The Child Care Self-Sufficiency Scale: Measuring Child Care Funding and Policy Generosity across States

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THE CHILD CARE SELF-SUFFICIENCY SCALE:
MEASURING CHILD CARE FUNDING AND POLICY
GENEROSITY ACROSS STATES

by

KAREN TVEDT

A dissertation submitted in partial fulfillment of the requirements for the degree of

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ABSTRACT


Title: The Child Care Self-Sufficiency Scale: Measuring Child Care Funding and Policy Generosity across States

Against the backdrop of welfare reform, this study examined the generosity of state child care programs with generosity being defined as the extent to which state funding and policies promote child care availability, affordability, and health and safety for low-income families. Despite variations in Child Care and Development Fund (CCDF) implementation, no internally-consistent measure has existed that permits comparisons across the range of funding and policy indicators. This study addressed that gap by constructing a composite scale comprised of 12 indicators that were identified based on existing research and expert opinion to reflect key areas of state funding and policy discretion. Indicators were developed using 2004 expenditure, policy, and service-delivery data provided by the 50 states.

The 12 indicators include: (1) five items measuring funding and availability; (2) three items measuring affordability; and (3) four items measuring health and
safety. The result, the Child Care Self-Sufficiency Scale (CCSSS), provides a reliable, unified measure of state generosity ($\alpha = .755$). The CCSSS measures the extent to which states promote self-sufficiency through adequate child care funding and policies.

The validity of CCSSS was tested by examining the relationship between state generosity, as measured by CCSSS, state characteristics including the political and economic environment, and patterns of CCDF service delivery. The results confirm the validity of CCSSS and suggest that wealthier, more liberal states, with greater proportions of Democrats in state leadership, have more generous programs. Consistent with existing literature, larger percentages of African-Americans in state population and CCDF caseloads were associated with lower levels of generosity.

CCSSS also predicted the income of families served through CCDF, suggesting that greater generosity is associated with serving families as they progress toward self-sufficiency.

The study findings raise questions about the implications of welfare reform for how we understand justice and our social responsibilities as individuals, communities, and a nation. Included are questions about conditioning basic income supports on employment, inequality of opportunities across states, and the possibility that rather than breaking the cycle of poverty, welfare reform simply moved many families from the welfare rolls to the ranks of the working poor.
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With the first child who came through the door of my family child care home years ago, efforts to improve child care as a place where young children thrive and parents are supported became my accidental career and passion. While each of the children and parents became my teacher, the quest to learn drove me to the local family child care association and higher education. In my search for knowledge and understanding, many people believed in me, and served as mentors and friends including Marie Garrison, Elaine Smith, Ken Dolbeare, Susan Sanders, Margaret Sanstad, Margie Reeves, Linda Medcalf, Pat Dickason, Sally Reigel, Sister Monika Ellis, Susan Kavanaugh, Shannon Christian, Moniquin Huggins, and Ivelisse Martinez-Beck—to name just a few.

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Justice is the first virtue of social institutions, as truth is to systems of thought (p. 3). The justice of a social scheme depends essentially on how fundamental rights and duties are assigned and on the economic opportunities and social conditions in the various sectors of society (Rawls, 1971, p.7).

More is at stake than the concrete effects of the law. Welfare reform also shifted the foundations of our democracy and, by implication, democratic political theory. By eliminating entitlement and setting behavioral conditions on aid, welfare reform challenges our understanding of citizenship, political equality, and the role and moral cognizance of the state (Mead & Beem, 2005, p. 2).

CHAPTER 1: BACKGROUND AND SIGNIFICANCE

In 1996, the Congress of the United States abolished Aid to Families with Dependent Children (AFDC) and with it the many entitlements that had been established over the years largely due to court action and the work of activists. The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 replaced AFDC with the Temporary Assistance for Needy Families (TANF) and the Child Care and Development Fund (CCDF) block grants. Funding under the new block grants is based primarily on prior state welfare and child care spending, and in contrast with the old AFDC program, the federal share of TANF dollars is a fixed amount rather than a match to state expenditures. While states were granted substantial flexibility in the design of their welfare and child care programs, they were required to establish work requirements and time limits for the receipt of cash assistance, and to manage their programs without the promise of additional federal
funds should welfare caseloads increase due to economic conditions or other reasons (U. S. Department of Health and Human Services [DHHS], 1999).

While welfare caseloads across the country dropped by half during the early years of welfare reform, reauthorization of PRWORA was delayed from 2002 to 2005 due to disagreements about child care funding levels and whether states were adequately enforcing TANF work requirements. The Bush Administration argued that caseload credits for reductions in welfare rolls constituted a loophole that permitted lax enforcement of work requirements by states (DHHS, 2006). Additionally, the Administration argued that child care funding was adequate given decreased welfare caseloads and the states’ ability to use TANF dollars for child care. Supporters of the Administration’s position argued that there was no evidence that child care was a barrier to getting families off welfare, and that if a family did not use a child care subsidy, it was “probably because they do not need it or want it, not because they cannot get it” (Mead, 2005, p. 9). Advocates for additional child care funding, including those in organizations such as the Center for Law and Social Policy, the National Women’s Law Center, and the National Association of Child Care Resource and Referral Agencies, spoke to the importance of child care funding for supporting employment and ensuring the safety and well-being of children. They noted the small proportion of potentially eligible families actually receiving child care services and the difficult policy trade-offs states were making to manage within available child care funds (Greenberg, 2002).
TANF reauthorization ultimately was included in the Deficit Reduction Act of 2005. A press release issued by the Administration stated that the Act implemented the next step in welfare reform by “strengthening work requirements and providing the assistance families need to climb the career ladder” (Administration for Children and Families [ACF], 2006b). Reauthorization included changes in the calculation of the caseload reduction credit and expanded the programs covered by the work participation requirements. The Act included $150 million to encourage marriage and responsible fatherhood and an additional billion dollars for child care over the five year period of authorization. However, the increased child care funding fell significantly short of the additional $4.8 billion in child care funds that Congressional Budget Office staff estimated would be required to avoid inflation-related reductions in services over a five-year period—not including costs associated with increased work participation requirements (Greenberg, 2002).

This study demonstrates variations in the generosity of state child care programs prior to reauthorization of TANF and how these variations relate to state macro-level characteristics and to the services provided to low-income working families. In so doing, it shows just how significantly welfare reform has shifted our approach to justice and responsibility to the poor and how differently states have treated low-income families as they transitioned toward self-sufficiency.

As suggested by Macpherson (1977) and Dolbeare (1984) politics in the United States are characterized by ongoing tension between democracy and capitalism. Dolbeare argues that Americans once understood democracy as more than
the right to vote, and viewed it as including "political rights and economic realities—
in effect, people could not be politically equal if they were living under conditions of
drastic economic and social inequality" (p. xiii). Writing in the early 1980s, Dolbeare
(1984) pointed to economic upheaval as providing an opportunity to return to a more
substantive form of democracy characterized by better integration of economic, social,
and political goals and with "human aspirations and moral claims" (p. 225) granted
greater consideration in the political economy. As we will see, in contrast with this
vision, American families took the brunt of the economic changes that occurred in the
1970s and 1980s.

These decades were characterized by changes in the economy due to
globalization, a shift in jobs from the manufacturing sector to services and sales, and
reduced unionization of workers—all of which resulted in lower real wages. Families
responded with dramatic increases in the workforce participation of mothers. And,
with increased economic insecurity for working families, and greater numbers of
mothers in the workforce, decades of welfare policy were called into question. This
included, in particular, questions about income supports for poor mothers with young
children, and the contention that welfare was contributing to a culture of poverty in
urban ghettos (Kaus, 2008). In the end, economics prevailed over issues of democracy
and justice, and paid employment became a condition for income support under the
new welfare paradigm (PRWORA).

By virtue of the flexibility granted to states in administering welfare and child
care programs, as well as differences in resources among states, many low-income
parents found themselves required to work without the basic resources and supports needed to adequately care for and nurture their children (General Accounting Office, 2003; Johnson, Gais, & Lawrence, 2002; Schulman & Blank, 2005).

This chapter will describe in greater depth the political, economic, and social forces in the 1970s and 80s that led to the more paternalistic, work-oriented approach to welfare enacted through PRWORA. In defining paternalism, I draw on Mead’s (1997) notion that with behavioral conditions on the receipt of welfare, welfare agencies were forced into the role of directing and enforcing these conditions. This is in contrast to the more typical conservative position which calls for limiting the role of government (Mead, 1997). I also consider research that deals with the effects of poverty on young children, the importance of early development, and characteristics of welfare programs that are associated with improved child and employment outcomes. This background provides the context for an examination of state implementation of CCDF including variations across states in child care expenditures and policies, influences on the generosity of state child care subsidy programs, and the relationship between state policies and the characteristics of families and children served and the type of care they use. Also provided is an overview of the study including the major issues that were addressed and the relevance and importance of this research.

**Political, Economic, and Social Contexts**

The debates surrounding welfare reform reflect deep ideological differences about the causes of poverty, society’s responsibility for the poor, and the responsibility of the poor to society, and occurred against the backdrop of dramatic changes in the
economy, labor market, and family. Withorn (1996) writes that even liberals in the United States had come to argue that welfare was counter to values such as individualism and the virtue of work. She suggests that "by claiming universality for these values...the variability of their interpretation with race, class, gender, and ethnicity" were underplayed "thus obscuring their ideological roots and hegemony in the dominant culture" (p. 503). As opposed to changes in the economy and labor market, and the effects of racism and sexism, AFDC was held responsible for increasing numbers of single parent households, ghetto violence, drug use, and signs of hopelessness among the poor (in particular, the African American poor). Withorn also claims that "long term dependence of the underclass had become code terms for people of color, 'welfare reform' became an acceptable way to do something about black people without being explicit" (p. 506). These themes were echoed in a 2001 article published by the Brookings Institute which states,

For most proponents of reform, the goal was, as Bill Clinton put it, to "break the culture of poverty" in American’s ghettos—to take a culture characterized by welfare dependence, a high rate of births out-of-wedlock, high male unemployment, and crime and replace it with a new, more virtuous social dynamic, in which every family would be expected to have a breadwinner, and consequently young men and women would make better choices about schooling, marriage, and childbearing. The test of reform’s success, then, is whether in the long run the largely urban, largely minority, welfare-reliant
'ghetto poor' culture is absorbed into the mainstream American culture...

(Kaus, 2001, p. 1).

Supporters of welfare reform argued that welfare should be conditioned on responsibility, and, in particular, able-bodied adults should be employed. For instance, Mead and Beem (2005) acknowledge that PRWORA emphasizes order over justice, and extends the enforcement powers of the state into the arena of behaviors such as employment and unwed pregnancy. They argue, however, that the shift in welfare policy responded to increased electoral and public opinion conservatism in the United States, and was necessary to address the lifestyle problems of the poor.

The debates surrounding welfare reform occurred in the context of dramatic changes in the economy, labor market, and family. These changes resulted in economic insecurity for working families, and provided fertile ground for the argument that with increased numbers of mothers in the workforce, mothers on welfare should also work.

**Changes in the Economy and Labor Market**

Throughout the 1970s and 1980s, the labor market changed substantially, with globalization of the economy through trade and immigration, workers in the United States finding themselves in competition for jobs with workers in third world countries, and many corporations taking their operations overseas in search of lower wages. Further, a shift occurred in jobs from higher-paid manufacturing industries to lower-paid jobs in services and sales, the real value of the minimum wage decreased, fewer jobs were represented by unions, and more jobs provided temporary, part-time,
or other non-traditional working arrangements (Galbraith, 1998; Mishel, Bernstein, & Schmitt, 1997; Schiller, 1998). Starting in 1979, wages for men lost ground, especially for entry-level workers, and without increased workforce participation on the part of mothers (which doubled between 1976 and 1996), many families would have experienced a significant drop in their standard of living especially in view of increased housing costs (Mishel et al., 1997). After 1996, the picture is mixed. From 1995-2000, productivity grew in the United States, due at least in part, to increased technology, and working families saw 2.2% average annual increases in real family income (Mishel, Bernstein, & Allegretto, 2006). But while productivity continued to grow between 2000 and 2005 as measured by Gross Domestic Product, associated increases in income went largely to the most affluent households (the top 20%), and median family income lost ground by 2.7% (Mishel, Bernstein, & Allegretto, 2006).

**Increases in Single Parent Households**

The number of single parent households also grew dramatically starting in 1970. Among European-American families, the percentage of households headed by a single parent with children under 18 grew from 10% in 1970 to 26% (7.8 million family groups) in 1996 (U. S. Census Bureau, 1997). For the same period, the increase in single parent households among African American families was more dramatic, although in total numbers the increase was not as great as for white families, from 35.7% to 64.3% (3.5 million family groups). Latino families headed by a single parent grew from 26% to 37% (1.7 million family groups) during the same period. With deteriorating earnings, and the necessity for two wage earners in a family, the
increase in single parent households contributed significantly to increased poverty among children. By 1995, prior to the passage of welfare reform, 32.4% of all female-headed families were poor. (This statistic has remained relatively constant over time with poverty among female-headed households standing at 32.1% in 2003; Field, 2004).

**Poverty and Children**

This section draws on the work of the National Center for Children in Poverty (NCCP) including Chau, Douglas-Hall, and Koball (2006). Using U.S. Bureau of the Census data (U. S. Current Population Survey, Annual Social and Economic Supplements, March 1996-2006), NCCP staff analyzed the characteristics of low-income (under 200% Federal Poverty Level or FPL) and poor (under 100% FPL) children over the past decade. These researchers found that despite increased employment among low-income parents (55% of children under 200% FPL have at least one full-time, year-round employed parent) many children are growing up in low-income and poor families, with notable differences in child poverty among states. Nationally, 39% of children lived in low-income families in 2005. Children who were younger, or who lived in families that were ethnic and racial minorities, immigrant, or lived in the Southern United States were more likely to be low-income. Among children under age six, 42% lived in low-income families (under 200% FPL).

NCCP researchers (Chau et al., 2006) also found that while the percentage of children living in families with incomes below 100% of FPL decreased from 20% to 16% during the early years of welfare reform (1996-2000), the percentage of children
in poverty increased to 18% (12.8 million children) in 2003 and remained at 18% in 2004 and 2005. Rates of poverty were higher for young children and children in racial and ethnic minority households. Thirty-five percent of African American children, 28% of Latino children and 29% of Native American children lived in families with incomes below 100% FPL as did 20% of very young children (under age 6).

Between 1996 and 2005 most states experienced decreased rates of child poverty, but child poverty increased or remained the same in 16 states including some of the early welfare reform implementers including Oregon and Wisconsin (Chau et al., 2006). In 2005, there was great variation among states in the proportion of children in poverty. Only 7% of children in New Jersey lived in poor families in 2005 as compared to 25% in New Mexico, 27% in Mississippi, and 32% in the District of Columbia.

The large and ongoing number of children growing up in poor and low-income families, as well as variation in poverty among states, is a concern given what research tells us about the relationship between child outcomes and children's social and economic circumstances. As discussed by the National Academy of Sciences in its book, *From Neurons to Neighborhoods* (Shonkoff & Phillips, 2000), "Growing up in poverty greatly increases the probability that a child will be exposed to environments and experiences that impose significant burdens on his or her well-being, thereby shifting the odds toward more adverse developmental outcomes" (p. 9).

The National Academy cites two recent developments that highlight the importance of the earliest years including "an explosion of research in the
neurobiological, behavioral, and social sciences” (Shonkoff & Phillips, 2000, p. 1) which point to the importance of early brain development, positive early relationships, the knowledge and skills developed in early childhood, and the effectiveness of early intervention. Secondly, they note growing constraints on our ability to take advantage of this information including the difficulties many parents face in integrating parenting and work responsibilities, the financial difficulties many families experience, racial and ethnic disparities in income and early childhood experiences, the fact that many young children spend long hours in child care that is of inconsistent quality, and the effects of stress on young children.

In an attempt to develop consensus about the effects of poverty on children, Duncan, Brooks-Gunn, and Maritato (1997) brought together a group of researchers to review existing studies dealing with poverty and child outcomes. The studies included were large multi-site or national studies or smaller-scale studies that were longitudinal in nature. These researchers found that family income influences children’s ability and achievement and is typically a stronger predictor of ability and achievement than either the educational level of parents or family structure. These researchers concluded,

Taken together, the studies in this volume suggest that programs that raise the incomes of poor families will enhance the cognitive development of children and may improve their chances of success in the labor market during adulthood. Most important appears to be the
elimination of deep and persistent poverty during a child's early years (Duncan et al., 1997, p. 608).

Welfare Reform and Child Care: Child and Employment Outcomes

Child Outcomes

The relationship between family income and outcomes for children is confirmed by surveys conducted by the Urban Institute as well as emerging research about the effects of welfare reform. As part of their Assessing the New Federalism research, the Urban Institute conducted a national survey of households in 1997, 1999, and 2002 (Golden, 2005). More than 100,000 individuals were surveyed in each of these years. For households with children, the person identified as most knowledgeable about a child's health and education was surveyed. These surveys, which began in the early years of welfare reform, revealed little change across years in responses regarding child developmental risk, health status, and behavior or emotional problems. However, across surveys, low-income respondents (without regard to their TANF status) were more likely to report poor child health, poor mental health, and high levels of family stress as compared to higher income respondents.

Much of what we know about the effects of welfare reform on children comes from state and local experiments rather than from nationally representative surveys or studies. Therefore, consistent information across studies is lacking, sample sizes are small, and questions can be raised about generalizing from these studies to the national level (Grogger, Karoly, & Klerman, 2002b). However, three reviews of this literature reach the same basic conclusions—positive outcomes for preschool and school-age
children are associated with income supplements and improved family income (Grogger et al., 2002b; Morris, Huston, Duncan, Crosby, & Bos, 2001; Zaslow et al., 2002a, 2002b).

Zaslow and her colleagues reviewed studies of seven experimental welfare reform programs that were implemented prior to 1996 (2002b). These programs included provisions similar to TANF including emphasis on work, time limits, and financial incentives. The three programs that provided strong financial work incentives including earning supplements, child care assistance, and other employment supports, saw increased employment and reduced poverty as compared with programs that did not include these supports. While impacts on children varied by age, cognitive and behavior scores were more favorable for children 5-12 years in the strong work-support programs. Cognitive and academic outcomes also improved for school-age children whose mothers acquired additional education. These researchers concluded,

Favorable cognitive and behavioral impacts tended to occur among preschool or school-age children whose mothers enrolled in programs that not only increased employment but also improved the family’s over-all economic well-being (increasing family income, diminishing the proportion of families in the program in poverty, or both; Zaslow et al., 2002b, p. 81).

An analysis of a subset of five of these studies by Manpower Demonstration Research Corporation (MDRC) reached similar conclusions (Morris et al., 2001).
MDRC found modest positive effects on achievement, and sometimes behavior and health, for grade-school children in programs that supplemented income and increased parental employment income. Positive results were greater for children of long-term welfare recipients in programs with enhanced income supports.

Finally, under contract with the Administration for Children and Families, the RAND Corporation completed a research synthesis in 2002 to assess what was known about the effects of TANF, including child outcomes. Across a broader range of experimental welfare reform studies, RAND found that positive effects on children “were associated with financial work incentives, most likely because of the increase in family income that is accompanied by combining work and welfare” (Grogger et al., 2002). Again, this review found some negative effects related to subgroups of children, most particularly adolescents and young children in families that did not have large gains in income.

As will be discussed in greater depth in the next two chapters of this paper, these findings are particularly important in that the provision of work supports and the stringency with which states enforce TANF work requirements, vary substantially across states. And research indicates that less affluent states, states with more African-American and Latino families in their welfare caseloads, and states with high rates of child poverty are likely to provide less generous work supports (Boyd et al., 2003; Johnson, Gais, & Lawrence, 2002). Research results suggest that the effects of welfare reform are felt differentially across states to the detriment of young children
Employment Outcomes

Low-income working families, especially those transitioning from welfare to work, are likely to work in low paying jobs lacking benefits and stability and, not surprisingly, several state-level studies demonstrate that families receiving child care subsidies are concentrated in a few industries, most generally services and sales (Snyder, 2006). For many of these families, decisions about employment and child care are interconnected and related to other supports such as the Earned Income Tax Credit, food stamps, and medical benefits (Kreader, 2006).

As indicated above, there is evidence that strong financial work incentives are associated with increased employment among families attempting to transition from welfare to work (Grogger et al., 2002; Morris et al., 2001; Zaslow et al., 2002a). A literature review recently completed by Child Care and Early Education Research Connections (Kreader, 2006) indicates that while studies in progress will attempt to establish a causal relationship between receipt of child care subsidies and parental employment, most studies dealing with this topic use economic models to estimate the effects of child care costs on employment. While effect sizes differ across studies due to varying assumptions, Kreader found that mothers who use subsidies are more likely to work standard schedules, work more hours, earn more, and experience greater employment stability as compared with other low-income mothers. In particular, subsidy receipt was associated with increased likelihood of employment for single mothers and low-income mothers who have not completed high school; TANF
mothers who used subsidies were more likely to work jobs with standard-hour schedules.

Overview of Study, Approach, and Significance

By consolidating four federal child care programs into a single block grant under PRWORA in 1996, the connection between federal welfare and child care policy, and the role of child care as a support to employment was strengthened. While research demonstrates the association between poverty and less positive developmental outcomes for children, and the importance of income supports in improving the economic well-being of families and outcomes for children, states vary tremendously in the generosity and flexibility of their welfare and child care programs. State variation includes the degree to which child care subsidies are available for low-income working families, in particular the non-TANF working poor (Chapters II and III will address these issues in detail).

This study breaks new ground by developing a composite scale designed to measure state child care generosity across a range of key funding and policy indicators. For purposes of this study, generosity is defined as the extent to which state funding and policies promote child care availability, affordability, and health and safety for low-income working families. Parenthetically, Rigby (2005) examined four aspects of state early care and education policy including preschool investment, tax provisions, child care subsidy generosity, and stringency of regulation. Her analyses examined the visibility and coerciveness of state policies and found that state political environment influenced the mix and level of policies used by states. Similarly, others
have sought to differentiate among states, communities, and cities based on variations in child care funding and policies (Jordan, 2006; Ng, 2006; Schexnayder & Schroeder, 2008). This study extends the work of these researchers through the construction of an internally-consistent measure comprised of 12 indicators of funding and policy generosity. These indicators were developed using 2004 expenditure, policy, and service delivery data provided by the 50 states.

Tests of scale validity involved examination of: (a) major variations in child care funding and policies across the 50 states; (b) the relationship between state macro-level characteristics including ideology, partisanship, wealth, and racial and ethnic composition and child care generosity as measured by the scale; and (c) the capacity of the scale to predict cross-state variations in services provided, including the families and children served and child care used.

As will be discussed in greater depth in Chapter 3 of this dissertation, PRWORA created a natural experiment in which states developed and implemented their own particular “brands” of welfare and child care for low-income families (Gais & Weaver, 2002; Meyers et al., 2002; Nathan & Gais, 1998). While all states were required to implement welfare and child care programs that emphasized work, states varied greatly in the supports that were available to low-income families, and in the flexibility and stringency of the TANF requirements they placed on families. Definitions of flexibility and stringency differ across studies—however, flexibility generally refers to eligibility policies, time-limits and work requirements. Stringency typically relates to enforcement policies including sanctions. Research dealing with
state TANF implementation finds that state policy flexibility and stringency reflects state public opinion and ideology, partisanship in the state legislature and governor’s office, state economic and budget realities, and the racial and ethnic composition of a state’s welfare caseload (Faricy & Weaver, 2006; Fellowes & Rowe, 2004; Gul, 2000; Krejci, 2003; Mead, 2003; Ng, 2006; Soss, Schram, Vartanian, & O'Brien, 2001).

