

Incentives at the Eligibility Threshold

An Examination of Child Care Financial Assistance Policies

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For families with children, employment comes at a price. They must subtract from their wages the cost of someone else caring for their child. Their wage minus the costs of obtaining child care, transportation, and other expenses that may be generated by employment is generally referred to as the effective wage. The Child Care Development Fund (CCDF) child care subsidy voucher, the Earned Income Tax Credit (EITC), and the Child and Dependent Care Credit (CDCC) are all intended to increase the effective wage of parents to support them entering and staying in the workforce. This paper explores the trade-offs between employment and effective wage that parents must make through the lens of three hypothetical North Carolina families facing promotion, bonus, and employer relocation opportunities. Through their eyes we understand why it would be rational to turn down these opportunities due to the potential loss of thousands of dollars in benefits. These situations demonstrate the weaknesses of the current system, where the needs of employers and employees become increasingly opposed as families approach the income eligibility threshold and the portability threshold. This paper proposes a policy to better align the needs of employers and employees by restructuring the incentive system to phase out benefits gradually, guarantee help to anyone who is eligible, make support sensitive to regional changes in child care prices, and administer it through the tax system rather than local social services offices throughout the country. While this paper focuses on the child care benefit system, the framework used to explore the issues of reversed

incentives at the eligibility threshold can be applied to any social policy with income eligibility requirements.

Introduction

This paper examines the work incentives embodied in three federal programs: the Child Care Development Fund (CCDF) [sometimes called the Child Care Development Block Grant (CCDBG)], the Earned Income Tax Credit (EITC), and the Child and Dependent Care Credit (CDCC). All three of these programs strive to make it easier for parents with children to work by providing them with financial support to offset their work expenses. Depending on a family's income, they may qualify for several thousand dollars in support, providing a deeper incentive for them to choose to work. Unfortunately, there is also a large disincentive to exceed the income eligibility limit (the threshold) where one extra dollar earned creates a loss of several thousand. This paper examines the incentives posed by the potential loss of benefits using three hypothetical families in North Carolina.¹

Although the three programs examined are all the creation of federal policies, their administration varies. As Table 1 indicates, they also vary dramatically in the number of families benefiting and the costs to government. The tax credits (EITC and CCDC) are entitlement programs—everyone who is eligible gets them automatically. They are administered uniformly across the United States through the Internal Revenue Service (IRS).² Families receive benefits when they file their taxes—as a lump-sum payment after the year is over.

The Child Care Development Fund (CCDF), on the other hand, is administered at the state level. It is funded by both federal and state dollars, but sometimes these dollars are not enough to serve every family who needs the help—this program is not an entitlement. The federal government allows states considerable flexibility in how CCDF voucher programs are defined, including the income eligibility limits, payment rates to child care providers, parental co-payment rates (the amount parents pay out-of-pocket), and methods and frequency of eligibility determination. In

all cases, however, these child care subsidy voucher programs require that parents demonstrate to the administering agency that they are eligible for the program through documentation of income and hours worked. While the voucher allows families to access numerous child care options, it does restrict them in the hours their children can attend based on the specific hours worked. For example, if a single parent works second shift, the child care supported by the voucher must occur during the second shift. Although vouchers help different families meet different needs, they are less flexible when the same family has changing needs. This paper uses the benefits and policies of the system as it exists in North Carolina to focus the analysis. The analysis framework can be used to examine incentive effects in any state, because every state must make decisions about the voucher elements under consideration here.

Table 1:
2005 Annual National Benefit Comparison

Program	Amount Spent or Forgone Revenue	Families Benefiting
Child and Dependent Care Credit (CDCC)	\$1.9 billion per year	3.7 billion per year
Earned Income Tax Credit (EITC)	\$56.3 million per year	194.6 million per year
Child Care Development Fund (CCDF)	\$8.2 billion per year	1 million per month (average)

Note: Tax credit figures represent the 2005 calendar year. CCDF figures represent the 2005 federal fiscal year. CCDF figures represent both state and federal expenditures.

Sources: Tax figures are from Table 2.2, SOI Tax Stats—Individual Income Tax Returns Publication 1304, Internal Revenue Service. CCDF figures are from Table 1: Child Care and Development Fund Average Monthly Adjusted Number of Families and Children Served (FFY 2005) and Chart 1—Total Expenditures by Category, Child Care and Development Fund Fiscal Year 2005 State Spending from All Appropriation Years, Child Care Bureau.

Table 2:
**Comparing Three Child Care Supports:
 Single Parent with One Child in 2007**

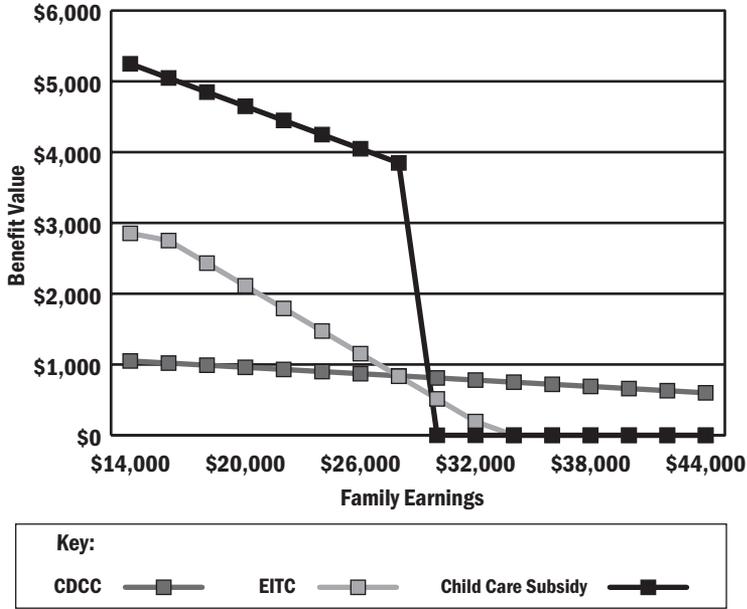
Program	Work Requirement	Income Requirement	Entitlement	Requires Child Care Expense	Delivery Method
Child and Dependent Care Credit (CDCC)	yes	must owe taxes	yes	yes	tax credit
Earned Income Tax Credit (EITC)	yes	U.S. maximum of \$33,241	yes	no	tax credit
Child Care Development Fund (CCDF)	yes	N.C. maximum of \$29,700	no	yes	voucher

Note: Benefit levels and income levels vary by numbers of children; these figures represent a family of one parent and one child.

