



Provide Access to Training, Education, and Ongoing Supports

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About this Project

CLASP's *Charting Progress for Babies in Child Care* project highlights state policies that support the healthy growth and development of infants and toddlers in child care settings, and provides online resources to help states implement these policies. The foundation of the project is a policy framework comprised of four key principles describing what babies and toddlers in child care need and 15 recommendations for states to move forward. The project seeks to provide information that links research and policy to help states make the best decisions for infants and toddlers.

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By Rachel Schumacher¹

Early experiences and relationships – including those in child care settings—help shape the architecture of the brain. All babies and toddlers in child care need nurturing, responsive providers and caregivers they can trust to care for them as they grow and learn. To support this goal, CLASP recommends that states seek to ensure access to specialized professional development for providers working with infants and toddlers, including participation in higher education programs, community-level training, ongoing individualized consultations, and access to appropriate information and supports for caregivers, so that all those who care for infants and toddlers in all settings understand and implement a core body of knowledge and skills.

This document presents research supporting the recommendation to provide access to training, education, and ongoing supports. Visit

www.clasp.org/babiesinchildcare for materials related to this recommendation, including ideas for how state child care licensing, subsidy, and quality enhancement policies can move toward this recommendation; state examples; and online resources for state policymakers.

What does the research say about ensuring that providers and caregivers for babies and toddlers have access to specialized education, training, and ongoing supports?

Babies and toddlers in child care need providers and caregivers with the sensitivity and skills to respond to their cues and needs. Babies naturally seek out interactions with those that take care of them

and, in doing so, begin to understand their world. Child care providers and caregivers who are attuned to each child's unique needs and personality can support, nurture, and guide the child's exploration and growth.²

Compassionate, non-authoritarian attitudes toward child caregiving have been associated with better quality infant/toddler care—whether in a center, family child care, or other home setting.³ Providers who display sensitivity and responsiveness tend to have completed higher levels of formal education related to their work with children. This finding led one researcher to note that formal training and education programs might “help teachers behave in a sensitive manner to all children rather than relying on their first-level emotional reactions.”⁴ Providers and caregivers must also understand infant and toddler development; for example, because children develop at different paces, there should be no rigid expectations about what a child should be able to do at a certain age.⁵

Providers with higher levels of education and credentials related to early childhood education are linked to higher-quality child care environments and sensitivity, although research has not made clear whether a certain level of higher education credential should be recommended, especially for infant/toddler providers. Analysis of data from the Cost, Quality, and Outcomes (CQO) research found that the more formal education related to early childhood education (including a Child Development Associate (CDA) credential, associate's or bachelor's degree, or higher) that center providers reported completing, the higher their ratings on the Infant Toddler Environment Rating Scale (ITERS) and the Caregiver Interaction Scale (CIS). Providers with a bachelor's degree or more rated substantially higher on both the ITERS and the CIS, with statistically significantly higher scores after controlling for other related variables. In addition, this study found a link between center providers who had attended training (held at the center, in the community, or at professional meetings) and better ITERS and CIS ratings; while statistically significant, the effect sizes were not as large as those associated with formal education. Overall, those without formal education had lower ratings on average than those with formal education.⁶ The National Institute of Child Health and Development (NICHD) long-term study of children in all types of child care arrangements,

which includes observations of sensitivity and skills in caring for infants, also found that higher levels of higher education predicted better observed provider skills with babies and toddlers in centers, but did not find a similar connection between specialized training and observed skills.⁷ Findings from the National Child Care Staffing Study suggest that infant/toddler providers are most likely to be competent if they have a higher education degree and specialized college-level training focused on early childhood education.⁸