This study explored whether a state’s generosity in its approach to child care expenditures and policies would be influenced by the same macro-level variables (noted above) that predict state TANF implementation. In addition, associations between state child care expenditures and policies and the characteristics of families and children receiving child care subsidies and the type of the care they use were examined. Drawing on the work of Emlen (1998) and Myers and Jordan (2006), this study argued that as a socially constructed action, parental child care decisions are influenced by state child care subsidy policies, but that these policies interact with family, employment, and child issues in affecting the choices families make. And, by influencing the child care choices available to low-income families, a state’s approach to child care potentially affects the self-sufficiency and well-being of its families and children under the new federal welfare paradigm (Brooks, 2002; Grogger et al., 2002; Johnson et al., 2002; Loprest & Zedlewski, 2006; Zaslow et al., 2002a).

This study has implications for policy-makers and researchers at the state and national levels. At the state level, it helps illuminate the influences on state policy-making and how those policies affect low-income families and children. At the national level, it helps in assessing the degree to which the goals of CCDF are being
met (including parent choice and self-sufficiency goals) and the strengths and weaknesses of state case-level data in conducting cross-state comparisons. And, finally, by highlighting variations in the generosity and flexibility of state welfare and child care programs, it demonstrates the significance of welfare reform for democracy, citizenship, and justice in the United States.

Overview of Next Chapters

The remainder of this dissertation is organized as follows: Chapter 2 provides a description of the Federal Child Care and Development Fund (CCDF), the major CCDF policy choices at state disposal, and how states responded to the flexibility offered under CCDF and TANF. Chapter 3 reviews the literature about influences on state TANF and child care subsidy policy decisions and how families make child care decisions. Chapter 4 provides: (a) the conceptual model and research questions for this study, (b) discusses the methodologies used including sources of data, measures and definitions, and (c) describes the analytical procedures employed. Chapter 5 describes empirical results including scale development and findings from univariate, bivariate, and multivariate analyses. Chapter 6 discusses the results of the study, limitations of the research, and policy and practice implications for policy-makers, researchers, and the field of social work. The final sections of the report includes references, tables, a summary of selected research dealing with theories and findings about the influences on the generosity of state CCDF and TANF programs, and color-coded maps that show state patterns of generosity.
Part 98.1 Goals and Purposes. (a) The goals of the CCDF are to: (1) Allow each State maximum flexibility in developing child care programs and policies that best suit the needs of children and parents within the State; (2) Promote parental choice to empower working parents to make their own decisions on the child care that best suits their family's needs; (3) Encourage States to provide consumer education information to help parents make informed choices about child care; (4) Assist States to provide child care to parents trying to achieve independence from public assistance; and (5) Assist States in implementing the health, safety, licensing, and registration standards established in State regulations (DHHS, 1998, p. 39982).

CHAPTER 2: PROGRAM DESCRIPTION AND POLICIES

CCDF and Key Child Care Policies

To support states in providing child care for low-income working families including those transitioning from welfare to work, Congress consolidated three welfare-related child care programs (AFDC/JOBS, Transitional, and At-Risk Child Care) and the Child Care and Development Block Grant (CCDBG) under CCDBG as amended by PRWORA (Child Care Bureau, 2003). Now referred to as the Child Care and Development Fund (CCDF), CCDF provides $5 billion annually to states, territories, and tribes as a flexible block grant to help low-income working families pay for child care and improve child care quality. States may also transfer up to 30% of their welfare grants (TANF) to CCDF and spend TANF funds directly on child care.

As provided in the regulations governing CCDF, the primary goal of CCDF is to assist states in making child care available so that low-income families, including those transitioning off welfare, can work (DHHS, 1998). CCDF is also intended to support parental choice and to improve the safety and quality of child care. States
must operate a voucher (certificate) program that allows eligible families to pay for
center-based, family home, relative, in-home (child's home), and other categories of
care (including sectarian and non-sectarian) that are legal under state law. States are
prohibited from establishing family eligibility requirements or child care health and
safety regulations that exclude a significant number or category of providers and have
the effect of limiting parental choice. More specifically, within the parameters of
federal law and regulations (DHHS, 1998), states are granted the flexibility to
establish policies regarding eligibility, family copays, provider reimbursement rates,
eligible providers, and eligibility periods and processes.

Eligibility

States may serve families with incomes up to 85% of state median income
adjusted for family size and are required to prioritize services to very low income
families and families that include a child with special needs. In their biennial CCDF
plans, states must provide their definition of special needs. States must spend 70% of
their CCDF grants on services for families on TANF, transitioning off TANF, or in
danger of TANF dependency. While families must be exempted from work
requirements if appropriate child care is not reasonably available and affordable (as
defined by the state), such families are included in calculating the state's work
participation rate. This provides additional incentive to ensure that child care
subsidies are available to TANF families.
Family Copays

Federal regulations require states to establish sliding fee scales that provide for cost sharing (copays) by families that receive CCDF services. The sliding fee scale is to be based on income and size of family and may include other factors as appropriate. Copays may be waived for families with income below the poverty level. To ensure that families have access to the same types of care as privately-paying families, states are urged to set affordable copays. In fact, the preamble to the CCDF regulations suggests a benchmark of no more than 10% of family income for copays (DHHS, 1998).

Provider Reimbursement Rates

As part of its biennial state application and CCDF plan, a state must certify that its child care payment rates are high enough to ensure equal access for families being served through the state’s child care subsidy program. At a minimum, a state’s plan must include a summary of the facts that show families have access to the full range of child care providers, and that its rates are adequate based on a survey of child care market rates completed within two years of the effective date of its plan. The preamble to the CCDF regulations suggests that rates set at the 75th percentile of market rates would be regarded as providing equal access (DHHS, 1998).

Waiting Lists

Federal law governing CCDF provide that nothing in the statute creates an entitlement for providers or recipients, and states are given the ability to establish service limitations and conditions. Within the constraints of federal and state funds,
states decide whether or not they will serve all eligible families that apply, and many states do restrict eligibility through waiting lists, enrollment periods, or other mechanisms. These restrictions interact with eligibility limits in determining which families are able to receive child care subsidies.

*Eligible Providers*

As indicated, while states are required to establish health and safety standards governing child care providers, these standards must be balanced with the need to ensure parental choice. States may place limits on the use of in-home care but must explain why those limits have been established. Many states do limit in-home care (care in a child’s own home) because of labor law implications (minimum wage and employment benefits), concerns about health and safety (states generally lack the authority to regulate in-home care), and objections to paying relatives and friends for child care (Child Care Bureau, 2007a). On the premise that in-home care is more flexible and better accommodates the needs of low-income parents with non-standard-hour employment (other than Monday through Friday, 8:00 a.m. to 5:00 p.m.), the preamble to the CCDF regulations encourages states to make such care available to subsidized families (DHHS, 1998).

*Eligibility Periods and Processes*

While federal regulations set outside parameters about what constitutes an eligible child, they do not specify how often eligibility must be re-determined and the frequency with which reauthorization must occur. Studies conducted by the Urban Institute suggest that short periods of eligibility constitute a barrier to ongoing subsidy
receipt due to paperwork burdens, and because parents may need to miss work to meet with their eligibility workers (Adams, Snyder, & Sandfort, 2002a). Other studies suggest that termination of services tends to coincide with the end of an eligibility period (Adams et al., 2002a; Adams, Snyder, & Sandfort, 2002b; Schaefer, Kreader, & Collins, 2005; Shlay, Weinraub, Harmon, & Tran, 2004).

How Have States Responded to TANF and CCDF?

Welfare caseloads began decreasing in about 1993 with the strong economy, state efforts to move recipients from welfare to work, and increases in the Federal Earned Income Tax Credit. While consensus is lacking about the extent to which PRWORA contributed to decreased welfare caseloads after 1996, according to the Office of Family Assistance (2006) caseloads fell from 4.5 million families in 1996 to 2.7 million in 1999. Parenthetically, welfare caseloads continued to decline after 1999, but the rate decreased dramatically in FY 2000, and from FY 2000 to 2003, caseloads fell by fewer than 250,000 families. This slowing of caseload decreases coincided with a less robust economy and an increase in unemployment after 2000 (Office of Family Assistance, 2006).

With enactment of PRWORA, there were concerns among states about the adequacy of child care funding given TANF time limits and work requirements, and unknowns about the likely demand for child care subsidies (Ross, 1998). These concerns subsided somewhat as caseload reductions freed TANF block grant funds to be spent on activities related to the goals of TANF, including child care. In addition, fears about dramatic increases in the demand for child care subsidies did not
materialize as families transitioning off TANF used child care subsidies at a lower than expected rate. An analysis of state studies completed in the early years of welfare reform discovered that a majority of families left welfare for work, usually at close to full-time jobs with wages below the poverty line (Schumacher & Greenberg, 1999). A majority of families leaving TANF for work did not use child care subsidies, many lacked information about subsidies, and some incorrectly thought that receipt of subsidies would affect their welfare time-limits. However, Schumacher and Greenberg caution that these state studies were characterized by methodological issues including small samples and unclear survey questions.

When TANF regulations were issued in 1999, states gained increased flexibility in the use of TANF dollars for child care (Temporary Assistance for Needy Families Program Rule, 1999). These regulations provided that low-income working families receiving child care subsidies, but not cash assistance through TANF, were exempt from TANF requirements including the five-year time limit.

States did not benefit equally from TANF caseload reductions and related savings in TANF block grant dollars. First, states varied greatly in the caseload reductions they experienced. While caseloads dropped 55% nationally from FY 1996 to FY 2003, four states experienced decreases of more than 70% (Florida, Idaho, Illinois, and Wyoming; Office of Family Assistance, 2006). On the other hand, caseloads decreased by less than 30% in four states including Arizona, Indiana, Nebraska, and Nevada. Second, because state TANF and CCDF grants were pegged to state spending on welfare and child care in 1994 or 1995 (whichever was greater) or
the state 1992-1994 average, states with larger welfare and child care benefits during the base period received proportionately larger TANF and CCDF grants as compared to other states (Boyd et al., 2003; Johnson et al., 2002). This effect was moderated somewhat, but not entirely, by TANF supplemental grants. Finally, while states with lower welfare benefits under AFDC saw the largest caseload reductions, states with historically more generous benefits gained more dollars per case to redirect to other services (Boyd et al., 2003).

By 1999, states collectively spent approximately $8 billion in CCDF, TANF, and associated state funds on child care (Child Care Bureau, 2003). This was up from $3 billion in 1996. The amount of federal and state funds used by states for child care subsidies peaked in FY 2002 at $11.8 billion. According to the Child Care Bureau, in that year, 41 States transferred $2.1 billion in TANF to CCDF and spent approximately $1.6 billion in TANF funds directly on child care (2003). In FY 2003, the amount of state TANF funds invested in child care dropped slightly from $3.7 to $3.5 billion.

Despite dramatic increases in state expenditures on child care, DHHS reported that in 1999, only 15% of the children potentially eligible for services under state eligibility rules were being served (1999). And, states were serving only 10% of the children eligible under federal eligibility limits. Significant variation was reported among states. Two states served only 4% of federally-eligible children (Mississippi and Indiana) while two states (Oklahoma and West Virginia) served more than 20%. In reporting these findings, DHHS indicated, “Differences in state definitions of the
eligible population explain some of this variation, which is also caused by differences in funding amounts, local child care costs, reimbursement rates, copayment policies, and the number of low and moderate-income working parents in each state” (1999, p. i). These statistics were used by advocates and DHHS officials in successfully arguing for additional federal child care appropriations in the final year of the Clinton Administration.

In 2001, DHHS adjusted the formula for calculating the percent of eligible children served: to focus on children eligible under state rules (which were often lower than the federal maximums, e.g. while federal rules allow states to serve families with income to 85% of state median income, few states set their limits at the federal maximum); to exclude children aged 4-12 with parents who worked part-time; and to include an estimate of the number of children receiving child care services funded through TANF and the Social Services Block Grant. With these changes, DHHS estimated that in 2003 that 28% of potentially-eligible children 0-12 years of age were served through state child care subsidy programs. Of children below poverty, DHHS estimated that 37% were served (Child Care Bureau, 2006a).

**Funding and Policy Variations in State TANF and CCDF Programs**

For purposes of TANF, states establish cash assistance grant levels, resource limitations, and whether and to what extent earnings will be disregarded for purposes of TANF eligibility and benefit determination. Based on information from the ACF Office of Family Assistance (2006), in FY 2003, the monthly cash assistance benefit for a family of three with no income was lowest in Mississippi ($170), Arkansas
($204), and South Carolina ($204) and highest in Wisconsin ($679), California ($679) and Alaska ($923). Parenthetically, between July 1995 and June 2003, benefit levels in 29 states decreased or remained the same and hence were eroded by inflation.

Within the parameters of federal rules, states also implement more or less flexible policies governing time limits for receipt of cash assistance, how quickly parents must engage in work or work-related activities, family size caps (whether or not families on TANF receive an increase in cash assistance after the birth of an additional child), and sanctions for not complying with work requirements. For example, while TANF allows states to exempt single parents from work requirements to care for an infant (the lifetime caregiver maximum is 12 months under federal rules) and to exclude such caretakers from state work participation calculations, 5 states provide no automatic exemption and 16 states limit exemptions to the first 3 months (Office of Family Assistance, 2006).

Similarly, states exercise the flexibility offered under CCDF and vary greatly in the expenditures and policies that govern state child care subsidy programs. Individually, and in interaction, these expenditures and policies determine the value of child care subsidies to families, the willingness of child care providers to serve families receiving subsidies, the affordability of copays, and whether or not low-income working families have reasonable access to a range of child care choices (Adams, Koralek, & Martinson, 2006; Adams et al., 2002a; Layzer, 2001; Schaefer et al., 2005; Zaslow, et al., 2006b)
Variations in state policies and practices are documented through the CCDF plans and reports submitted by states to the federal government and through studies completed by the U.S. General Accounting Office (GAO) and others (Adams & Rohacek, 2002; Child Care Bureau, 2003; Edie, 2006; GAO, 2003; Schulman & Blank, 2006). These reports and studies demonstrate that states make adjustments to their child care expenditures and policies in response to state economic and budget pressures. For instance, GAO found that between January 2001 and April 2003, two thirds of states made changes affecting availability of child care. Of the 35 states that made changes, 23 decreased availability, 9 states increased availability, and 3 made a mix of changes (GAO, 2003).

A cross-state analysis of key state policies completed by the Child Care Bureau demonstrated that state CCDF eligibility limits varied from a low of 97% FPL in Ohio to 266% FPL in the District of Columbia. Twenty-four states indicated that they served all eligible applicants (most of the rest had waiting lists); all but 3 states (Missouri, Utah, and Wyoming) invested sufficient state funds to earn their full share of FY 2004 federal matching funds; and only 5 states (Connecticut, Nevada, South Dakota, Texas, and Wyoming) did not invest any FY 2004 TANF dollars in child care (Child Care Bureau, 2005).

In his analysis of state child care policies, Edie (2006) concluded that only Rhode Island, Wisconsin, and Wyoming met reasonable benchmarks in four key policy areas: (a) eligibility limits (at 175% FPL); (b) provider reimbursement rates (75th percentile of the state’s market rate survey as suggested by the preamble to the
CCDF regulations); (c) family copays at or below 10% of income (also suggested by the preamble to the CCDF regulations); and (d) no waiting lists for eligible families that applied.

While this study focused on child care funding within the context of PRWORA (TANF and CCDF), states also vary in the amount of non-CCDF dollars they devote to child care. As demonstrated by a recent study conducted by the National Council of State Legislatures (NCSL), some states spend far more than is required to earn their full share of CCDF dollars, and others fall short in meeting the state spending requirements under CCDF (Clothier & Poppe, 2008). Information about non-CCDF-related expenditures is limited, with the federal government and national organizations focusing primarily on child care expenditures connected with CCDF and TANF. An exception is the state survey conducted by the NCSL that examines 2007 state appropriations for child care and pre-kindergarten programs (2008). A comparison between the 2007 general fund child care appropriations reported by states to the NCSL, and the amounts required for states to earn their maximum CCDF grants, suggests that while 13 states appropriated at least double the state dollars required to earn their CCDF funds, many states appropriated just enough to draw down their share of CCDF dollars. Fully half of states appropriated less than the full amount required to earn their share of CCDF funds and likely intended to use state pre-kindergarten expenditures or other funding sources to cover portions of the state expenditures required to earn their full CCDF grant. This group includes states (e.g. Alaska, Connecticut, New York, and Washington) that were among states that spent
generously on child care and early education services in 1990 according to a survey completed by the Children’s Defense Fund (Adams & Sandfort, 1992). This suggests that some states used the flexibility gained through the TANF and CCDF grants, as well as decreased welfare caseloads, to replace state funding with federal dollars.
It is only rarely a conscious struggle, and those advantaged by the currently dominant version...have an interest in avoiding or preventing explicit consideration of the issue. They simply teach it, insist upon it, as one of the “givens” of life (Dolbeare, 1984, p. 4).

CHAPTER 3: LITERATURE REVIEW

This chapter will examine existing research that deals with: (a) influences on state child care and welfare policies; (b) poverty and state policies; and (c) child care issues including parental decision-making, use of child care subsidies, and child care subsidy policies. This literature review, including the theories, hypotheses, and findings used in relevant earlier studies, inform the study described in this dissertation.

Influences on State TANF and CCDF Expenditure and Policies

This section summarizes existing research dealing with state macro-level influences on the generosity and flexibility of state welfare and child care policies. It focuses on research conducted since 1996 (when PRWORA was enacted). Based on the assumption that state child care subsidy policies are likely to be influenced by many of the same macro-level factors as TANF policy, and recognizing that little research has been completed regarding influences on state child care subsidy policy, this review began with a search for TANF-related studies. Searches were conducted on the following sites: the Child Care Bureau’s Child Care and Early Education Research Connections (www.childcareresearch.org), the Administration for Children and Family’s Welfare Peer Technical Assistance Network (www.acf.hhs.gov), and UMI ProQuest Digital Dissertations. This search yielded several studies that
examined state welfare or child care policies and used modeling techniques to study the extent to which ideological, political, demographic, economic, and social variables predicted state child care and welfare decisions in the post-welfare reform years. The bibliographies of these studies led to additional relevant studies.

Only two studies were found that directly examined macro-level influences on state child care policies. One of these was published in a peer-reviewed journal (Ng, 2006), the other was a completed dissertation that was presented at a national conference of the Child Care Bureau (Rigby, 2005). Ten out of 12 studies focused on state implementation of TANF including benefit levels, income disregards, work requirements, and sanction policies. This review concentrates on four TANF-related studies (plus the two child care-related studies) that were published in a peer-reviewed or national publication or presented at a national conference.

*State Welfare Expenditures and Policies*

The studies examined use regression techniques to model state policy generosity, flexibility, and stringency as dependent variables and state ideology, partisanship, economic resources, racial and ethnic composition, and social conditions (such as rates of unmarried births) as independent variables. Many of these studies relied on research by Erikson, Wright Jr., and McIver (1993) in analyzing *state political ideology*, although two studies used variables suggested by Berry, Ringquist, Fording, and Hanson (1998). Erickson et al. (1993) measured liberalism of state opinion “as the mean ideological identification (conservative, moderate, liberal) in the pooled CBS-New York Times surveys” (p. 735) and argue that state ideology tends to
be stable over time. While policy positions may change, the relationship among states tends to remain the same, and states that had the most liberal policies in the 70s tended to have the most liberal policies in the 90s (Mclver, Erickson, & Wright, 2001). Berry et al. (1998) questioned the stability of public ideology over time. Their measure takes into account interest group ratings of state representatives to Congress (both incumbents and challengers), election returns for congressional races (winners and losers), and partisanship in state legislatures and governors’ offices.

Partisanship was generally analyzed based on party control of state government (legislature and sometimes the governor’s mansion), but one study included the percentage of a state’s popular vote going to the Democratic presidential candidate in 1996 (Gais & Weaver, 2002) and another study theorized that states with more evenly matched parties would adopt less restrictive policies and included a measure of party control in the state legislature (Soss et al., 2001). State economic resources variably considered per capita income, state taxes collected per capita, size of TANF grants, and Gross State Product. State economic resources were found to be related to aspects of state TANF generosity, flexibility, and stringency, but there were many non-significant findings (Faricy & Weaver, 2006; Fellowes & Rowe, 2004; Gais & Weaver, 2002; Ng, 2006).

One of the most consistent findings in these studies is a relationship between race and the restrictiveness of state policies. States with a larger proportion of African-American clients in their welfare caseloads (or state population, depending on the study) tend to have less generous welfare grants, work-related requirements that
start more quickly, and more punitive sanctions for non-compliance with requirements. More conservative states (characterized by public opinion conservatism and Republican versus Democratic control of state political processes) were likely to have cash assistance restrictions, stronger sanction policies, shorter time limits, and more stringent work requirements (Faricy & Weaver, 2006; Fellowes & Rowe, 2004; Gais & Weaver, 2002; Soss et al., 2001).

Among the most thorough (and widely cited) examinations of influences on welfare generosity and flexibility was that conducted by Soss et al. (2001). This study examined the restrictiveness of TANF policies defined as follows: Are recipients required to meet TANF work requirements earlier than the federal requirement (24 months); are state time limits for receipt of welfare shorter than the federal limits (60 months); has the state instituted family caps, (i.e., welfare grants do not increase if an infant is born to a family on welfare); and how stringent are state sanctions for failure to meet requirements? Against these variations in state policies, Soss and his colleagues (2001) tested six theories about why states adopt more or less restrictive welfare policies. These theories relate to ideological conflict, electoral politics, policy innovation, social control, racial resentments, and moral values. An analysis treating the four TANF policies as a single construct revealed that states were more likely to have restrictive TANF policies if they had a conservative government and a higher proportion of African-Americans in their 1996 AFDC caseloads. Soss’s measure of government ideology (liberal versus conservative) was based on Berry et al. (1998). Separate analyses of the four policies confirmed that family caps and strict time limits
were significantly more likely only in states with large percentages of African-Americans, and large percentages of Latinos, in their AFDC caseloads. In fact, Soss and his colleagues (2001) found that as the proportion of African American welfare recipients increased, “the probability of strong sanctions increases from .05 to .27, the probability of strict time limits shifts from .14 to .66, and the probability of a family cap climbs from .09 to .75” (p. 387). Similar effects were found for the incidence of Latinos on welfare rolls.

Tight labor markets and large increases in incarceration rates from 1990 to 1996 also predicted strict state work requirements. Soss et al. (2001) used changes in state incarceration rates to operationalize variations in the extent to which states used punitive means to control the poor and enforce community standards. Sanction policies were affected by a broader range of influences with state stringency being associated with AFDC caseloads with large proportions of African-Americans, conservative governments, less party competition (difference in proportion of state legislative seats controlled by major political parties), higher unmarried birth rates, states that made earlier requests for AFDC waivers, and states that had historically smaller AFDC caseloads.

Soss et al. (2001) concluded that under the new welfare paradigm, welfare continued to be “shaped by race, ideology, and control of representative institutions” (p. 389). They further stated that devolution:

has created openings for new forms of racial inequality that disadvantage African Americans in the U. S. welfare system. Because
states with more black recipients have adopted stricter policy regimes, black families are now more likely to participate under the most punitive program conditions (p. 390).

