



Barriers to subsidies: why low-income families do not use child care subsidies

Anne B. Shlay,* Marsha Weinraub, Michelle Harmon,
and Henry Tran

Temple University, Gladfelter Hall, 10th floor, 1115 West Berks Street, Philadelphia, PA 19122, USA

Abstract

Child care affordability is a problem for low-income families. Child care subsidies are intended to reduce child care expenses and promote parental employment for poor families. Yet many families fail to utilize the child care subsidies for which they are eligible. This research investigates barriers to utilizing child care subsidies. Found barriers include parents' beliefs that they either did not need or were not eligible for subsidy. Knowingly eligible families avoided applying for subsidies because of hassles and restrictions, real or perceived, associated with accessing the subsidy system. Even families receiving subsidies were confused about subsidy regulations. The major predictors of subsidy use were prior welfare experience, single parenthood, family/household income, hours of employment, use of center care and in-home care, and receipt of court ordered child support. Policy recommendations include developing better methods for disseminating information about subsidy eligibility and reducing barriers associated with specific subsidy regulations.

© 2003 Elsevier Inc. All rights reserved.

Keywords: Poverty; Child care subsidy; Low income employment

1. Introduction

For low-income, working families, child care is a critical need. Families need child care to assure that their children are in a safe place during their hours of

* Corresponding author.

E-mail address: anne.shlay@temple.edu (A.B. Shlay).

employment. Without dependable child care, parents cannot maintain steady employment (Berger and Black, 1992; Kimmel, 1994).

Yet child care affordability is a serious problem for many low income families. For families who pay for care, child care expenditures represent over 25% of poor families' total income (Blau, 2001). The requisite expenditures for child care compete with those associated with other basic needs such as food and shelter (Blank, 1994; Fuller et al., 2002). Potential effects of problems with child care affordability include difficulties in meeting basic needs, unstable parental employment, employer problems recruiting and maintaining a secure workforce, and that children will be placed in unsafe, unsupervised settings.

Child care affordability has direct consequences for mother's employment. Research shows that the price of care independently affects mothers labor force participation independent of the age of the child (Brayfield, 1995). Yet this research also shows that mothers' perceived price of care also has an independent effect on labor force participation. Both child care costs and what mothers think it costs affects mother employment choices in terms of hours of work and seeking employment altogether. Consequently, lowering the cost of care through direct subsidies of mothers should increase women's labor market participation.

To address problems of child care affordability, child care subsidies in a variety of forms have been designed. These often have the goal of aiding middle-income as well as low income families. Child care is subsidized indirectly through the tax system and more directly through government provision of child care (e.g., Head Start) and targeted cash subsidies to child care providers or families.

Policy makers' goals for child care subsidies are numerous (Blank, 1997; White House, 2002; Wiseman, 1996). Since the cost of child care is known to play a major role in the labor market decisions of women (Lemke et al., 2000), child care subsidies are considered key to the success of welfare reform (Blank, 1997; White House, 2002; Wiseman, 1996). Because child care subsidies are seen as being linked to the economic well-being of poor families, subsidies are intended to reduce extreme child care affordability problems and enable the employment of poor families. Perhaps to a lesser degree, subsidies are also intended to help families choose higher quality care, since research supports the link between higher quality child care and children's school readiness and other markers of optimal child outcomes (NICHD Early Child Care Research Network, 1999). Although the evidence is mixed as to whether child care subsidies achieve these goals (Blau, 1993; Blau, 2001; Moffitt, 1992), there is some evidence that subsidies encourage families to choose center care which is often more stable than more informal care arrangements (Fuller et al., 2002; Hofferth and Wissoker, 1992).

Child care subsidies to poor families (with the exception of Head Start) are now almost entirely administered by state governments. Federal money is provided as block grant funds to states that are charged with distributing funds. States also appropriate money for child care. Welfare recipients typically receive child care subsidies as part of the benefits package associated with Temporary Assistance for Needy Families (TANF). Although child care subsidies are not an entitlement with TANF, most states have chosen to use money from the Child Care Development Block

Grant and often TANF funds themselves for TANF related child care subsidies (GAO, 2001; Schumacher et al., 2001). Most state governments have also established programs for non-TANF receiving, working poor families (Children's Defense Fund, 2000).

Despite the critical role child care subsidies play in welfare reform, child care subsidies appear to be severely underutilized; most eligible families do not use subsidies. The US Administration of Children and Families has estimated that only 12–15% of eligible children are receiving subsidies (Blau and Tekin, 2001; Child Care Bureau, 2002). In a study focusing on variation among states, researchers found that, on average, 30% of welfare leavers were utilizing subsidies (Schumacher and Greenberg, 1999).

Why are subsidy-eligible families not using subsidies? This paper addresses this question, focusing on subsidy utilization for working poor families not receiving public assistance. Employing a telephone survey of a random sample of low-income, African American families in Philadelphia, Pennsylvania, this research assesses the reasons low income families do not use the child care subsidies for which they are eligible, despite needing help with paying for care. Although this sample is specific to low-income, African American Philadelphia families, the findings suggest important avenues for pursuing why subsidy utilization rates are low in every state.

2. Prior evidence on barriers to child care subsidies

Barriers to child care subsidies can be conceptualized at two levels. The first level represents barriers created because of people's knowledge deficiencies, either lack of knowledge of the existence of subsidies altogether or lack of knowledge of the subsidy eligibility rules and the multiple opportunities to use subsidies. This level also includes people's perceived need for help with child care expenses. If people do not know about subsidies and do not believe they are entitled to them or need them, they will not seek them out.

The second level of barriers includes those confronted by people who do know about subsidies and who do believe they need help. These are barriers associated with subsidy regulations, including rules governing eligibility, use of care, and subsidy size. Also included in this category are people's attitudes toward subsidies. Negative perceptions of subsidies can arise out of previous negative experiences with the subsidy system or negative experiences with governmental programs in general. Culturally-related barriers to subsidy utilization would also be included in this category.

Researchers have focused largely on the first level of subsidy barriers, addressing parents' lack of knowledge of the availability of subsidies and lack of perceived need for help. Studies have uniformly shown that awareness is a problem; with one third to one half of sample respondents unaware of child care subsidies (Meyers and Heintze, 1999; Schumacher and Greenberg, 1999). Knowledge and experience with the subsidy or welfare system have been found to positively predict subsidy utilization (Blau and Tekin, 2001; Fuller et al., 1999).

Many low-income families profess a lack of need for child care subsidies; up to 50% report no need for a subsidy (Schumacher and Greenberg, 1999). One study

found that almost half of the respondents who were aware of the existence of subsidies did not apply for them, although the reasons they did not apply are unknown (Meyers and Heintze, 1999).