Sources: CDCC information from IRS Form 2441 and IRS 1040 instructions for 2007. EITC information from IRS 1040 instructions for 2007. CCDF information from North Carolina Division of Child Development Child Care Subsidy Manual.

Table 2 depicts some of the key similarities and differences of the programs by examining a single parent with one child in 2007. All of the programs vary benefit size by the number of eligible children in the family, making it important to pick one family structure and size for examining them all comparably, define children as being under the age of 13 years, require that parents work or be looking for work in order to claim the benefit, and have an income requirement. The CDCC requires that the family's income be high enough to owe taxes while the other two programs do not provide benefits after families reach a certain income limit. While the CDCC and the EITC are both delivered as tax credits, the EITC is more flexible because it is refundable—families don't have to owe taxes to receive it—and it is not tied to particular expenses. To claim the CDCC, families must demonstrate the amount of money spent on dependent care³ with the tax credit serving as a reimbursement for a portion of those expenses. The

Figure 1:
Three Program Benefit Comparison



Source: Author's calculations.

CCDF child care subsidy is delivered through a voucher mechanism which essentially waives some of the family's child care tuition costs up front.

Figure 1 compares possible benefit levels for a single parent with one child between the earned incomes of \$14,000 per year and \$44,000 per year where child care tuition is \$6,648 per year; it assumes that all the families owe taxes and are eligible to claim the maximum benefit for their income level with one dependent. For all three programs, the benefit levels are higher at \$14,000 than at \$44,000. At \$44,000 the only benefit remaining is the CCDC. This credit will only allow a claim of \$3,000 in expenses and at \$44,000 will reimburse 20 percent (\$600) of that expense. The family earning \$14,000 could also claim up to \$3,000 in expenses, but they would be reimbursed for 35 percent (\$1,050). The CCDC is different from the other two benefit programs in that, although families with lower

incomes could qualify for a higher benefit level, there is no income level at which the benefit becomes zero (\$0).

The benefit adjustment rate of the EITC is similar to that of the CCDC in that it provides gradual changes in benefits as a family's earned income rises and falls. At an earned income of \$15,400, the EITC benefit rate begins to fall. Contrasting the angle of the EITC line with the flatter CCDC line demonstrates that benefits are reduced at a faster rate for the EITC than for the CCDC.

The child care subsidy (CCDF) benefit line is shaped more like a "Z." When a family's income is low, the CCDF provides a significantly higher benefit than the other two. At \$14,000, a family could have \$5,248 of their \$6,648 child care expense waived. From \$14,000 to \$29,700, the benefit is reduced by 10 cents for each extra dollar earned; this results in a benefit reduction rate that looks similar to that experienced through the EITC. At \$29,701, however, is the benefit cliff—at this point the additional dollar earned reduces the benefit from \$3,678 to \$0. Because this benefit is based on the cost of the child care used, the magnitude of lost benefits can vary across families.

It is because of the benefit cliff present in the CCDF child care subsidy voucher program that this paper focuses its attention on the situations faced by families approaching the edge of this cliff—the eligibility threshold. Clearly these programs provide strong incentives to work by offsetting the cost of work through benefits and thus increasing a family's effective wage—the amount of money they earn after subtracting for expenses associated with working, like child care and transportation. These incentives, however, have the reverse effect when families approach the eligibility threshold where one more dollar earned creates the loss of thousands of dollars in federal assistance. Many families face budgets that are not flexible enough to absorb such losses in benefits even if their short-run decisions could cost them money in the long-run.

Frequently discussions focusing on social benefit programs examine the labor-leisure effects of how many fewer hours a person is likely to work if they receive benefits that decline with income. The families considered in this paper cannot be discussed in this manner. Most are full-time workers

who do not have the option of reducing their work hours. Instead, their decisions reflect other aspects of the employer-employee relationship, such as promotions, cash bonuses, and flexible work locations.

In this paper I reflect on the conflicts between employer and employee desires that are created by the child care benefit system. I examine why families may make choices that are better for them in the short-run, but have consequences that may not benefit them in the long-run. To make this complex policy issue simpler, this examination is carried out within the benefit framework as it exists in North Carolina. I draw from my previous experience administering child care subsidy programs⁴ in North Carolina to create three hypothetical families experiencing conflicting incentives as they approach the eligibility threshold for receipt of CCDF child care subsidy voucher benefits.⁵ To improve comparability, all families examined are single parent with one child.

Finally, I propose an alternative child care benefit system for working families⁶ that could create a net gain for society by better aligning the needs of employers and their employees. In this proposal I consider strengths in the current system and possible new ways of combining those strengths, and I reflect on possible cost savings as a result of these changes.

The Problem: Incentives for Parents to Work

Labor input is critical to the success of business, and a fundamental component of the American economy. However, the needs and incentives of American businesses are often contradicted by incentives created through public policy. For example, a benefit that phases out at \$30,000 but provides thousands of dollars in assistance up to that point will create an incentive for families to maintain an income around \$29,000, as is demonstrated in this paper. This problem is also pertinent to other social policies, including health care, housing assistance, and welfare policies. An individual's decision to work relies on personal opportunity cost, which is influenced by public policy.

For families with children, employment comes at a price. They must subtract from their wages the cost of someone else caring for their child.

Their wage minus the costs of obtaining child care, transportation, and other expenses that may be generated by employment is generally referred to as the effective wage. Recent research indicates that child care costs more than food, prices of obtaining child care are rising faster than inflation, and in 43 states the average annual price of child care for an infant exceeds the price of tuition for one year at a public university (National Association of Child Care Resource and Referral Agencies 2007).

Child care financial assistance policies exist because the government realizes that the effective wage may not be enough to induce people to participate in the workforce. The Child Care Development Fund (CCDF), the Earned Income Tax Credit (EITC), and the Child and Dependent Care Credit (CDCC) are all intended to increase the effective wage of parents to support them entering and staying in the workforce. This result is desirable, but creates counter-incentives for parents to limit the amount of labor they provide as they approach the income eligibility threshold. At the threshold, an abrupt disconnect is created between the desires of the businesses that employ the workforce and the potential employees receiving government assistance to support their employment. Uncertainty caused by waiting lists further widens this disconnect. This disconnect is explored below from the perspective of the firm and the perspective of policymakers.