Influences on State CCDF Policy

As indicated, two recent studies explored influences on state child care policies. Ng (2006) asked the question, “Who shapes child care policy in the United States?” Ng hypothesizes that high quality standards are associated with: state opinion liberalism (Erickson et al., 1993); Democratic governors; a larger proportion of Democratic legislators; political representation of women (curvilinear relationship--women in state legislatures exert a positive influence on child care policies, but after a point, further increases in the number of women legislators do not result in more generous child care policies); greater state wealth (median household income in 1998); and the size of ethnic minority groups (percentage of ethnic minority children in 2002, negative effect assumed). Regression techniques were used to analyze state policies using the following dependent variables: staff-child ratios for 18-month and 4-year-old children; whether pre-service training is required for center teachers; and whether in-service training is required for family child care providers. Ng found a significant association between state opinion liberalism and staff-child ratios for 4-year-olds (but not 18-month-old children). The relationship between larger ethnic minority populations (all-non-white) and fewer staff for both age groups was also significant. Women’s political representation, governor’s party affiliation, party control of the
legislature, and state wealth were not significantly related to higher regulatory requirements.

Ng (2006) discusses possible limitations of her study including use of secondary data, how women’s political representation was measured, the possibility that her predictor variables may have been exogenous but lacking independence from other variables in the model, and low correlations among the four policy indicators.

Rigby (2005) examined four early care and education policy tools: state preschool investments, child care subsidies, tax policies, and child care regulations. Her analyses used pooled, cross-sectional, time-series data at four points in time (1990, 1994, 1998, and 2002). In part because her child care subsidies and regulations analyses are most relevant to this study, and because these policies are likely to be more closely aligned with welfare policy than other early care education policy tools, this review looks most closely at Rigby’s examination of child care subsidies and regulations.

Specific to child care subsidies, Rigby (2005) calculated a composite score for subsidy generosity using the following measures: CCDF expenditures over required state match per child 0-5 years, maximum income eligibility for a family of three, maximum monthly child care center rates for a four-year-old child, and the monthly copay for a family of three at the federal poverty level. Regulation stringency was measured using a separate composite score that included six aspects of state child care regulation: preservice education for center teachers, in-service education for center teachers, teacher-child ratios for 3-year-olds in centers, teacher-child ratios for infants
in centers, family child care licensing thresholds, and number of levels included in a state’s regulatory/tiered reimbursement system.

Rigby’s independent variables included political ideology (Erikson et al., 1993); partisanship (united Democrat, united Republican, versus divided) control of state government (Klarner, 2003); female representation in the legislature and governor’s mansion; state wealth and tax effort; governor’s attention to child care (was a specific call for greater child care access made in state of the state addresses); and interest group effectiveness (based on the rankings of 50 state political scientists). She cites the work of Thomas and Hrebenar as the source of the data used for interest group effectiveness.

On the assumption that early care and education policy is not made in a coordinated fashion within states, and that states make trade-offs among policy tools, Rigby (2005) clustered states based on their policy orientation. She found that subsidy and/or regulatory focused states were more liberal, wealthier, and had higher tax rates. While improvements were observed in state subsidy and regulatory policies across periods in Rigby’s study, these policies were correlated across time periods, for example, states with generous subsidy policies in 1990 were still generous in 2002. United control (regardless of party) was associated with increases in subsidy generosity. In the Southern United States, Republican control was associated with greater increases in subsidy generosity. Rigby speculates that greater increases in subsidy generosity under Republican control in the South may relate to a “catch-up effect” when increased resources became available for child care under PRWORA.
There were non-significant findings for female representation in the legislature and governor’s office, governor’s attention, and interest group effectiveness.

In finding that her four early care and education policy tools (dependent variables) were differentially related to her hypothesized policy influences, Rigby notes that studies dealing with influences on state TANF policies also found such differential effects. Rigby did not examine the relationship between race and ethnicity and state policies.

Poverty and State Welfare Policies

Several studies explored the relationship between poverty and welfare generosity and flexibility. As indicated, states with lower welfare benefits under AFDC saw the greatest caseload reductions under TANF, but states with historically more generous benefits gained more money to redirect to other services due to the size of their TANF grants and savings related to caseload reductions (Boyd et al., 2003). This enabled states with larger TANF grants per needy person to provide larger employment supplements through earnings disregards and a state earned income tax credit (Gais & Weaver, 2002; Johnson et al., 2002). Finally, there is some indication that state resources are associated with some but not all welfare policies (Faricy & Weaver, 2006; Fellowes & Rowe, 2004). Faricy and Weaver hypothesized that “states with a higher percentage of liberal policy preferences will result in more generous welfare policy and this will lead to less poverty, all else being equal” (p. 9). Their analysis, which examines the effects of state welfare policies on levels of poverty, finds an association between more flexible work requirements and lower poverty rates.
among single parents. Flexible work requirements are associated with liberal-leaning states, Democratic governors, more state resources, and smaller African-American populations (Faricy & Weaver).

Johnson et al. (2002) examined TANF implementation in 16 states with high rates of child poverty (from 21% to 27%). Combined, these 16 states (Alabama, Arizona, Arkansas, California, Florida, Georgia, Kentucky, Louisiana, Mississippi, Montana, New Mexico, New York, Oklahoma, South Carolina, Texas, and West Virginia) included 58% of all poor children in the United States in 1999. The researchers found that these states “emphasize going to work and staying off or getting off public assistance, and their policies about work requirements and TANF work programs are very similar to those of states with low child poverty” (p. 3). Yet, as compared to states with fewer poor children, this group of states had done less to expand resources for poor families. For example, if they provided an income disregard, it was less generous. Johnson et al. concluded that weaker spending increases in high poverty states relate to: (a) location in the Southern and Mountain states, small TANF grants, political traditions, and other influences that have limited state resources; and (b) county authority for welfare in New York and California which has made it more difficult to effectively implement welfare reform in those states.
Parent Child Care Choice and Child Care Subsidy Decisions

Parental Decision-Making

Research in the early 1990s found that parents most frequently indicated that the reason for choosing their child care provider was that the caregiver was "warm and loving" (Willer, et al., 1991, p. 22). The most important elements in selecting child care were safety, parent and provider communication about the child, and a warm and attentive relationship between the provider and child (Cryer & Burchinal, 1997; Galinsky, Howes, Kontos, & Shinn, 1994; Willer et al., 1991). This literature demonstrates that the child care choices made by families vary based on family characteristics, child care affordability, and employment demands. A literature review conducted as part of the National Study of Child Care for Low Income Families found that use of center care was associated with higher levels of maternal education and age of child (Burstein & Hiller, 1999). Use of unpaid care, non-center based care, and relative care were more likely when there was a husband, older sibling, or relative in the home and when there were multiple children. Other studies found an association between work schedules and type of child care used. Presser and Cox (1997) found that 38.2% of women said they worked non-standard schedules so they could care for family members. Folk and Yi (1994) discovered that fathers and relatives provide a substantial portion of child care in multiple care combinations, and that such arrangements were more likely among better educated mothers, when the mother’s
work schedule varied, the mother worked more than 40 hours per week, and the father was the main child care provider.

In recent years, research about how families approach child care decisions has expanded, although a recent review of Child Care Bureau-funded research suggests that existing research is limited by its focus on what families use rather than the decision-making process they use in making child care choices (Zaslow et al., 2006a). A number of researchers now conclude that child care decisions are made in context—taking into account the parents’ personal beliefs and preferences, family structure and characteristics, work requirements, logistical considerations, and the need for flexibility (Emlen, 1998; Emlen, Koren, & Schultze, 2000; Henley & Lyons, 2000; Huston, Chang, & Gennetian, 2002; Lowe & Weisner, 2004; Mensing, French, Fuller, & Lynn, 2000; Meyers & Jordan, 2006; Zaslow et al., 2006a).

In their qualitative study involving 38 families, Lowe and Weisner (2004) found that child care decisions were influenced by material and social resources, family issues, values and beliefs about parenting and child development, and the predictability and stability of child care. Lowe and Weisner discovered that subsidy programs worked better if they offered flexibility and a range of options, because changes can require major accommodations on the part of families. For instance, a pay increase that jeopardizes child care subsidy eligibility might lead to a voluntary reduction in work hours or a change in child care arrangements.

From his surveys of child care decision-making and quality from the “parent’s point of view” Emlen (1998) found that when parents have flexibility in work, family
and/or child care, they report greater satisfaction and quality in their child care arrangements. And when parents lack flexibility in their work or family situation, they look for it in child care, often by choosing more flexible types of care such as relative care, care in the child's own home, and family child care. Emlen concludes, "The issue of flexibility appears to shape parents' choice of the type of child care they use and the quality of care they are able to choose from what's available to them in the world they live in" (p. 13).

Meyers and Jordan (2006) review the literature about parental child care decisions using two theoretical and research frameworks to compare "models of individual consumption choice with models of socially constructed or situated patterns of action" (p. 53). Models of individual consumption choice consider child care decisions from an economic perspective with mothers making trade-offs between care and paid employment, and with the price of child care and child care quality affecting the choices parents make. Meyers and Jordan suggest that models of individual consumption (or rational choice) fail to explain much of the variation in parent choices, use proxy measures for parent preferences, do not include supply-side variables (e.g., local supply and quality), and reach contradictory conclusions about the directionality of determinants such as work schedules.

Meyers and Jordan (2006) draw on the work of Pescosolido (1992) who understands decision making as a "dynamic, interactive process fundamentally intertwined with the structured rhythms of social life" (p. 1105). Pescosolido argues for a cross-disciplinary perspective that views individual action as embedded within
the context of social interaction and structures. In making the case for child care
decision making as a socially constructed action, Meyers and Jordan (2006) suggest
that parents construct their view of child care quality within "the context and
constraints of their work, family, and care alternatives" (p. 61). "Their decisions are
limited and filtered through social networks" and "their options are limited by both
actual and perceived constraints in supply and family resources" (p. 62). In viewing
child care decisions as occurring within, and influenced by, a broad array of social and
economic factors, these researchers provide a theoretical approach that is useful in
explaining why so many low-income families do not use child care subsidies or use
them only episodically. As a socially constructed action, child care decisions are
influenced by subsidy policies such as eligibility limits and family copays. However,
these combine with other forces including family, employment, and child issues in
determining the decisions families make.

**Child Care Subsidy Use**

*Child Care and Early Education Research Connections* recently completed a
review and synthesis that examined the findings of 13 studies that looked at the
characteristics of families that use subsidies (Schaefer et al., 2005). While caution is
urged due to the small number of studies examined, *Research Connections* found that
families are more likely to use child care subsidies if they are headed by a single
parent, have young children (0-5 years), have a TANF connection (currently receiving
cash assistance or are transitioning off cash assistance), are African-American, use
center-based care, and have a higher tolerance for the administrative hassles
encountered in getting and maintaining child care subsidies. Across studies, *Research Connections* discovered inconsistent findings regarding the ability to predict the likelihood of Latino families using child care subsidies and the influences of family size, education, and income.

Several state-level studies demonstrate that families receiving child care subsidies are concentrated in a few industries, most generally services and sales (Child Trends, 2005; Schaefer et al., 2005). While employment and child care stability contribute to positive outcomes for families and children, child care subsidy receipt tends to be of short duration (3 to 7 months in one cross-state study) and exits frequently are associated with the end of the eligibility period (Grobe, Weber, & Davis, 2006; Meyers et al., 2002; Witte & Queralt, 2003). These studies also suggest that the amount of the subsidy, related to provider reimbursement rates and family copayment requirements, also appears to affect subsidy duration.

A number of studies address the barriers many families face in accessing and keeping child care subsidies (Adams et al., 2002a; Chaudry, 2004; Lowe & Weisner, 2004; Schlay et al., 2004). Misinformation and lack of knowledge is a common finding—for those families receiving and not receiving child care subsidies. Families also cite administrative hassles including multiple workers, delays in getting care approved (especially for unregulated, legally exempt care), close linkages between eligibility and work participation, reporting requirements, and frequent reauthorization requirements. The beliefs that they weren’t eligible or that long waiting lists existed also serve as a deterrent for some families (Adams et al., 2002a; Chaudry, 2004; Lowe
& Weisner, 2004; Mensing et al., 2000; Meyers & Jordan, 2006; Schlay et al., 2004; Schumacher & Greenberg, 1999; Snyder, 2006; Zaslow et al., 2006a). These hassles contribute to lack of stability for children and families and are particularly challenging for families that face language and transportation barriers and/or experience multiple changes in employment and income (Adams et al., 2002a; Lowe & Weisner, 2004). In his in-depth qualitative study of families in New York, Chaudry found that families often put together arrangements that were unstable and unreliable and experienced frequent changes. Twenty-five percent of the children in Chaudry’s study had seven or more primary child care providers in their first four years.

**State Child Care Subsidy Policies**

Researchers seeking to demonstrate clear relationships and patterns in state child care policies have often encountered challenges. In one of the earliest comparisons of cross-state child care policies in the post-welfare reform era, researchers were not able to establish consistent policy determinants of the differences among states (Meyers et al., 2002). This study found that subsidy spells were longer when services were initiated due to parental employment, but the longest subsidy spells were found in a state with the highest eligibility limits (Texas) and in a state with one of the lowest (Illinois).

A number of researchers suggest that state and community child care policies involve trade-offs among policies resulting in unique combinations of policies that reflect policy preferences within the limitations of budgets (Jordan, 2006; Meyers et al., 2002; Schexnayder & Schroeder, 2008). Hence, a decision to avoid waiting lists,
and serve all eligible families that apply, may force a state to ration services through some mix of less generous eligibility limits, family copays, and lower provider reimbursement rates. Meyers et al. speculated that interactions among policies (and differences in families served across states) may have contributed to the lack of anticipated associations between policies and continuity of services in their study. Moreover, key policies may actually involve clusters of related policies (e.g., in addition to setting maximum eligibility limits, states may require parents to work a minimum number of hours per week, disregard some income from consideration, set higher eligibility limits for ongoing subsidy receipt, and/or implement time limits on the receipt of subsidies). Policies are also influenced at the implementation level by administrative factors such as eligibility processes including which agency actually conducts eligibility determination and whether or not applications must be made in person, eligibility worker caseloads, and frequency of required reauthorizations (Adams et al., 2002b; Adams et al., 2006). Without considering how these clusters of sub-policies interact, and how the policies are implemented at the client level, the ability to understand the differences among states may be limited.

A few researchers have sought to examine policy interactions by clustering communities based on configurations of policies. Schexnayder and Schroeder (2008) assumed interactions among policies in their study of key child care subsidy policies across communities in Texas and “devised a categorization scheme to represent these policies in such a way that the interrelatedness between the policy decisions does not obscure their interpretation” (p. 10). Informal clusters were created that reflected
whether local boards had made changes in eligibility, family copay, or reimbursement rate policies within the study period. These researchers confirmed earlier studies about the relationship between subsidy receipt and employment duration, but some of their findings were counterintuitive including that increasing provider reimbursement rates was associated with shorter employment spells. (After publication of this study, it was discovered that some jurisdictions in Texas had implemented time limits on subsidy receipt which may account for this finding). Schexnayder and Schroeder also found that associations between employment stability and individual family characteristics were stronger than the associations with subsidy policies. Employment stability was associated with families that were white, had a youngest child who was school-aged, used full-time care, used family child care instead of centers, and employment in the health care, nursing, and residential care sectors.

Jordan (2006) used CCDF and TANF policy variations to cluster the 20 cities involved in the Fragile Families and Child Well-Being study. The resulting clusters of cities were characterized as conservative, limited, average, and universal. While policy scores varied widely among clusters, for instance, the average provider reimbursement rate for the universal cluster was double that of the conservative cluster, overall subsidy receipt among single parents in the Fragile Families study was similar across clusters. Except for income eligibility limits and family copays, subsidy policies did not predict subsidy involvement as hypothesized by the study. (While Rigby [2005] examined policy trade-offs using cluster analysis, she did so in broad policy categories, e.g., subsidy generosity and regulatory stringency, and did not look
at trade-offs between the individual policies within these categories. Therefore, her work is not discussed in this section.)

In several studies, state eligibility, waiting lists, copay, and reimbursement rate policies were shown to influence parental employment, access to subsidies, and the child care choices that were available to low-income families. A Florida study found that while small copays (under about 10% of earnings) did not result in lower parental earnings, larger copays influenced work effort and produced negative earning effects among low-income working parents (Queralt, Witte, & Griesinger, 2000). A similar study in Rhode Island found that income and age eligibility expansions, and increases in reimbursement rates paid to formal providers, significantly increased the likelihood that current and former welfare families would use child care subsidies, work 20 or more hours per week, and leave welfare for work (Witte & Queralt, 2003). As suggested by the Rhode Island study, subsidy policies such as maximum payment rates, payment for child absences, and the copays providers must collect from parents may influence the willingness of providers to care for subsidized children (Adams & Snyder, 2003; Witte & Queralt).

Care Used by Families Receiving Child Care Subsidies

Child care subsidies are intended to provide low-income families with a range of child care choices, including child care centers and homes that otherwise might be too expensive. And, in contrast with national averages, most children served through CCDF are in regulated child care centers and homes (Child Care Bureau, 2006a). In their analysis of findings from the National Survey of American Families, Capizzano
and Adams (2003) found that among low-income children (under 200% FPL) under age 5 with employed mothers, 68.7% were in non-parental care arrangements and 31.3% were in parental care or did not have a regular child care arrangement. Among children in non-parental arrangements, 36% were in center care, 15.6% in family child care, 5% in the care of a nanny or babysitter, and 42.9% in relative care (this study did not distinguish between regulated and non-regulated settings). Capizzano and Adams (2003) also found that higher income children (over 200% FPL) were more likely to be in non-parental care (74.6% as compared to 68.7%) and to be in center-based (41.8%) and family child care (19%) settings. A more recent analysis of child care use among families with income below 150% FPL was conducted by Child Trends using 2003 National Survey of Children’s Health data (Lippman, Vandivere, Keith, & Atienza, 2008). For children under age 5 in any non-parental care, these investigators found that across states, from 32% to 74% received care in a center-based setting.

While questions can be raised about whether families seek subsidies because they prefer and are able to use regulated centers and family child care homes, or whether subsidy policies and practices encourage the use of such care, in FY 2003, 75% of children served through CCDF were in regulated centers and homes, 57% in child care centers, and 18% in family child care homes or group homes (Child Care Bureau, 2006a). The remaining children were in relative and non-relative family child care that was legally operating without regulation (16%), centers that were exempt from regulation (3%), and care by relatives and non-relatives in the child’s own home (7%).
As with the findings from the National Survey of American Families (NSAF), CCDF national data mask substantial variations among states in the care used by subsidized families. While 60% of subsidized children nationally received care in centers (regulated and unregulated), 85% of children in North Carolina, and 83% of children in Georgia and Mississippi were in centers (Child Care Bureau, 2006). This compared with only 18% in Oregon and 16% in Michigan. Similarly, as compared to Michigan and Wyoming which served 31% and 34% (respectively) of subsidized children in the child’s own home, 20 states reported that 1% or fewer of subsidized children were served in the child’s own home. While some of these variations clearly relate to underlying state historical, economic, social, and cultural forces, state policy differences also contribute to the variation. An obvious example is the apparent relationship between policies limiting the use of in-home care and the very low percentage of children served in such care in many states.

Summary

Chapter 2 of this dissertation discussed how states have exercised the flexibility allowed under TANF and CCDF to implement quite varied approaches to welfare and child care. Across states, TANF benefit levels vary as do the flexibility and stringency of the requirements families must meet to receive TANF benefits. Similarly, state child care subsidy programs differ in the extent to which they respond to the child care needs of low-income working families. The research reviewed in Chapter 3 links the variations in state welfare and child care programs to macro-level state characteristics including public ideology, partisanship, state economic resources,
and race and ethnicity. This review suggests that states with larger proportions of African Americans, Latinos, and poor children offer TANF and child care services that are less generous, and in the case of TANF, less flexible, with more stringently enforced requirements. The review of literature regarding parental choice and use of child care subsidies suggests that child care choices are a socially-constructed action influenced by the opportunities and constraints of work, family, and the child care options available—and for low-income working families, by the policies governing the state’s child care subsidy program. Given this context, it is important to better understand how variations in state child care subsidy programs are influenced by state macro-level characteristics and how these variations relate to which families and children use child care subsidies and the nature of the care they use. This was the purpose of the study described in the ensuing chapters.
A social theory is itself a catalytic agent of change within the complex social life which it analyzes (Fay, 1975, p. 110).

CHAPTER 4: RESEARCH QUESTIONS AND METHODOLOGIES

This study is exploratory in nature and involves construction of a child care funding and policy scale to examine the extent to which states promote economic self-sufficiency among low-income working families by supporting the availability of safe, affordable child care services. As noted, Rigby (2005) used composite indexes to characterize state subsidy and regulatory policies. Other scholars have used child care policy indicators to examine variations in the implementation of child care subsidy programs, and on a limited basis, some of these studies have examined differences in patterns of service delivery given alternative policy regimes (Lee, et al., 2004; Jordan, 2006; Meyers et al., 2002; Ng, 2003; Schexnayder & Schroeder, 2008). This study extends past work through the development of a composite scale comprised of 12 indicators of child care funding and availability, affordability, and health and safety. Unlike the other studies noted, this research sought to construct an internally consistent measure of state child care funding and policy generosity across key areas of state funding and policy discretion.

This chapter provides: (a) a conceptual framework for the study, (b) the three research questions that guided the analyses, (c) data sources, and (d) the measures and definitions used including indicators of funding and policy generosity, state macro-level characteristics, and service delivery variables that address the families and
children served through CCDF and the type of care provided. Analytical procedures are also described including scale development and the univariate, bivariate, and multivariate methods employed.

Conceptual Framework

The conceptual framework for the study is shown below. Based on review of existing research, state macro-level characteristics were expected to influence the generosity of state child care funding and policies. Associations were also expected between state generosity and services provided by states including which families and children had access to child care subsidies through CCDF and the type of child care they used.

Figure 1. Conceptual model for study.
Research Questions

This study examines the following three main research questions:

Research Question 1: What are the major funding and policy variations among states as demonstrated through child care funding and policy indicators and a composite measure of state generosity? Child care subsidy funding and policy variations reflect the flexibility granted states under CCDF. To address this question, this study constructed a reliable, unified measure of state generosity comprised of 12 indicators of child care funding and availability, affordability, and health and safety. These indicators were identified based on existing research and expert opinion to reflect key areas of state funding and policy discretion, and use 2004 expenditure, policy, and service-delivery data provided by the 50 states. As discussed later in this chapter, these indicators include five items measuring funding and availability, three items measuring affordability (copays), and four items that measure basic health and safety requirements across types of care.

The decision to use 2004 data for indicator development was made for a number of reasons. The economy in 2004 was relatively stable, states had been implementing CCDF in the welfare reform context for a number of years, and CCDF and TANF were operating under continuing resolution, meaning that while Congress had authorized ongoing operation of these programs, changes related to reauthorization had not occurred. From the standpoint of CCDF data quality and availability, the Child Care Bureau had worked with states to improve the quality of
state reporting, and for the first time, CCDF case-level data was made available in 2004 as a public-use data set.

