

EXECUTIVE SUMMARY

Review and Synthesis of Selected Research Reports Submitted to the Child Care Bureau, U.S. Department of Health and Human Services

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We learned a great deal by reviewing the research, and thank the authors of the studies for sharing their work with us. As this is a selective review, we apologize for not being able to include every research report provided to the Child Care Bureau.

The conclusions presented in this review and synthesis are those of the authors, and do not represent the views of the Child Care Bureau, U.S. Department of Health and Human Services.

EXECUTIVE SUMMARY

The body of research funded by the Child Care Bureau (CCB) addresses topics important to child care policy at the federal and state levels using common research approaches to examine high priority topics in multiple states, fostering collaborations across disciplines and partner organizations, and extending the use of state administrative data. This review and synthesis of selected *CCB-funded research* projects provides an overview of key findings from this research, highlights methodological developments in the research, identifies policy implications, and points to steps future research can take to build on the foundation provided by these studies.

Overall, *CCB-funded research* has focused on five main topic areas:

- Utilization and effects of child care subsidies;
- Factors associated with parental choice of child care;
- Documenting and improving child care quality;
- Child care partnerships to increase early childhood care and education program collaboration and to improve quality; and
- Characteristics of the child care workforce.

This review and synthesis focuses on *CCB-funded research* projects that (1) address one or more of these topics; (2) have reports that have been reviewed and released to the public, or were far enough along in the process of review that the authors felt the report could be shared; and (3) have sufficient detail regarding research methodology so that characteristics of the sample, research design, and measures used could be considered in the review. It is important to underscore that the Child Care Bureau's research program includes further research that focuses on issues beyond the five topics chosen for examination here, as well as research still in progress.

Highlights of Findings in Five Topical Areas

Utilization and Effects of Child Care Subsidies

Context. The primary purpose of child care subsidies provided through the Child Care and Development Fund (CCDF) is to support low-income working families by subsidizing the cost of child care. A secondary purpose is to support the quality and infrastructure of the child care system for all families: at least 4 percent of CCDF funding must be set aside by states to improve the quality and availability of child care, and specific appropriation earmarks must go toward improving general quality, child care for infants and toddlers and school-age children, and child care resource and referral.

Federal guidelines allow states to assist families in paying for child care if the family's income falls below 85 percent of state median income (SMI) and if they need child care to support employment and/or education and training. Subsidies are funded through a block grant to states based on a formula set by federal guidelines. Within this context, the federal eligibility guideline of income below 85 percent of SMI operates as a ceiling rather than as a requirement. Indeed states may, and many do, set their own eligibility levels below 85 percent of state median income, depending on their eligibility priorities, demand for subsidies, and level of funding available.

In addition to federal funds through the block grant, funding levels for subsidies include state match, and maintenance of effort funds. States also can choose to transfer Temporary Assistance for Needy Families (TANF) funds to CCDF or to use TANF funds for subsidies directly, and can make additional contributions toward subsidies from state funds. Over the past decade, there have been substantial increases in federal funding for child care. Looking collectively at CCDF, TANF, and Social Service Block Grant (SSBG) funding streams, federal funding for child care has increased from \$2.6 billion in 1996 to \$8.3 billion in 2004. CCDF alone provided \$4.8 billion.

Each state has discretion in how to allocate subsidies to eligible families. This includes making decisions about who is eligible, at what level to set provider reimbursement rates and co-payments, and determining health and safety requirements for types of care used. These decisions, which may be made in part as a function of funding level, act as policy levers and can affect the number of families being served. For example, requiring a higher co-payment from families can expand the total number of families served overall in the program, but may mean a reduction in the subsidy amount for families. States also make important decisions regarding the administration of child care subsidies, such as application and recertification procedures and the extent of outreach to inform families about the availability of subsidies. Finally, subsidy receipt should be considered in the context of other early care and education supports for low-income families, including Head Start and pre-kindergarten programs.

Key Findings. A review of *CCB-funded research* indicates that receipt of child care subsidies is more likely for families with certain characteristics. In particular, receipt of child care subsidies is more common among single mothers, TANF recipients, families in which the youngest child is a toddler, black families, mothers with more formal education, and mothers born in the U.S.