State studies have echoed these larger studies: Massachusetts' Cost, Quality, and Outcomes study found center providers with higher education levels incorporate more age-appropriate learning opportunities for toddlers.⁹ Although not targeted to infant/toddler classrooms, an analysis of data from Florida's Quality Improvement study and the national CQO study show center providers as more responsive (as measured by the CIS and the Adult Involvement Scale) if they completed a “coherent course of study” of at least an associate's degree in early childhood education or a Child Development Associate credential, as opposed to having completed some college courses or high school plus some workshops.¹⁰

Fewer studies have focused on what levels of education or types of training for licensed providers in family child care homes can improve the quality of care and interactions with children, although many babies and toddlers receive this type of care, usually in mixed-age group settings. In the NICHD study, family child care

From Neurons to Neighborhoods: The Science of Early Childhood Development

“In sum, quality is inherent in the child care provider, whether it is the grandmother, an unrelated sitter, or a center-based teacher. Critical to sustaining high-quality child care for young children are the providers' characteristics, notably their education, specialized training, and attitudes about their work and the children in their care, and the features of child care that enable them to excel in their work and remain in their jobs, notably small ratios, small groups, and adequate compensation.”¹¹

providers who reported participation in more formal specialized education/training in child development or early education, ranging from high school to graduate level coursework, also exhibited better skills.¹² Another study of structural factors in family child care homes using two relevant datasets found that family child care providers with higher levels of formal education were more likely to be observed providing better quality care in general and that those who reported participating in specialized training in the past year were linked to higher Family Day Care Environment Rating Scale (FDCRS) scores and lower levels of detached caregiving.¹³ A study of 130 family child care providers who participated in Child Care Aware's Family-to-Family training showed some increased ratings on the FDCRS, but no change in the quality of interactions with children.¹⁴

It is not clear from research whether a minimum level of higher education, such as a CDA, associate's, or bachelor's degree, is necessary to promote quality and effectiveness of care for infants and toddlers, for a variety of reasons.¹⁵ A fundamental concern is that researchers have used a variety of definitions of training, education, and ongoing consultation support in examining child care quality, making it difficult to develop conclusive recommendations.¹⁶ Tremendous variation also exists in the content of what institutions of higher education and community-based training are offering—for example, the number of courses required for degrees in early childhood development and whether training is a single session or part of a planned sequence.¹⁷ Infant and toddler-specific content is not universally offered in higher education and community-based training, potentially making it less useful for policymakers to recommend or require a minimum degree without examining the content of education programs.¹⁸ Additional research is needed to define what education and ongoing support approaches are most effective in building the knowledge and skills of providers, particularly those working with infants and toddlers and their families.¹⁹

Education qualifications of the child care provider workforce have fallen over time, with some evidence that infant and toddler providers are likely to have less formal training and education than those working with preschool children. An analysis of the child care center provider and director workforce

from 1983 to 2004 found that a declining share have formal education, falling from 43 percent with a four-year college degree or higher to 30 percent in more recent years. Less than 11 percent of providers in a home setting have a college degree or higher.²⁰ The infant/toddler child care workforce may have even less formal education. In Massachusetts, a 2005 workforce study estimated that a larger proportion (65 percent) of center-based preschool providers held credentials or degrees (CDA, associate's, bachelor's or higher) compared to infant/toddler center providers (32 percent), and just 27 percent of family child care providers held credentials or degrees.²¹ The NICHD study, conducted in the 1990s, found that about one-third of providers and caregivers of infants in the study had specialized training in child development or infant care, with 48 percent having a high school diploma or less education.²²

Most states require little or no pre-service and minimal ongoing training for licensed child care providers and often do not require training content that is important for those caring for babies and toddlers to know. As of 2007, only 13 states required any specific pre-service training before caring for children of any age in a child care center, although 48 had ongoing annual training requirements. Among the 13 with pre-service training, requirements ranged from having two non-credit bearing courses to attaining a CDA plus one year of experience.²³ One state, California, promulgated pre-service training requirements for center providers that mandate coursework specific to infant/toddler care.²⁴ For family child care homes, only 24 states had pre-service requirements for providers (usually early childhood education clock hours of training), and 38 had ongoing training requirements for licensed providers; only two required previous experience working with similar age children in a group setting.²⁵