While researchers and national organizations regularly compile and analyze expenditure and policy information from states, these analyses tend to be descriptive and at a general policy level, (e.g. what percent of income do state copays represent for a family of three at 150% of FPL)? These analyses generally do not lend themselves to modeling the relationships among state child care expenditures and policies, macro-level influences on expenditure and policy decisions, and service delivery patterns including the characteristics of families and children being served and the type of child care used.

Studies conducted by Rigby (2005) and Ng (2006) are among the exceptions. These researchers examined state macro-level influences on state child care policies. Another exception is the ACF TANF High Performance Bonus (HPB) Awards which included a Child Care Subsidy Measure intended to reward participating states for excellence in their administration of child care subsidies under CCDF (Administration for Children & Families, 2005). This measure, which relied on collection of additional data from states and special analyses performed by ACF, was abolished with TANF reauthorization in 2006. This measure analyzed state performance in three areas: (a) accessibility or proportion of children served as a percentage of those who meet maximum federal eligibility requirements; (b) affordability which examined state copayments in relationship to family income in five categories; and (c) quality which was scored using state provider reimbursement rates as a proxy for quality (on the
assumption that higher reimbursement rates give parents access to better quality care). While the HPB Child Care Measure was criticized for being overly complex, and for its inexactness in measuring copays and quality, it did demonstrate the feasibility of cross-state child care policy comparisons using constructed measures that involve the use of existing state administrative data.

**Research Question 2: To what extent are specific state macro-level characteristics including political ideology, partisanship, wealth, and race/ethnicity associated with variations in state child care funding and policies as measured by a composite measure of state child care generosity?** As shown in the conceptual model above (Figure 1), state ideology and partisanship, wealth, and race and ethnicity were expected to predict greater state child care generosity as measured by a composite scale. This expectation was based on research that addresses TANF implementation, as well as studies by Rigby (2005) and Ng (2006), which have variously demonstrated an association between state policies and public opinion liberalism, economic resources, and race/ethnicity. The state macro-level characteristics used in this study included the Berry et al. (1998) measures of citizen and government ideology, state per capita income, state per capita taxes, and proportion of state residents who are African-American and Latino (separately). Details regarding these measures, including definitions, are provided later in this chapter.

**Research Question 3: To what extent are state child care funding and policy variations associated with cross-state differences in the characteristics of families and children using child care subsidies and the type of care they use?** The decisions
states make about how much to spend on child care subsidies, and the policies they set
to manage within available funds, influence which families are eligible for child care
subsidies and, within the framework of socially constructed patterns of decisions
(Emlen et al., 2000; Meyers & Jordan, 2006; Pescosolido, 1992), influence whether
the constraints of family, employment, and available child care options make subsidy
receipt a viable choice. State funding and policy variations also influence the extent to
which child care providers are willing to serve children whose care is subsidized
through the state.

As shown in Figure 1, this study predicted an association between state
funding and policy generosity as measured by a composite scale and variations among
states in the characteristics of families and children served. With regard to type of
care used by subsidized families, this study predicted that variations in the type of care
used by families would also be predicted by the child care generosity scale.

Data Sources

This study relies on secondary analysis of the data states submit to the federal
government as a condition of the funding they receive through CCDF. A 50-state data
base was developed using FY 2004-2005 biennial state CCDF plans (ACF-118), FY
2004 CCDF and TANF financial reports (ACF 696 and 196), and FY 2004 aggregate
and case-level data provided about families and children served (ACF 800 and 801;
relied on a summary compiled by the National Child Care Information Center
(NCCIC) as well as detailed information included in the underlying NCCIC Access
data base and electronic copies of actual state plans provided by NCCIC (Child Care Bureau, 2004). The Child Care Bureau, through its data contractor, provided state profiles with key summary statistics about the characteristics of families and children served by states in FY 2004 including the type of care provided (Gagnier, 2007). These reports were supplemented by many sources including survey data, existing data sets, and government statistics. Compilation, variable construction, and coding were completed by the researcher and author of this dissertation.

As indicated by Grinnell (1997), the use of administrative data takes advantage of information collected in the course of program administration and service delivery and extends the knowledge gained from earlier analyses. While it is limited to the variables collected, administrative data provide important information that might not otherwise be available and would be costly to collect. Similarly, use of existing data and statistics is efficient and extends the knowledge to be gained from these sources.

Challenges involved in the use of secondary data and existing statistics include some that potentially threaten the validity and reliability of the data and ultimately study findings. Threats include differences among states in how terms are defined, missing data, and inconsistencies and errors in the data provided by workers. Threats specific to this study are described and accounted for throughout this report. Most significantly, service delivery data are limited to the population that actually participates in a program, in this instance, a state’s child care subsidy program. While statistical methods are used to control for known influences, it is impossible to rule out issues of selection bias and omitted influences. For instance, as discussed in the
literature review, many factors in addition to the generosity of state child care supports influence the choices parents make including values and culture, extended family support, community characteristics, parent age and education, and employment demands. So, for example, while parent characteristics such as age and education have been shown to be associated with the use of child care subsidies (Phillips, Nelson, & Giannarelli, 2003; Schaefer et al., 2005), these data were not available in the service-delivery data used for this study.

Measures and Definitions

Measures of child care funding and policy, state macro-level characteristics, and CCDF service delivery were constructed based on existing research and the availability of existing data. An SPSS data base was created with state scores on funding and policy indicators, macro-level characteristics, and CCDF service delivery patterns, (e.g. proportion of children served by the state who were identified as “Black”). Constructing and selecting measures of child care funding and policy was an iterative process involving repeated tests to assess relationships among indicators and analyze the contribution of individual indicators to the reliability of the scale.

Indicators of Funding and Policy Generosity

Guided by existing research and theory, as well as expert opinion, and drawing on 2004 expenditure, policy, and service delivery data provided by the 50 states, 12 indicators were developed to reflect key areas of state funding and policy discretion. Included were: (1) five items measuring funding and availability relating to state CCDF Mandatory Grants, welfare dollars invested in child care, children eligible
under state rules, provider payments, and TANF infant care exemptions; (2) three items measuring affordability, including proportion of families with zero copays, average copays under 100% FPL, and copays at 150% FPL; and (3) four items measuring health and safety including in-home background checks, family child care licensing thresholds, and child-staff ratios in centers (for children at 18-months and at 4-years of age). Several indicators were reverse coded so that higher scores are consistent with greater funding and policy generosity.

This section describes the twelve final indicators that comprise the scale developed in response to Question 1, as well as the developmental process that led to the modification, deletion, and addition of indicators. Table 1 provides a summary of the indicators that were originally proposed as well as the indicators that ultimately were selected for inclusion in the Child Care Self-Sufficiency Scale. Data sources for each indicator are also described.

The final indicators relate to major CCDF goals, are consistent with the regulations governing CCDF, and reflect key policy and funding levers states use in administering CCDF. In supporting the child care needs of families seeking to achieve economic independence, states are required under the CCDF regulations to promote parental choice and empower parents to make their own decisions about the child care that best meets their family’s needs (DHHS, 1998). States must provide eligible families with vouchers or certificates that allow those families to access the same types of care as privately-paying families. The regulations urge states to consider the relationship between parental choice and adequate provider
reimbursement and affordable copays, and to avoid policies that have the effect of restricting parental choice. In addition, while avoiding undue constraints on parental choice, states must protect the health and safety of children in care through enforcement of minimum standards regarding the prevention and control of infectious diseases including immunizations, building and premises safety, and health and safety training appropriate to the setting (DHHS, 1998).

**CCDF Mandatory and TANF Funding**

To measure the generosity of state child care funding, this research proposed and included two variables, CCDF Mandatory Funding and TANF Funding. **CCDF Mandatory Funding** (FY 2004) measures the size of the mandatory portion of a state’s CCDF grant. As described in Chapter II, CCDF is comprised of three funding streams, Mandatory, Discretionary, and Matching, each with its own funding formula and expenditure rules. The amount of CCDF Mandatory funds a state receives is based on its welfare-related child care expenditures during the early 1990s prior to TANF implementation and is proportionately greater for states that provided generous child care benefits during that period. As provided in the 1996 welfare reform legislation and subsequent regulations, states may transfer up to 30% of their TANF dollars to CCDF and spend TANF directly for child care purposes (without limit). **TANF Funding** (FY 2004) measures a state’s investment of TANF funds in child care through transfer to CCDF and direct expenditure.

To receive their full share of the federal Matching Funds, states are required to provide state matching funds. Through state appropriations and allowable state pre-
kindergarten expenditures, all but a few states earn their full allocations of these funds. For this reason, this study does not include an indicator that relates to the federal Matching Funds.

As an indicator, CCDF Mandatory Funding is operationalized by calculating the ratio of a state’s FY 2004 CCDF Mandatory grant (in dollars) to its FY 2004 CCDF Discretionary grant (CCDF Mandatory Funding divided by CCDF Discretionary Grant). TANF Funding is operationalized as a state’s FY 2004 TANF child care investments in relationship to its FY 2004 CCDF Discretionary grant. This produces a ratio of TANF to Discretionary funds that can be compared across states (TANF Funding divided by Discretionary Grant). Using Discretionary grant dollars as the denominator in cross-state measures of Mandatory and TANF funding provides comparability across states in that a state’s share of Discretionary funds reflects the number of young children in the state and is weighted based on economic factors.

To test the use of the Discretionary fund as the numerator for the funding variables, Discretionary fund amounts were replaced with 2004 counts of children under age 13 in families with at least one parent who worked at least 50 out of 52 weeks and with income under 200% of the Federal Poverty Level (KIDS COUNT Data Center, 2008). These test measures using child counts as denominators for the CCDF Mandatory and TANF Funding variables produced strong correlations to measures using Discretionary amounts in the denominator ($r = .957$ and $r = .985$ respectively). Higher scores on CCDF Mandatory Funding and TANF Funding reflect
greater state generosity, with adjustments for state child population and economic conditions.

**CCDF Eligibility**

Eligibility for child care subsidies was originally operationalized as the state monthly child care eligibility limit (in dollars) in comparison to the maximum amount allowed under federal regulations (85% State Median Income). As an indicator of eligibility, inter-item correlations demonstrated that this measure was not significantly correlated with any of the originally proposed indicators, and in fact, had a non-significant negative association with CCDF Mandatory Funding \( (r = -0.204) \) and several other indicators including Copay Exemptions \( (r = -0.170) \), Eligibility Period \( (r = -0.082) \), and In-Home Background Checks \( (r = -0.125) \). Scale reliability tests demonstrated that the internal consistency of the scale as measured by Cronbach’s alpha coefficient would improve if this item were deleted.

Further exploration suggested that the proposed eligibility measure failed to take into account other eligibility-related policies that cluster with income limits in determining the extent to which low-income working families are eligible for child care assistance in a state. States implement rules about whether certain sources of income such as TANF cash assistance, Social Security, and child support are included for eligibility purposes; whether parents are required to work a minimum number of hours; whether age limits are extended for children with disabilities; and whether maximum eligibility limits are higher for families receiving ongoing services versus new applicants. Along with maximum eligibility limits, these provisions have
implications as to which families are eligible for services under state child care subsidy programs.

Alternative approaches were explored for operationalizing eligibility differences among states including the estimates of CCDF eligibility developed by the Urban Institute under contract with the Assistant Secretary for Planning and Evaluation (ASPE; Swenson, 2005). Included as part of the Urban Institute’s Transfer Income Model (TRIM), these estimates consider state-specific CCDF eligibility rules (FY 2004-2005 CCDF Plans) and use Calendar Years 2002 and 2003 Current Population Survey data to develop state estimates. As operationalized, this indicator divides the TRIM state estimates of CCDF eligible children by the estimate of low-income children in need of care which includes the number of children in a state under age 13 in families with at least one working parent and income under 200% FPL (KIDS COUNT Data Center, 2008). States with higher proportions of children eligible for services under state CCDF programs are viewed as more generous for purposes of this study. By accounting for a broader range of state eligibility rules, this indicator provides a more precise measure of state CCDF eligibility than the originally-proposed measure.

Eligibility Period was originally proposed as a measure of the length of CCDF authorization periods implemented by states. Perhaps because it was difficult to interpret and code state eligibility period practices (due to discretion on the part of eligibility workers and differences in how categories of families are treated), this measure did not correlate well with other indicators, and according to item-total
statistics, the Cronbach’s alpha for the overall scale would increase by .100 with
deletion of this item. Based on these problems and results, this indicator was deleted.

Provider Payment

Based on the assumption that child care operates as a market, federal CCDF
regulations require states to conduct biennial market rate surveys that reflect what
child care providers charge their privately-paying customers. While states must assure
that provider payments are adequate to ensure parental choice across types of care,
they are not required to use the results of their most recent market rate survey in
setting maximum reimbursement rates.

As originally proposed by this study, states were to be compared based on
whether or not they implemented the 75th percentile of their most recent market rate
survey, i.e., the level adequate to pay for 75% of child care in a market. Once again,
this measure showed little association with other proposed indicators including
funding. Like eligibility, provider payments involve a cluster of policies that include
how rates vary based on geographic areas, types of care, ages of children, and number
of children in a family; payment units; and whether the state pays for registration fees
and days of absence, and provides advance notice to providers when a subsidized child
leaves care. These variations in policy are not reflected in a measure based on
whether a state sets its maximum rates at the 75th percentile. Further, some states do
not set rates at a consistent percentile across ages of children and type of care, e.g.,
maximum rates for center infant care may be set at the 75th percentile while maximum
rates for preschoolers in centers are set at the 55th percentile of market rates. Finally,
a recent ACF-sponsored study found that the validity of state market rate studies is threatened by inconsistent definitions of facilities and markets, conversions across pricing modes that result in prices that are non-existent in the market, and a general lack of rigor in data collection and analysis (Grobe, Weber, Davis, Kreader, & Pratt, 2008). Therefore, even when states say they set their rates at the 75th percentile, this may not reflect the adequacy of state provider payments due to variability in the quality of state market rate surveys.

Alternative sources of data and approaches were considered for comparing provider reimbursement across states. These included data from the National Child Care Resource and Referral Association (NACCRRA) about the average annual cost of preschool care in 2004-2005 (National Association of Child Care Resource and Referral Agencies, 2006); NCCIC summary data regarding maximum child care center rates for preschool-age children in the largest urban area based on state FY 2004-2005 CCDF Plans (Child Care Bureau, 2004); and case-level data from states about what providers serving families through CCDF were paid in 2004 (Gagnier, 2007). While the originally-proposed indicator, rates at the 75th percentile, showed minimal ($r = .05$ to $r = -.09$) associations with the NACCRRRA, NCCIC, and actual case-level payment data, the NACCRRRA and NCCIC data were significantly associated at $r = .67$.

Average provider payments per child (family-level provider payments divided by average number of children in care per family) also correlated significantly with both NACCRRRA ($r = .654$) and the NCCIC data ($r = .625$), and in the right direction. Because these data span ages of children and types of care, and reflect the range of
policies embedded in provider reimbursement, this study uses average provider payments per child based on the case-level data states reported to the federal government. (These data include both the amount paid by the state as well as the assigned family copay.) Higher rates are considered more generous. By comparison, NACCRA’s data are limited to the average price of care for infants and preschoolers in the regulated sector, lack information for the seven states that do not have state resource and referral agencies, and represent prices in the market rather than what states pay for care (2006). The NCCIC data is limited to center rate ceilings in the largest urban areas in states which likely over-represent what providers are paid in most states (Child Care Bureau, 2004).

_TANF Infant Care Exemptions_

While this indicator was not originally included, the literature review for this study discusses the relationship between TANF and CCDF policies and suggests that stringency in TANF work requirements has implications for the child care needs of low-income families. Among TANF policies, one that directly relates to meeting the child care needs of low-income families is the federal provision that states may exempt a single parent from TANF work requirements if she or he is the caretaker of an infant under one year of age. Unless a state is operating under a federal waiver, or chooses to cover extended periods with state funds, this exemption is restricted to a 12-month lifetime limit. Within federal limits, parents receiving such an exemption may be disregarded by states in their calculation of work participation rates.
This study uses 2004 data from the TANF Seventh Annual Report to Congress to construct an indicator that reflects state work exemptions by employing the number of months of exemption (Office of Family Assistance, 2006). In instances where states allow local flexibility in determining months of exemption, the least generous amount of months of exemption in that state is used. The one exception is that under waiver with the federal government that predates the 1996 welfare reform legislation, Massachusetts allows caregiver exemptions of up to 72 months. Given that in customary use, children over 24 months are not considered “infants,” Massachusetts was given a score of 24 months, equal to that of the next most generous state (Vermont). Generosity relates to longer periods of exemption.

Waiting Lists or Serving All Eligible Families

This study proposed to measure the extent to which states serve all eligible families that apply (as opposed to rationing services through waiting lists, eligibility periods, or similar mechanisms). An indicator was constructed using information from the National Women’s Law Center (Schulman & Blank, 2005). The National Women’s Law Center (NWLC) survey found that while some states consistently had waiting lists across years, and others consistently operated their programs without waiting lists, some states had waiting lists during some periods but not others. A measure was created that rated states based on whether they served all eligible families that applied: 3 = consistently, 2 = some of the time, and 1 = none of the time. In the initial iteration of the scale, this indicator had small, mostly negative correlations with the other indicators. Item-total statistics demonstrated that eliminating this indicator
would increase in the scale’s Cronbach’s alpha coefficient by .151. While this indicator was deleted to increase the internal consistency of the scale, it bears particular analysis and discussion because it provides possible insight into how states use policies to manage their subsidy programs within available funds. For this reason, post hoc analyses were conducted and will be discussed in the results section.

*Family Sliding Fee Scales (Copays)*

Developing an indicator or indicators of family sliding fee scale generosity proved particularly troublesome, in part because it was difficult to differentiate and code these complex policies based on what states reported in their state plans. In addition, copay policies appear to interact with state eligibility limits and targeting of subsidies. To illustrate, if a state has generous funding and eligibility limits, and avoids waiting lists, one would expect it to serve a larger proportion of higher income families (above 100% FPL) than the average state. Given the federal requirement that copays take into account family income and size, these families would likely have more substantial copays than families with incomes under 100% FPL, resulting in higher average copays for states with more generous eligibility policies.

Three indicators were originally proposed: copay exemptions for families at or below 100% FPL; ratios of copay to income for families at 150% FPL with one child in care; and copay structure, i.e., do states consider income and family size only or do they consider other factors such as price of care or number of children in care? State plans revealed that in FY 2004, most states exempted some families from copays, often TANF families, or some subset of families being served through TANF (Child
Care Bureau, 2004). However, it was difficult to differentiate among states regarding the proportion of families below 100% FPL that were exempt from copays. It was similarly difficult to differentiate among states based on copay structure, and to construct a measure of state copays for families at 150% FPL based on the information provided in state plans.

A number of alternative approaches were considered including the hypothetical family copays developed by the National Women's Law Center (NWLC) and actual average copays reported by states to ACF in FY 2004 case-level data (Schulman & Blank, 2005). The hypothetical copays developed by the NWLC estimate parental copays for a family of three with income at 100% FPL and 150% FPL with one child in care. For states that consider cost of care in determining copays, NWLC assumes that the family purchased care at the maximum reimbursement rate for licensed center care for a four-year old. The NWLC estimates are based on state survey data and are not influenced by decisions families make about whether or not to participate in the subsidy program. On the other hand, they do not take into account the extent to which states exempt families under 100% FPL from copays, and make assumptions about the type of care used by families that may overestimate what families actually pay.

To create a balanced approach for comparing copays across states, this study uses three copay indicators, two that depend on CCDF case-level data, and one based on survey information from the NWLC. The first indicator, *Copay Exemption*, reflects the proportion of families served with income under 100% FPL that have no copay obligations. Developing this indicator required independent analysis of the FY 2004
family-level micro-level data available through the Inter-university Consortium for Political and Social Research (DHHS, 2004). To avoid the inclusion of child-only families, only families larger than one person were included. The second indicator based on CCDF case-level data is Family Copay under 100% FPL, the average copay for families with incomes under 100% FPL (Gagnier, 2007). This measure excludes families with zero income and is reverse coded so that higher scores reflect greater generosity. (State scores were reverse coded by subtracting all of the scores from the maximum score and multiplying the results times -1.) The third copay indicator, included to reduce bias against states serving larger proportions of families over 100%, as well as selection bias related to families not participating in subsidies due to steep copays, is Family Copay at 150% FPL (Schulman & Blank, 2005). This indicator is based on NWLC estimates of copays for families at 150% FPL. In six states, families with income at 150% FPL were no longer eligible for child care subsidies. For purposes of this indicator, these states were assigned the same copay as that of the least generous state (Oregon at $423 a month). Again, these scores were reverse-coded so that higher scores are consistent with greater generosity.

Health and Safety

As originally proposed, three indicators related to child care health and safety, rate incentives for providers that exceed minimum standards, and two dealing with requirements for in-home caregivers (see Table 1). Rate incentives was deleted as an indicator because bivariate correlations indicated that it was not associated with other indicators, including those related to funding. In fact, quality incentives had a non-
significant negative correlation with the proposed rates indicator \((r = -.159)\) and background checks for in-home providers \((r = -.180)\). Review of state CCDF plans revealed that most states implement some requirements for in-home caregivers, and that differentiating between types of requirements and limits was impossible based on the information provided in the plans (Child Care Bureau, 2004). Therefore, a single measure of in-home health and safety requirements was developed based whether or not states require background checks for all (3), some (2), or no (1) caregivers providing care in a child’s own home.

In its final iteration, the scale includes four policy indicators that relate to child health and safety including in-home caregiver background checks, center child-staff ratios for toddlers (18-months), center child-staff ratios for 4-year-olds, and family child care licensing thresholds.

**In-home background checks.** While states are required to allow the use of in-home care by families receiving services through CCDF, federal regulations allow states to set limits on the use of such care including requirements designed to protect the health and safety of children in care. Among the most common requirements enforced by states are background checks for caregivers. This indicator, based on information states provided in their FY 2004-2005 CCDF State Plans, categorizes states from one to three depending on whether they require background checks for no, some, or all in-home caregivers. Three is considered a generous rating—consistent with more stringent regulations designed to protect the health and safety of children in care.
Center child-staff ratios. Child-staff ratios in child care centers are among the research-based indicators of quality child care outlined in a paper sponsored by Assistant Secretary for Planning and Evaluation (ASPE) and the Maternal and Child Health Bureau of the U.S. Department of Health and Human Services (Fiene, 2002). Along with group size, Fiene makes the case that low child to staff ratios are among “two of the best indicators for determining the quality of a child care program and they significantly affect many other health and safety issues” (p. 12). In his summary of the literature, Fiene indicates that good child to staff ratios are associated in research with lower rates of disease transmission, reduced risk of injury and abuse, greater caregiver sensitivity, better communication between caregivers and children, and improved language and social competence in young children. Other researchers suggest that positive child-staff ratios are among the structural, regulated aspects of child care that help provide the conditions for positive process quality or experiences for children (Dowsett, Huston, Imes, & Gennetian, 2008; Phillipsen, Burchinal, Howes, & Cryer, 1997; Zaslow, 1991). Process quality, in turn, is associated with better child outcomes.

While child-staff ratios vary greatly among states, all states enforce child-staff ratios in child care centers. (Idaho does not license child care facilities, but child-staff ratios are enforced by fire officials.) Indicators of child care center child-staff ratios include Toddler Ratios for 18-month-old children and Preschool Ratios, ratios for 4-year-olds. The 2004 child-staff ratio data provided by the Children’s Defense Fund was used in the construction of these indicators (2003). These indicators are reverse
coded, again by subtracting state scores from the maximum score and multiplying the product by -1, so that higher scores reflect states with more stringent health and safety regulations.