Across multiple states and using rigorous research designs, studies have found that access to and use of subsidies are associated with increased maternal employment. Furthermore, child care subsidies are associated with the largest increases in employment for the most disadvantaged welfare recipients.

As noted in greater detail in the section on parental choice, the research also suggests that child care subsidies expand the range of child care options available for low-income families. Child care subsidies have helped bring regulated center and family child care within the financial reach of low-income families. Among low-income families, subsidy recipients are more likely to use center care than those who are not receiving subsidies. Yet a significant proportion of families also choose to use their subsidies to purchase license-exempt family child care or family, friend and neighbor care.

Multiple studies suggest that among families meeting income eligibility thresholds for child care subsidies, only a minority actually use subsidies. Possible reasons for low utilization rates include: lack of awareness of the subsidy system, misconception by families that they are not eligible for subsidies or that subsidies are tied to the welfare system, decision by eligible families that they do not need or want assistance paying for child care, possible stigma attached to receiving subsidies, and difficulty with procedures required for accessing subsidies (e.g., need to apply or present documentation for recertification during working hours). Estimates of the

percentage of potentially subsidy-eligible families utilizing subsidies vary substantially, with a range from 12 to 39 percent. Some of this variation depends on which families are included in the denominator of the estimate (for example, families who are eligible according to federal versus state eligibility guidelines; families leaving welfare versus all income-eligible families). Estimates also do not take into account other forms of early childhood care and education supports families receive, such as Head Start and pre-kindergarten. When these other supports are taken into account, estimates of the proportion of families actually receiving some form of assistance are substantially higher.

Evidence is mixed on whether specific state policy decisions on such matters as subsidy generosity level and co-payment level influence utilization. Some evidence suggests that administrative practices, such as efficiency in payment of subsidies and information about child care options at the time of application, may be important to subsidy utilization. Additional research is needed to examine the relationships among specific state policies, administrative practices, and subsidy utilization.

Factors Associated with Parental Choice of Child Care

Context. A cornerstone of CCDF is the support and promotion of parental choice in child care decisions. Subsidies can pay for all forms of legally operating child care including license-exempt care. Reimbursement rates must be set so families receiving subsidies can access the same range of options that unsubsidized families access. Given the high priority placed on preserving parental choice, a focus of *CCB-funded research* has been to examine what factors contribute to choice, and whether policy and administrative practices in any way expand or unintentionally constrain choice. The research to date focuses on what types of care families actually use, rather than on the decision-making process. Likewise, the research to date examines the factors that are associated with parents' choices of different types of care, but does not determine whether these factors actually contribute to and shape the choices (i.e., function as causes or are just correlates). It would be a valuable extension of this work to learn more about parents' decision-making processes and whether policies and administrative practices play a role in the types of care parents actually choose.

Key Findings. Child care choices are related to child and family characteristics. For example, with respect to child characteristics, families increasingly choose center care as children grow older across the preschool years. As an example of family characteristics related to child care choices, Hispanic families are particularly likely to choose care provided in a home and by relatives. However, local child care market characteristics, such as the availability and cost of different types of care, also affect patterns of child care use. The availability of different types of care during evening, night or weekend hours is also a factor related to choice. Mothers working nonstandard hours are more likely to turn to relative care, in part because center-based care is less available during these hours.

Income is a very important constraint on choice of child care. The National Study of Child Care for Low-Income Families found that much of the regulated local child care supply was out of reach of households living in poverty and low-income working families. Yet, the study also found that child care subsidies expanded the range of care these families could afford by bringing regulated center and family child care within financial reach. In close to half of the

counties included in the study, fewer than 10 percent of regulated centers and family care providers charged fees that would have been affordable for low-income families based on estimated child care budgets. However, the child care subsidies were sufficient to purchase 75 percent of local child care in 15 of the 23 counties for which data were available. The authors were careful to note that even though those families might now be able to afford a wider range of child care with subsidies, they still might not gain access to the full range of care because not all child care providers were willing to accept the subsidy payment. A higher proportion of regulated family child care providers than center providers were willing to accept subsidies.