States often do not ensure that required training includes topics particularly important for babies and toddlers. A survey of state licensing policies in 2007 found only seven states require center providers to ensure staff have training on Sudden Infant Death Syndrome (SIDS) prevention, and only eight require center providers to ensure staff are trained on the importance of handwashing, which can prevent the spread of diseases to vulnerable infants with developing immune systems.²⁶

Seventeen states specify what training or experience center providers or directors should have for work with infants and toddlers, including relevant certifications, training on infant/toddler care, credit bearing coursework, or experience caring for infants/toddlers.²⁷

Current providers and caregivers face barriers to accessing training and education. Cost is a critical barrier to attaining higher education for the current provider workforce. Researchers have used Current Population Survey (CPS) data to document that wages of the early care and education workforce have remained stagnant compared to those of college-educated females and there has been a decline in education levels as workers seek higher wages in other industries. The data suggest that 31 percent of center providers and 35 percent of family child care and other home-based caregivers are low-income, living below 200 percent of the federal poverty line.²⁸

Members of the early childhood workforce may also face barriers to higher education and training due to limited availability of such opportunities to a linguistically diverse population. Little national information is available on either the language diversity or linguistic abilities of the child care workforce,²⁹ but some research suggests that in certain communities, one-fourth or more of the child care workforce may speak a language other than English.³⁰ Other evidence suggests that the workforce caring for children from birth to age three may be more diverse than the preschool workforce, and that the overall child care workforce is growing more diverse with time.³¹ Traditionally, some racial and ethnic minorities have also faced barriers to accessing and succeeding in higher education.³²

Increasing the education levels of the current provider workforce would require addressing the needs of non-traditional students who must juggle significant work and family responsibilities. Current data indicate that existing early childhood providers who are working and seeking additional training pursue two-year programs more often than longer ones. In a national survey of early childhood teacher preparation programs, 49 percent of CDA and certificate programs and 36 percent of associate's degree programs reported almost all their students worked full-time, while just eleven percent of bachelor's degree

programs reported similar findings.³³ A cohort model, in which small groups of early childhood providers who share similar backgrounds work toward a bachelor's degree together and receive support services, has shown early success in California, according to state researchers.³⁴

Higher education and training programs often do not provide adequate infant/toddler content or support for students interested in caring for infants and toddlers. Studies of institutes of higher education have found limited offerings or coursework requirements on infant and toddler care. A 2004 national survey found that about half of CDA or certificate programs and bachelor's degree programs and a third of associate's degree programs in early childhood education did not require any courses on the education and care of infants/toddlers. A quarter of bachelor's degree programs did not offer any coursework on children under age three at all. Furthermore, two- and four-year or master's level early childhood education teacher preparation programs were less likely to require a practicum in infant/toddler care as compared to preschool-aged care.³⁵ A detailed analysis of higher education offerings for providers interested in working with infants and toddlers in New York State found many disincentives to pursuit of that interest, including lack of faculty capacity to teach and mentor infant/toddler providers and difficulty finding high-quality infant/toddler care settings for a practicum placement.³⁶ A national study of the training offerings of child care resource and referral agencies, which provide the bulk of training that providers complete in order to meet annual state licensing requirements, found only four percent of the content targeted to specific age groups, such as infants/toddlers.³⁷

More research is needed to ensure education, specialized training, and individualized consultation strategies effectively improve interactions between providers and babies and toddlers. Researchers have long posited that more education leads to changes in provider practice and that, in turn, impacts child development.³⁸ In recent years there has been a growing recognition that having a certain level of education does not necessarily mean that providers will display desired skills—such as the ability to sustain positive adult-child interactions—that can then promote healthy child

development.³⁹ However, much of the training available to the early childhood workforce consists of single-session workshops without long-term follow-up. A review of available studies on the impact of training recommended that instruction be specialized to include a focus on the provider-child interaction, to impact the skills used with children in care.⁴⁰ In-depth training that focuses on building relationships between providers/caregivers and infants and toddlers has been developed through WestEd's [Program for Infant/Toddler Care \(PITC\)](#) training institute model and replicated in sixteen states. PITC is currently being evaluated with funding from the U.S. Department of Education.⁴¹ Research on how education, training, and individualized consultation improve provider skills and practice with babies and toddlers can be used to design and implement more effective models for working with providers.