Recently, researchers have begun to focus on the second level of barriers, those within the subsidy delivery system, and their findings point to the complexities associated with recipients applying for and retaining child care subsidies (Adams et al., 2002). Researchers comparing five state subsidy systems showed that how states design and implement subsidy policy has a large effect on how people use subsidies (Child Care Subsidy Dynamics Team, 2002). Although states differed in the services delivered and the population served, what was common across states was the low level of continuity in families receiving child care assistance. The researchers found that across the states, families used subsidies for short periods of time, with a significant number leaving and then returning to the subsidy system (from 35 to 58%). Speculating that few families were likely to have changed their economic circumstances in the interval between leaving and returning sufficiently enough to have affected their subsidy eligibility, the researchers questioned the circumstances that might have led to discontinued subsidy use.

In summary, many parents may be unaware of subsidies or believe they do not need them. Yet many others are cognizant of subsidy availability and their families' needs for subsidized care. At the same time, families who do use subsidies appear to routinely drop out of the system, despite having previously qualified for help. No systematic evidence exists as to why such a presumably important income supplement goes unutilized.

These findings raise a number of important questions. Are there problems inherent in the subsidy delivery system? Are families having bad experiences with the subsidy application process? Do subsidy regulations operate as barriers? Do potential recipients perceive the subsidy system negatively, becoming reluctant to apply or allowing their benefits to lapse prematurely?

In this research, we address these questions by looking directly at the families who are potential users of these subsidies. Using survey research techniques, we investigated low-income families' child care characteristics and needs, attitudes toward child care subsidies, and experiences with the child care subsidy, and welfare system. With this survey of low-income, African American families living in Philadelphia, Pennsylvania, this research begins to piece together parts of the puzzle around why families do not utilize publicly available benefits to support child care needs associated with their employment. This is the first study to use survey research to systematically investigate why families do not use child care subsidies to which they are entitled.

This paper has several parts. The first part describes the Pennsylvania child care subsidy system and how it works in Philadelphia. The second part presents the design and methods associated with this study. The third part presents findings on the reasons for non-utilization of subsidies and explores differences between subsidy users and non-users. The fourth part presents multivariate analyses estimating the impact of family, economic, and welfare characteristics on child care subsidy use. The final part concludes this study and outlines policy and research implications.

3. The Pennsylvania child care subsidy system

The US government at several different levels provides child care subsidies. The US Internal Revenue Service administers tax credits and income tax deductibility of child costs that reduce the costs of child care for families. The Department of Health and Human Services administers Head Start, a popular early education, and family intervention. State governments use federally provided block grant funds to administer child care subsidies provided in conjunction with TANF or as assistance for working poor families.

Pennsylvania's Department of Public Welfare (DPW) uses block grant funds to offer child care subsidies directly to families. DPW uses two different organizational mechanisms for distributing child care subsidies for TANF and non-TANF recipients. TANF recipients receive child care subsidies through public agencies called County Assistance Offices. Non-TANF recipients receive child care subsidies through state funded non-profit organizations called Child Care Information Services (CCIS).

Income eligibility for non-TANF child care subsidies, known as working poor subsidies, is set at 200% of the Federal Poverty Income Guidelines (FPIG). To be eligible, each adult member in the household must be working at least 25 h per week, earn at least the minimum wage (\$5.15 per hour), and the family must have a child under the age of 13 who needs care during the hours the parent (or parents) are at work. Income eligibility is calculated based on gross household income and the number of people in the household. If the applicant and the other biological parent of the child care are not living together, each child's paternity must also be established and a legal child support agreement in place, unless it can be demonstrated that the other parent cannot be located or the family is at risk of emotional or physical harm from the absent parent.

Applicants must provide one month's record of consecutive pay stubs or a letter verifying terms of employment and wages with consecutive pay stubs provided within six weeks. An in-person meeting is required to submit the application.

The CCIS is required to respond to each applicant with a decision within 30 days. Subsidy recipients must be certified every six months. To maintain a subsidy, the recipient must submit a new application with supporting income verification (pay stubs and child support receipts). Applicants' income levels may increase, but may not exceed, 235% of the FPIG.

Families may use a variety of different types of care providers (Department of Public Welfare, 2003). These include both regulated care providers including child care centers and family day care homes (four or more children in care) and legally unregulated providers—relatives or neighbors (three or fewer children in care). Relative/neighbor providers must undergo a criminal background check in order to be considered subsidy eligible.

According to a 2003 report "Let's Invest in Families Today," Pennsylvania spent an estimated \$3657 per child for subsidies in 2000 (Let's Invest in Families Today, 2002). The authors note that these numbers are reported for the annual cost of care even though most subsidized care arrangements were for much shorter durations of time. Subsidy "spells" or durations were typically less than one year.

Estimates of the number of eligible children served by the subsidy system are low. In 1998 and 1999 fewer than 20% of children eligible for subsidy were served by the Pennsylvania system (Let's Invest in Families Today, 2002; Urban Institute, 2002a,b). The Urban Institute reports that in 1998, 82,000 (or 19%) were receiving a child care subsidy in Pennsylvania out of a potential 443,000 eligible children living in 266,000 families (Urban Institute, 2002a,b).

In Pennsylvania, low levels of subsidy utilization are not attributable to funding insufficiencies. In fact, DPW has not spent its entire annual child care subsidy appropriation in any given year since 1996 (Shlay et al., 2001). Pennsylvania increased appropriations for child care subsidies substantially since the passage of the 1996 Personal Responsibility and Work Opportunity Reconciliation Act. Total child appropriations increased from \$298.5 million in FY 1997 to \$444.1 in FY 2000 (GAO, 2001; Shlay et al., 2001). These large numbers, however, are somewhat misleading because expenditures lagged behind appropriations (Schumacher et al., 2001). Unexpended appropriations were rolled over into the following year, giving the impression of even larger annual appropriations.

4. Design and methods

To investigate why families in Pennsylvania do not use child care subsidies, we designed and conducted a survey of parents that would permit them to tell us their reasons for not utilizing these resources. Our goal was not to analyze the child care system *per se* but to understand families' experiences with this system.

The work of survey design relied on data collected from four focus groups with low-income mothers eligible for subsidies but not using them. We also gathered information from community experts with the subsidy system.

This combination of information pointed to four general areas to be investigated in the survey. These included knowledge or awareness of subsidies, experiences with the subsidy system and other public assistance programs, misperceptions of eligibility requirements, and issues with particular subsidy regulations.¹

4.1. *The survey*

The survey instrument included several types of questions. Questions about the household were designed to ascertain subsidy eligibility. These included questions about current employment status (all household adults must work at least 25 h per week), household income (must be less than or equal to 200% FPIG), child care arrangements (must be child care permitted by subsidy regulations), and wage rate (all

¹ Four 2-h focus groups were conducted December 2000 and January 2001. Focus groups results may be found in a report submitted to the Department of Health and Human Services at www.temple.edu/cpp, titled *Barriers to Child Care Subsidies: The Influence of Families Characteristics on Subsidy Utilization*. The focus group protocol was designed, implemented, and analyzed by Michelle Harmon.

household adults must earn minimum wage or above). The survey methods to assess subsidy eligibility relied on criteria identical to those used by the subsidy system.