Though evidence from the National Study of Child Care for Low-Income Families indicates that subsidies increased the affordability of child care for low-income families and improved access to regulated center and family care, research shows a great deal of variability in the extent to which state subsidy rates suffice to purchase local center and regulated family care. For example, the payment rates in Maryland enabled parents to purchase approximately 75 percent of the available local regulated care; in Illinois subsidies were sufficient to purchase only between 50 and 75 percent of the available regulated care; and in five counties studied in the National Study of Child for Low-Income Families, subsidies were insufficient to purchase even half of available local center care.

Child Care Quality

Context. In keeping with CCDF statute, at least 4 percent of CCDF funds must be set aside by states to improve the quality and supply of child care (the “4 percent set-aside”). Quality activities are defined broadly, including, “activities that are designed to provide comprehensive consumer education to parents and the public, activities that increase parental choice, and activities designed to improve the quality and availability of child care (such as resource and referral services).” In addition to the quality set-aside, funds are “earmarked” or specifically allocated for improving the quality and supply of infant-toddler care and school-age child care, and for child care resource and referral. A 2002 report by the General Accountability Office indicated that many states actually exceed the 4 percent requirement.

Studies carried out in multiple geographical areas suggest that much of the care in this country does not meet the threshold of a “good” rating on direct observations of child care quality. Further, there is a substantial body of evidence linking child care quality to child outcomes, with associations between child care quality and child outcomes appearing stronger for children in low-income families. Some evidence also indicates that child care of higher quality supports transitions off of welfare. The report by the General Accountability Office noted limited research on state child care quality initiatives, including research documenting how states are spending their quality funding, and evaluations of the effectiveness of strategies to improve child care quality. It also noted that a majority of expenditures to improve child care quality focus on center care.

Key Findings. *CCB-funded research* begins to address gaps in knowledge on child care quality initiatives noted in the 2002 GAO report. One CCB-funded study takes a critical first step by describing states’ quality-improvement efforts. This project profiles child care quality initiatives funded by the 4 percent quality set-aside and infant-toddler earmark in 45 states, including goals of the initiatives, target populations, budgets, and whether or not an evaluation is being carried

out. In a closely coordinated CCB-funded study, state child care administrators were asked what resources they needed in order to evaluate their states' quality initiatives. As part of the project, a "tool kit" for evaluation was developed, including resources such as research instruments appropriate for use in evaluations of different types of quality initiatives.

As explained further in the methodological innovations section, there are now a number of states collecting data to document quality state-wide, with the intent of guiding quality-improvement efforts. For example, Massachusetts has collected data on state representative samples of center child care and licensed family child care. Results for center care and licensed family child care identify different aspects of care in need of improvement. For center care, with generally strong overall quality in the state, results indicate room for improvement in language stimulation and in the variety and quality of materials used in children's daily activities. In contrast, the overall quality picture for licensed family child care was less positive. Improvements were especially needed in health and safety practices and in the provision of activities which stimulate learning. Estimates are provided for the cost of improving quality in each type of care.

The 2002 GAO report noted the limited number of studies focusing on the effectiveness of child care quality initiatives and called for more evaluations of specific initiatives. Here again, *CCB-funded research* helps to address a significant gap, with a number of these studies focusing on specific child care quality initiatives. For example, researchers have investigated the strategy of making child care quality ratings available to consumers. Findings from communities in two states indicate that parents are interested in and actually access child care quality ratings when choosing child care. Additionally, in one Florida county, evidence indicates that making such information widely available has the potential to affect overall quality. The number of inspection visits increased when ratings from child care licensing visits were made available, and inspector ratings became more discriminating, less often providing simple pass/fail judgments and more often noting areas in need of improvement. Further, there were improvements in observed quality of subsidized center child care. Yet overall enrollment did not decline in child care centers receiving unfavorable inspection reports. It is possible that more informed parents removed their young children from centers with problematic reports, while new parents (who had not accessed the reports) enrolled their children in these centers.