*Family child care licensing thresholds.* States vary greatly in how they define family child care, whether or not family child care homes of various sizes are subject to regulation, and how vigorously the regulations are enforced. For purposes of this study, health and safety for children in family child care is measured by the number of children that may be in care before a home is required to be licensed. Consistent with the CCDF regulations, family child care is defined as care (typically for fewer than 24 hours per day per child) provided by individual (related or not related) in a residence other than the child's own home (DHHS, 1998). The thresholds used are based on February 2004 information compiled by the National Child Care Information Center, and are reverse coded so that states with the most stringent regulations receive the highest score (Lamoine, 2004). While New Jersey and Louisiana do not license family child care homes, they do require large homes to be licensed as centers. The threshold for these states is set at the number of children that cause a family child care home to be subject to center licensing (6 and 7 respectively). Idaho does not require family child care homes to be licensed and was given the same score as South Dakota, the state with the highest licensing threshold (13). This indicator is reverse-coded so that higher scores are consistent with more stringent health and safety regulations.
State Macro-Level Characteristics

Research Question Two asks, "To what extent are specific macro-level characteristics including political ideology and partisanship, state wealth, and race/ethnicity associated with the generosity of CCDF expenditures and policies as measured by the composite scale created by this study?" Variables representing state macro-level characteristics were developed using existing statistics produced by government agencies, national organizations, and other sources. This section describes the macro-level variables including two measures of ideology and partisanship, two measures of state wealth, and two measures of state race and ethnicity. Table 2 in the Appendix provides variable name, definition, type of measure, and sources of data.

Measures of Citizen and Government Ideology and Partisanship

Following the lead of other researchers (Faricy & Weaver, 2006; Soss, 2001), this study uses the Berry et al. (1998) measures of citizen and government ideology across states. These researchers provide two measures of state ideology: Citizen Ideology, which provides mean ideological scores for the voting public on a scale from conservative to liberal, and Government Ideology, the mean ideological position of state elected officials including the governor and the state legislature. For their measure of Citizen Ideology, Berry and his colleagues consider interest group ratings of members of Congress and apply these ratings to incumbents, challengers, and election results within state legislative districts to develop a conservative to liberal rating for each legislative district in a state. Similarly, they use interest group ratings
of Congressional delegations to predict the ideological positions of governors and the state legislature (which are weighted equally). Annual scores on government ideology are weighted based on partisan control in the state legislature. The Berry measures compare favorably with other frequently-used measures of ideology and partisanship including Erikson et al. (1993) and have the advantage of including all states and providing data through 2006. Berry et al. (1998) demonstrate high levels of correlation between their annual measures of citizen ideology and those of Erikson et al. \( r = .80 \) correlation for 1976-1988, \( r = .90 \) if smaller states are excluded). Berry et al. argue that state ideology does change over time and must be acknowledged. Based on the assumption that welfare and child care policies were shaped over a period of years by the social, economic, and political conditions surrounding enactment of PRWORA, this study uses the Berry annual scores for citizen and government ideology averaged for the period from 1985-2004. This period starts with the mid-1980s when dramatic changes became apparent in the workforce participation of mothers and states began experimenting with approaches to welfare reform. It ends with the target year for this study (2004). Higher scores are associated with states being more liberal and Democratic.

State Wealth

The two measures of state wealth used in this study include 2004 Personal Income Per Capita taken from the U. S. Census Bureau, State and Metropolitan Area Data Book: 2006 (U.S. Census Bureau, 2007a). The 2004 Per Capita Taxes were downloaded from the U. S Census Bureau (U.S. Census Bureau, 2007b).
Race and Ethnicity

As described in Chapter III, TANF studies suggest a strong relationship between the proportion of African American clients in a state’s welfare caseload and more stringent, less flexible welfare policies. Some studies have also shown an association between Latino clients and welfare policies. For purposes of this study, race and ethnicity are operationalized as the proportion of state residents in 2004 who reported (a) Black or African-American alone (not including individuals who reported two or more races); and (b) Hispanic or Latino origin (across racial groups). These data rely on population estimates developed by the U.S. Census Bureau using 2000 census data adjusted to 2004 with updated demographic information (U.S. Census Bureau, 2007a). As was done in a number of the welfare studies, consideration was given to using proportion of Black and Latino clients in state TANF caseloads rather than state population statistics. However, race and ethnicity in state populations were judged to be more reflective of the basic differences among states as compared with statistics that derive from service delivery. Furthermore, the population proportions and TANF caseload numbers were highly correlated \( r = .90 \) for Black and \( r = .88 \) for Latino).

CCDF Service-Delivery Variables

Question III is “To what extent are child care funding and policy variations associated with cross-state differences in the characteristics of families and children using child care subsidies and the type of care they use?” Using the composite scale, this study examines the relationship between variations in generosity across states and
services provided through CCDF. The service delivery variables were based on the CCDF aggregate and case-level data states report to the federal government (the Child Care Bureau). The variables were constructed using standard reports and state profiles created by the Child Care Bureau and its data contractor using FY 2004 case-level data (Gagnier, 2007). The state profiles include summary statistics about families served within three income ranges (below 100% FPL, equal to or greater than 100% FPL but below 150% FPL, and equal to or above 150% FPL). Within each of these income categories (and across categories), summary counts are provided for number of families, number of families with a single parent, number of families with income from TANF, average number of children in care per family, mean contribution paid to all providers per family, and mean family copays. Data about children served include race, ethnicity, and type of care. For some of the analyses, categories were collapsed, e.g. numbers of families served with income 100-150% FPL and 150% and above were combined to create a new variable, equal to or greater than 100% FPL. Given the small sample size in this study, this step was taken to limit the number of variables used in bivariate and multivariate analyses. Table 3 provides a description of each of the service delivery variables including definition, measurement, and source of data.

Family Level Service Delivery Variables

This study uses three family level variables, marital status, family income, and children in care per family. Marital status is operationalized as Single and represents the proportion of families served by a state that are headed by a single parent. Family
Income over 100% FPL indicates the proportion of families served by a state with income over 100% FPL. Children in Care compares states based on the average number of children in care per family (through CCDF).

Child Level Service Delivery Variables

The three child level variables included are age, race, and ethnicity. While age data are available for children under age 5, 5-6 years, and 6-13 years, for purposes of bivariate and multivariate analyses in this study, age is operationalized as proportion of children in care in a state who are School-Age (6-13 years). This allows for comparisons across states in the extent to which states focus on younger versus older children. Race is operationalized as the proportion of children served by a state who are designated as Black (or African American). Ethnicity includes the proportion of children served who were reported as Latino (or Hispanic). As discussed in the section below dealing with data integrity, reporting of race and ethnicity is an area of difficulty for many states.

Type of Care

States are required to provide information about the type of child care used by families including in-home, family child care homes, group homes, and center care and whether care in each of these categories is regulated or legally-operating without regulation. With the exception of center care, states also must indicate whether the caregiver is a relative. For purposes of the bivariate and multivariate analyses in this study, type of care is operationalized as proportion of children served by a state in Center Care without regard to whether that care is regulated or not. This allows for
comparisons across states in the extent to which children are in center versus home-based settings. For reasons discussed in the next section, state FY 2004 aggregate data are used for this variable (Child Care Bureau, 2006b).

Service Delivery Variables: Data Integrity Issues

Under CCDF regulations, states are required to provide case-level data for the full population or a statistically-representative sample of the families being served through CCDF (ACF-801). In addition, states provide annual aggregate reports about services provided through CCDF (ACF-800). States are encouraged to provide full-population data, and by early 2005, all but 12 states provided case-level data about the entire population of families served (Child Care Automation Resource Center, 2005).

In creating the public use data set that is available through Inter-university Consortium for Political and Social Research, the Child Care Bureau provides sample files for all states including states that provide full-population data. However, in its own analyses of CCDF service delivery data, the Child Care Bureau seeks to maximize statistical accuracy by using full-population data when it is available. This is the approach used by the Bureau for the data posted on the CCB website, congressional reports, and the state profiles that are used in this study.

By using CCB summary data, this study defaults to the data integrity standards used by CCB and its contractor. In FY 2004, these standards were guided by Technical Bulletin #3, effective March 1, 2002 (Child Care Automation Resource Center, 2002). For each data element, this bulletin includes data element number and
name, field size, missing data standard, out-of-range standard, and internal consistency standard.

Additionally, the Child Care Bureau describes specific FY 2004 data integrity issues in its FY 2004-2005 Child Care and Development Fund (CCDF) Report to Congress (Child Care Bureau, 2008). This includes how it adjusts CCDF counts to be comparable across states, and issues specific to particular data elements and states. These issues include problems with the race and ethnicity data submitted by states. Specifically, several states do not report multiracial data and some states report ethnicity (Latino) as race rather than ethnicity (which results in no race being designated). In addition, reporting of race is optional in a number of states including Texas, Illinois, Louisiana, and Wisconsin. The section that follows discusses these issues in detail including how they were addressed in this study.

**Family Composition and Income**

Nationally, 1.8% of families had invalid income reports. In addition, because states may use CCDF to provide child care services for children in protective services and foster care, 5.2% of families served were child-only cases, or had not reported or invalid family type. Eligibility for these cases is generally based on the child’s income (usually 0), and most involve a child in need of protective services rather than a family that needs child care to enable a parent to work. These cases were eliminated in analyses involving marital status, income, children in care per family, and family copays.
Child Care Setting Types

In 2004, based on their case-level reports (ACF-801), eight states had more than 5% “not reported or invalid” child care setting types. This included Alabama, Arizona, Minnesota, Missouri, Washington, West Virginia, Wisconsin and Wyoming. In addition, ACF indicates that Connecticut underreported the proportion of children served in contracted centers. For purposes of congressional reports and web-posting, CCB deals with this issue by using aggregate rather than case-level reports from states (ACF-800). In the ACF-800, states provide summary statistics on a number of elements including type of care.

Pearson time-moment correlations were used to check the assumption that state reporting of types of care is consistent across case-level and aggregate reports, and that child care settings are generally stable across years. Strong correlations were found across the two versions of the 2004 data ($r = .969$) and across years of data ($r = .968$ between 2004 and 2005, $r = .947$ for 2004 and 2006, and $r = .981$ for 2005 and 2006). The decision was made to use ACF-800 data for setting types in this study.

Race and Ethnicity

Race and ethnicity issues are of particular concern given prior research findings about the relationship between race and ethnicity and the stringency and flexibility of welfare policies. As suggested by CCB, problems with reporting of race and ethnicity relate to the decision to separate reporting of race and ethnicity made by the U. S. Census Bureau and the Office of Management and Budget (Child Care Bureau, 2008). This change is discussed by the Census Bureau in a June 12, 2003
publication, *Guidance on the Presentation and Comparison of Race and Hispanic Origin Data* (U. S. Census Bureau, 2003). This publication indicates that while race and Hispanic origin are two separate and distinct concepts, they are frequently shown as one concept. And, in fact, rather than designating themselves as a specific race, many Hispanics indicated “some other race” in the 2000 Census. The same publication indicates that based on 2002 population estimates, there are 38.7 million Hispanics in the U.S.; 1.7 million or 4.4% are Black Hispanic. Extrapolating to the CCDF population, this suggests that states that do not distinguish between race and ethnicity may under-represent the number of Black children served by a small percentage.

States appear to be correctly reporting the ethnicity of children served through CCDF with the exception of New Hampshire (which failed to report ethnicity on 98% of its total cases in 2004). Overall, the proportion of cases with missing data for ethnicity (invalid/not reported) is very low (1% nationally) with Kentucky (5%) and Illinois (4%) being high among states in missing ethnicity reports.

Nationally, however, 16% of race reports are “invalid/not reported” with 16 states having more than 5% invalid reports in FY 2004. Most of these states (75%) report that more than 10% of the children they serve through CCDF are Latino. On the assumption that the caseload of children served through TANF may be similar to the population served through CCDF, and to check patterns of service delivery across years, Pearson product-moment correlations were calculated to explore the relationship between proportion of Black children served in a state across FY 2004
CCDF, FY 2004 TANF, and FY 2006 CCDF. The proportion of Black children served through CCDF and TANF in FY 2004 were positively correlated at $r = .974$. FY 2004 and FY 2006 CCDF reports correlated positively at $r = .986$. This suggests that the racial composition of CCDF caseloads does not change significantly across years, and supports the assumption that the race of children served through TANF is similar to those served through CCDF. A dummy variable was created to compare the states with high rates of missing or invalid data on race (16) with other states (34). While mean FY 2004 CCDF, FY 2004 TANF, and FY 2006 CCDF “Black children served” scores were similar for states without missing/invalid data on race as compared to states with high rates of missing or invalid data on race, one-way between-groups multivariate analysis of variance failed to demonstrate significant differences between groups. Based on these comparisons, this study used 2004 CCDF case-level data to construct the measure of Black children served. Given the large proportion of invalid and not-reported data on ethnicity for New Hampshire, the 2004 TANF Latino child count is used for New Hampshire (7.3%).

Analytical Procedures

This section describes the process used to develop the Child Care Self-Sufficiency Scale as well as the univariate, bivariate, and multivariate methods used to test the validity of the scale.

Scale Development

Based on federal policy, existing literature, and subject matter expertise, 12 indicators were identified to reflect key areas of state child care funding and policy
discretion, including funding and access policies, family copays, and basic health and safety requirements. As shown in Table 1, these indicators were quantified using multiple sources of information about state child care and welfare programs. For 7 of the 12 indicators, the source of data was the Administration for Children and Families (ACF) which annually publishes the estimated and final state CCDF allotments by fund category as well as its analyses of the administrative data submitted by the 50 states. These analyses provide information about the policies and procedures that govern state CCDF programs (as reflected in biennial state plans), state expenditures, and CCDF service-delivery data. Two of the indicators, Mandatory Funding and TANF Funding were constructed using ACF appropriation and expenditure reports (ACF, 2006a; Child Care Bureau, 2007b). Provider Payment and Family Copay under 100% FPL were developed using ACF analyses of case-level data submitted by states (Gagnier, 2007). The Infant Care Exemption and In-Home Background Checks indicators relied on ACF analyses of state CCDF and TANF plan information (ACF, 2006a; Child Care Bureau, 2004). The seventh indicator based on data submitted by states to ACF, was Copay Exemption. While the data were available to construct this indicator, necessary analysis of state data had not been conducted by ACF. Therefore, independent analysis of the 2004 CCDF case-level data available through the Inter-university Consortium for Political and Social Research was required (DHHS, 2004).

For 5 of the 12 indicators, the information needed to operationalize the indicator was not available (or not fully available) through ACF. However, data were included in state survey results or special analyses provided by another organization.
Therefore, the *Eligibility* indicator was constructed using estimates of the number of children eligible for CCDF under state rules (developed by the Urban Institute under contract with DHHS; Swenson, 2005) as a percentage of the low-income children likely to need child care (from KIDS COUNT, 2008). *Family Copay at 150% FPL* was developed using state survey information and analyses conducted by the National Women’s Law Center (Schulman & Blank, 2005). Survey data from the Children’s Defense Fund were used in constructing the *Toddler* and *Preschool Ratio* indicators for child care centers (2003). Finally, the *Family Child Care Licensing Thresholds* indicator used data collected by the National Child Care Information Center (Lamoine, 2004).

Throughout indicator and scale development, existing research and other subject matter experts were consulted to identify alternative approaches for measuring key policies and to explore the implications of various options.

To identify patterns in the data, summary tables were constructed to facilitate examination of state scores. This included tables with states sorted from high to low on each of the variables. State ratings were converted to standard scores for each of the indicators to ensure comparability across indicators and for ease of analysis. Pearson product-moment correlations were calculated to examine correlations among the indicators, and the extent to which each indicator individually, and in conceptual categories, contributed to the measurement of funding and policy generosity. Reliability analysis using Cronbach’s alpha was employed to compare the variance in the composite scale with variances in the individual indicators of generosity (Spector,
This was to determine the extent to which indicators were measuring the same construct (generosity), to identify indicators that should be deleted or modified, and to determine the internal consistency of the scale. In an iterative process, checks were repeated until the final set of indicators was chosen to represent the three key areas of funding and policy.

Composite scale scores were created by summing the scores of the 12 indicators for each state. To check the face validity of the scores, a table was created with states ordered from high to low based on their composite scores. In addition, scores were summed for indicators within theoretical categories including funding and access policies, family copays, and health and safety. These scores facilitated deeper understanding of patterns across states.

However, given sample size limitations that accompany a study of the 50 states, and the fact that at least 300 cases are recommended for factor analysis, the decision was made not to group the indicators into factors using exploratory factor analysis (Tabachnick & Fidell, 2001). Instead, bivariate and multivariate analyses use individual indicators and the summed generosity scale comprised of the 12 indicators.

**Univariate Analyses**

Across research questions and variables, univariate results were reviewed to ensure correct data entry and to identify out-of-range data and missing values. Frequencies, means, medians, and standard deviations, and tests for normal distribution and linearity were examined for each of the variables. Missing and invalid values were not a problem except as already discussed relative to several of the
CCDF Service Delivery variables. Descriptive results were analyzed to identify patterns in state funding and policy generosity, macro-level characteristics, and CCDF service delivery. As required to improve the normality and linearity of the data, and to reduce outliers, some variables were adjusted using square root and logarithmic transformations. As relevant, transformations will be discussed in the section that describes univariate results including the reason for the transformation, the type of transformation employed, and the results of the transformation.

**Bivariate Analyses**

Pearson time-moment coefficients (Pearson $r$) were used to identify associations among the funding and policy indicators, composite scores on the Child Care Self-Sufficiency Scale, state macro-level characteristics, and CCDF service delivery variables. These analyses were conducted as the first step in addressing the second and third research questions including the extent to which "specific state macro-level characteristics including political ideology and partisanship, state wealth, and race/ethnicity are associated with variations in state child care funding and policies," and "state child care funding and policy variations are associated with cross-state differences in the characteristics of families and children using child care subsidies and the type of care they use." Tests were conducted to identify possible violations of assumptions. Relationships among variables were examined including checks for normality, linearity, homoscedasticity, multicollinearity, and singularity. Correlation coefficients were examined for each pair of variables including the direction of the relationship and significance levels.
Multivariate Analyses

Regression techniques, designed to predict the score on a dependent variable from scores on one or more independent variables, were used as the second step in addressing research questions two and three. Question Two, the extent to which state summary scores on the Child Care Self-Sufficiency Scale were predicted by state macro-level characteristics was examined using standard multiple regression with the macro-level variables entered in a single step.

Question Three dealing with the extent to which funding and policy variations are associated with cross-state differences in the patterns of CCDF service delivery was examined using simple regression models. As dependent variables, these simple regressions used CCDF service delivery variables shown in bivariate correlations to be significantly associated with funding and policy generosity as measured by CCSSS. CCSSS served as the predictor variable with state per capita income being included in the models as a control variable. Based on consultation with national experts, and as suggested by the results of scatterplots and bivariate correlations, Southern states appear to be systemically different in patterns of child care usage. For this reason, a dummy variable was created to differentiate Southern states in examining proportion of children in center care. (Based on surveys conducted by the University of North Carolina at Chapel Hill, and consistent with the designations used by the Gallup organization, this study included 13 states as Southern including Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia (Williamson, 1999). In addition, post hoc
tests were used to examine differences among states based on whether or not they served all eligible families that applied.

Again, prior to conducting regression analyses, tests were conducted to ensure that the assumptions were met for each of the models considered including avoidance of multicollinearity; the normality, homoscedasticity, and independence of residuals; and checks for multivariate outliers using Mahalanobis and Cook’s Distance measures. Sample size is a concern in studies that involve cross-sectional study of the 50-states (Tabachnick & Fidell, 2001). For this reason, duplicative variables were avoided and the number of predictor variables was limited through use of a composite generosity measure.
It is the political task of the social scientist--as of any liberal educator--continually to translate personal troubles into public issues, and public issues into the terms of their human meaning for a variety of individuals. It is his task to display in his work--and as an educator, in his life as well—this kind of sociological imagination. (C. Wright Mills, 1959, p. 187)

CHAPTER 5: EMPIRICAL RESULTS

This quantitative study of state child care funding and policy post-welfare reform resulted in the Child Care Self-Sufficiency Scale (CCSSS), comprised of 12 indicators that measure variations in the generosity of state child care programs. These indicators cover a range of program components including funding, eligibility, provider payments, work exemptions for caregivers of infants, family copays, and regulations across types of care. Together these 12 indicators provide an internally consistent measure of the variations in child care funding and policies across states as demonstrated by a Cronbach’s alpha coefficient of .755, as can be seen in Table 4.

In addition to demonstrating the extent to which states vary in the implementation of their child care programs, this study also demonstrated significant associations between state macro-level characteristics, CCDF service delivery patterns, and child care generosity as measured by CCSSS. Using standard multiple regression, this study shows that state characteristics including ideology, partisanship, wealth, race, and ethnicity predict 63.6% of variation across states in state scores on the CCSSS. Two variables including liberal ideology/Democratic control of state government and higher per capita income were significant in predicting greater
funding and policy generosity as measured by CCSSS. The proportion of African Americans in each state’s population was a significant predictor of CCSSS in a negative direction.

Finally, in exploring differences across states in patterns of CCDF service delivery, Pearson product-moment correlations showed significant positive correlations between CCSSS and proportion of families served with income over 100% FPL, average number of children in care per family, and proportion of school-age children served. Larger proportions of Black children served through CCDF were associated with less generous state funding and policies. In multiple regression models with per capita income as a control variable, CCSSS was a significant predictor of higher family income (positive) and proportion of Black children served (negative), but the coefficients for average number of children in care per family and proportion of school-age children served dropped below the level of significance. In a model with per capita income and a dummy variable for Southern state, neither per capita income nor CCSSS were significant predictors of the use of center care, but the overall model significantly predicted 48.9% of the variation, and the standardized beta for Southern state was .763, p < .000.

The section which follows discusses these results in greater detail.

Scale Development

Preliminary Results

As discussed in Chapter 4, in its initial iteration, the scale included 12 indicators organized conceptually in four categories including funding, affordability,
accessibility, and health and safety (see Table 1). Pearson \( r \) revealed that with the exception of the two funding indicators, associations among the indicators were weak and often negative. Of 55 possible pairs of correlations in the inter-item correlation, only 4 exceeded .3 in a positive direction and 24 of the correlations were negative.

Cronbach's alpha coefficient demonstrated that the internal consistency of the scale was very low with alpha = .174. Eliminating the variable “serving all eligible,” which relates to whether or not all eligible families that applied for a state's subsidy program received services, increased the reliability of the scale to alpha = .325, still well below the minimally desired Cronbach's alpha = .7 (DeVellis, 1991). In this version of the scale, only 1 out of the 10 indicators had a corrected item-total correlation of more than the desired .3, and 7 were .2 or lower. This suggests that the indicators were not reliably measuring the same underlying construct. Tests also showed that deleting 4 of the 10 indicators would result in an increased Cronbach's alpha coefficient.