Respondents were adults in the household, usually parents or legal guardians. They were asked a series of questions about child care use and costs, subsidy use, and experiences with and knowledge of subsidy regulations. These questions addressed the child care situation associated with the survey target child, defined as the youngest child in the household. When parents reported no subsidies were used to help pay for the target child's child care they were asked if they needed help paying for child care, whether they knew about the existence of child care subsidies, and if they thought their family was (or would be) eligible for child care subsidies. Parents reporting that they knew about subsidies, thought that they needed help with child care costs, and thought they were subsidy-eligible, were asked about the factors that prevented them from using subsidies.

The survey was conducted during a 30-min telephone call by interviewers hired and trained by the Temple University Institute for Survey Research.

4.2. *The sample*

Subsidy-eligible families represented the target sample for this study. Subsidy eligibility, however, is determined based on a combination of factors. No lists were available that would permit us to sample subsidy-eligible families directly. Therefore, we employed a design that maximized the probability of selecting low income families who were potentially eligible for subsidy, referred to as *survey eligible*, then we used a series of screening questions to determine whether the potential respondent was *subsidy-eligible*. This was because it was not possible to ask the sensitive questions (e.g., household income) necessary to determine subsidy eligibility until much later in the survey interview. Therefore, to determine whether someone was *survey eligible*, we employed a set of survey eligibility criteria that would maximize the probability of obtaining *subsidy-eligible* parents. Survey eligibility criteria included being an employed, non-Hispanic, African American over 18 years of age living in the household and responsible for a child less than four years of age.

Our sampling methods were as follows. First, we selected a set of Philadelphia zip codes that were classified as low income according to the 1990 US Census. Second, the Institute for Survey Research (ISR) obtained lists of telephone numbers of households living in these zip codes. Third, interviewers from ISR telephoned each listed household to determine their willingness and eligibility to participate in the survey. If a respondent was survey eligible and willing to participate, the interviewer conducted the survey. Survey participants were mailed \$20 for participating in the study.

The household calling list contained 12,455 households with listed telephone numbers. From this list, 12,436 households were contacted over a three month period. Of these, 532 were eligible to complete the survey. Of these 532 survey eligible respondents, 457 respondents completed the survey, providing an effective response rate of 86%. Of the 457 *survey eligible* respondents, 196 respondents (43%) were eligible for a child care subsidy. Recent research shows that using listed telephone numbers for

sampling purposes does not introduce coverage bias in sample selection (Brick et al., 1995; Keeter, 1995). The analyses in this paper focus on the 196 subsidy-eligible respondents only.

5. Study findings

There are three parts to our presentation of the study findings. The first part addresses characteristics of the sample, focusing on differences among subsidy-eligible families who were receiving subsidies from those who were not receiving subsidies. The second part presents reasons reported for not using subsidies. The third part presents multivariate analyses that examine factors predicting subsidy utilization.

5.1. Subsidy users and non-users

Of the 196 subsidy-eligible respondents, one third ($n = 65$) were receiving a subsidy at the time of the survey and two thirds ($n = 131$) were not. This subsidy utilization rate is comparable to what has been found in other research (Schumacher and Greenberg, 1999). A flow chart diagramming the distribution of subsidy-eligible respondents is presented in Fig. 1.

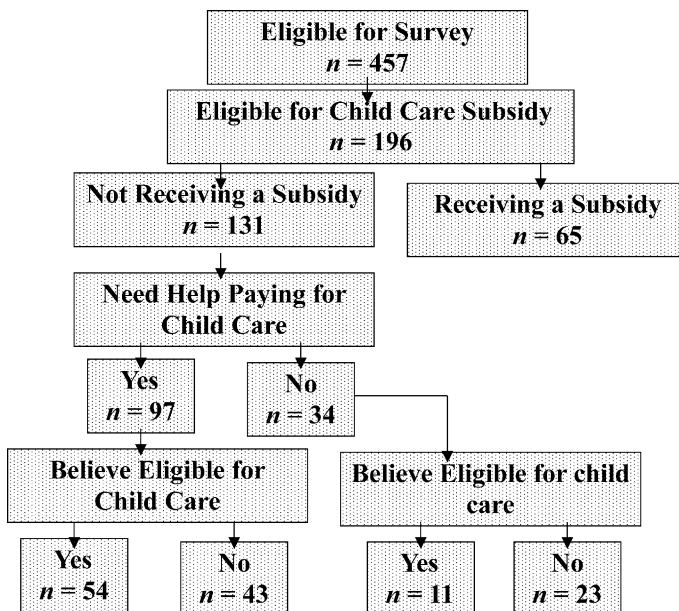


Fig. 1. Flow chart of distribution of sample showing those families who are eligible for child care subsidies within the sample of survey eligible families and whether or not they are receiving a subsidy and believe that they need help paying for child care.

Did families who received subsidies differ from families who did not receive subsidies? Table 1 shows the socio-economic, family, and child care characteristics for the sample of subsidy-eligible respondents ($n = 196$), comparing those receiving a child care subsidy with those not receiving a child care subsidy.

Overall, there were many similarities between these groups. The vast majority of respondents in both groups were single, never married women in their twenties. Nearly half had completed high school or received a GED as their highest level of education completed, and approximately one third had attended or completed college or a vocational program. Members of both groups were low income as defined by subsidy eligibility guidelines. Although subsidy recipients appeared to have slightly higher income levels than non-subsidy recipients, this difference was not significant, possibly due to the great variation in income levels among the subsidy recipients.

Most worked full-time and reported having very or somewhat flexible work schedules. All respondents were African American.

The characteristics of the youngest child in the household were also comparable for both groups, with similar proportions of boys and girls and children with special needs. All of the children were less than four years old, an artifact of the study's design.

There were a variety of ways in which subsidy recipients differed from non-recipients. Respondents who did not receive a subsidy were about twice as likely to be living with a spouse or partner as those who received a subsidy. Approximately one third of each group had some sort of child support arrangement with the biological parent. Subsidy recipients, however, were almost three times as likely to have a legal child support arrangement (28 and 10% for subsidy and non-subsidy recipients, respectively). A court-ordered child support arrangement is mandatory for subsidy receipt.

The type of care used varied by subsidy use. For subsidy recipients, about three quarters used some form of center care. For non-subsidy recipients, about one fourth used center care. Subsidy recipients tended to use licensed or registered care (85%) while non-subsidy recipients tended to use unregulated care (71%). In addition, subsidy recipients spent less on care (mean = \$47 per week) than non-subsidy recipients (mean = \$70 per week).

5.2. Why people do not use subsidies: reported reasons

Why do people not use subsidies despite being eligible to receive them? Table 2 examines perceptions of subsidy eligibility and need for help paying for child care among the subsidy-eligible non-user respondents.