CCB-funded research has increasingly focused on characteristics of family child care, helping to correct the disproportionate emphasis in previous research on center-based care. This work suggests that it is important to move beyond a view of family child care as a single, uniform type of care, and to identify subtypes. For example, in the National Study of Child Care for Low-Income Families, which focused predominantly on home-based care, differences emerged between care in which all children were related to the provider, none of the children were related, and when there was a mix of related and non-related children. While observed warmth and emotional responsiveness by the provider was generally high and did not differ by relatedness, continuity of care was higher when care was provided by relatives. In contrast, concerns about health and safety were lower when the provider was caring for some non-related children than only related children. Homes with all related children had more TV watching and routine activities, and fewer learning activities. This work suggests that current measures of child care quality may not capture important strengths of care provided in home settings, such as continuity in relationships between caregivers and children over a period of years.

The reviewed studies also focus on child care quality received by subsidized children vs. unsubsidized children. Because of the geographical variation and level of detail in the measures, the study carried out in partnership by four Midwestern states (Iowa, Nebraska, Missouri and Kansas) is particularly important. This work found that overall, average child care quality ratings were lower for subsidized than unsubsidized children. However more detailed analysis by children's ages revealed that this difference was not sustained for infants, toddlers, or preschoolers in center care, only for children in family child care. A similar pattern was found in a study of low-income children who were and were not receiving subsidies in one California county.

Early Care and Education Partnerships

Context. Early care and education partnerships are created by blending funding and resources across child care centers, in-home care providers, Head Start programs, and pre-kindergarten programs. The goals of partnerships are to meet the needs of working families (especially those transitioning off of welfare) and help support early child development by increasing the amount of full-day, full-year quality child care for low-income children, increasing comprehensive services to children and families, and providing continuity of care. Many Head Start programs are still structured around a part-day, part-year schedule that can conflict with working families' schedules and the needs of those transitioning from welfare to work. Partnerships pair Head Start and child care programs so that children can participate in Head Start programs part of the day and still have their care needs met for the remainder of the day. In such partnerships, Head Start and child care programs may share professional development. In addition, the Head Start quality standards may apply to the partner child care program. Some states have chosen to invest quality set-aside and other state-specific funding for improving quality by supporting partnerships. While the research to date focuses heavily on partnerships between Head Start and child care, other partnerships such as between state pre-kindergarten and child care also occur. The President's *Good Start, Grow Smart* initiative encourages states to develop early learning guidelines that specify what young children should know and be able to do at kindergarten entry. These guidelines apply to young children irrespective of the form of early care and education in which they participate. The initiative also encourages federally-supported early childhood programs to develop professional development plans for those working with young children that are aligned with the early learning guidelines. With a common set of goals for young children, such efforts are fostering collaborations across types of early care and education settings.

Key Findings. Research to date on early care and education partnerships is descriptive in nature, comparing child care programs engaged in partnerships to those which are not. In a random sample of child care centers in Ohio, centers that partnered with Head Start were more likely to serve families using child care subsidies. Providers in Early Head Start/Head Start partnerships in Ohio were more likely than non-partnering centers to provide parent involvement opportunities, parent referral services, and comprehensive screenings and services to children. Head Start tended to provide partnering centers with teacher training, equipment, and supplies. While the Ohio study did not involve direct observations of child care quality, the study in the four Midwestern states of Iowa, Nebraska, Missouri and Kansas found observed child care quality to be higher in child care facilities in partnerships with Head Start or Early Head Start.

Research to date also describes best practices at the state and local program and policy levels for making partnerships work well. For individual programs, positive functioning in partnerships seems to be supported by taking steps toward mutual awareness of partnering organizations' policies and practices, financial management to handle funding from multiple streams, the ability to address differentials in staff pay, and involvement of staff in all phases of planning and implementation. At the state level, partnerships can be fostered by coordinating efforts among state agencies and providing opportunities for professional development and technical assistance that work towards ensuring comparable professional development standards across early education professionals. States can also offer grants for forming partnerships or increase reimbursement rates for providers who meet quality standards in partnerships. The research suggests that there are substantial challenges, but also potential rewards to establishing early care and education partnerships.

Child Care Workforce

Context. It is important to have reliable estimates of the size and characteristics of the child care workforce for several key reasons. For example, knowing the size of the workforce and how it is distributed across types of care and geographical areas may be essential to planning for expanding the supply of care. Strengthening early childhood professional development is central to the *Good Start, Grow Smart* initiative, and here too, having an accurate picture of how many providers could potentially benefit from specific types of education and training is vital. Yet the evidence reviewed indicates that data at both the national and state level have limitations for providing the kind of workforce description useful for such efforts. Problems with definition and measurement undermine the development of a comprehensive picture of the workforce. Further, widely varying measurement approaches prevent comparisons of workforce estimates across geographical regions.