These early scale development results raised questions about the feasibility of developing a comparative rating scale for discriminating among states in the generosity of their child care subsidy programs. Of particular concern were the strength of individual indicators to predict differences among states, and interactions among policies resulting from the trade-offs states make in policy and program development. Despite these concerns, the study proceeded toward the development of reliable indicators of the key funding and policy decisions states make in the implementation of their child care programs.
Final Scale Development

The scores for each indicator were converted to standard scores to ensure comparability across measures. Reliability tests were conducted to assess the internal consistency among the 12 final indicators using Cronbach’s alpha coefficient (which compares the variance in the CCSSS with the variances of the individual indicators of generosity (Spector, 1992). As shown in Table 4, examination of the Inter-Item Correlation Matrix indicated that most of the final indicators were associated in a positive direction. However, as shown in Table 5, there were small negative correlations between the following pairs of indicators: Copay Exemptions and Copay for Families at 150% FPL \((r = -0.101)\), and Copay Exemptions and Toddler Child-Staff Ratios \((r = -0.082)\). There were also negative correlations between Copay for Families at 150% FPL and both Toddler Child-Staff Ratios \((r = -0.126)\) and Preschool Ratios \((r = -0.140)\). Finally, Family Child Care Thresholds and Preschool Ratios were negatively correlated \((r = -0.06)\). Checks confirmed that the indicators were coded in the correct theoretical direction. These results suggest that there may be some underlying differences in how family copay policies and health and safety regulations relate to the generosity of state child care programs, and perhaps trade-offs in how states use these sets of policies.

The Corrected Item-Total Correlations, indicating the extent to which each item correlates with the total score seen in Table 4, demonstrates that all but four of the items are above .3, the recommended cut-off (Pallant, 2007). However, each item
is .264 or above and contributes positively to the Cronbach’s alpha coefficient, which is .755 and within the acceptable range for demonstrating the internal consistency of the scale (Spector, 1992). Therefore, all of the indicators were retained.

Standard scores were summed across indicators for each state to construct the composite Child Care Self-Sufficiency Scale (CCSSS). The states with the highest composite CCSSS scores were Massachusetts (18.31), Vermont (12.16), Rhode Island (10.76), Alaska (11.52), and Connecticut (9.34). In contrast, states with lowest scores were primarily in the South and included Florida (-7.35), Mississippi (-7.49), Arkansas (-8.05), Louisiana (-9.88), Texas (-10.43), and Idaho (-13.51). Composite state CCSSS scores as well as scores for the conceptual categories that comprise the CCSSS are shown as Table 6.

While Massachusetts is an outlier, the histogram, stem-and-leaf, and boxplots indicate that scores on the CCSSS are distributed nearly normally. Tests of normality including Kolmogorov-Smirnov and Shapiro-Wilk indicate that skewness and kurtosis are not problems. The Normal Q-Q Plot demonstrates that the observed values in the CCSSS meet the assumptions of linearity.
Figure 2. Histogram of state scores on the Child Care Self-Sufficiency Scale.

To further examine the distribution of state scores, indicator scores were summed within conceptual categories, i.e. indicators of funding and access policy (including the two funding indicators, eligibility, provider payments, TANF infant care exemptions), family copays, and child health and safety. States were grouped based on the relationship between their score and the mean scores for each of the three conceptual categories (and the total CCSSS). Four groups of states were created including: (1) those with scores more than one standard deviation (SD) above the mean, (2) between the mean and one SD above the mean, (3) between the mean and one SD below the mean, and (4) lower than one SD below the mean. The Appendix includes four color-
coded maps that show states by groups as Figures B-1 through B-4 (summed scores for each of the conceptual categories are also shown in Table 6). The maps suggest that while states vary somewhat in funding and policy generosity across conceptual categories, in general, states tend to be consistently high or low across conceptual categories and to cluster with adjacent states. Generosity tends to be higher among states in the East and West and lower among the Southern and Mountain states.

Univariate Analyses

While the number of variables being considered (27) precludes exhaustive discussion of each variable, particular issues related to data integrity including out-of-range values, outliers, and problems with normality are noted, along with results that are of theoretical interest. For ease of interpretation, values used in the summary tables and discussion are prior to any transformations that were necessary to respond issues of outliers, normality, and linearity.

Funding and Policy Indicators

The univariate results discussed in this section address the first research question that frames this study, “What are the major funding and policy variations among states in the implementation of CCDF?” As will be shown, the 12 indicators that were developed as part of the CCSSS as well as the composite CCSSS scores demonstrate wide variation in funding and policies across states.

Tests for normal distribution and linearity were examined for each of the indicators, and as demonstrated by scatterplots and skewness tests, four indicators including TANF Funding, Eligibility, Copays under 100% FPL, and Family Child
Care Licensing Thresholds were skewed in a positive direction. While transformations were considered for these variables, the assumption of multivariate normality was met when the 12 indicators were combined as part of the Child Care Self-Sufficiency Scale, so these variables were left untransformed.

Table 7 shows how states were scored on each of the 12 indicators. Table 8 displays each of the generosity indicators including means, medians, standard deviations, and the range of scores on each of the indicators. As with prior studies dealing with state implementation of CCDF and TANF, these descriptive results demonstrate that states have taken advantage of the flexibility allowed under PRWORA to implement programs that vary greatly in funding and access policies, the amounts families contribute to the cost of child care, and health and safety protections for children in care.

State scores on *CCDF Mandatory Funding* range from .19 to 1.67 (nearly ten times) which demonstrates both the extent to which states varied in their AFDC-related child care expenditures during the first half of the 1990s and the ongoing effects of those expenditures on the size of state CCDF Mandatory Grant funds states received in 2004. Eight states have Mandatory Grants that exceed the size of their Discretionary Grants including Massachusetts (1.67), Connecticut (1.26), Vermont (1.25), Washington (1.23), Rhode Island (1.19), Delaware (1.18), North Carolina (1.09), and Ohio (1.01). At the low end are Mississippi (.19), Nevada (.20), and Arkansas (.21).
As shown in Figure 3 (below), with a range of 0 to 8.21, state scores on TANF Funding have a greater range than the scores observed on CCDF Mandatory Funding. Seven states had FY 2004 TANF investments that exceeded their Discretionary Grant amounts by more than threefold. These included Massachusetts (8.21), Alaska (6.08), Wisconsin (4.96), California (3.75), New York (3.61), Vermont (3.76), and Washington (3.78). States that invested no TANF dollars in child care included Wyoming, Texas, South Dakota, Nevada, and Connecticut. The histogram, stem-and-leaf plot, and skewness test for this variable indicate that TANF Funding is skewed in a positive direction with scores being clustered at the low end of the range. Of interest theoretically, these descriptive results suggest that while most states invested some TANF dollars in child care either directly or through transfer to CCDF, most invested small amounts. A relatively few states spent a substantial portion of their TANF grants on child care, contributing to national perceptions that states were making large TANF investments in child care.
Figure 3. 2004 state TANF investments in comparison to state discretionary grants.

The Eligibility indicator measures how broadly states cast their nets in establishing eligibility for services under their CCDF programs. In comparison with the number of low-income children (under age 13, at least one working parent, and income under 200% FPL), 28% to 219% of children are covered under state rules. At the mean, state eligibility rules cover 88% of children, but the range is from 28% in Indiana to 217% in Alaska and 219% in Hawaii. At least two things bear noting: given differences in State Median Income (SMI), 200% FPL is lower than the federal eligibility limit of 85% SMI in some states. This contributes to the seeming expansiveness of eligibility in some states. Second, expansive eligibility can be
misleading in that states may have broad eligibility rules, but control the number of children and families served through waiting lists.

With a mean of $329.37 (SD = 79.95), Average Provider Payment ranges from a minimum of $163.22 in Oklahoma to $527.45 in Massachusetts across all family incomes, ages of children, types of care, and hours of care. The TANF Infant Care Exemption ranges from no exemptions to up to 24 months of exemption. At the median, 23 states allow 12 months of exemption consistent with the federal law. States that allow no automatic exemptions include Colorado, Iowa, Montana, Ohio, and Utah. Massachusetts and Vermont allow exemptions of 24 months (as a reminder, the 72-month exemption for Massachusetts was adjusted downward for theoretical consistency with the concept of an infant care exemption).

Variations among states are also demonstrated through indicators of family copay amounts and practices. On average, 44% of families with income under 100% FPL have no copay as indicated by Copay Exemption. However, very low income families having zero copay ranged from none in Idaho, Montana, and Pennsylvania to more than 90% of families in California, Arkansas, Indiana, Nebraska, and Vermont. Mean Copay under 100% FPL had a mean of $27.84 (SD = 23.77) and ranged from $.40 to $114.67 per month across states. The lowest average copays were in California ($.40), New Hampshire ($.51), Vermont ($1.35), and Tennessee ($1.75) and the highest were in Louisiana ($114.67) and North Dakota ($92.05). The final indicator of family copays is Copay at 150% FPL. These hypothetical family copays, based on estimates from the National Women’s Law Center, range from $5.00 to $423.00 per
month across states and have a mean of $201.24 (SD = 114.80; Schulman & Blank, 2005). For purposes of this analysis, the six states in which families at 150% FPL were not eligible were given copays equal to those of the least generous state, Oregon ($423). Hence, Idaho, Indiana, Iowa, Missouri, Montana, and Nebraska have assumed copays of $423.00. Excluding these six states from the analysis, the mean copay across states is $171.00 as opposed to $201.24.

As shown in Table 1, the CCSSS includes four indicators that address the health and safety of children in child care. In-Home Background Checks, relating to whether or not a caregiver in the child’s own home is subject to a background check, has a mean of 2.08, with a fairly evenly split between states that do not require background checks (20) and those that do (24). Six states require some, but not all, in-home caregivers to undergo background checks.

The mean number of toddlers (18-months) allowed per center teacher (Toddler Ratios) is 5.6 (SD = 1.44) across states. However, while Maryland allows just three toddlers per teacher, at the other extreme, Mississippi and Texas allow up nine toddlers to one caregiver. Eleven states set the limit at four toddlers. Preschool Ratios for four-year-olds in child care centers has a mean of 12.7 (SD = 2.87) children, but again the variation among states is broad, from 8-20 children. Florida and North Carolina allow up to 20 four-year-olds per teacher, and Georgia, South Carolina, and Texas, 18 children. By contrast, New York allows just 8 four-year-olds per teacher, and 16 states limit the number to 10.
Family Child Care Licensing Thresholds range from 1-13. In ten states, a caregiver in his or her own residence providing child care for one child (outside that child’s home) is subject to licensing. The same caregiver would need to care for 13 children in South Dakota before licensing would be required. The mean number of children that result in a family child care provider being subject to licensing is 3.96 (SD = 2.56).

Macro-Level Predictor Variables

In addressing Research Question 2, to what extent are state characteristics associated with generosity as measured by the CCSSS, six measures of state macro-level characteristics are used in this study. The measures are shown in Table 2; descriptive statistics for each measure are discussed below and displayed in Table 9.

Ideology and Partisanship

States vary from 24.06 to 81.99 on a 100 point scale that measures Citizen Ideology from conservative to liberal. Idaho (24.06) and Oklahoma (29.28) are most conservative and Massachusetts (81.99), Vermont (76.02), and Hawaii (74.06) most liberal. Government Ideology, which measures ideology and partisan composition in state legislatures and governors’ offices, ranges from a low of 6.81 to 86.15. Hawaii (86.15) and Vermont (84.49) have the highest scores on Government Ideology indicating that among states, they are the most liberal and oriented toward electing Democrats to their governor’s office and state legislature. On this measure, Utah is the most Republican, conservative state with a score of 6.81.
State Wealth

Average per capita income in 2004 ranges across states from $24,650 to $45,398 annually; mean average income is $31,951.10. At $45,298, Connecticut is high on this measure, and Mississippi is low at $24,650 in per capita income. Per Capita State Taxes have a mean of $2,042.51 and a range of $1,368.45 to $3,050.03. Per capita taxes are highest in Hawaii ($3,050.03) and Wyoming ($2,973.87) and lowest in Texas ($1,368.45).

Race and Ethnicity

The proportion of state population that is Black or African-American ranged from 0 to 37% and had a mean of 10.3%. Nine states are at the low end of the distribution with 1% or fewer Black residents. These states include Idaho, Montana, Maine, North Dakota, New Hampshire, South Dakota, Utah, Vermont, and Wyoming. Mississippi (37%) and Louisiana (33%) have the highest percentages of Blacks. This measure was skewed in a positive direction (skewness = 3.29), but while square root and logarithmic transformations reduced skewness somewhat, it was at the price of increased kurtosis. Therefore, this measure was left untransformed.

States varied from 1% to 44% in the proportion of state population that was Latino or Hispanic with New Mexico (44%), Texas (35%), California (35%), and Arizona (28%) at the high end. In contrast, 1% of the population of Maine, Vermont, and West Virginia was Latino. This measure was skewed in a positive direction with a skewness score of 6.23 and kurtosis of 6.54. After conducting logarithmic
transformations, tests of this measure showed it to be in compliance with assumptions of normality and linearity (skewness = .32 and kurtosis = 1.11).

**CCDF Service Delivery Variables**

Research Question 3 deals with the extent to which child care generosity as measured by the CCSSS is associated with cross-state differences in CCDF service delivery as reflected in the data states submit to the federal government. Descriptive results demonstrate distinct differences among states in patterns of service delivery under CCDF. This includes variations in the characteristics of families served, the age, race and ethnicity of children, and the type of care used by families. Table 10 summarizes the descriptive results for the service-delivery variables.

*Characteristics of Families Served*

While on average, 89% of families served through CCDF are headed by a single parent, across states the range is 48-100%. Hawaii is low at 48% and West Virginia is high at 100%. This variable is skewed negatively with most states serving a large proportion of single parents in their CCDF caseloads. Tests of skewness (6.76) and kurtosis (13.90) confirm the lack of normality in this variable which was transformed using a logarithmic transformation which reduced skewness to 1.85 and kurtosis to 1.11. West Virginia remains an outlier. Average number of children in care per family has a mean of 1.7 and varies from Maine (1.4) to Michigan (2.00). Proportion of families served with income at or more than 100% FPL ranges from 19% to 72% of the families served by states. States serving the highest proportion of families over 100% FPL include Alaska (72%), California (68%), Pennsylvania
(67%), and Wyoming (66%). At the low end are Missouri (19%), Nebraska (20%), and Arkansas (22%).

Characteristics of Children Served

By age group, 55% of children served nationally were preschoolers (0-5 years), 10.4% five-year-olds, and 34% school-age (6-13 years). This too varies with states ranging from 46% to 66% in the proportion of children served who were preschoolers. Across states, from 8% to 13% of children served were five-year-olds, and 25% to 45% were school-age. And while 66% of children served in Arkansas and 65% of children in Oklahoma were under five, only 46% of children were in this age range in Michigan and New York.

Race and Ethnicity

Thirty-five percent of children served through CCDF nationally are Black or African-American. The range is from 1% in Idaho, Montana, and Vermont to 79% in Georgia, 81% in Louisiana, and 87% in Mississippi. Thirteen percent of all children served are Latino or Hispanic with a range of 0-74%. Boxplots show New Mexico (74%), California (50%), Arizona (45%), Texas (42%), and Colorado (34%) as outliers on this variable. The overall distribution on this variable is skewed in a positive direction. Lack of normality is confirmed by tests of skewness (5.78) and kurtosis (6.23). This measure was transformed using logarithmic transformations resulting in a skewness score of .32, kurtosis of 1.11, and the elimination of outliers.
Type of Care

In 2004, 57.2% of children served nationally through CCDF were in child care centers, 6.6% of children in their own homes, 31.1% in family child care homes, and 5.1% in group homes (large family child care homes). These statistics, however, mask substantial variation among states in the types of care used by families. Across states, children served in centers ranges from 16% to 98% with most of the children in Oklahoma (98%), Florida (88%), Nevada (88%), Mississippi (87%), Alabama (87%), and North Carolina (86%) receiving center-based care. At the other extreme, only a small percentage of children served through CCDF in Michigan (16%), Wyoming (17%), and Oregon (19%) were in center-based settings. In these states, the majority of children were in home-based settings. Overall, children receiving CCDF-funded care in their own homes ranged from 0-37%, in family child care homes 2-79%, and large family child care homes (group homes) 0-40%.

Bivariate Analyses

The section describes the Pearson product moment correlations between the individual Child Care Self-Sufficiency Scale indicators, measures of state macro-level characteristics, and state CCDF service delivery. It also describes size and direction of associations between summary scores on the Child Care Self-Sufficiency Scale and state macro-level and service delivery variables. Correlations of $r = .10-.29$ are considered small, $r = .30-.49$ moderate, and $r = .50-1.0$, large (Pallant, 2007). As generally accepted in the research community, the level of significance of association is .05. Analyses were conducted to guard against violations of normality, linearity,
and homoscedasticity (meaning that the variability of scores is similar among variables). While concerns might be raised about the ratio of cases to independent variables for purposes of bivariate analyses, this was deemed acceptable due to the exploratory nature of this study and the fact that formal hypotheses were not tested. The results of the bivariate analyses were used simply to identify the most relevant relationships among variables for further theoretical analyses.

*State Funding and Policy Generosity and State Macro-Level Characteristics*

**Funding and Policy Indicators**

Table 5 provides the results of Pearson product moment correlations between the funding and policy indicators and state macro-level characteristics. Among the 12 funding and policy indicators, there were 66 bivariate correlations. Of these, 14 (21%) are statistically significant at the .05 level. The majority of the statistically significant correlations (9) involve the two indicators of funding (Mandatory and TANF Funding). Moderate correlations exist between the mandatory funding indicator and TANF funding \( (r = .50) \), provider payments \( (r = .41) \), and all four child health and safety indicators \( (r = .35-.42) \). The correlations between CCDF Mandatory Funds, TANF funding, and provider payments are to be expected because all three relate to level of state spending. The consistent association between Mandatory Funding and health and safety regulations suggests that state health and safety regulations also reflect historical patterns of state child care generosity; these policies tend to be stable over time because they have huge implications for child care cost (i.e. staff-child ratios are among the major child care cost drivers). In addition to Mandatory Funding,
TANF Funding is strongly associated with Provider Payments \( (r = .64) \) and Preschool Child-Staff Ratios \( (r = .33) \), suggesting a possible connection between TANF investments, costs associated with higher child-staff ratios, and concerns about child care quality, brain development, and the school-readiness of preschool children. The proportion of children eligible under state CCDF rules is highly associated with copays for families at 150% FPL \( (r = .55) \) and has a positive correlation with TANF Funding \( (r = .32) \) which may suggest an orientation toward making it possible for families above 100% FPL to maintain child care services as they transition toward economic self-sufficiency.

Strong associations between the state macro-level characteristics (with the exception of race and ethnicity) and funding-related indicators including Mandatory and TANF Funding, Eligibility, and Provider Payment suggest that more liberal, wealthy states spend more on child care, have broader eligibility rules, and pay providers more. Correlations between state macro-level characteristics and the health and safety indicators provide a mixed picture. Preschool Child-Staff Ratios are positively associated with measures of state wealth and Citizen Ideology and negatively associated with Black Population \( (r = -.49) \). Toddler Child-Staff Ratios are also correlated positively with Citizen Ideology \( (r = .36) \) and negatively with Black Population \( (r = -.39) \). There are no significant correlations between the child care funding and policy indicators and the proportion of state population that is Latino.
Table 11 shows Pearson product moment correlations between the Child Care Self-Sufficiency Scale (CCSSS) as a composite indicator of child care funding and policy generosity, and state macro-level characteristics. As suggested by the correlations between individual indicators and macro-level measures, moderate to strong correlations were found between the CCSSS and state macro-level characteristics with the exception of race and ethnicity. This suggests a positive relationship between funding and policy generosity and wealthier, more liberal states.

Pearson product moment correlations between state macro-level characteristics and CCDF service delivery patterns are shown in Table 12. These correlations show consistently significant correlations between income of families served through CCDF (over 100% FPL) and measures of ideology and partisanship and state wealth. Serving more school-age children is significantly correlated with Citizen Ideology \( (r = .40) \) and Per Capita Income \( (r = .38) \). State macro-level characteristics including Citizen and Government Ideology, Per Capita Income, Per Capita Taxes, and Latino Population were not significantly correlated with proportion of Black children served. As might be expected, Black Population and Black children served were highly correlated \( (r = .92) \). Serving more Latino children through CCDF was positively associated with per capita income \( (r = .40) \) and Latino population \( (r = .85) \) and a negative association with Black population \( (r = -.39) \) and Black children served \( (r = -.39) \). Use of center care has a significant association with Black population \( (r = .46) \) and Black children served \( (r = .44) \).
**Indicators of Funding and Policy Generosity and CCDF Service Delivery**

**Funding and Policy Indicators**

As summarized in Table 13, the most consistent pattern of association between CCDF service delivery and the indicators of funding and policy was with the income of families served. Serving a larger proportion of families with income over 100% FPL is positively associated with Mandatory Funding ($r = .37$), TANF Funding ($r = .45$), Eligibility ($r = .53$), Provider payments ($r = .61$), TANF work exemptions for infant caregivers ($r = .31$), and Copays at 150% FPL ($r = .54$). Income among families served was not significantly associated with child health and safety regulations. Serving more school-age children (6-13 year-olds) was associated with greater TANF Funding ($r = .35$), provider payments ($r = .52$), copays at 150% FPL ($r = .30$), and family income ($r = .38$). Proportion of Black children served was negatively associated with in-home caregiver background checks ($r = -.32$), center ratios for toddlers ($r = -.37$), and preschoolers ($r = -.46$). Use of center care was negatively associated with center ratios for both 18-month-old children ($r = -.58$) and four-year-olds ($r = -.65$) and positively associated with proportion of Black children served ($r = .44$).

**CCSSS and CCDF Service Delivery**

As shown in Table 14, bivariate correlations between the composite scores on the Child Care Self-Sufficiency Scale and CCDF Service Delivery revealed a significant positive correlation with family income ($r = .58$), negative association with average children served per family ($r = -.40$), positive association with proportion of
children served ages 6-13 \( (r = .40) \), and negative association with proportion of Black children served \( (r = -.31) \).

Children in center care has a small negative association (non-significant) with the CCSSS \( (r = -.20) \), but a positive association with proportion of Black children served \( (r = .44) \). Because the scatterplot between the CCSSS and center care suggested two groupings of data, one that predominantly included Southern states, partial correlations were calculated with a dummy variable to remove the influence of “Southern.” Controlling for the influence of Southern states, the correlation between CCSSS and use of center care went from \( r = -.203 \) to \( r = .142 \), suggesting a small non-significant positive association between CCSSS and use of center care.

Regression Results

*State Characteristics and State Generosity as Measured by CCSSS*

Responding to Question 2, “To what extent are specific state macro-level characteristics associated with the generosity of CCDF expenditures and policy as measured by the CCSSS,” standard multiple regression was used to assess the extent to which the six state macro-level characteristics predicted state scores on the CCSSS. Plots including the regression standardized residual histogram, the normal P-P plot of standard residuals, and the residual scatterplot suggested that assumptions regarding normality and linearity of residuals were met. Collinearity statistics including tolerance and VIF scores were within acceptable limits indicating that multicollinearity was not an issue. No cases had missing data and no suppressor
variables were found (Tabachnick & Fidell, 2001). Mahalanobis Distance residual statistics and Cook’s Distance were within acceptable limits.