About three quarters ($n = 97$) of those eligible for subsidies but not using them reported that they needed help paying for child care; one fourth ($n = 34$) said that they did not need help (See also Fig. 1). Why would people who stated being in need of help not seek out a child care subsidy? One reason is that people were unaware that they were eligible to receive a subsidy. Approximately 44% ($n = 43$) of those who said that they needed help incorrectly believed that they were not eligible to

Table 1
Child care subsidy recipient and non-recipient characteristics

	Subsidy eligible respondents			<i>t</i> or χ^2	<i>df</i>
	Receiving a subsidy <i>n</i> = 65	Not receiving subsidy <i>n</i> = 131	All respondents <i>n</i> = 196		
<i>Subsidy receipt</i>					
% With subsidy	100%	0%	33%	—	—
<i>Gender</i>					
% Female	100%	95%	96%	3.60	1
<i>Age</i>					
Mean (<i>SD</i>)	27 (6)	30 (7)	29 (7)	2.19*	194
<i>Completed education level</i>					
% High school grad/GED	48%	46%	46%	.80	2
% Some college and above	37%	33%	34%		
<i>Marital status</i>					
% Single, never been married	89%	77%	81%	4.18*	1
% Living w/ spouse/partner	11%	22%	18%	3.33	1
<i>Household monthly income</i>					
Mean (<i>SD</i>)	\$1725 (\$1034)	\$1530 (\$690)	\$1594 (\$821)	1.34	88 ^a
<i>Number of hours worked</i>					
Mean (<i>SD</i>)	38 (5)	40 (8)	39 (7)	2.09*	194
<i>Flexibility of work arrangements</i>					
% Very or somewhat flexible	88%	77%	81%	2.74	1
<i>Child support</i>					
% With informal child support arrangement with other biological parent	35%	28%	30%	1.29	1
% With formal legal child support arrangement	28%	10%	16%	10.30**	1
<i>Informal child support arrangements^b</i>					
% Child support money received on a regular basis	22%	20%	20%	6.94	3
% Child support money received on a sporadic basis	9%	2%	4%		
% Child support money received on an as needed basis	5%	6%	6%		
<i>Characteristics of youngest child in household</i>					
<i>Gender</i>					
% Boys	53%	60%	55%	.94	1
<i>Age</i>					
Mean	2	2	2	.59	194

Table 1 (continued)

	Subsidy eligible respondents			<i>t</i> or χ^2	<i>df</i>
	Receiving a subsidy <i>n</i> = 65	Not receiving subsidy <i>n</i> = 131	All respondents <i>n</i> = 196		
(<i>SD</i>)	(1)	(1)	(1)		
% Special needs child	9%	11%	10%	.11	1
<i>Child care</i>					
% Two or more arrangements used	28%	26%	27%	.07	1
<i>Type of care</i>					
% Care in respondent's home	14%	30%	24%	55.93***	3
% Care in someone else's home	9%	40%	30%		
% Care in child care center ^c	78%	23%	41%		
<i>Care regulatory status</i>					
% Registered or licensed program	85%	29%	47%	53.88***	1
<i>Cost of care per week</i>					
Mean	\$47	\$70	\$62	2.85*	182
(<i>SD</i>)	(\$53)	(\$53)	(\$54)		

^a Fewer *n*'s were required to calculate the *t* statistic because it had failed Levene's test for equality of variance.

^b Includes informal and formal legal arrangements as well as money received on a sporadic or as needed basis.

^c Includes Head Start, Early Intervention Program, and Comprehensive Day Care.

* $p \leq .05$.

** $p \leq .01$.

*** $p \leq .001$

Table 2

Perceived need of help and eligibility beliefs of subsidy eligible non-recipients (*N* = 131)

	Subsidy eligible respondents			χ^2	<i>df</i>
	Need help paying for care <i>n</i> = 97	Do not need help paying for care <i>n</i> = 34	Total		
<i>Believed eligible for subsidy</i>					
Yes					
<i>n</i>	54	11	65	5.48*	1
%	56%	32%	50%		
No					
<i>n</i>	43	23	66		
%	44%	68%	50%		

* $p \leq .05$.

receive these subsidies. If they did not believe they were eligible, they would be unlikely to seek out a subsidy despite needing assistance.

Misinformation about eligibility also existed for those subsidy-eligible respondents who said that they did not need help paying for care. Of these, 68% ($n = 23$) incorrectly believed that they were not eligible to receive a child care subsidy. Overall, for all subsidy-eligible non-recipients (those who reporting needing help as well as those who reported not needing help), 50% incorrectly believed that they were not eligible for a subsidy.

A sizeable number of respondents not receiving subsidies said that they needed help paying for child care, believed they were eligible for subsidy, but had not applied for subsidies ($n = 54$). Why did these people not seek out a child care subsidy? Table 3 reports on their reasons for subsidy non-utilization.

From one fifth to just over one third of these respondents reported barriers associated with the application process or dealing with the subsidy system. Thirty-seven percent said they would not apply for a subsidy because of the hassles associated with applying. Thirty-one percent said they had heard there were long waiting lists

Table 3
Eligible parents who say they need financial help and believe they are subsidy eligible: reasons for non-utilization

Reasons	% of Eligible parents $n = 54$
Hassles associated with applying for a subsidy	37
Had heard that there were long waiting lists to receive a subsidy	31
Respondent has had bad experiences with other public assistance programs	20
Does not want to use center care ^a	17
Would not be able to use her current provider	15
Feared child being treated differently by care providers if they are known to have subsidized care	15
Requirement for a court ordered child support arrangement with the other biological parent ^b	13
There would be little or no financial gain from using subsidies	7
Did not know about subsidies	7
Would not feel good about herself if she took a form of public assistance	4
Does not want to use a registered family day care program ^c	2
Feared being treated differently by her family, friends, and neighbors if she received help from the state to pay for child care	2
Other reasons	2
Feared child having to interact with children or adults of other racial or ethnic groups if subsidized care was used	0
Number of reasons mentioned	
None	22
One	30
Two	20
Three or more	27

^a Question was not asked of 31 respondents because they were using center care.

^b Question was not asked of 19 respondents because the respondent was married or widowed.

^c Question was not asked of 80 respondents because they were using family day care program.

to receive a subsidy at a time when there were no waiting lists for subsidies. Twenty percent said they had had experiences with other public assistance programs.

Those who reported hassles associated with applying for subsidy were asked about the specific hassles they had experienced. The most frequently reported hassle related barrier was the need to take off time from work to either apply or become re-certified for eligibility. Collecting supporting documents such as pay stubs, birth certificates, and tax receipts were also considered to be part of the family of subsidy related hassles. Less significant hassles were viewing the process as an invasion of privacy, unhelpful staff, and difficulties with, and length of, the application form. Relatively fewer people than expected (13%) reported that a court-ordered legal child support arrangement with the non-custodial parent as a barrier to subsidy use, a somewhat surprising finding because this barrier received repeated emphasis in our focus groups.