Key Findings. A review of available data for assessing the size and characteristics of the child care workforce concludes that there are limitations with both national and state data, especially in terms of providing breakdowns by ages of children cared for, type of care, relatedness of providers to children, and educational qualifications of providers. For example, at the national level, one major survey used to obtain early childhood workforce data does not include self-employed providers, so estimates of the workforce relying on this survey do not include those working in family child care. Questions in national surveys also tend to exclude those who do not describe themselves as child care workers, such as relatives paid to provide care. State workforce data collection also has limitations. The review found that fewer than half of the states (16), had data appropriate for estimating the size of the paid child care workforce for children from birth to five. Thirteen states had current data but with specific limitations, while 22 states lacked current workforce data. There is a pressing need to clarify definitions and to strengthen measurement approaches in state and national data collection on the workforce.

Those state and local studies that do provide detailed data on workforce characteristics are extremely informative. These studies suggest that there are differences in provider characteristics between center teachers of preschoolers, center teachers of infants and toddlers, licensed family child care providers and license-exempt family child care providers, with center teachers of preschoolers showing the most education and highest annual earnings from their jobs and license-exempt providers the least. Child care turnover and stability data do not follow the same

pattern as education and earnings. Indeed home-based care providers appear to have lower turnover rates than those in centers.

Child care staff turnover is a particular concern as high turnover rates imply disruptions in caregiver-child relationships. They also suggest that child care facilities spend time and resources finding, training and integrating new staff members that might otherwise be spent on such goals as introducing new curricula or providing additional professional development. *CCB-funded research* begins to identify factors, which differ by position, that decrease the likelihood of staff turnover. A study in Alameda County, California found that those who stay longer in center director positions tend to have familiarity with professional development opportunities, to come from centers with higher overall quality, and to report fewer symptoms of depression¹. For center teaching staff, stability is associated with having chosen the job as a profession rather than a stepping-stone to another job, having sought updated training, having fewer depressive symptoms, being part of a more stable group of teachers, and working in a higher quality program. Few measures predicted stability for licensed family child care providers, and the list did not include program characteristics such as overall quality. Stable licensed family child care providers tend to be older and not to have young children of their own.

Methodological Developments in Child Care Research

This review and synthesis identifies three important methodological developments in *CCB-funded research*: (1) progress from small selective samples to more comprehensive sampling, especially sampling that provides a perspective on state representativeness of child care use or quality; (2) innovative use of data sources, especially market rate surveys and administrative data; and (3) application of new measurement approaches to address research questions more effectively.

More Comprehensive Sampling

A 2003 volume of the National Academy of Sciences by the Committee on Family and Work Policies identified the need for a nationally representative study of child care quality as the single highest priority for future research on working families and their children. Much of the existing research on child care quality relies on small, selective samples. Though there have been a number of important large-scale studies in recent years, these studies do not include samples that allow for an overall description of the quality of care in communities or states. Such representative pictures of child care quality may provide guidance as to where and how best to target quality initiatives.

In *CCB-funded research*, six states have carried out studies with state representative samples using surveys and direct observations of child care quality. This research, for the first time, permits states to describe overall child care quality in their states and for subgroups of interest, including low-income families and families receiving subsidies. States are using this information

¹ Depression is a prolonged negative psychological state that interferes with daily functioning. Depressive symptoms include frequent feelings of sadness and loneliness, and the inability to concentrate or enjoy pleasurable activities even with the help of family and friends. Reporting high levels of symptoms of depression does not suffice for a clinical diagnosis of depression, but high levels of depressive symptoms are more common among those with clinical diagnoses.

to assess the cost of improving quality and to learn where quality improvements are most needed. Four Midwestern states are collaborating to track changes in quality over time in order to determine if state investments yield changes in quality. These studies could provide useful guidance to others interested in obtaining an overall picture of quality at the state level. The possibility exists of building towards a national picture of child care quality through such state-representative samples.