Individualized, relationship-based professional development models have shown some promise in improving quality of care, including in studies with infant/toddler providers. Some early care and education workforce researchers have argued that ongoing support models should complement traditional professional development strategies, similar to the “induction year” concept of first-time teachers in the public school arena.⁴² These relationship-based approaches go by a variety of names (consulting, coaching, mentoring, or technical assistance) and may be attached to higher education (e.g., fieldwork placements) or other curriculum models.⁴³ Some studies have examined this approach with infant/toddler providers and caregivers, especially those who do not have college educations and have significant barriers to attaining higher educations. A small study of a four-month, weekly visit mentoring model with center-based providers in Pennsylvania saw growth in ITERS scores and on a measure of quality of adult-child interactions, although no change in a measure of child development knowledge.⁴⁴ A study of the implementation of a family child care network model in Chicago found that networks that employed a coordinator with special training in infant studies who fostered supportive interactions and techniques with providers saw increased FDCRS scores and higher provider-child sensitivity.⁴⁵

More research on consultation effectiveness is necessary, however, because there are many different models depending on the intensity and duration of the relationship, training of the consultants, and style of consultation. For example, a study of the effectiveness of coaching tied to state quality rating and improvement systems (QRIS) in several states found great variation in what coaching was offered and limited success in the first two years of implementation. The researchers recommended initial and ongoing coach training as well as better supports to improve coach capacity.⁴⁶ A federally-funded random assignment study of two coaching/mentoring individualized consultation models in centers, family child care, and unregulated home-based care—the Quality Interventions for Early Care and Education ([QUINCE](#)) study—is starting to release initial findings. There are two models in the study:

- The RITE (Ramey’s Immersion Training for Excellence) model is a 20-day intensive, on-site, side-by-side “demo-coaching” model tested with center and family child care providers without college-level educations. The results show improvements in ITERS and FDCRS scores and provider practice with babies and toddlers—including use of language, reasoning, materials, and activities.⁴⁷
- The Partnerships for Inclusion (PFI) model involves a longer-term consulting relationship in which the providers identify improvement goals in partnership with the consultants and receive visits at least monthly for six months to a year. Initial results are promising for family child care providers, with initial and sustained improvement in scores on the FDCRS and ECERS-E literacy measures. There is no focus on the impact on infants/toddlers in this study.⁴⁸

Models for providing information and supports to improve practices by family, friend, and neighbor caregivers are emerging. Many babies and toddlers receive care from family members, friends, or neighbors.⁴⁹ The education levels of family, friend, and neighbor caregivers are split; several state studies have found high rates of caregivers with some college

coursework, but also large proportions with a high school degree or less.⁵⁰ Studies have found family, friends, and neighbors often do not see themselves as professional child care providers and are more likely to view themselves as assisting a child and family with whom they have a personal relationship. However, family, friend, and neighbor caregivers may be interested in information and support systems that recognize their roles in helping parents raise their children,⁵¹ and which are delivered through trusted community resources.⁵²