How pervasive were subsidy regulation-related barriers to subsidy use? In all, fully 78% of these knowingly eligible respondents who needed help with child care cited at least one regulation-related reason for why they did not use a child care subsidy.

Less frequently experienced barriers were those associated with the belief that subsidy receipt would interfere with parents' preferred type of care. Some people (17%) reported not wanting to use center care, apparently believing (incorrectly) that subsidy use required use of center care. Some people believed that they would not be able to continue with their current child care provider (15%). In all, 48% of respondents cited some type of preference-related barrier to using child care subsidies.

Some people believed that subsidy receipt would influence how their child would be treated (15%). But few people reported being worried about any stigma associated with receiving a subsidy; only four percent said they would not feel good about themselves if they took a form of public assistance. In all, 20% of respondents reported that some type of stigma or negative perception associated with using subsidies operated as a barrier.

Our study focused on knowledge of eligibility, not awareness of subsidies per se. Awareness of the existence of subsidies and awareness of one's ability and opportunity to access them are quite similar in their effects. People's incorrect belief they are not eligible for subsidy (50%) is equivalent in behavior to not knowing about the availability of subsidies overall.

5.3. Knowledge as a barrier to subsidy utilization

In this study, knowledge of subsidy eligibility was determined to be an important barrier to subsidy utilization. What specific sources of misinformation contributed to people falsely believing they were not subsidy-eligible? Do subsidy recipients or non-subsidy recipients who know they are eligible for subsidy differ from those subsidy-non-recipients who believe they are not eligible for subsidy? This is addressed in Tables 4–6.

Table 4 addresses knowledge of particular subsidy regulations. In it, we compare knowledge of subsidy regulations among several groups: non-subsidy recipients who do not believe they are eligible for subsidy, subsidy non-recipients who believe they

Table 4
Subsidy regulation knowledge by eligibility and subsidy receipt

	Subsidy eligible		Subsidy recipient (%) <i>n</i> = 65
	Non-subsidy recipient		
	Does not believe to be eligible (%) <i>n</i> = 66	Believes to be eligible (%) <i>n</i> = 65	
<i>Knowledge of income eligibility</i> (All family sizes combined)			
Underestimated	77	85	71
Correctly estimated	5	2	12
Overestimated	3	5	9
Don't know	15	9	8
<i>Knowledge of subsidy regulations</i>			
Does not need to receive cash assistance, welfare, or TANF to be eligible?	65	68	83
Use of a child care subsidy does not apply to a person's five-year lifetime limit of receiving TANF	56	68	75
<i>Knowledge of acceptable care arrangements for subsidy recipients</i>			
A relative caring for a child in the relative's home	71	66	71
A relative caring for a child in the child's home	59	63	69
A friend or neighbor caring for a child in the friend or neighbor's home	58	54	68
A friend or neighbor caring for a child in the child's home	52	25	58
A registered family day care home	89	91	89
An unregistered family day care home	38	35	26
A center or preschool program	94	91	92

are eligible for subsidy, and subsidy recipients. Shown are whether respondents correctly or incorrectly estimated their income eligibility for subsidy, understood key regulations associated with Temporary Assistance for Needy Families (TANF), and knew about permitted child care arrangements for subsidy recipients.

The survey addressed people's knowledge of subsidy regulation. One question asked about respondents' understanding of highest amount of money a family of their size could earn and still be subsidy-eligible. Overall, most families in all groups underestimated subsidy eligibility. The differences between eligibility believers and non-believers are small (77 and 85% for eligibility believers and non-believers, respectively). Subsidy recipients more frequently correctly estimated their income eligibility (12%) but the vast majority, like the other groups, under-estimated income eligibility. All groups believed eligibility to be contingent on being lower income than the regulations stipulated. Thus, it is unlikely that knowledge of income eligibility explains why some families believed or did not believe they were eligible.

Table 5

Parent's beliefs about other subsidy applicant's priority status by eligible subsidy recipients and non-subsidy recipients

	Subsidy eligible		Subsidy recipient <i>n</i> = 65
	Non-subsidy recipient		
	Does not believe to be eligible <i>n</i> = 66	Believes to be eligible <i>n</i> = 65	
Believes certain people get priority over recipient when applying for a subsidy?	68%	52%	42%
If yes, who?	<i>n</i> = 45	<i>n</i> = 34	<i>n</i> = 27
Welfare recipients?	96%	91%	93%
Poor people?	84%	74%	70%
Hispanic people?	18%	24%	30%
White people?	22%	26%	37%
Asian people?	22%	26%	37%
Teenage moms?	78%	74%	78%
Single parents?	69%	47%	74%
People already in the program?	82%	82%	78%
Sick/disabled people	0%	3%	4%
Other people?	2%	0%	0%

Table 6

Correct responses to knowledge of child care subsidy requirements by eligible subsidy recipients and non-subsidy recipients

	Subsidy eligible		Subsidy recipient <i>n</i> = 65
	Non-subsidy recipient		
	Does not believe to be eligible <i>n</i> = 66	Believes to be eligible <i>n</i> = 65	
<i>Number correct</i>			
0	0%	0%	0%
1	3%	0%	0%
2	2%	6%	3%
3	5%	6%	5%
4	20%	18%	12%
5	14%	12%	12%
6	20%	15%	20%
7	14%	14%	14%
8	17%	15%	20%
9	8%	12%	14%
<i>Average number of correct responses</i>			
Mean	5.8	5.9	6.3
(<i>SD</i>)	(1.96)	(2.08)	(1.93)

Knowledge of the relationship of TANF to subsidy eligibility was not significantly different between non-recipient eligibility believers and non-believers. While more subsidy recipients (83%) knew that recipients did not need to receive TANF or cash

assistance than non-recipients, comparable numbers of non-recipients believing they were eligible (68%) correctly understood that child care subsidy eligibility was not contingent on being on TANF or other forms of public assistance. More eligibility believers than non-believers correctly understood that child care subsidy receipt did not apply to the five year lifetime limit for receiving TANF (68 and 56% for eligibility believers and non-believers) although the differences were not large.

Did eligibility believers and non-believers differ in their understanding of what types of child care are permitted when using subsidies? The evidence provides limited support for this. For almost all types of child care, comparable numbers within each group believed that the type of care was acceptable for subsidy use. Almost all respondents correctly understood that a center/preschool program or a registered family day care home was permitted. Fewer people correctly understood that unregistered family day care homes are also permitted with subsidy use, but the differences among the groups were not large.