Innovative Uses of Existing Data

The CCB has encouraged use of existing state administrative and survey data for research purposes. Important research questions can be addressed through existing data from market rate surveys and through administrative records on child care subsidies, TANF, unemployment, child care licensing, child care resource and referral, and professional development registries. Yet, making effective use of existing data is not simply a matter of gaining access. It requires mastery of the details of state data collection approaches to assure appropriate interpretation, data cleaning, and often the difficult but critical step of linking multiple administrative datasets. For example, in California, researchers used a decade's worth of data on child care spaces and prices from market rate surveys, together with information on the availability of child care subsidies in the state, TANF receipt, and employment rates, to look at factors contributing to child care prices over time. In another example, multiple states worked together to use administrative data to examine the length of child care subsidy spells and whether this length varied substantially across states.

Tackling Limitations of Existing Measures

CCB-funded research has tackled limitations in the measurement of child care workforce characteristics and child care utilization. This work is beginning to identify a wider range of measures that are important in describing the workforce. For example, researchers have assessed providers' literacy and psychological well-being, finding both of these to be important for understanding such issues as turnover in the child care workforce. This work is also introducing entirely new measures. For example, noting wide variation in the number of children receiving child care subsidies in particular child care settings, researchers developed a measure of "subsidy density," or the proportion of children in a setting receiving subsidies. This new measure has been incorporated into research seeking to identify whether child care facilities with higher subsidy density meet the quality criterion that would make them eligible for subsidy reimbursement at higher rates through tiered reimbursement.

These studies have also used a range of rigorous new statistical techniques available through statistical software packages, extending the set of questions that can be addressed. The studies include greater use of longitudinal datasets and statistical examination of models specifying linkages across sets of variables. While important next steps remain, this set of studies has made noteworthy methodological progress in child care research.

Policy Implications and Next Steps for Research

The research reviewed here raises a number of policy issues and also suggests high priority next steps for research that could help inform policy decisions.

Child care subsidies appear to have benefits for both parents and children. For parents, they support employment and help prevent a return to welfare. For children in low-income families, they expand the range of child care options families can afford.

An important policy challenge is to gain a better understanding of the relatively low percentage of eligible families that access child care subsidies. It may be that this simply reflects family preferences or limitations on resources within states. Families may choose not to use child care subsidies because they are relying on unpaid family, friend and neighbor care. As noted, resources provided by the federal government can be extended by state general funds and/or the decision to spend TANF funds. States exercise some discretion in terms of the number of families served through decisions about income eligibility limits, reimbursement rates, and co-payment requirements. While there are ways to expand the number of families served, there are also limits due to overall constraints on available funding.

The research reviewed here raises the possibility that even within this framework, there may be barriers to utilization. Available resources are not always used. A first important step for research would be to clarify whether there are indeed barriers to utilization of child care subsidies. If findings point to the presence of barriers, then a number of steps could be explored. *CCB-funded research* suggests that many families lack an understanding of their eligibility status and of where and how to apply for subsidies. It would be helpful to assess the efficacy of outreach efforts aimed at increasing eligible families' understanding of their eligibility status and of the procedures involved in application and redetermination. Contrasting both take-up rates and knowledge of the subsidy program in delineated geographical areas in which outreach did and did not occur would be a potential strategy for evaluation. Qualitative research that explores why parents either do not use subsidies, or exit the subsidy program although still eligible, would also be extremely informative to both research and policy.

Researchers in these studies have identified relatively short average periods of subsidy receipt, although duration of subsidy use varies across states. A central issue is the relationship between employment instability among low-income workers and receipt of child care subsidies. Is it possible that families who are assured continuity of child care subsidies for a period after loss of a job would reenter the labor force sooner? Would children experience greater continuity of child care and more favorable child outcomes if duration of subsidy use were longer? It would be important to consider implications in both areas, that is, implications for employment and welfare receipt as well as for continuity of child care and child well-being.

One of the important findings regarding subsidy utilization from the set of studies reviewed here is that subsidies should not be considered alone, but rather in conjunction with other forms of public support for early childhood care and education. Is it the case that families who do not apply for or use subsidies are instead using other forms of public support? Is there a regularly occurring sequence in which subsidy use progresses to participation in Head Start or pre-kindergarten as children grow older? Do families with differing background characteristics avail themselves of the different public supports for early care and education? Rather than focusing on those families who do and do not utilize child care subsidies, perhaps the issue should be

broadened to those eligible families who do not use any form of public support for early care and education.