Table 15 in the Appendix shows the unstandardized regression coefficients (B), standard error, standardized regression coefficients (β), and $R^2$ for a model with all of the predictor variables entered simultaneously. As indicated by the $R^2$, the amount of variance in state scores on the CCSSS explained by the model was 63.6%, $F (6, 43) = 12.538, p < .000$. As shown in Figure 4 below, three of the independent variables, Government Ideology ($β = .34, p < .039$), State Per Capita Income ($β = .46, p < .001$), and proportion of African-Americans in the population ($β = -.284, p < .011$) contributed significantly to predicting CCSSS scores. These results suggest that wealthier, more ideologically liberal states with larger proportions of Democrats in the state legislature and governor’s office have child care programs characterized by greater generosity in funding and policies. Confirming existing literature about the relationship between welfare policies and state racial composition, and the racial disparity hypothesis suggested by Soss et al. (2001), larger percentages of African-Americans in state populations predict less generous child care funding and policies.
Figure 4. State macro-level characteristics as predictors of child care generosity as measured by the Child Care Self-Sufficiency Scale (CCSSS).

\[ R^2 = .64, F(6, 43) = 12.538, p < .000; \]
\[ *p < .05, **p < .01 \]

Relationships between CCSSS and CCDF Service Delivery Patterns

Relationships between CCSSS and CCDF service delivery were examined using bivariate multiple regression. Preliminary analyses suggested that assumptions regarding normality and linearity of residuals were met. Collinearity tests indicated that multicollinearity was not an issue. No cases had missing data and no suppressor variables were found. Bivariate simple regression analyses indicated that CCSSS scores significantly predicted differences in family income, average children served per family, ages of children served, and proportion of Black children served. They did not significantly predict households headed by a single parent, Latino children served,
and type of care. Given the strength of the relationship between CCSSS and State Per Capita Income (as a measure of state wealth), and the possibility that differences in state wealth account for much of the variation in service delivery patterns across states, multiple regression was conducted to determine the extent to which CCSSS scores predict service delivery patterns when State Per Capita Income was included in the model.

*Family Income*

Table 16 shows the extent to which the Child Care Self-Sufficiency Scale predicts the income of families served through CCDF when controlling for State Per Capita Income. Income of families served was measured using proportion of families with income at or more than 100% FPL receiving services through CCDF. The total amount of variance explained by the model was 39.1%, $F = (2, 47) = 15.113, p < .000$. CCSSS (generosity) was a significant predictor of family income ($\beta = .393, p < .010$) with a higher beta value than Per Capita Income ($\beta = .298, p < .048$). This suggests that separate from State Per Capita Income, state funding and policy generosity as measured by CCSSS predicts the income of families served through CCDF. Specifically, greater generosity is associated with serving families as they move toward economic self-sufficiency as opposed to serving only the very lowest income families (see Figure 5 below).
Figure 5. Generosity as a predictor of family income with state per capita income included in the multiple regression model.

\[ R^2 = .39, F = (2, 47) = 15.113, p < .000; *p < .05, **p < .01 \]

Average Children Served Per Family (CCDF)

Multiple regression was used to analyze CCSSS as a predictor of the average number of children in care per family through CCDF while controlling for State Per Capita Income. As shown in Figure 6 and Table 17, the total amount of variance explained by the model was 18%, \( F = (2, 47) = 5.158, p < .009 \). While the model significantly explained variance in the income of families served, neither Per Capita Income \( (\beta = -.187, p < .277) \) nor CCSSS \( (\beta = -.280, p < .107) \) reached significance as individual predictors.
Figure 6. CCSSS as a predictor of average children served per family controlling for state per capita income.

\[ R^2 = .18, F = (2, 47) = 5.158, p < .009 \]

Table 18 shows the results of multiple regression between ages of children served and the predictor variable, CCSSS, when State Per Capita Income is included in the model. Proportion of children served who are school-age (6-13 years) indicates the extent to which states serve children across the eligibility range as opposed to concentrating services on younger children. While the overall model significantly explained variance in the income of families served \( (R^2 = 19.1\%, F = (2, 47) = 5.532, p < .007) \), neither CCSSS \( (\beta = .267, p < .121) \) nor Per Capita Income \( (\beta = .216, p < .209) \) significantly predicted ages of children served (see Figure 7). Given bivariate correlations between CCSSS and ages of children served \( (r = .40) \), between CCSSS and family income \( (r = .58) \), and between income and ages of children served \( (r = .38) \).
shown in Table 14, generosity (CCSS) likely predicts services to a broader range of child ages (as opposed to concentrating on youngest children), however it is not possible to model the independent effects given grouped ages and a sample size of 50.

**Figure 7.** CCSSS as a predictor of ages of children served through CCDF controlling for state per capita income.

![Diagram](image)

$$R^2 = .19, F = (2, 47) = 5.532, p < .007$$

**Black Children Served through CCDF**

Table 19 shows the results of multiple regression in assessing the extent to which the CCSSS predicts the proportion of Black Children served through CCDF when controlling for State Per Capita Income. The total amount of variance explained by the model was 13.5%, $F = (2, 47) = 3.671, p < .033$. Only CCSSS (generosity) significantly predicted Black children served ($\beta = -.469, p < .010$). As shown in Figure 8, this suggests that separate from state wealth, states with larger proportions of
Black children in their CCDF caseloads tend to be less generous in the funding and policies that govern their child care programs (as measured by CCSSS). In particular, bivariate correlations suggest a connection between less rigorous child care regulations (allowing more toddlers and preschoolers per center teacher), use of center care, and serving a large proportion of Black children.

*Figure 8:* CCSSS as a predictor of Black children served through CCDF controlling for state per capita income.

\[ R^2 = .14, \quad F = (2, 47) = 3.671, \quad p < .033; \]
\[ **p < .01 \]

*Proportion of Children Served in Centers*

As shown in Table 20 and Figure 9 (below), multiple regression was used to analyze the extent to which CCSSS predicts type of care when controlling for State Per Capita Income and Southern state. Proportion of children in center-based care was used to differentiate among states in type of care provided through CCDF. The influence of Southern state is included in response to descriptive statistics and
scatterplots that indicated that states in the South differ on this variable as compared to the rest of the United States. The total amount of variance explained by Model 2 was 48.9%, $F = (3, 46) = 14.688, p < .000$. Southern state was the only significant predictor of use of center care in Model 2 ($\beta = .763, p < .000$). Adding the variable “Black children served through CCDF” to this model did not increase the amount of variance in the use of center care explained, and “Black children served through CCDF” explained little variance in the use of center care ($\beta = .005, p = .973$).

Similarly, in a model with 2003 National Survey of Children’s Health data that addresses young children (under 150% FPL) in center care (Lippman, 2008) as the dependent variable rather than 2004 CCDF center data, none of the independent variables (CCSSS, state per capita income, or Southern) were significant predictors of variation across states in the use of center care. In fact, in this model $R^2 = .016, F = (3, 46) = .253, p < .859$ and the $\beta$ for Southern was only .067 (as compared to .759 with the CCDF data). This suggests that the almost exclusive use of center care in the south is specific to CCDF as opposed to an overall preference for center care by low-income families in the south.
**Figure 9.** CCSSS, state per capita income, and Southern State as predictors of the use of center care under CCDF.

![Diagram](image)

$R^2 = .49, F = (3, 46) = 14.688, p < .000$; **$p < .000$**

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**Post Hoc Analyses: Serving all Eligible Families.**

As discussed in Chapter IV, one proposed indicator, “serving all eligible families” was not included in the final version of the Child Care Self-Sufficiency Scale but bears particular discussion because it offers possible insight into how states use policies to manage their subsidy programs within available funds. While this indicator was deleted to improve the reliability of the scale, post hoc analyses were completed to examine differences among states based on whether or not they served all eligible families that applied. For issues of sample size, the variable was recoded to $1 =$ consistently serves all eligible families that apply and $0 =$ serves all eligible families that apply some or none of the time. Differences between the two groups
were examined through independent-samples t-tests to compare scores on the Child Care Self-Sufficiency Scale for the two groups as well as differences in service delivery patterns. No significant difference was observed in CCSSS scores for states that serve all eligible families \( (M = .29, SD = 6.66) \) and states that use waiting lists or other mechanisms to ration services \( (M = -.29, SD = 5.63) \); \( t(48) = .329, p < .74 \) (two-tailed). The mean difference between the two groups was very small (eta squared = .002).

Significant differences however, were observed in patterns of service delivery including income of families served, type of care, and proportion of Black children served. States that rationed services through waiting lists served a larger proportion of families with income over 100% FPL \( (M = .49, SD = .14) \) as compared to states that served all eligible families that applied \( (M = -.42, SD = .126) \); \( t(48) = 2.02, p < .05 \) (two-tailed). The mean difference between the two groups (mean difference = .08, 95% CI: .000-.15) was moderate (eta squared = .08). Children in states that rationed services were more likely to receive care in child care centers \( (M = .65, SD = .18) \) as compared to states that served all eligible families \( (M = -.49, SD = .20) \); \( t(48) = 3.07, p < .003 \) (two-tailed). The mean difference between the two groups (mean difference = .16, 95% CI: .055-.265) was large (eta squared = .17). Finally, significant mean differences existed between groups based on the proportion of Black children served. States with waiting lists were more likely to serve larger proportions of Black children \( (M = .42, SD = .26) \) as compared to states that served all eligible families that applied \( (M = -.27, SD = .27) \); \( t(48) = 1.98, p < .054 \) (two-tailed). The mean difference
between the two groups (mean difference = .15, 95% CI: -.023-.298) was moderate (eta squared = .08). These findings suggest that serving all eligible families that apply does not signify greater state child care generosity, likely due to the adjustments states make in policies such as eligibility, provider payments, and copays to manage the program within available funds. However, the association between waiting lists and serving larger proportions of families over 100% FPL may mean that some states are serving higher income families while families with income under 100% FPL remain on waiting lists. While the associations between waiting lists, use of center care, and larger proportions of Black children served are generally consistent with other findings in this study, given data and sample size issues, it is not possible to clearly specify the relationships.
What is government itself, but the greatest of all reflections on human nature?" If men were angels, no government would be necessary.

James Madison, Federalist #51

Alan Greenspan, the former Federal Reserve chairman, said yesterday that the credit crisis had exceeded anything he would have imagined and admitted he was wrong to think that banks would protect themselves from financial market chaos. "I made a mistake in presuming that the self-interest of organizations, specifically banks and others, was such that they were best capable of protecting their own shareholders," he said.

The Financial Times, October 24, 2008, p. 1

The test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have too little.

Franklin Delano Roosevelt, Second Inaugural Address, January 20, 1937

CHAPTER 6: DISCUSSION AND IMPLICATIONS

Through the Personal Responsibility and Work Opportunity Act (PRWORA) of 1996, the United States responded to dramatic societal and economic changes by reconfiguring the safety net for low-income families and their children (Mead & Beem, 2005; Mishel et al., 1997; Schiller, 1998). PRWORA abolished Aid to Families with Dependent Children (AFDC) and in its place created the Temporary Assistance for Needy Families (TANF). As suggested by its name, TANF provides time-limited assistance along with work requirements, and sanctions for non-compliance that are more or less stringent depending on the state. In profound ways, PRWORA changed the social contract in the United States, emphasizing individual
responsibility in the market over alternative ways of understanding of the role of citizenship and communities (Dolbeare, 1984; Mead, 1997).

In the years surrounding passage of the 1996 welfare reform legislation, the booming economy; stringent work requirements for welfare recipients, and the earned income tax credit led to welfare caseloads that were reduced by half across the United States (Office of Family Assistance, 2006). Most welfare recipients, predominantly single mothers with young children, entered low-wage jobs in the service and sales industries. And, despite research demonstrating the link between poverty and poor outcomes for children, and the importance of income over parental employment in producing better outcomes for children, many parents transitioned from welfare to work without substantially improving the economic circumstances of their families (Haskins, 2008; Ozawa & Yoon, 2005; Schumacher & Greenberg, 1999; Zaslow et al., 2002a).

The welfare and child care block grants created under welfare reform, along with reduced welfare rolls, resulted in a funding windfall for many states. However, with devolution of funding and policy decisions to states, and differences among states in ideology, partisanship, and wealth, the level of resources available to states varied as did state decisions about how to spend these newly available funds.

This study sought to make these variations explicit through the state child care funding and policies that were in effect in FY 2004, and to demonstrate how these variations were associated with state macro-level characteristics, and influenced which low-income families received child care assistance in 2004. Again, 2004 was chosen
as the focus of this study because it was a year of relative stability in the national economy, most states had fully implemented TANF and CCDF by this point, the changes that accompanied TANF reauthorization had not yet occurred, and for the first time, CCDF case-level data were available as a public use data set.

This section discusses the results of this study and its implications for state and federal policy-makers, researchers, and social work.

Summary of Results

*Major Funding and Policy Variations among States*

This study addressed its first major research question, “What are the major funding and policy variations among states in the implementation of CCDF?” through the creation of the Child Care Self-Sufficiency Scale (CCSSS). Prior studies have concluded that inconsistent findings about the effects of state child care policies result from the policy trade-offs states make within the constraints of limited funding and political context (Jordan, 2006; Meyers, 2002; Rigby, 2005; Schexnayder & Schroeder, 2008). This suggests that across policies, states do not align on a continuum from least to most generous, but instead prioritize some policies over others, and ultimately implement mixes of policies with some policies being generous and others less so. However, this study successfully produced an internally-consistent composite scale (α = .755) that measures the diverse characteristics of state policy that contribute to generosity as a dimension of state policy on which states differ widely.

Along with the 12 indicators that comprise the CCSSS, state composite scores on the CCSSS demonstrate just how varied states are in the generosity of their child
care funding and policies. Some of these descriptive findings highlight or provide new insights about funding and policy patterns across states. For instance, funding differences among states are exacerbated by the formula that is used by the federal government in allocating CCDF Mandatory Funds to states. For example, Massachusetts’ CCDF Mandatory Grant is ten times greater than that received by Mississippi (in relative terms). This disparity exists despite the fact that Massachusetts is second, and Mississippi lowest, in state per capita income among states. In addition, while states varied widely in the amount of TANF resources invested in child care in 2004, most states used only a small percentage of their TANF dollars for child care. Similarly, as has been documented by other researchers and national organizations (Child Care Bureau, 2008; Children’s Defense Fund, 2003; Edie, 2006; GAO, 2003; Schulman & Blank, 2005, 2006) states differed substantially in the proportion of low-income children eligible for CCDF under state rules, average provider payments per child, family copays, and child care health and safety requirements.

These differences in funding and policy generosity are reflected in summary CCSSS scores that range from a high of 18.31 in Massachusetts to a low of -13.51 in Louisiana.

**Macro-Level Variations across States**

In addressing Research Question 2, bivariate correlations and multiple regression analyses demonstrated that state macro-level characteristics including ideology, wealth, and racial composition explained a significant amount of the
difference among states in the generosity of their child care programs. These findings are consistent with studies that variously demonstrate associations between state ideology, partisanship, wealth, and race/ethnicity and the generosity, flexibility, and stringency of state welfare policies (Faricy & Weaver, 2006; Fellowes & Rowe, 2004; Gais & Weaver, 2002; Grogger et al., 2002; Soss et al., 2001). This study found that more liberal, wealthy states with larger proportions of Democrats in state leadership (over the 20 year period ending in 2004) were more generous in their child care funding and policies as indicated by scores on the CCSSS. These findings are consistent with those of Rigby (2005) who found that states that prioritized child care subsidies and/or regulations were more liberal, wealthier, and had higher tax rates. Examining specific child care policies, Ng’s (2003) findings were mixed. For example, Ng found that state liberalism was associated with child-staff ratios for four-year-olds but not toddlers.

Again, in agreement with recent welfare research, this study found that larger proportions of African-Americans in a state population contributed to explaining less generous state child care funding and policies. This is consistent with the findings of Faricy and Weaver (2006) as well as Fellowes and Rowe (2004) who found that states with smaller African-Americans populations, and that were liberal, wealthy, and had Democratic governors tended toward more generous, flexible welfare policies. Findings regarding the effects of Latinos in the population and welfare caseloads have been inconsistent across studies, frequently being associated with certain policies but not others (Faricy & Weaver, 2006; Gais & Weaver, 2002). This study did not find
significant associations between Latinos in state population, Latino children served through CCDF, and state child care funding and policy generosity. Given the prevalence of poverty among Latinos, this suggests that poverty is not the dominant factor contributing to generosity as measured by the CCSSS.

Variations in CCDF Service Delivery

An indication of the extent to which state child care policies and funding support families as they move toward economic self-sufficiency can be found in cross-state patterns of CCDF service delivery including which families and children receive services and the type of care they use. Univariate analyses demonstrated wide service delivery variations across states in the proportion of families served that were headed by a single parent or that had incomes above 100% FPL. Similarly, there were variations in the ages of children served, race and ethnicity of children served across states, and in the type of care received. Associations between CCSSS and CCDF service delivery patterns demonstrated significant correlations between CCSSS and the proportion of families served with income over 100% FPL, average number of children in care per family, proportion of school-age children served, and proportion of Black children served through CCDF.

Multiple regression models showed that controlling for state per capita income, greater generosity as indicated by CCSSS scores helped explain differences across states in the income of families and Black children served. The relationship between CCSSS scores and family income was in a positive direction suggesting that more generous states served a broader range of families as opposed to concentrating
exclusively on families with income below 100% FPL. This may relate to funding and eligibility policies that are expansive and/or other factors such as copays that make it affordable for families with more income to continue receiving child care subsidies. Post hoc comparisons also indicated that as compared to states that serve all eligible families that apply, states with waiting lists serve a larger proportion of families with incomes over 100% FPL. This raises questions about processes for serving families on waiting lists (first come, first served versus income-related prioritization).

The negative association between CCSSS scores and proportion of Black children in CCDF caseloads indicates that states serving fewer Black children demonstrate greater funding and policy generosity than states serving more Black children. And, while CCSSS was not a significant predictor of type of care, a multiple regression model with CCSSS, per capita income, and a dummy variable for Southern state, explained 49% of the variance in type of care and Southern state was a significant predictor of type of care.

Limitations of Research

Use of CCDF administrative data in analyzing the nature of CCDF service delivery is particularly appropriate at this time because: (a) CCDF aggregate and case-level data have improved in response to technical assistance by the Child Care Bureau to states; (b) the Federal system that collects the data has been rebuilt allowing for more timely analysis and release of data; (c) the Child Care Bureau has conducted data validation with a sample of states to better understand where there may be problems
and inconsistencies in data reporting; and (d) case-level data is now available as a public use data.

However, administrative data is a by-product of service delivery and its validity and reliability can be compromised in a variety of ways including worker error and differences in how states define variables. Workers may be more attentive to data elements that directly relate to service delivery which can lead to missing data or inaccuracies. And researchers who have completed studies using administrative data across states have discovered differences in how states collect information about family income and type of care. These differences relate, at least in part, to underlying variations in state policies and procedures; for example, some states deduct certain forms of income for purposes of determining eligibility for CCDF (typically TANF and/or SSI). In addition, researchers are limited to the information collected—which includes information restricted to the families and children that actually receive services; little is known about how families served through CCDF compare with other families that may be eligible, but do not use child care subsidies.

Inherent in a study of the 50 states, sample size was also a limitation, precluding certain types of analyses including factor analysis, scale testing using sophisticated psychometric analyses, and additional specification of regression models. And while bivariate and multivariate statistical methods identified associations among variables, and in some instances, demonstrated the extent to which independent variables allowed predictions to be made about a dependent variable,
these relationships were correlational rather than causal, and it was impossible to rule out unmeasured influences.

Finally, by being conducted within the context of CCDF and TANF, this study does not take into account other aspects of state early education funding and policy that might provide a very different picture. For instance, some states invest in child care outside the CCDF context using state appropriations, tax policy, and/or privately-raised funds. In addition, Head Start services are funded directly by the federal government to local agencies and an increasing number of states invest state dollars in pre-kindergarten programs for three- and four-year-olds.

Implications for State Policy and Practice

CCDF is predicated on the assumption that child care is a market good, and that low-income working families need help in the child care market. As a condition of federal CCDF funding, states are required to give eligible families access to the same types of child care as privately-paying families—through vouchers that can be used across child care settings, pay providers their usual and customary rates, and have family copays that are affordable. The variations in funding and policy generosity and patterns of CCDF service delivery demonstrated by this study raise serious questions about the extent to which these requirements are being met across states. Extreme variations in available funding, eligibility, copays, and waiting lists influence which families have access to services and the extent to which families can continue to use child care subsidies as they move toward greater self-sufficiency.
While national studies indicate that the proportion of low-income children served in child care centers varies widely (from 32% to 74% in Lippman et al., 2008), and that Black families are more likely to use center-based care than other families (Capizzano, Adams, & Ost, 2006), this does not fully explain the fact that in many Southern states, more than 90% of children served through CCDF are in centers. Combined with less stringent child-staff regulations in most of the South, these statistics raise questions about the extent to which families in these states have access to other types of care and how these policies and practices relate to developmental outcomes for children. It also raises questions about the ability of low-income parents who work non-standard hours to use subsidies given difficulties finding centers that operate evenings and weekends. And most significantly, this raises questions about whether the lack of variation in type of care used by families reflects covert coercion and racism expressed through child care policies and practices in these states.

Similarly, in states such as Oregon and Michigan, the proportion of children served through CCDF in home-based settings suggests a combination of policies and practices that may force low-income families into home-based settings suppressing the availability of more formal child care options. With provider payments ranging from $163 to $527 a month, and copays varying from $5 to $423 a month for families at 150% FPL across states, it seems likely that subsidy policies are among the socially-constructed influences on the child care choices of low-income families, including decisions about whether using child care subsidies is a viable option.
State policy-makers and practitioners are urged to consider the funding and policy choices made by their states, and to make explicit how these choices are associated with which families and children receive services and the types of care that are available to families. This includes: (a) exploration of how subsidy policies affect which families can take advantage of child care subsidies; (b) the types of care that are reasonably available to subsidized families; (c) how subsidy policies and regulations interact to encourage use of certain types of care, and (d) ultimately, the extent to which child care funding and policies support families in moving toward greater self-sufficiency and promote the well-being of children. The Child Care Self-Sufficiency Scale, and the indicators that comprise it, can assist policy-makers and practitioners in conducting such analyses.

Implications for Federal Policy

From the federal perspective, this study has lessons in terms of (a) the federal role in minimizing inequities across states; (b) how CCDF funds are allocated; and (c) federal regulatory authority. First of all, it highlights the importance of the federal role in mitigating the effects of ideology, partisanship, wealth, and race on the generosity of funding and policies across states. And, given the effects of heightened work requirements that were included in the 2006 reauthorization of TANF, it is likely that inequity in funding and policies across states will increase unless additional child care funds are made available. Second, careful consideration should be given to the effects of TANF and CCDF funding tied to prior spending patterns. Greater equity across states could be achieved by changing the CCDF Mandatory Funding formula in
combination with the distribution of any additional funds. Finally, the results of this study suggest that while CCDF promises parental choice, these promises may be hollow—due to low provider reimbursement rates, high copays, or limits on the types of care families are allowed to use particularly given stringent work requirements under TANF. The federal government needs the resources and authority to ensure that state programs operate in compliance with the law and regulations governing CCDF including provisions that support parental choice.

Implications for Researchers

From the research perspective, this study breaks new ground in the development of a scale that demonstrates internal consistency. The process of scale development was instructive—many of the funding and policy measures used by national advocates and researchers were not powerful enough to discriminate meaningfully among states or did not measure generosity in a consistent direction. In particular, much of the information in state CCDF Plans lacks the clarity and completeness that would be necessary to truly understand state policies and practices and to use the data for analytical purposes. This includes issues around how states set maximum provider reimbursement rates and factors in addition to income that are considered in determining eligibility for child care services. On some items, it seems clear that states are not defining terms in a consistent way (for instance, “in-home care”). Therefore, the case can be made for more careful operationalization of state policies in future studies. Interestingly, this study found that in some instances, most notably provider payments and copays, indicators based on service delivery data were
more reliable measures of state policies than what states said in their biennial CCDF plans.