More widespread were common misunderstandings among these groups – even for those receiving subsidy. Only 58% of the non-subsidy recipients who didn't believe themselves to be eligible, and 68% of the subsidy recipients correctly believed that a child being cared for by a relative in the child's home or in the relative's home was eligible for subsidy. Among those respondents who believed themselves eligible but did not receive subsidies, only 25% knew that subsidized care was available for care in a friend or neighbor's home. It is possible that this lack of knowledge was one factor that contributed to their decision not to apply for subsidy. Overall, respondents were not well informed about the types of care permitted with subsidy use.

Do people believe they are not eligible because they perceive that certain groups receive priority for subsidy? This is addressed in Table 5. The data show that there is some support that perceptions of which groups receive priority for subsidy may influence perception of eligibility. More non-subsidy-eligible believers (68%) than subsidy-eligible believers (52%) and subsidy recipients (42%) perceived that certain groups had subsidy priority status. Yet all groups revealed remarkable similarities in perceptions and misperceptions over which people they thought received priority.

Almost everyone correctly believed that welfare recipients had priority for subsidy.² All groups of people were likely to view poor people and families already in the program as subsidy priorities, a largely correct perception. At the same time, all groups incorrectly believed that teenage moms were subsidy priorities. Most people in each group did not believe that particular racial and ethnic groups had subsidy priorities, although the subsidy recipient group had higher numbers of people who incorrectly believed that Hispanic, white and Asian families have priority.

The sole difference in beliefs about subsidy priorities existed for those about single parents' eligibility. Non-eligibility believers were more likely to incorrectly believe that single parents had subsidy priority compared to eligibility believers. At the same time, proportionately more subsidy recipients incorrectly believed that single parents

² Welfare leavers are allowed a 60-day period to transition from the welfare to the non-welfare child care subsidy system and thus do have priority.

had subsidy priority. Perceived subsidy eligibility and having received a child care subsidy did not lead to families having more knowledge about subsidy priorities.

The absence of a relationship between perceptions of subsidy eligibility, subsidy receipt and knowledge about subsidy regulations is confirmed in Table 6. Table 6 shows the variation in the number of correct responses to questions associated with subsidy eligibility regulations among non-eligibility and eligibility believers and subsidy recipients. No significant differences in knowledge existed between the three groups. People's knowledge of their eligibility status per se did not depend on knowing the rules governing subsidy regulation.

6. Barriers to subsidy: what are the predictors of subsidy receipt

Subsidy-eligible respondents who did not use child care subsidies reported that they did not use them because of a series of beliefs and perceptions. These included a professed lack of need for subsidies, perceptions of being ineligible to receive them, perceived hassles associated with the subsidy application and re-certification process, and the belief that subsidy receipt would interfere with their choice of care. In addition, some people claimed that obtaining a court ordered child support order acted as a barrier to subsidy. These beliefs accompanying people's experiences appear to be a large part of the explanation why families do not seek out subsidies, even when they need them.

Yet subsidy recipients may differ from non-subsidy recipients in important ways other than their attitudes and knowledge of subsidies. Are there other indicators that explain why some people receive child care subsidies while other do not? This requires a multivariate approach that looks at the independent factors that predict subsidy receipt.

The multivariate approach used in this research follows Blau and Tekin (2001). They estimated the impact of employment, welfare, family, and state policy variables on child care subsidy receipt for a sample drawn from 13 states. Blau and Tekin found that people who received a child care subsidy upon leaving welfare were more likely to receive a subsidy for working poor families. Essentially, the finding is that if someone left welfare and received a child care subsidy while transitioning off of welfare, they were more likely to obtain a working poor child care subsidy. Other predictors of subsidy receipt included the age of the respondent, age of her children, race, and ethnicity. None of the policy variables included in the model were found to affect subsidy receipt, indicating that state variation in these policies variables per se may not explain why people use or do not use subsidies. Blau and Tekin note that a limitation of their sample was that it did not directly control for subsidy eligibility. Therefore, a good number of the respondents in that sample may not have been subsidy-eligible.

We modified their model to include child care variables and omitted state policy variables because we used data from within one state, Pennsylvania. The model accounts for several of the regulations governing subsidy eligibility including income, child care, employment, and the presence of a child support court order. The model tests whether these factors per se explain why some people use child care subsidies

$$S_i = \Sigma X_i + \Sigma C_i + \Sigma E_i + \varepsilon_i,$$

where S_i is a binary indicator of subsidy receipt; ΣX_i is a vector of family characteristics; ΣC_i is a vector of child care characteristics; ΣE_i is a vector of legal and welfare conditions; ε_i is error.

We employed a logit model because the dependent variable is dichotomous. An estimation employing a linear model yielded comparable results. Analysis of correlations among the independent variables indicate that multicollinearity is not evident. No zero order correlation is greater than .468 and only two pairs of variables are correlated at greater than the .4 level.

Table 7 presents the logit results. Table 7 shows the effects of economic, employment, family, and child care and welfare characteristics on subsidy receipt. Shown are the B coefficients; below in parentheses are their associated standard errors. The table also includes measures of goodness of fit. Because all of the respondents are African American, racial and ethnic characteristics are not included as independent variables. (The descriptive statistics associated with each independent variable were presented in Table 1.)

What are the predictors of subsidy receipt? The analysis shows that family characteristics, income, hours of employment, child care characteristics, and experience with the legal and welfare system explain why some people receive subsidies and others do not.

Respondents living with a partner or spouse were less likely to receive child care subsidy compared to single parent families. Families with higher income levels and receiving non-employment income were more likely to receive a child care subsidy. The size of these income effects are not large. All of these families were eligible for subsidy at the time of data collection and all families earned less than 200% FPIG at the time of data collection. The direction of the influence is not clear. Possibly, increased income was an outcome of receiving subsidy.

The number of hours worked per week had a negative effect on subsidy use. Respondents who worked more hours, all else equal, were less likely to receive a child care subsidy. These analyses show a link between subsidy use, employment, and income. But how they are connected is not clear.

Although relatively few families reported the mandated child support order as a barrier to using subsidies, families who had a court-ordered child support agreement were more likely to have a child care subsidy. Some families may not view this regulation as a barrier to subsidy use. Families without a court ordered child care support agreement, in many cases an informal one, were less likely to use a child care subsidy, and those with a court-ordered agreement were more likely to have a subsidy.