The Employer's Perspective

Employers must generate an efficient supply of labor from the workforce in order to maximize profits. The number of employees who work for a business, the hours they work, where they work, and what they get paid are all key determinants of an employer's cost-effectiveness. Employers need maximum productivity from their employees and stability in their workforce to ensure maximum efficiency and appropriate costs. A restaurant not receiving as many customers as expected sends its wait staff home to save money. A manufacturer experiencing demand shifts during the year varies the numbers of hours per week its employees work to match demand—25 hours per week in the summer and 40-plus hours per week with overtime pay in the winter. A retail company that wants to push a new product cre-

ates a short-term bonus incentive for its sales staff. All of these decisions are part of running an efficient, competitive business and they conflict with the constraints of the predominant child care financial assistance model.

The Policy Perspective

The Child Care Development Fund (CCDF) is the predominant model for child care financial assistance in the United States. Most states administer it as a voucher-based system. It has been designed to support labor force participation and is tailored to ensure that recipients are receiving only the amount of assistance that they need to support their workforce participation. As such, this program requires that recipients provide precise information about where and what hours of the day they work. While slight allowances may be made for transportation time to and from work, child care assistance is provided to match the exact hours of the work day. Because the program has income eligibility limits, recipients are required to keep subsidy voucher managers informed about any changes in their income. Managers are required to ensure that recipients only get services when they are eligible and precisely for the hours required to meet their need. If the federal government determines that state/local governments disbursed funds to recipients without sufficient demonstration of need, the state/local governments must pay the money back.

The Conflict Between Employer Needs and Policy Incentives

While flexibility is critical to the operation of an efficient company, these flexible employment expectations are in direct opposition to the requirements of CCDF, which typically requires that families work at least 30 hours per week, every week. If their hours dip below this level, they are subject to loss of benefits. The program does not make provisions for seasonal changes in hours; in fact the overtime pay a family might earn during a busier season could make them ineligible for subsidy during the entire year, including the slower season when they are earning less. In addition, families are required to report to the subsidy voucher agency each time there is a change in their work schedule so that their assistance can be ad-

justed. These adjustments include which hours of the day they can use child care, the parental co-payment amounts, and whether or not they are eligible at all.

Families cannot risk losing child care subsidies because they may be waitlisted the next time need arises. Their mobility is often limited for a related reason. In states that delegate financial assistance operation to the local level, waiting lists are distinct and county-specific, constraining movement. Families cannot simply move for employment because their child care financial assistance funds lack portability.

This uncertainty about the availability of child care financial assistance funds is particularly problematic for families with children on the way. Expectant parents may not be able to place their unborn child's name on the waiting list and may not be able to apply for assistance until the child is born, limiting a family's ability to plan ahead. This is a problem for both families and employers—it may be impossible for parents to keep their jobs after their children are born because of child care expenses.

As families approach the boundaries of the assistance requirements, their flexibility is restricted and becomes more opposed to the needs of employers. Employers will not want to incur the expense of losing trained staff, but they cannot restrict production decisions to those most suited to current staff. When families lose their jobs or when employers are not operating at efficient levels, families, firms, and society all lose as a result of labor market decisions that are influenced by public policy restrictions.

Methodology

As discussed earlier, this paper uses three hypothetical families in North Carolina to create a lens for examining the incentives created by CCDF child care subsidy vouchers. Reflecting the predominance of single-parent households receiving CCDF assistance nationwide (86 percent), all three scenarios in this paper involve a single mother with one child. The age of the child is varied to represent different costs and decision-making situations, and the number of children is held constant to support comparability. In all three scenarios, families have chosen 4-star, center-based care

to reflect the predominant use of center-based care by CCDF recipients in North Carolina (81 percent). In two of the scenarios, the families are earning above 150 percent of the federal poverty limit,⁷ which represents about 13 percent of families receiving assistance nationally. Although this does not represent a large portion of total families, it is necessary to look at incomes in this range to determine effects at the income eligibility threshold. With just over a million families receiving help each month, more than

Table 3:
CCDF FY 2005 Key Characteristics

Participation/ Operation Characteristics	National	North Carolina
Average # of children served per month ^a	1,000,700	104,300
Waiting list ^b	20 states	Yes
Subsidies paid through voucher-based system ^c	85%	100%
% using center-based care ^d	55%	81%
% children birth up to 3 years old ^e	28%	25%
% children 3–5 years old ^e	36%	36%
% children 6–12 years old ^e	36%	40%

Note: Totals may not equal 100 percent due to rounding.

Source: All information for this table was extracted from: Child Care and Development Fund (CCDF) Report to Congress, for FY 2004 and 2005. Child Care Bureau, Administration for Children and Families, U.S. Department of Health and Human Services. *a.* Table 1b, pp A-39 to A-40; *b.* p. 74; *c.* Table 12b, pp A-57 to A-58; *d.* Table 10b, pp A-53-A54; *e.* Table 2b, p A-42.

130,000 families per month could be facing decisions about whether or not to engage in labor force participation that takes them beyond the income eligibility threshold for CCDF funds (U.S. HHS 2004a).

While this study is not designed to be statistically generalizable, it is important to situate the characteristics of CCDF participation in North Carolina within the context of CCDF participation nationally. Table 3 compares key national CCDF operational and participation characteristics to those in North Carolina. Because states can make so many distinct decisions within the CCDF program and because other characteristics of the state environments are likely to affect those decisions, no two states look exactly the same. The kinds of decisions each state must make are the same and therefore this analysis framework could be useful for examining incentive structures in any state.

North Carolina allocates its funds to each of its 100 counties through a set formula and disburses the subsidy to parents through local agencies.⁸ Families must apply to the local agency for assistance in the county in which they live but they may use child care in any county. Once families are approved, they may continue to receive assistance as long as they maintain their eligibility. In most cases eligibility is redetermined on a yearly basis through an in-office visit where the family must supply documentation supporting the typical hours of employment and pay during the previous three months; if families do not supply the required documentation by the required date, their benefits end.

Approved families are given a voucher that they can redeem at any participating child care program. The voucher does not provide a set amount of money for the child but rather specifies the quantity of care that can be reimbursed (full-time/part-time) and the hours of care that are approved (first shift, second shift, etc.).