CCB-funded research clearly suggests that it is important to look beyond issues of policy to consider actual practices and implementation of the child care subsidy program at the state and local levels. Indeed, it has been suggested that administrative hassles in applying for child care subsidies and in the recertification process, as well as in having reimbursements reach child care providers, may all be possible reasons some families do not use subsidies. An important next step would be to study systematic variation in implementation practices. For example, does utilization of subsidies increase or become more stable when the application process is simplified? When parents can apply outside of nine to five office hours? When steps are taken to make provider reimbursement more efficient?

Ensuring **parental choice** is a principle of the child care subsidy system. Evidence from the studies reviewed suggests that the availability of subsidies makes a wider range of child care affordable to low-income families, especially increasing the option of using regulated care. Yet state and local child care markets also contribute to the range of available options.

Little is known about parents' decision-making process concerning what type of child care to use. Research focuses more on utilization and predictors of type and timing of care used than on factors parents consciously take into account when deciding on care. Little is known about the effects on type of care used when maximum payment rates are set below market prices. It is particularly important from a policy perspective to understand the extent to which parents receiving subsidies actively weigh such factors as whether higher reimbursement rates can be paid for child care with certain quality indicators. It would be useful for research to focus on whether the process of decision-making changes when parents receive more information on available child care options and on how to assess child care quality. It would also be important to examine whether and how child care decision-making changes are made when families are given more time to finalize a child care arrangement.

This research suggests that subsidies may be particularly important in extending options available to families of children with special needs, perhaps especially so in rural areas where options are more limited. It would be important to examine the implications of child care subsidies on choice for these families. Is there greater access to providers trained to care for children with special needs when parents have child care subsidies? Does children's development differ according to use of subsidies and related choice of care for children with special needs?

The evidence reviewed indicates that parental choice among families receiving subsidies is constrained by whether or not a child care provider is willing to accept subsidies. At least in the geographical areas studied, family child care providers appeared to be more willing to accept subsidies than those in centers. An important next step would be to attempt to shed light on why some providers are not willing to accept child care subsidies. If, for example, efficiency in payment is the key issue, policymakers could focus on approaches to improving efficiency, and this in turn would extend parental choice.

This review and synthesis provides evidence that parents actively seek out information on **child care quality** available through rating systems or inspection reports. Yet, very little is known about how this information influences child care choice. Research is needed among families receiving subsidies, and families of varying socioeconomic backgrounds, to better understand the types of information about child care quality that families find most useful, and how the information is actually taken into account in choosing care. For instance, do families find summary ratings (like rating systems that use the number of stars to indicate overall level of quality) useful? Or, do they prefer discrete ratings that allow them to weigh different quality factors? Carrying out direct observations of child care quality as part of a quality rating system is costly though quite informative. Do parents particularly value the information from such direct observations?

CCB-funded research has taken important steps to document how funding from the child care quality set-aside is being used, and to begin to evaluate the effectiveness of initiatives to improve quality. Yet systematic evaluations of child care quality initiatives are few in number. Further, it is only recently that the most rigorous approach to evaluating such program impacts, experimental evaluation, has been used. The Quality Interventions for Early Care and Education (QUINCE) evaluation uses an experimental design to ask whether on-site consultation approaches improve the quality of family child care and entry-level center care, and whether such consultation improves child outcomes. The implementation of a curriculum focusing on early literacy in subsidized child care centers in particular Florida communities is also being evaluated using an experimental design.

This is a period of experimentation with child care quality-improvement strategies, and much could be learned from state efforts to inform future initiatives. One approach, for example, might involve identifying a set of states carrying out quality initiatives that are similar in terms of objectives, such as efforts to improve the professional development of providers through scholarships for further education. Technical assistance could be provided so that similar data could be collected across these states to document the implementation and effectiveness of such approaches. In general, there is great potential to inform the use of quality funding through more systematic collection of information about the wide range of current state efforts. Evaluations should include an examination of costs, so that policymakers can make decisions in light of both costs and potential benefits.