Type of care used had a large influence on subsidy utilization. Families using child care centers and using non-maternal care in their own home (in contrast to those using non-maternal care outside the home in non-center care) were more likely to use subsidies. How type of care operates as an impediment or inducement for using subsidies is not clear. Families may perceive family day care (non-maternal care in someone else's home) as ineligible for subsidy. Also, center care providers may be more

Table 7

The effects of economic, employment, family, child care, and welfare characteristics on subsidy receipt
($n = 191$)

Variable	
Respondent age	-.066 (.041)
Number of children	-.125 (.223)
Child ≤ 2 years old (1 = child ≤ 2 years old) ^a	.913 (.498)
Living with spouse or partner (1 = living with spouse or partner) ^b	-1.899* (.777)
Some college (1 = some college or more) ^c	-.163 (.540)
Number of hours worked per week	-.083* (.039)
Monthly family/household income (\$)	.001* (.000)
Monthly non-employment income ^d	.002* (.001)
Job flexibility (1 = job very flexible) ^e	.400 (.403)
Receiving court-ordered child support (1 = receiving court ordered child support) ^f	1.517* (.625)
Received cash assistance 1996–2000 (1 = received cash assistance 1996–2000) ^g	1.715* (.514)
More than one non-parental child care arrangement used (1 = more than one non-parental child care arrangement) ^h	-.179 (.522)
Child in center care (1 = child in center care) ⁱ	4.112* (.727)
Child in care at home (1 = child in non-maternal care at home) ^j	1.469* (.743)
Constant	-2.211 (1.830)

Note. Presented are the B coefficients and their associated standard errors; Cox & Snell $R^2 = .445$; % Predicted = 85%; $\chi^2 = 112.914^*$.

^aOmitted variable = older than two years old.

^bOmitted variable = not living with spouse or partner.

^cOmitted variable = completed education is a high school degree or less.

^dIncome sources include child support, WIC, Food Stamps, help from relatives or friends, Social Security, Unemployment Compensation, Veteran's Administration, Worker's Compensation, SSI, and Foster Care Payments.

^eOmitted variable = job somewhat flexible or not flexible.

^fOmitted variable = not receiving court ordered child support.

^gOmitted variable = did not receive cash assistance during period 1996–2000.

^hOmitted variable = no or one child care arrangement.

ⁱChild care center includes Head Start, Early Intervention Program, and Comprehensive Day Care. Omitted variable = child in non-center based care.

^jOmitted variable = child in non-center care, outside the home.

* $p \leq .05$.

aggressive in helping families seek out and acquire subsidies. Social workers providing subsidy information may encourage families to use centers. Families may be using informal care providers that are illegal or work under the table and therefore, are not acceptable for subsidy. As with employment and income, the analyses point to a link between type of care and subsidy use. But how that links works must be investigated with additional research. Future research may better explain mechanisms underlying the relationship between type of care and subsidy use.

The center care variable is highly correlated with the variable indicating whether a day care facility is licensed or registered with the Pennsylvania Department of Public Welfare. This high correlation makes it difficult to discern a net effect to attribute to each factor. Therefore, child care regulatory status per se may potentially operate as some kind of barrier to child care subsidy receipt but the exact nature of this relationship is not clear.

Prior receipt of cash assistance at any point from 1996 to 2000 strongly predicted subsidy receipt. People who had received TANF were more likely to have a child care subsidy compared to families with no recent welfare experience. Why might prior TANF recipients be more likely to have a subsidy? Families switching from the welfare child care subsidy system to the working poor subsidy system receive a 60 day transitional window to continue to receive child care benefits before being certified by the working poor child care subsidy system. It is possible that gaining automatic entry into the subsidy system may ease initiation into the subsidy system. In addition, prior welfare receivers may have had more experience with, and more tolerance of, some of the perceived hassles associated with the subsidy system. Regardless of how welfare experience operates to impede or enhance participation in the subsidy program, clearly families without prior welfare experience were less likely to have a child care subsidy.

7. Conclusion

Why are child care subsidies not more heavily utilized? Why would economically needy households consciously decide not to tap into funding sources that would help pay for their child care? The answers to these questions range from the simple to the complex.

A very large number (50%) believed that they were ineligible for subsidies, a perception similar in its effect to not knowing about child care subsidies at all. One quarter of our subsidy-eligible respondents did not believe they needed help with paying for care.

This might suggest that people do not believe they are eligible because they are unaware of the regulations governing subsidy eligibility and use. Our findings, however, do not support that knowledge of regulations per se explains perceptions of subsidy eligibility. Confusion and misinformation about subsidy regulations reigned for people who believed they were eligible for subsidy, people who did not believe they were eligible for subsidy and people who were currently using subsidies.

People did not use subsidies because they believed they were ineligible. But knowledge of subsidy regulations did not vary by recognition of subsidy eligibility or subsidy use. Knowledge of subsidy regulations also did not explain why people correctly assessed their eligibility and why others successfully accessed the subsidy systems. Everyone, for the most part, exhibited similar levels of knowledge (or lack thereof) of subsidy regulations.

Why do people not know they are eligible? Evidently, confusion and misperception about subsidy regulations appears to be fairly uniform for all of these low-income respondents, and not related to either educational level or age of the potential recipient.

Perceived need for help and inaccurate beliefs about subsidy eligibility explain why three quarters of our sample did not use subsidies. But what about those who indicated awareness of their eligibility status and professed the need for financial assistance? The most significant reason why these people did not access the subsidy system lay with subsidy regulation-related barriers—largely, the hassles associated with access to the system. A secondary set of reason represented people's erroneous beliefs that subsidy use would interfere with their choice of care. A less salient set of reasons was associated with stigma related perceptions of child care subsidies.

People's reports about why they do not use subsidies do not provide the entire picture of barriers to subsidies. Our multivariate work points to a set of other potential barriers to subsidies.

Low-income, single parent families with relatively more income, using center care or non-maternal care in their own homes, working fewer hours, holding a court-ordered child support agreement, and with some recent experience receiving cash assistance were significantly more likely to receive a child care subsidy than other low-income families. Why is this the case? Subsidy regulations requiring a court-ordered child support agreement explain why families with this type of child support are more able to access the subsidy system. Recent experiences with the welfare system may position a family as a high child care subsidy priority or give them experiences to cope with seeming regulatory barriers. Single parents, without a partner or spouse who may provide child care, may apply and use subsidies more because they have fewer care options.

How other factors operate as barriers (or facilitators) requires more substantiation. Parents with child care subsidies may be able to retain stable employment, and therefore, earn more income because of subsidies while perhaps, working fewer hours. Alternatively, parents who work many hours may be unable to file the in-person re-application with supporting documentation required every six months. Still another possibility is that parents with more stable and better employment may be more highly motivated to acquire a child care subsidy.

The influence of type of care on subsidy receipt may be due to mistaken beliefs about types of care permitted with subsidy, better knowledge of subsidies at centers, subsidy administrators promoting the use of center care, or preferences for care unacceptable for subsidy use.

This research suggests that it may be possible to reduce some if not many of the barriers to child care subsidy. Several recommendations emerge from these findings.

First, policy needs to incorporate methods to better adequately inform people about both the availability of subsidies and their eligibility for them. Simply advertising the availability of subsidies will not lead people to apply for them if they do not believe they could potentially qualify. If policy seeks to increase more wide spread use of subsidies, a series of procedures should be developed to focus on how to more aggressively inform people of their eligibility for them.

Second, subsidy application and re-certification procedures should be critically assessed to determine whether they might be impeding subsidy use. Are there more user-friendly methods, potentially used in other states that do a better job getting people the help they need for paying child care?