There are frequent waiting lists for assistance, although the length of the waiting lists and the amount of time a person can expect to wait varies widely by county. Families on the waiting list are typically served on a first-come, first-served basis. In most counties, families cannot be placed on the waiting list if they are not already working. Unborn children are not eligible for the waiting list. In January 2008, the North Carolina Division of Child

Development reported 27,153 eligible North Carolina children on waiting lists for assistance.

Analysis

In the following three scenarios, each family begins with the receipt of the three federal programs examined here: a voucher to subsidize their child care through the CCDF program, a tax credit from EITC, and a tax credit from CDCC. The value of each of these supports decreases as the income level increases. At the same time, the amount each family must pay out-of-pocket for their child care expenses increases with their income because the parent co-payment is based on a percentage of parent income. In each case the child care expense is assumed to be the maximum reimbursable payment rate for the county in which the child care is located and the age of the child served.

Figures 2, 3, and 4 show that despite the increase in out-of-pocket expenses and the decreases in support, the overall benefit for each family remains positive as earnings increase, as long as they continue to be eligible for the CCDF program. That is, the increases in income are more than the sum of the decreases in lost benefits and increases in expenses until the family loses the child care voucher benefit entirely.

The effective wage in this case reflects the gross earnings minus the full child care tuition cost plus child care benefits (subsidy amount, EITC, and CDCC). See Table 4 for a demonstration of this calculation using the circumstances examined in Family 1. The top part of the table demonstrates the effective wage before government support by subtracting the full \$6,648 child care tuition cost from the gross earnings (this corresponds to the Earnings – Tuition Cost portion of the bars in Figure 2). The bottom part of the table demonstrates how government supports examined in this paper offset the child care expenses and increase the effective wage (this corresponds to the EITC, CDCC, and Child Care Subsidy portions of the bars in Figure 2). While the family’s out-of-pocket child care expense is not directly observed in this table, it is the difference between the child care tuition cost and the subsidy voucher offset. When Family 1 is earning

Table 4:
Effective Wage Calculation

<i>Gross Earnings</i>	\$ 18,000	\$ 24,000	\$ 29,000	\$ 30,000
Child Care Tuition Cost	\$ 6,648	\$ 6,648	\$ 6,648	\$ 6,648
<i>Effective Wage Before Government Support</i>	\$ 11,352	\$ 17,352	\$ 22,352	\$ 23,352
EITC Offset	\$ 2,432	\$ 1,473	\$ 674	\$ 514
CCDC Offset	\$ 990	\$ 900	\$ 840	\$ 810
Subsidy Voucher Offset	\$ 4,848	\$ 4,248	\$ 3,748	\$ —
<i>Effective Wage After Government Support</i>	\$ 19,622	\$ 23,973	\$ 27,614	\$ 24,676

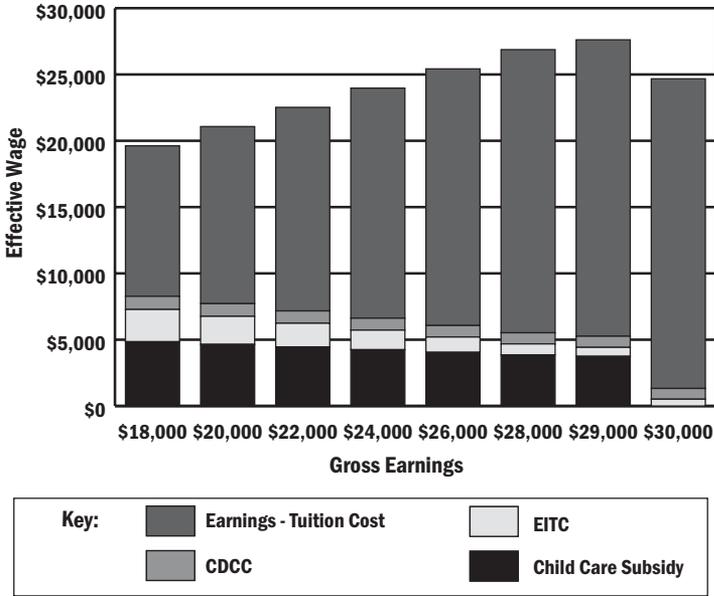
Source: Author's calculations based on 2007 IRS rules and North Carolina child care subsidy policies as of October 1, 2007.

\$29,000 per year, their out-of-pocket payment for the child care tuition is \$2,900 per year because they are required to pay 10 percent of their income for the child care expense as a participant in the child care subsidy program. When their income reaches \$30,000 per year, they are expected to cover the full cost of the child care tuition.

Family 1 is a single mother with a three-year-old child living in Alamance County. The child attends a 4-star center in Alamance County where the tuition rate is \$554 per month or \$6,648 per year. The mother is currently earning \$26,000 per year as base pay in retail sales; she averages another \$3,000 per year in bonuses. Her boss meets with her to find out why she isn't pushing to sell more of the products that will earn her bonuses. He is frustrated with what he perceives as her lack of effort. She tells him that she cannot afford to earn more in bonuses.

At \$29,000 per year, she has nearly maxed out her subsidy income limit of \$29,700. At \$29,000 per year, her effective wage is \$27,614 because her annual out-of-pocket child care expenses of \$2,900 are offset by \$674 in EITC benefits and \$840 in CDCC benefits. In addition, her child care

Figure 2:
Family 1



Source: Author's calculations based on 2007 IRS rules and North Carolina child care subsidy policies as of October 1, 2007.

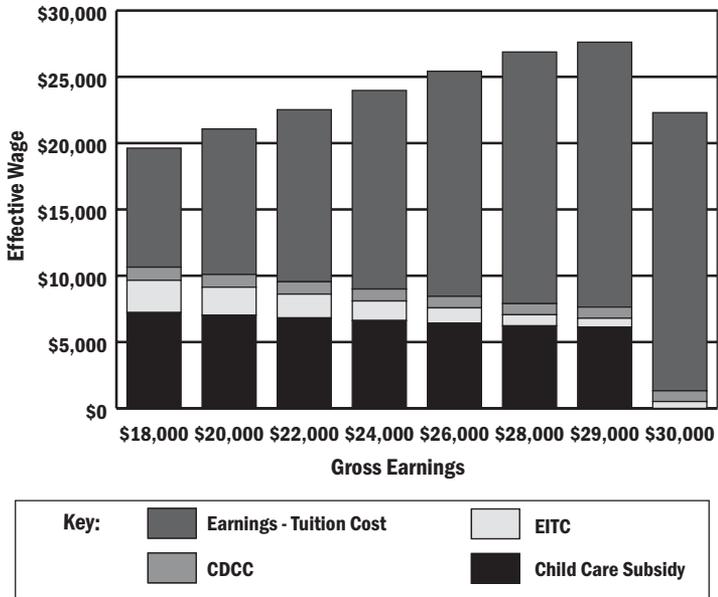
subsidy pays the remaining \$3,748 in child care expenses.