A substantial percentage of children overall, and low-income children in particular, participate in care provided by family, friends and neighbors. *CCB-funded research* has helped identify both strengths of such child care settings and areas in need of improvement. Yet very little is known about the openness of family, friend and neighbor providers to efforts for improving quality. Further, virtually no evidence is available regarding effective approaches to improving quality in these settings. Given the numbers of children whose primary care comes from family members, friends and neighbors, it is important to understand what resources and supports would be welcome, and which would be effective in improving quality in these care settings.

Collaborations and formal early care and education partnerships are encouraged through the administration's early childhood initiatives. The President's *Good Start, Grow Smart* initiative calls for the development of early learning guidelines as well as taking steps to prepare the early

childhood workforce to support children in reaching the goals identified in such guidelines. Because the purpose is to ensure that children gain the skills and abilities to succeed in school, there is an emerging need for approaches to professional development that are appropriate across types of early care and education. It will be important to ask whether training and education approaches are working well across different types of early care and education. It will also be of interest to determine whether this policy approach is fostering more collaborative efforts at the state level across programs with different funding sources, such as child care, Head Start, and pre-kindergarten.

In addition to collaborations that may be fostered through common early learning guidelines and professional development approaches, early care and education partnerships take a further step, formalizing relationships. Head Start-child care partnerships meet an important set of policy goals by providing care that matches the needs of working low-income parents while also providing comprehensive services to families and early learning opportunities to children. There has been limited research focusing on the effects of such partnerships. The evidence to date suggests that such partnerships bring resources to child care such as training, equipment and materials, and that quality is higher in child care programs partnering with Head Start or Early Head Start. However to fully address the policy goals of such partnerships, effects on parents' employment and on children's outcomes should be examined. A valuable next step would be to go beyond describing partnerships to examining such outcomes.

Work is also needed examining a broader range of collaborations across specific early care and education programs. For example, it is clear from recent research that a substantial number of state pre-kindergarten programs are being implemented in child care settings. Important questions remain about this approach to expanding access to pre-kindergarten programs. It is important to understand what criteria states are using to determine the child care programs that are eligible as pre-kindergarten sites, and to describe what resources states are making available in terms of professional development, equipment, and resources so that child care programs can meet eligibility criteria. As for Head Start-child care partnerships, there is a need to examine whether the quality of care and children's development are affected by such collaborations. In addition, it is important to ask whether pre-kindergarten programs implemented in child care settings are particularly effective at enrolling children of working parents, and whether they play a role in helping parents retain employment.

At present there are serious limitations to the information that is available regarding the **early childhood workforce**. Such information is important to guiding efforts both to expand the workforce and to improve professional development. National and state surveys do not regularly include all categories of paid child care workers, and lack effective approaches to capturing the content and extent of training that providers participate in outside of formal education. Problems with appropriate documentation of provider education and certification also exist though they are less severe than for training. There is limited comparability in the data collected in different states by workforce surveys and child care registries.

A high priority should be placed on working towards better child care workforce data collection. Key steps could include working towards agreement on common definitions and measurement approaches for use in national surveys and across state surveys, introducing data collection that

captures the content and extent of training using a common approach across state child care registries, and extending and coordinating data collected by child care resource and referral agencies. The development of a common core of data elements for documenting the characteristics of educators in kindergarten through grade 12 in state surveys funded by the Department of Education could serve as a model for the development of consistently collected data on education, training and certification for the early childhood workforce.

Finally, the issue of workforce turnover remains a problem. Turnover affects program costs, as resources must be diverted to hiring and training new staff. It also affects outcomes for children when relationships between children and their caregivers are disrupted. Outcomes for parents may also be affected, particularly if discontinuity in care interrupts employment. The work reviewed here suggests that initiatives at the state and county level to address retention in the child care workforce can affect overall rates of turnover in center care. There is a need for further evaluations of initiatives to address turnover. Such work should include cost-benefit analysis, considering the costs of retention initiatives in relation to the benefits of diminished turnover for programs, for parental employment, and for child outcomes. Varying approaches are currently being undertaken by states in attempts to reduce turnover. Planned variation studies, systematically varying the approach taken and replicating the varied approaches in different locations, would help greatly in assessing the effectiveness of approaches to improving retention in the child care workforce.