Third, we need families to be more adequately informed about how their choice of care is or is not constrained by subsidy use. Parents are holding onto a host of incorrect assumptions about how child care subsidies may be used. These perceptions need to be changed.

Fourth, mandating a court-ordered child support agreement accompanying subsidy receipt needs to be examined. Is this a critical feature to determining subsidy eligibility? What are the effects on families of requiring court-ordered support agreements? Are there methods of taking into consideration payment of child support outside of the court system?

This research points to awareness of eligibility as a critical reason why people do not use subsidies. We need to consider further research on the subsidy system, how regulations operate as barriers to subsidy, and the experience of regulations as barriers to subsidy.

This research points to a strong connection among employment, type of care, and subsidy use. Future research needs to establish more clearly how subsidy use affects employment and vice versa. It also needs to address the role of child care preferences, choices, and child care availability in impeding or facilitating subsidy use.

This study focused entirely on barriers to subsidies among low income, African American families. This group's patterns of subsidy use may not reflect those of low-income white, Hispanic, or Asian families. Therefore, this study's assessment of the rate of subsidy utilization and the reasons for non-utilization may not be comparable for other racial and ethnic groups. Subsidy utilization for other groups may be much lower. Barriers to subsidies may be quite different. Research studying this issue across geographic, racial, and ethnic groups is a critical need.

Acknowledgments

This research was funded by Grant No. 90YE0019/02 from the Administration of Children, Youth, and Families in the Department of Health and Human Services. We are grateful to Dr. Elizabeth Jaeger for her work on survey design, Nancy Nunez for prodigious word processing, and to the Temple University Institute for Survey Research for solid professionalism in fielding our survey under the leadership of Dr. Louise Hanson.

References

- Adams, G., Snyder, K., Sandfort, J.R., 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. The Urban Institute, Washington, DC.
- Berger, M.C., Black, D.A., 1992. Child care subsidies, quality of care, and the labor supply of low-income, single mothers. *The Review of Economics and Statistics* 74 (4), 635–642.
- Blank, R.M., 1994. Policy watch: proposals for time-limited welfare. *The Journal of Economic Perspectives* 8 (4), 183–193.
- Blank, R.M., 1997. *It Takes a Nation: A New Agenda for Fighting Poverty*. Princeton University Press, Princeton, NJ.
- Blau, D.M., 1993. The supply of child care labor. *Journal of Labor Economics* 11 (2), 324–347.
- Blau, D.M., 2001. *The Child Care Problem: An Economic Analysis*. Russell Sage Foundation, New York, NY.
- Blau D.M., Tekin, E., 2001. The determinants and consequences of child care subsidy receipt by low-income families. In Meyer, B., Duncan, G. (Eds.), *The Incentives of Government Programs and the Well-being of Families*. Available from Joint Center on Poverty Research: <<http://www.jcpr.org/book/index.html>>.
- Brayfield, A., 1995. A bargain at any price? Child care costs and women's employment. *Social Science Research* 24, 188–214.
- Brick, J.M., Waksberg, J., Kulp, D., Starer, A., 1995. Bias in list-assisted telephone sample. *Public Opinion Quarterly* 59, 218–236.
- Child Care Bureau, 2002. Access to child care for low-income working families. Available from <<http://www.acf.dhhs.gov/programs/ccb/research/ccreport/ccreport.htm>>.
- Child Care Study Dynamics Team, 2002. *The Dynamics of Child Care Subsidy Use: A Collaborative Study of Five States*. National Center for Children in Poverty, Columbia University, New York.
- Children's Defense Fund, 2000. *A fragile foundation: State Child Care Assistance Policies*. Available from <http://www.childrensdefensefund.org/pdf/cc_statecc_mainpdf>.
- Department of Public Welfare, 2003. Office of children, youth and families: child care subsidies. Available from <<http://www.dpw.state.pa.us/ocyf/childcarewks/ccwCcSubsidies.asp>>.
- Fuller, B., Kagan, S.L., 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, April.
- Fuller, B., Kagan, S.L., Caspary, G.L., Gauthier, C.A., 2002. Welfare reform and child care options for low-income families. *The Future of Children* 12 (1). Available from <<http://www.futureofchildren>>.
- GAO, 2001. *Child Care: States Increased Spending on Low-income Families*, GAO-01-293. U.S. General Accounting Office, Washington, DC.
- Hofferth, S.L., Wissoker, D.A., 1992. Price, quality and income in child care choice. *Journal of Human Resources* 27 (1), 70–111.
- Keeter, S., 1995. Estimating telephone coverage bias with a telephone survey. *Public Opinion Quarterly* 59, 196–217.
- Kimmel, J., 1994. The effectiveness of child-care subsidies in encouraging the welfare-to-work transition of low-income single mothers. *The American Economic Review* 85 (2), 271–275.
- Lemke, R.J., Witte, A.D., Queralt, M., Witt, R. 2000. Child care and the welfare to work transition. Working Paper 7583. National Bureau of Economic Research. Available from <<http://www.nber.org/papers/w7583>>.
- Let's Invest in Families Today, 2002. *Pennsylvania: Child Care and Development Fund (CCDF) subsidies*. Available from <http://lift.nccp.org/state_detail_PA_pol>.
- Meyers, M.K., Heintze, T., 1999. The performance of the child-care subsidy system. *Social Service Review* 73 (1), 37–65.
- Moffitt, R., 1992. Incentive effects of the U.S. welfare system: a review. *Journal of Economic Literature* 30 (1), 1–61.

- NICHD Early Child Care Research Network, 1999. Child outcomes when child care center classes meet recommended standards for quality. *American Journal of Public Health*, 89, 1072–1077.
- Schumacher, R., Greenberg, M., 1999. Child Care After Leaving Welfare: Early Evidence From State Studies. Center for Law and Social Policy, Washington, DC.
- Shlay, A.B., Jaeger, E., Weinraub, M., Murphy, P., Shaw, K., Gottesman, L., 2001. Making a Case for Child Care: An Evaluation of a Pennsylvania-based Intervention Called Child Care Matters. Temple University Center for Public Policy, Philadelphia, PA.
- Schumacher, R., Greenberg, M., Duffy, J., 2001. The Impact of TANF Funding on State Child Care Subsidy Programs. Center for Law and Social Policy, Washington, DC.
- Urban Institute, 2002a. Child care in Pennsylvania: a short report on subsidies, affordability, and supply. Available from <<http://aspe.hhs.gov/hsp/Child-Care99/pa-rpt.htm>>.
- Urban Institute, 2002b. 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. The Urban Institute, Washington, DC.
- White House, 2002. Working toward independence. Available from <<http://www.whitehouse.gov/news/releases/2002/02/welfare-reform-announcement-book-all.html>>.
- Wiseman, M., 1996. Welfare reform in the United States: a background paper. *Housing Policy Debate* 7 (4), 595–648.