An increase of \$1,000 in her gross earnings lowers her effective wage to \$24,676, a drop of \$2,938. At \$30,000 in gross earnings, she loses her entire child care subsidy benefit which adds \$3,748 to her out-of-pocket expenses. Her EITC benefits drop by \$160 and her CDCC benefits drop by \$30.

Figure 2 depicts her potential loss. The drop in her effective wage is reflected in the decline in bar height from \$29,000 to \$30,000 in gross earnings. Her lower productivity is costing the firm money but clearly her choice is rational in terms of the needs of her family and the incentives of the child care subsidy system.

Family 2 is a single mother living with a three-year-old child in Orange

Figure 3:
Family 2



Source: Author's calculations based on 2007 IRS rules and North Carolina child care subsidy policies as of October 1, 2007.

County. She is currently earning \$24,000 per year working at the university. She receives a child care subsidy which she uses at a 4-star child care center in Orange County where the tuition is \$752 per month or \$9,024 per year. Her boss has offered her a promotion that would increase her pay to \$30,000 per year. She asks if she could accept it at \$29,000. Her boss reminds her that accepting the position at a lower wage will depress her future earnings as she will be given raises on a percentage of this wage. She insists on the lower wage.

Accepting the promotion at \$30,000 per year would cost this mother money. At gross earnings of \$24,000 per year her effective wage is \$23,973 (see Figure 3). Accepting the promotion to increase her gross earnings to \$30,000 per year decreases her effective wage to \$22,300. Despite her

\$6,000 pay raise, she would effectively lose \$1,673. Most of this expense is due to her lost CCDF voucher which causes her to pay an additional \$6,624 out-of-pocket. At the same time, she loses about two-thirds of her EITC benefit, which drops from \$1,473 to \$514. She loses an additional \$80 in CDCC benefit.

If she accepts the promotion at \$29,000 instead of \$30,000, she experiences a net gain. Her effective wage increases from \$23,973 to \$27,614. While all of her benefit levels decrease, her wage increase still produces a net gain of \$3,641. Although it may hurt her long-term earnings, accepting the pay raise at \$1,000 less per year produces clear short-term benefits. Even if her boss refuses to promote her unless she accepts the \$30,000 per year rate, maintaining her income at \$24,000 per year still makes more sense from a short-term financial perspective. In her case, her budget constraints prevent her from more heavily weighting the long-term gains over the short-term gains. Her child will go into kindergarten in a couple of years and then she will have the flexibility in her budget to plan for the long-term.

Reflecting on Families 1 and 2: Although Family 1 and Family 2 are both faced with the decision about whether or not to increase their earnings beyond their CCDF voucher eligibility levels, the difference in the costs of the child care makes a difference in the magnitude of their decisions. Child care for Family 1 costs \$554 per month without the child care voucher subsidizing the cost, while the unsubsidized child care cost for Family 2 is \$752 per month. This is despite the fact that the families are in the same state, in neighboring counties, have the same age child, and are both using care classified at the same quality level. In both of these cases, it makes financial sense for the parents to curb their productivity to ensure they stay within the income threshold for CCDF support. If their child care expenses were lower, this might not be the right decision for them. If their child care expenses were higher because they lived in a more urban area or their children were younger, however, the disconnect between a supposed increase in earnings and the actual decrease in their effective wage would be even more dramatic.

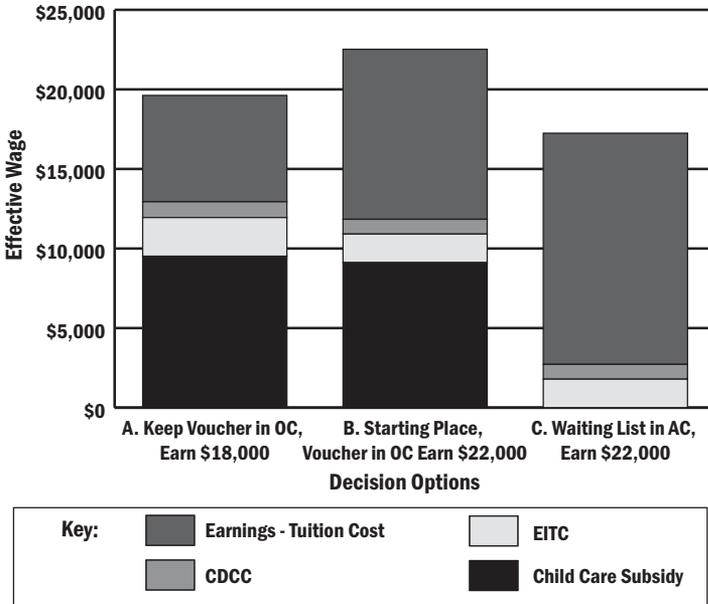
Family 3 is a single mother with an infant living and working in Or-

ange County. She has a subsidy and she uses it to pay for a 4-star center in Orange County where the tuition is \$943 per month or \$11,316 per year. Her gross earnings are currently \$22,000 per year but her effective wage is \$22,522. Her boss informs her that they are moving their office location to Alamance County where rent is cheaper. She can keep her job, but if she continues to live where she is it will take her an hour to get to work; she used to be able to walk down the street. Housing is cheaper in Alamance County so she is tempted to move. She loves the child care program her daughter is in but it does not open in time for her to continue living in Orange County, drop her daughter off, commute to Alamance County, and get to work on time. She checks with the subsidy voucher manager in Alamance County and finds out that there is a waiting list: if she moves, she loses the subsidized voucher she receives for living in Orange County and goes on the waiting list for help in Alamance County. In the end, she decides she cannot move to Alamance County and takes another job in Orange County for \$18,000 per year. While she might be able to find another job in Orange County that meets her previous wage if she looks long enough, she doesn't have that luxury. Her job is moving away, she can't support her family without an income, and the child care subsidy voucher program won't give her much time to look for work.