Furthermore, given the variations in state funding and policy generosity that exist, state funding and policy trends bear monitoring over time with particular attention to changes that may occur with TANF reauthorization and economic conditions. The Child Care Self-Sufficiency Scale provides a mechanism for conducting such comparisons. And, while this study raises interesting questions about the associations between state funding and policy variations and service delivery patterns, additional research is needed to examine the dimensions or categories that comprise the scale and to specify more precisely the relationships among policies and service delivery. Such findings could be tremendously useful in helping federal, state, and local child care policymakers with the difficult decisions they must make.

Implications for Social Work

There have been times throughout the history of the United States when the relationship between child care and social work has been problematic with social workers joining the ranks of those viewing child care as a threat to the family and the role of mothers—in debates about mothers’ pensions, over continuation of the World War II Lanham Act nurseries, the professionalization of child care providers, and funding priorities (Beer, 1957; Department of Social Security, 1949; Steinfels, 1973; Tuttle, 1992). In recent decades, however, social work literature increasingly acknowledges the many ways child care can support the goals of social work, and the
roles social workers can assume in helping child care providers meet the needs of children in care.

First, child care is recognized as one of the continuum of basic supports that need to be available for all families (Emlen, 2008; Frankel, 1991; Rodditi, 1995; Shireman, 2003) and, along with taxes, wages, employment benefits, income supports, and economic development, should be addressed as part of national family policy designed to support the economic health of families. Second, given findings from early intervention research and neuroscience about the importance of early development, high quality child care programs are being given greater attention as a support to parents, and as a means for identifying and addressing developmental issues in children. This includes at-risk children in the child welfare system as well as those with special needs including mental health problems (Brennan, Bradley, Ama, & Cawood, 2003; Ward, 2001, 2004, 2006). Third, as child care providers are called upon to work with children with challenging behaviors and needs, social workers can offer valuable training and consultation to help providers be more effective in responding to the needs of children (Frankel, 1991; Brennan, Bradley, Allan, & Perry, in press). Improved quality of care directly affects child outcomes and family supports—and such consultation is likely to improve the retention of child care providers and reduce the number of young children expelled from child care settings.

More specifically related to the child care funding and policies addressed in the development of the Child Care Self-Sufficiency Scale, this study has implications for the social justice goals of social work at both the micro- and macro-levels. Variations
in funding and policies across states raise questions about the effects of these differences on individual families, children, and providers involved in child care services and systems funded in part or whole through CCDF. This is of particular concern in states with low generosity scores on the CCSSS and across categories within the CCSSS. Beyond questions of access to child care subsidies, and about how subsidy access and affordability influence the child care decisions available to low-income working families, differences in basic health and safety requirements across states have very real implications for young children and the teachers who care for them. (Imagine being one of nine toddlers vying for adult care and attention; imagine being the teacher). From the perspective of social work’s mission “to enhance human well-being...with particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in poverty,” (National Association of Social Workers, 2008, p. 1) social workers have an interest in the policies and priorities that affect the health and well-being of families, children, and providers within their states.

From the national perspective, the association between generosity as measured by CCSSS and state characteristics including ideology, wealth, and race raise important questions about state’s rights, devolution of authority for safety net programs, and our responsibilities as social workers for families and children across state boundaries. While it seems clear that we are “our sister’s keeper,” what does the social justice mission of social work call on us to do? Beyond that, what can we do that makes a difference? From the perspective of social work research, additional work is needed to make clear the effects of devolution including the inequities that
were created across states and the implications of these inequities for families and children. At a deeper level, more needs to be known about the interactions between ideology, wealth, and race, and how certain patterns are associated with lower levels of welfare and child care generosity, and perhaps serve to make less generous states less competitive economically as compared to their more generous neighbors. With additional understanding, there may be ways to use advocacy and social marketing to influence how less generous states understand the implications of "generosity." And, again, social workers need to be involved in advocacy at the national level—including by reinforcing the role of the federal government in minimizing inequities across states and furthering social justice through funding and enforcement of policies.

Conclusions

As this is written, the global economy is in turmoil, and governments around the world are stepping in to rescue financial markets. It seems possible that the unbridled capitalism and reification of markets of the past three decades is being exposed as bankrupt. This may signal yet another stage of welfare reform, one in which many low-income working families lose their tentative hold on self-sufficiency, and are forced to fall back on a much weakened safety net. This would represent a crisis for low-income families and states in that welfare and child care funds are now lidded, and the windfall dollars that came as a result of reductions in welfare caseloads have long ago been reprogrammed to other purposes including child care, child welfare, and education.
An alternative scenario is that, like the depression of the 1930s, the pain of unemployment, home foreclosures, and loss of retirement funds will reach deep into the middle class, and force change in how we understand the relationship among individuals, communities, and markets. If so, the possibility exists for economic upheaval to provide a chance for greater integration of economic, social, and political goals with more weight being given to human aspirations and moral claims (Dolbeare, 1984). With realignment of goals and claims, the needs of children, and those who care for them, would surely be granted higher priority in decisions about public policy and resources. For, as Nelson Mandela began his 1995 speech launching his Children’s fund in South Africa, “there is no keener revelation of a society’s soul than the way in which it treats its children.”
REFERENCES


synthesis addressing staff and program outcomes. *Early Education and Development.*


Meyers, M. K., Peck, L. R., Davis, E. E., Collins, A., Kreader, J. L., Georges, A., et al. (2002). *The dynamics of child care subsidy use: A collaborative study of five states.* Seattle: University of Washington; Arizona State University; University of Minnesota; Columbia University, Mailman School of Public Health,
National Center for Children in Poverty; Linn-Benton Community College; and University of Texas at Austin.


APPENDIX A

TABLES
Table 1

Scale Development: Originally Proposed and Final Indicators

<table>
<thead>
<tr>
<th>Variable</th>
<th>Proposed</th>
<th>Final</th>
<th>Data Source</th>
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<tbody>
<tr>
<td>Mandatory Funding</td>
<td>State CCDF Mandatory Grant as a percentage of its CCDF Discretionary Grant.</td>
<td>Same</td>
<td>FY 2004 CCDF Allotments (ACF)</td>
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<tr>
<td>TANF Funding</td>
<td>State TANF investments in child care in proportion to its CCDF Grant.</td>
<td>Same</td>
<td>FY 2004 financial reports (ACF-196; ACF-696); FY 2004 CCDF Allotments</td>
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<tr>
<td>Eligibility</td>
<td>State eligibility limit/federal maximum (85% State Median Income).</td>
<td>Children eligible under state CCDF rules as a proportion of the potentially eligible population (under age 13, income under 200% FPL, with a working parent).</td>
<td>HHS/Urban Institute estimates; Kids Count</td>
</tr>
<tr>
<td>Eligibility Period</td>
<td>Length of authorization periods</td>
<td>Not included</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
| Provider Payment | State maximum reimbursement rates (percentile reported in state CCDF plans). | Average monthly per child payment to providers in the state. | FY 2004 CCDF case-level data (ACF-801) }
Table 1

Scale Development: Originally Proposed and Final Indicators

<table>
<thead>
<tr>
<th>Variable</th>
<th>Proposed</th>
<th>Final</th>
<th>Data Source</th>
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</thead>
<tbody>
<tr>
<td>Infant Care Exemption</td>
<td>Added</td>
<td>Months of exemption allowed for caregivers of infants under TANF.</td>
<td>Seventh Annual TANF Report to Congress</td>
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<tr>
<td>Waiting lists</td>
<td>State serves all eligible families that apply.</td>
<td>Not included</td>
<td>Not applicable</td>
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<tr>
<td>Copay Exemption</td>
<td>Families at or below 100% FPL exempt from copays.</td>
<td>Percentage of families actually exempt from copays (under 100% FPL).</td>
<td>Analysis of FY 2004 CCDF case-level data (ACF-801) available as a public use data set through ICPSR</td>
</tr>
<tr>
<td>Copay under 100% FPL</td>
<td>Copay basis: income only as opposed to price of care or number of children in care.</td>
<td>Average copay for families with non-zero income under 100% FPL; reverse coded.</td>
<td>FY 2004 CCDF case-level data (ACF-801)</td>
</tr>
<tr>
<td>Copay at 150% FPL</td>
<td>Copay/income for families at 150% FPL with one child in care.</td>
<td>Copay for a family of three at 150% with one child in care (2004); reverse coded.</td>
<td>National Women’s Law Center (2005)</td>
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<tr>
<td>In-Home Limits</td>
<td>State limits access to in-home care</td>
<td>Not included</td>
<td>Not applicable</td>
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Table 1

*Scale Development: Originally Proposed and Final Indicators*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Proposed</th>
<th>Final</th>
<th>Data Source</th>
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</thead>
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<tr>
<td>In-Home Background Checks</td>
<td>State has health and safety requirements for in-home care providers.</td>
<td>Are background checks required for in-home care providers? Coded: all = 3, some = 2, and none = 1.</td>
<td>ACF-118 (State Plan); Question 6.4</td>
</tr>
<tr>
<td>Family Child Care (FCC) Thresholds</td>
<td>Added</td>
<td>Number of children in care for that result in a family child care home being subject to licensing.</td>
<td>National Child Care Information Center (February 2004)</td>
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<tr>
<td>Rate incentives</td>
<td>State pays higher rates to providers that exceed minimum standards.</td>
<td>Not included</td>
<td>Not applicable</td>
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Table 2

*State Macro-Level Characteristics: Variables*

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Definition and Measurement</th>
<th>Source of Data</th>
</tr>
</thead>
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<tr>
<td>Citizen Ideology</td>
<td>Mean score for the state electorate based on interest group ratings and partisanship analyzed at the congressional district level. Higher scores are associated with Democratic control and increased liberalism; mean for 1985-2004.</td>
<td>Berry et al., 1998; data available through the University of Kentucky: <a href="http://www.uky.edu/~rford/Home_files/page0005.htm">www.uky.edu/~rford/Home_files/page0005.htm</a></td>
</tr>
<tr>
<td>Government Ideology</td>
<td>Mean score for state government (governor and legislature) based on interest group ratings and partisanship. Higher scores are associated with Democratic control and increased liberalism; mean 1985-2004.</td>
<td>Berry et al., 1998; data available through the University of Kentucky: <a href="http://www.uky.edu/~rford/Home_files/page0005.htm">www.uky.edu/~rford/Home_files/page0005.htm</a></td>
</tr>
<tr>
<td>Per Capita Taxes</td>
<td>2004 State tax revenue per capita.</td>
<td>U.S. Census Bureau (2007)</td>
</tr>
<tr>
<td>Black Population</td>
<td>Blacks as a proportion of state population (not including individuals who reported two or more races).</td>
<td>U.S. Census Bureau (2004 estimates)</td>
</tr>
<tr>
<td>Latino Population</td>
<td>Latinos as a proportion of state population (across racial groups).</td>
<td>U.S. Census Bureau (2004 estimates)</td>
</tr>
</tbody>
</table>
### Table 3

**CCDF Service-Delivery Variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition and Measurement</th>
<th>Source of Data</th>
</tr>
</thead>
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<tr>
<td>Single Family Income</td>
<td>Proportion of families served within designated income categories (<em>analyses use income equal to or more than 100% FPL</em>).</td>
<td>State profile summaries created by CCB (ACF-801 data).</td>
</tr>
<tr>
<td>Children in Care</td>
<td>Average number of children in care per family.</td>
<td>State profile summaries created by CCB (ACF-801 data).</td>
</tr>
<tr>
<td>Child Age</td>
<td>Proportion of children served within age categories (<em>analyses use proportion of school-age children, 6-13 years</em>).</td>
<td>Standard report available on CCB website based on ACF-801 data (<a href="http://www.acf.hhs.gov/programs/ccb">http://www.acf.hhs.gov/programs/ccb</a>).</td>
</tr>
<tr>
<td>Race</td>
<td>Proportion of children served who are Black.</td>
<td>State profile summaries created by CCB (ACF-801 data).</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Proportion of children served who are Latino.</td>
<td>State profile summaries created by CCB (ACF-801 data).</td>
</tr>
<tr>
<td>Type of care</td>
<td>Proportion of children served by type of care (<em>analyses use children in center care</em>).</td>
<td>Standard report available on CCB website based on ACF-800 aggregate data (<a href="http://www.acf.hhs.gov/programs/ccb">http://www.acf.hhs.gov/programs/ccb</a>).</td>
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Table 4

Scale Reliability: Item-Total Statistics

<table>
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<tr>
<th>Variable</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item were Deleted</th>
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<tr>
<td>Mandatory Funding a</td>
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<td>TANF Funding b</td>
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<td>Eligibility c</td>
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<td>.737</td>
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<td>Provider Payment</td>
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<td>.730</td>
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<td>Infant Care Exemption</td>
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<td>Copay &lt;100%FPL</td>
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<td>Copay at 150%FPL</td>
<td>.264</td>
<td>.753</td>
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<td>In-Home Background Checks d</td>
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<td>.741</td>
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<td>Family Child Care Thresholds</td>
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<td>.744</td>
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<tr>
<td>Toddler Ratios</td>
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</tr>
<tr>
<td>Preschool Ratios</td>
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<td>.735</td>
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Note: Cronbach's alpha coefficient = .755

a Mandatory Funding = state FY 2004 Mandatory Grant/FY 2004 Discretionary Grant. b TANF Funding = state FY 2004 TANF child care expenditures/FY 2004 Discretionary Grant. c Eligibility = estimate of number of children eligible for CCDF under state rules/estimate of low-income children in need of child care. d In-Home Background Checks = are checks required for all, some, or no in-home caregivers under CCDF.
Table 5

Correlation Matrix for Funding and Policy Indicators and State Macro-Level Characteristics

<table>
<thead>
<tr>
<th></th>
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<td>- .03</td>
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<td>4. Provider Payment</td>
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<td>6. Copay Exemption</td>
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<tr>
<td>7. Copay &lt; 100% FPL</td>
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<td>.20</td>
<td>.09</td>
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<td>8. Copay at 150% FPL</td>
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<td>.38</td>
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<td>11. Toddler Ratios</td>
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Table 5

*Correlation Matrix for Funding and Policy Indicators and State Macro-Level Characteristics*

<table>
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<tr>
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</tbody>
</table>

Note: Correlations in bold are statistically significant at the .05 level.
Table 6

*State Summary Scores on the Child Care Self-Sufficiency Scale and in Conceptual Categories*

<table>
<thead>
<tr>
<th>State</th>
<th>Total CCSSS</th>
<th>Funding &amp; Access</th>
<th>Affordability (Copays)</th>
<th>Health &amp; Safety</th>
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Table 6

*State Summary Scores on the Child Care Self-Sufficiency Scale and in Conceptual Categories*

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*State Summary Scores on the Child Care Self-Sufficiency Scale and in Conceptual Categories*

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*Note:* All statistics shown are summed standard scores. Summary state CCSSS scores represent the summed total standard scores for the 12 indicators. The three conceptual categories include summed standard scores for the relevant indicators.
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*State Indicator Scores*

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Table 8

**Funding and Policy Indicators: Descriptive Statistics**

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<td>12.00</td>
<td>5.95</td>
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<td>.42</td>
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<td>$21.95</td>
<td>23.77</td>
<td>$0.40-114.67</td>
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<td>$187.00</td>
<td>114.80</td>
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Table 9

State Macro-Level Variables: Descriptive Information

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<th>Range</th>
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<td>48.77</td>
<td>45.77</td>
<td>13.65</td>
<td>24.06-81.99</td>
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<td>Government Ideology</td>
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<td>48.24</td>
<td>18.12</td>
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Note: These statistics are prior to transformations conducted to meet the assumptions for regression analyses.
Table 10

**CCDF Service Delivery Variables: Descriptive Information**

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*Note:* These statistics are prior to transformations conducted to meet the assumptions for regression analyses.
Table 11

*Correlations between Child Care Self Sufficiency Scale (CCSSS) and State Macro-Level Characteristics (N = 50)*

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*Note:* Correlations in bold are statistically significant at the .05 level
Table 12

*Correlations between State Macro-Level Characteristics and CCDF Service Delivery (N = 50)*

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*Note: Correlations in bold are statistically significant at the .05 level*
Table 13

Correlation Matrix for Funding and Policy Indicators with Service Delivery Variables

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<td>7. Copay &lt; 100% FPL</td>
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<td>8. Copay at 150% FPL</td>
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<td>9. In-Home Checks</td>
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<tr>
<td>10. Family CC Thresh.</td>
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<tr>
<td>11. Toddler Ratios</td>
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<tr>
<td>12. Preschool Ratios</td>
<td></td>
<td></td>
<td></td>
<td>.55</td>
<td>.11</td>
<td>.22</td>
<td>-.18</td>
<td>.18</td>
<td>.37</td>
<td>.02</td>
<td>.58</td>
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<td>13. Single Parents</td>
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</tr>
</tbody>
</table>
Table 13

*Correlation Matrix for Funding and Policy Indicators with Service Delivery Variables*

<table>
<thead>
<tr>
<th></th>
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<tbody>
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<tr>
<td>--</td>
<td>0.38</td>
<td>0.38</td>
<td>-0.28</td>
<td>0.27</td>
<td>-0.13</td>
</tr>
<tr>
<td>0.42</td>
<td>-0.10</td>
<td>-0.01</td>
<td>0.39</td>
<td>0.44</td>
<td></td>
</tr>
<tr>
<td>0.16</td>
<td>0.25</td>
<td>-0.15</td>
<td></td>
<td></td>
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<tr>
<td>-0.07</td>
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</tbody>
</table>

*Note:* Correlations in bold are statistically significant at the .05 level.
Table 14

*Correlations between CCSSS and CCDF Service Delivery*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
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<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<tbody>
<tr>
<td>1. CCSSS</td>
<td>--</td>
<td><strong>.58</strong></td>
<td><strong>-.40</strong></td>
<td><strong>.40</strong></td>
<td><strong>-.31</strong></td>
<td>.18</td>
<td>-.20</td>
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<tr>
<td>2. Single</td>
<td>--</td>
<td>-.17</td>
<td><strong>.33</strong></td>
<td>.28</td>
<td><strong>.41</strong></td>
<td>.02</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>3. Income&gt;100FPL</td>
<td>--</td>
<td><strong>-.38</strong></td>
<td><strong>.38</strong></td>
<td>-.28</td>
<td>.27</td>
<td>-.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Children in Care</td>
<td>--</td>
<td>.24</td>
<td><strong>.42</strong></td>
<td>-.10</td>
<td>-.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. School-Age</td>
<td>--</td>
<td>.16</td>
<td>.25</td>
<td>-.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6. Black Children</td>
<td>--</td>
<td><strong>-.39</strong></td>
<td><strong>.44</strong></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>7. Latino Children</td>
<td>--</td>
<td></td>
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<td></td>
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<td>.07</td>
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<tr>
<td>8. Center Care</td>
<td>--</td>
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</table>

*Note: N=50; correlations in bold are statistically significant at the .05 level*
Table 15

Summary of Multiple Regression Analysis for State Macro-Level Characteristics Predicting State Scores on the Child Care Self-Sufficiency Scale

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citizen Ideology</td>
<td>0.042</td>
<td>0.077</td>
<td>.091</td>
</tr>
<tr>
<td>Government Ideology</td>
<td>0.115</td>
<td>0.054</td>
<td>.335*</td>
</tr>
<tr>
<td>Per Capita Income</td>
<td>0.001</td>
<td>0.000</td>
<td>.460**</td>
</tr>
<tr>
<td>Per Capita Taxes</td>
<td>0.001</td>
<td>0.002</td>
<td>.047</td>
</tr>
<tr>
<td>Percent Black Pop</td>
<td>-18.424</td>
<td>6.944</td>
<td>-.284*</td>
</tr>
<tr>
<td>Percent Latino Pop</td>
<td>-1.794</td>
<td>1.509</td>
<td>-.118</td>
</tr>
</tbody>
</table>

Note: N = 50; R² = .64; *p < .05, **p < .01
Table 16

Summary of Multiple Regression for CCSSS as a Predictor of CCDF Family Income Controlling for State Per Capita Income

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCSSS (generosity)</td>
<td>0.009</td>
<td>0.003</td>
<td>.393**</td>
</tr>
<tr>
<td>Per Capita Income</td>
<td>0.000</td>
<td>0.000</td>
<td>.298*</td>
</tr>
</tbody>
</table>

Note: N = 50; R² = .39; *p < .05, **p < .01

Table 17

Summary of Multiple Regression for CCSSS as a Predictor of Average Children Served per Family Controlling for State Per Capita Income

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCSSS (generosity)</td>
<td>-0.006</td>
<td>0.004</td>
<td>-.280</td>
</tr>
<tr>
<td>Per Capita Income</td>
<td>0.000</td>
<td>0.000</td>
<td>-.187</td>
</tr>
</tbody>
</table>

Note: N = 50; R² = .18
Table 18

Summary of Multiple Regression for CCSSS as a Predictor of Ages of Children Served through CCDF

Controlling for State Per Capita Income

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCSSS (generosity)</td>
<td>-0.002</td>
<td>0.001</td>
<td>.267</td>
</tr>
<tr>
<td>Per Capita Income</td>
<td>0.000</td>
<td>0.000</td>
<td>.216</td>
</tr>
</tbody>
</table>

Note: $N = 50; R^2 = .19$

Table 19

Summary of Multiple Regression for CCSSS as a Predictor of Black Children Served through CCDF

Controlling for State Per Capita Income

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCSSS (generosity)</td>
<td>-0.020</td>
<td>0.008</td>
<td>-0.469**</td>
</tr>
<tr>
<td>Per Capita Income</td>
<td>0.000</td>
<td>0.000</td>
<td>.244</td>
</tr>
</tbody>
</table>

Note: $N = 50; R^2 = .135; **p < .01$
Table 20

Summary of Multiple Regression for CCSSS as a Predictor of Children Served in Child Care Centers

Controlling for State Per Capita Income and “Southern State”

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCSSS (generosity)</td>
<td>0.002</td>
<td>0.04</td>
<td>.067</td>
</tr>
<tr>
<td>Per Capita Income</td>
<td>0.000</td>
<td>0.000</td>
<td>.121</td>
</tr>
<tr>
<td>Southern State</td>
<td>0.344</td>
<td>0.054</td>
<td>.763**</td>
</tr>
</tbody>
</table>

Note: $N = 50$; $R^2 = .489$; **$p < .01$
APPENDIX B

STATE GENEROSITY MAPS
Figure B1: Map of the United States with states color-coded to reflect composite child care funding and policy scores as measured by the Child Care Self-Sufficiency Scale.
Child Care Self-Sufficiency Scale: Funding and Access Scores

Figure B2: Map of the United States with states color-coded to reflect states scores in the category of funding and access as measured by the Child Care Self-Sufficiency Scale.
Child Care Self-Sufficiency Scale: Affordability Scores

Figure B3: Map of the United States with states color-coded to reflect states scores in the category of affordability (family copays) as measured by the Child Care Self-Sufficiency Scale.
Child Care Self-Sufficiency Scale: Health and Safety Scores

*Figure B4:* Map of the United States with states color-coded to reflect states scores in the category of health and safety as measured by the Child Care Self-Sufficiency Scale.