when mothers exchange welfare for work?* Mahwah, NJ: Erlbaum.
- National Institute for Early Education Research (NIEER) (2006). *The state of preschool 2006*. New Brunswick, NJ: Rutgers University.
- Oliver, H., Phillips, K., Giannarelli, L., & Chen, A. L. (2002). *Eligibility for CCDF-funded subsidies under the October 1999 program rules: Results from the TRIM3 microsimulation model*. Urban Institute Working Paper. Retrieved October 2005, from <http://aspe.hhs.gov/hsp/05/elig-ccsub/>
- Schlay, A., Weinraub, M., Harmon, M., & Tran, H. (2004). Barriers to subsidies: Why low-income families do not use child care subsidies. *Social Science Research, 33*, 134–157.
- Schulman, K., Blank, H., & Ewan, D. (2001). *A fragile foundation: State child care assistance policies*. Washington, DC: The Children's Defense Fund.
- Schulman, K., & Blank, H. (2006). *Child care assistance policies 2006: Gaps remain, with new challenges ahead*. Washington, DC: National Women's Law Center Issue Brief.
- Schumacher, R., & Greenberg, M. (1999). *Child care after leaving welfare: Early evidence from state studies*. Washington, DC: The Center for Law and Social Policy.
- Sonenstein, F., Gates, G., Schmidt, S., & Bolshun, N. (2002). *Primary child care arrangements of employed parents: Findings from the 1999 national survey of America's families*. Washington, DC: The Urban Institute Occasional Paper No. 59.
- Tekin, E. (2007). Single mothers working at night: Standard work, child care subsidies, and implications for welfare reform. *Economic Inquiry, 45*, 233–250.

- Tekin, E. (2005). Child care subsidy receipt, employment, and child care choices of single mothers. *Economics Letters*, 89, 1–6.
- U.S. Department of Health and Human Services, Administration for Children and Families (1999). *Access to child care for low-income working families*. Retrieved September 2003, from: [www.acf.dhhs.gov/programs/ccb/research/ccreport/ccreport](http://www.acf.dhhs.gov/programs/ccb/research/ccreport/ccreport)
- U.S. Department of Health and Human Services, Administration for Children and Families, Child Care Bureau (2002). *Child care and development fund: Report of state plans FY2002–2003*. Retrieved September 2005, from: <http://nccic.org/pubs/stateplan/stateplan-intro.html>
- U.S. Department of Health and Human Services, Administration for Children and Families (2005). *Child care and development fund: Report of state plans, FY2004–2005*. Retrieved January 2005, from: <http://www.nccic.org/pubs/stateplan/>
- U.S. General Accounting Office (1999). *Education and care: Early childhood programs and services for low-income families*. Report, No. HEHS-00-11. Washington, DC: U.S. General Accounting Office.
- U.S. General Accounting Office (2003). *Child care: Recent state policy changes affect the availability of assistance for low-income families*. Report, No. GAO-03-588. Washington, DC: U.S. General Accounting Office.
- Witte, A., & Queralto, M. (2002). *Take-up rates and trade offs after the age of entitlement: Some thoughts and empirical evidence for child care subsidies*. Working Paper, No. 8886. Cambridge, MA: National Bureau of Economic Research.
- Zedlewski, S. (2004). *Recent trends in food stamp participation among poor families with children*. Discussion Paper, No. 04-03. Washington, DC: The Urban Institute.