Clearly this mother's decision not to move cost her \$4,000 in annual wages. She might have been able to save money living in Alamance County with cheaper housing and a generally lower cost of living. Her \$22,000 would have had a higher purchasing power. According to the U.S. Census Bureau (2000), the median value of owner-occupied housing in Orange County is \$179,000, compared to \$107,200 in Alamance County.

So, why would she stay where she is and earn even less money than before? For her the key factor is uncertainty. She cannot predict when child care subsidy funds would become available in Alamance County so she cannot be certain that she would be able to afford the cost on her own during the unknown interim time period. Even though child care costs are lower in Alamance County, she would need to be able to pay \$623 per month out-of-pocket until she was able to get the child care voucher again—that would be about \$440 per month more than what she is currently paying

Figure 4:
Family 3



Source: Author's calculations based on 2007 IRS rules and North Carolina child care subsidy policies as of October 1, 2007.

for child care. Her other expenses would have to decrease dramatically to balance out that difference, which may not be possible given that the price of food, diapers, and other necessities tend not to vary greatly from location to location.

Figure 4 compares her two new options to her starting place (B) in terms of her effective wage. Her new options are moving to Alamance County where she can keep her old job and earn \$22,000 per year but doesn't know if she will receive a child care subsidy (C) and staying in Orange County taking the \$18,000 per year job (A). As the figure indicates, she will be worse off than her original position when taking either of these two new options. Maintaining her original position is not possible, so she must choose between two unpleasant alternatives. Figure 4 makes it clear

that the gross earnings of \$4,000 per year less, but with a certain CCDF voucher for child care provide her with a higher effective wage than continuing to earn \$22,000 per year but be on the waiting list for a child care voucher. She can either lose \$5,276 in order to continue earning \$22,000 per year or she can lose \$2,900 by taking a \$4,000 pay cut. When she maintains her income at \$22,000 she retains the same EITC and CDCC benefits, but her loss is felt in having to pay her child care expense completely out-of-pocket. At a decreased income of \$18,000, all of her benefit levels increase to partially offset the \$4,000 loss in earned wages.

The end result is a losing proposition for both the family and the employer. The family experiences a setback in earnings and the employer must find and train someone new for the position. The lack of portability of the child care voucher prevents the employee from exercising the flexibility necessary to maintain employment.

Exploring an Alternative Model

It is important that governments create supports that most effectively enhance the well-being of society. Such programs must meet five major criteria: they should encourage full participation in the labor market, should ensure that children's well-being is protected, and should be efficient, effective, and equitable. Based on the three examples presented above, there is room for improvement in the current child care financial assistance system in the United States.

Strengths of the Current System

Both the tax credits and the voucher-based system allow parents significant diversity of choice in the type and location of the child care they can use. If we assume that allowing parents this flexibility is in the best interests of the family and the child, then this is a positive feature. During the time that families receive the CCDF benefit, their share of their child care costs increase as their income increases but their benefit reduction rate is mild: this means that as their income increases by an additional dollar per month,

they must pay an additional 10 cents per month out-of-pocket. The tax credits are also scaled to provide less support as incomes increase. This might be seen as equitable.

Efficiency is somewhat harder to gauge and would require a full cost-benefit analysis but I offer some thoughts on it here. The voucher-based program is less efficient in large part because of the transaction costs associated with it: parents are often required to miss work to apply for and maintain their voucher due to the requirement of in-office visits to supply necessary paperwork. For many of these parents this means missed pay due to their hourly wages. Many staff are also needed to administer the voucher system because of the requirements to determine eligibility, make monthly payments, determine payment rates, and ensure that no fraud is occurring either by the families benefiting from the funds nor from the child care programs receiving the funds.

Are the current programs effective in supporting child care needs so that parents can enter and stay in the workforce? This examination indicates that the programs are effective to a point. They do enable some families to enter and stay in the labor force that would not otherwise be able to do so. As families approach the eligibility thresholds, however, incentives become more complicated and the current system may actually discourage full productivity.

While offering a mechanism for underwriting the child care costs of parents is clearly important to society to enable parental participation in the labor force, social welfare could likely be improved. Not all families that need support are eligible to receive it, those who receive a child care subsidy are prevented from providing the type of labor market flexibility that employers desire, and as each individual chooses to use a more expensive child care program to maximize their utility they are preventing another person from accessing child care because sufficient funds have not been allocated. This last point is reflected in the nearly 500,000 children waiting nationally for CCDF assistance in 2008 (Schulman and Blank 2008).

Constructing a New Model

Ideally, a new model would make some people better off without making anyone worse off, thereby improving social welfare. It would better balance the needs of employers and the needs of employees with children, better recognize income transition points for families, and continue to provide families with maximum choice in meeting their child care needs. It would be efficient, effective, and equitable.

I propose a hybrid refundable tax credit/pre-tax deduction that draws from concepts used in a variety of current social welfare programs. The new model begins by consolidating the child care subsidy voucher program (CCDF), the Child and Dependent Care Credit (CDCC), and the Earned Income Tax Credit (EITC) into one tax credit available to families with earned income. The tax credit will be refundable to address the issue that not everyone who needs help earns enough money to pay taxes. It will also incorporate the special advance payment option that the EITC currently uses to ensure that very low income families have the funds available during the year to make the payments they need. Creating this as a federally administered system without an artificial limit on how many people can benefit also increases portability, reducing the conflict between the labor market needs of employers and the needs of employees. Families may choose to deduct child care expenses from their salary as a pre-tax option rather than receiving the benefit as a tax credit depending on their individual preferences.

Because child care regularly costs more than \$3,000 per child per year (the current maximum recognized by the CDCC), the new model allows families to claim expenses beyond that level. According to the National Association for Child Care Resource and Referral Agencies (2008), the average annual full-time price of child care for a 4-year-old⁹ ranges from \$3,380 in Mississippi to \$10,787 in Massachusetts, while the average annual full-time price of child care for an infant ranges from \$4,542 in Mississippi to \$14,591 in Massachusetts. The existing U.S. Child Care Bureau will be charged with collecting each state's most recent child care rate study to establish initial maximum benefit rates for dependent care expenses by age of child and region of the country. Future rates would be determined

using the reported dependent care costs of families filing for the tax credit. The 75th percentile of rates should be used to set the refundable level.¹⁰

Recognizing that creating artificial income limits creates conflicts between the labor market decisions of employers and employees, the new model creates a more mild benefit reduction rate (take-back rate) until a natural benefit phase-out is reached.¹¹ It also recognizes that many families eligible for Head Start and Early Head Start cannot access support through those programs because not enough spaces are available for all eligible children and in some cases the hours of operation of these programs are not compatible with the employment needs of families. Instead of penalizing these families for not accessing child care spaces within Head Start or Early Head Start programs, the new model will allow the families with income

Table 5:
Proposed Model Example for Family Size of Two

Income Level	Tuition Cost	Take-back Rate	Family Owes	Refundable Tax Credit
\$10,000	\$12,000	0%	\$0	\$12,000
\$14,000	\$12,000	0%	\$0	\$12,000
\$18,000	\$12,000	10%	\$1,800	\$10,200
\$22,000	\$12,000	10%	\$2,200	\$9,800
\$26,000	\$12,000	10%	\$2,600	\$9,400
\$30,000	\$12,000	10%	\$3,000	\$9,000
\$34,000	\$12,000	20%	\$6,800	\$5,200
\$38,000	\$12,000	20%	\$7,600	\$4,400
\$42,000	\$12,000	20%	\$8,400	\$3,600
\$46,000	\$12,000	20%	\$9,200	\$2,800
\$50,000	\$12,000	20%	\$10,000	\$2,000
\$54,000	\$12,000	20%	\$10,800	\$1,200
\$58,000	\$12,000	20%	\$11,600	\$400
\$60,000	\$12,000	20%	\$12,000	\$0

Source: Author's calculations.

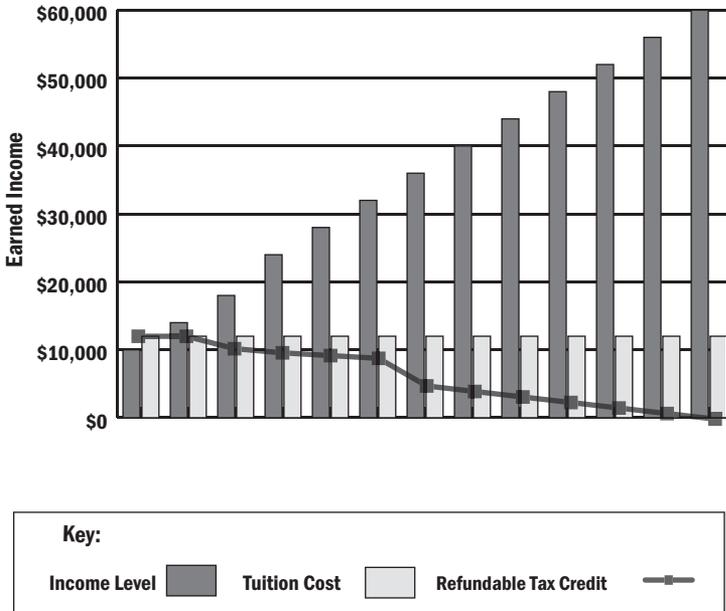
up to 100 percent of the poverty line¹² to access any child care program at zero out-of-pocket expenses just as they would if their child were in Head Start or Early Head Start. These families will have a 0 percent take-back rate until their income exceeds 100 percent of the federal poverty limit.

As earnings increase a family can afford to pay a higher percentage of their income towards child care expenses because less of their income is consumed by necessities. As indicated above, families earning up to 100 percent of the federal poverty level cannot afford out-of-pocket expenses for child care. Families earning more than the 100 percent poverty level but earning no more than 85 percent of the median income in their metropolitan statistical area (as used to determine federal housing assistance) will have a take-back rate of 10 percent meaning that for each extra dollar they earn, they will contribute 10 cents to child care expenses. Those families with earnings of more than 85 percent of median income will have a 20 percent take-back rate until they reach an income where natural phase out occurs (at \$60,000 in this example). In other words, these families will pay an additional 20 cents toward child care expenses for each additional dollar they earn.

Table 5 and Figure 5 provide an example and a graphical display of the proposed model for a family size of two where: 100 percent of the Federal Poverty Guideline is \$14,000, 85 percent of the median income is \$33,660, and the eligible tuition cost of the child care is \$12,000. As Table 5 demonstrates, the proposed model provides an equitable system. Any family eligible to file taxes in the United States who has eligible child care costs higher than their ability to pay can receive a refundable tax credit. There is no waiting list to participate and tax credits are based on child care costs relevant to the location of the care and the age of the child rather than simply set at one standard rate for the entire country. The system recognizes that families at different income levels have differing abilities to pay.

Figure 5 demonstrates why this is so important. In Figure 5 the light gray bar indicates the \$12,000 tuition cost facing each of these families while the dark gray bar represents their earned income. As earned income increases, the percent of income that would need to be devoted to paying for child care decreases from over 100 percent at \$10,000 to 20 percent

Figure 5:
Proposed Model: Family Size of Two



Source: Author's calculations.

at \$60,000. The model recognizes that all families have basic necessities they must purchase. As family income increases, so does the discretionary income a family has. The higher a family's income, the more they can afford to put toward child care expenses. The dark line marks the expectation of increased family contribution by showing the decrease in the portion of the child care expenses that will be refunded. There are no precipitous income eligibility thresholds as observed in Figure 1.

This model will likely enhance efficiency as well. As a refundable tax credit (available as an advance for very low income families), it allows families to choose how much they want to spend on child care, where they want to purchase the child care, and provides them full portability. It also decreases transaction costs for recipients of the benefit. Parents will no non-

ger have to miss paid work hours to apply for assistance or renew their benefits. They will not have to agonize over and cost out every pay raise to determine if it really is a benefit. They will not have to suppress their employment preferences to adhere to assistance policy requirements. This will enable them to accept more flexible jobs, to move more freely to follow jobs, and to respond to monetary incentives. Employers will benefit from this greater flexibility.

True effectiveness can only be judged after a program has been implemented but the portability, certainty, and flexibility provide grounds for a better policy match to the needs of both employers and employees.

How would our hypothetical families fare in the proposed system compared to the old system? Would their decisions be any different? Family 1 would strive for as many bonuses as they could get. If the family's gross earnings reach \$30,000 in the new system, the effective wage would be \$30,648. This is substantially better than the effective wage of \$24,676 experienced in the old system. Until the family's income reaches \$39,600, they will continue to see a steady increase in the effective wage. At this point, the family's contribution for child care co-payments will increase from 10 percent of their income to 20 percent. By then, however, they will be \$10,000 beyond where they would have lost eligibility entirely.

Family 2 would take the promotion at the originally offered rate of \$30,000. The opportunity cost associated with increased income has dissipated. In the new system the family's effective wage at \$30,000 will be \$33,024 as compared to \$22,300 in the old system. The new system allows the family to take the full wage offered by the employer. The family's wages will not be depressed in the future because of a short-term earning decision and there will be more room for wage increases in the future without the worry of a major financial set back.

Family 3 would move with their employer to Alamance County. The uncertainty of not receiving help with child care expenses would be eliminated. In the proposed system, the family's out-of-pocket expenses would be the same regardless of the county they live in.

Would this new model save the government money? While it is beyond the scope of this paper to examine this thoroughly, I reflect briefly on this

issue. A first glance at the expanded eligibility criteria would seem to indicate that this model would provide more financial benefits to recipients and thus cost more money, but it would likely be significantly less costly to administer. The current system requires staff in each state and in some cases each county within the state to make decisions about eligibility and payment amounts and to investigate fraud. Because there are many rules, large numbers of people and amounts of time are needed to ensure proper accountability. A tax-based system may not require the same kind of manpower. As a primarily reimbursement-based system, recipients will have to furnish proof that they spent the money already in order to receive the benefit (just as they do now for the CDCC). Fraud detection will occur in the same way as it does for other IRS-administered programs.

In addition to these direct savings, society benefits from the improved intersection between the needs of employers and their potential and current employees. The reduction of transaction costs for both employers and employees also provides a benefit to society. People operating child care programs will benefit from these changes as well. Participating in child care voucher programs can create a significant administrative burden for child care operators. They may be able to reduce administrative costs by eliminating all the paperwork and meetings required of them to participate in voucher-based programs. This could, in turn, lower child care prices.

Finally, society is likely to see some long-term benefits from this more flexible, portable, and certain system. Earnings and employment tend to build cumulative value. Families increasing their earnings may be able to exit other social welfare systems sooner or require less support from them. Families earning more now increase their ability to prepare for the future, including retirement.

Conclusion

It is clear that the Child Care Development Fund (CCDF) voucher-based subsidy system, the Earned Income Tax Credit (EITC), and the Child and Dependent Care Credit (CDCC) provide incentives for families with children to work by offsetting their work expenses and therefore increas-

ing their effective wage. It is also clear, however, that families nearing the eligibility threshold of the voucher-based subsidy system have incentives that may cause them to decline promotions and raises, reduce their efforts to achieve bonuses, and decrease the flexibility they offer to their employer regarding workplace locations. These are all rational decisions for these families who stand to lose thousands of dollars in benefits if their income increases by just one dollar or they move to another community where there is a waiting list. For these families at the eligibility margins the policy incentives for these programs designed to support work create an atmosphere where the employee gains the most in the short-run by making decisions that are least beneficial for the employer and are likely to hurt the employee in the long-run.

This conflict is not necessary. Families, employers, and society as a whole have the potential to benefit if policy incentives are realigned. A program that phases out benefits gradually, is guaranteed to anyone who needs it, is sensitive to price differentials around the country, and is administered through the tax system rather than through local social service offices throughout the country has the potential to be more equitable, more efficient, and more effective for us all.

This paper also points out that it is important to test the incentives of any social policy with income eligibility thresholds on families throughout the income eligibility spectrum. While benefit programs and incentives may move family actions in the desired direction for families in the lower and middle ranges of eligibility, incentives may reverse as families reach higher levels of income. The magnitude of these reversed incentives is likely even greater than what has been explored here as some families receive not only child care assistance but housing, nutrition, and health care assistance as well.

As we strive as a nation to increase productivity and enhance our ability to compete globally, it is important not to overlook the contributions our social policies make to this important goal. The design elements of these policies and the interactions between them create the landscape in which employees and potential employees make choices every day. These choices can either help or hinder employers' efforts to move forward. Policymakers

and program administrators at all levels of government should strive to ensure that these impacts are considered.

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Notes

1. The situations these families face are based on my experiences in child care subsidy management for more than 10 years.
2. States can offer their own version of these tax credits to provide further support to families but the state version of these tax credits is not examined here.
3. Although child care is the primary focus of this paper, the EITC and CDCC require that families have "dependents" to claim the benefit. A dependent can be a child or a disabled or incapacitated adult.
4. I administered child care subsidy programs designed to wrap around the traditional state and federal programs. These programs focused on families who were either not eligible for traditional assistance or were on waiting lists to obtain it. Thus, my experience is largely with families who encounter the limits of the benefit system.
5. In North Carolina the child care subsidy voucher system actually combines money from several federal funding sources, including Temporary Assistance for Needy Families (TANF), the Social Services Block Grant (SSBG), and the Child Care Development Fund (CCDF).
6. Head Start, Early Head Start, the Military Child Development System (CDS), Title 1 preschool programs, and the Child Care Access Means Parents in School (CCAMPS) competitive grant program are other federally funded programs to assist families with child care costs. These programs are not examined here because of their focus on specific populations and lack of focus on employment.
7. All of these families have incomes that exceed income eligibility limits for Head Start and Early Head Start.

8. A local agency may be the county department of social services or a designated nonprofit organization.
9. This data source only provides rates for 4-year-olds and infants; in most child care programs rates for 3-year-olds and 4-year-olds tend to be the same.
10. The current Child Care Development Fund sets the 75th percentile of rates as the fair level of access to child care options for families receiving assistance.
11. This model was termed the negative tax rate by Milton Friedman. The model is further explicated by Robert Moffitt (2003) as: $B = G - t*Y$, where B is the benefit gained (in this case the tax credit), G is the guarantee (in this case the cost of the child care), t is the negative tax (in this case the take-back rate or benefit reduction rate), and Y is the earned income.
12. The income eligibility threshold for Head Start and Early Head Start is the federal poverty standard adjusted by family size.

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