Although research is just emerging on what works, some approaches originally developed for providers or parents have been adapted to family, friend, and neighbor caregivers, such as [Parents as Teachers](#) (PAT), the [Parent-Child Home Program](#) (PCHP), the [Program for Infant/Toddler Care](#), and [Promoting First Relationships](#). Some models use individual home visits, while others use more of a peer group socialization approach, and some use both. PAT has developed two curricula for working with caregivers, one entitled, “Supporting Care Providers through Personal Visits,” and one specifically focusing on babies entitled, “Supporting Infant/Toddler Care Providers.” Following the former curricula as well as parts of the Family Credential, the [Caring for Quality Project](#) in Rochester, New York used twice-monthly home visits and networking meetings to increase quality (measured by the FDCRS) and the health and safety of care for home-based caregivers.⁵³ PCHP has also completed a pilot and formalized a new program model entitled “The Parent-Child Home Program for Family Child Care Providers,” which has two pathways: one serving licensed family child care providers and one serving family, friends, and neighbors who provide regular child care.⁵⁴

Some anecdotal evidence suggests that family, friend, and neighbor caregivers may be more likely to reflect the diverse culture and languages of young children, in part because parents are connected to caregivers of the same background through common social networks.⁵⁵ Therefore, strategies to work with these providers must also be informed about cultural and linguistic backgrounds, expectations about the role of the caregiver, and beliefs about child development and parenting.⁵⁶

How can state child care licensing, subsidy, and quality enhancement policies ensure that providers and caregivers for babies and toddlers have access to specialized education, training, and ongoing supports?

To improve the quality of care for infants and toddlers, state policymakers can use licensing, subsidy, and quality enhancement policies to build the capacity of state systems to reflect the needs of babies and toddlers in child care, and to effectively convey relevant information and skills to both new and current providers and caregivers. Improving the knowledge and skills of the child care workforce may be on most state policy agendas, but a focus on infant/toddler providers may not be. States with a significant portion of their children under age three in the care of family, friends, and neighbors will also want to turn to trusted community institutions to build access to information and support.

State child care licensing agencies can signal the importance of having specialized knowledge about babies and toddlers by requiring providers who care for them and licensors who monitor that care to have a certain amount of hours of specialized training, coursework, or individualized consultation on infant/toddler care. For example, California has promulgated [licensing requirements for infant/toddler teachers](#) requiring “at least three postsecondary semesters or equivalent quarter units in early childhood education or child development, and three postsecondary semester or equivalent quarter units related to the care of infants, at an accredited or approved college or university.” States should review or create infant/toddler-specific training and education requirements in pre- and in-service licensing, so that new providers are prepared to care for very young children, and experienced providers are keeping up with developments in the field.

Subsidy policies can be designed to require or encourage more providers caring for low-income babies and toddlers to attain higher levels of education, pursue additional training, or utilize on-site consultation. States can raise subsidy payment rates

linked to qualifications, for example, by contracting directly with programs to provide child care assistance slots with qualified providers or building increasing levels of education on infant/toddler development into the state quality rating and improvement system (QRIS). States can also give preferences to providers participating in the subsidy program when they apply for scholarships and supports to attain higher education, such as in a [T.E.A.C.H. initiative](#).

Taking on the issues of better educating and training the infant/toddler child care workforce will require states to look at all the components of their quality enhancement systems.

This ought to start from a clear vision of the core knowledge and core competencies (see project recommendation: [Establish Core Competencies](#)), examining the capacity of state professional development systems, and ensuring that incentives to improve education and training through scholarships, provider payments, and QRIS systems are aligned.⁵⁷ To truly improve the professional development of the workforce, states will want to ensure that investments in education and training are supported by compensation initiatives so higher educated providers stay in early care and education. For example, the [Comprehensive Approaches to Raising Educational Standards](#) (CARES) program in California mixes financial bonuses, as long-term incentives, with supports and professional development counseling for providers who seek more training and education. CARES program participants reflect the diversity of the early childhood workforce, and some county programs have conducted outreach to language minority providers and facilitated the creation of Spanish-speaking student cohorts and mentors.⁵⁸

States can also use quality enhancement policies to address the barriers to higher education for the child care workforce, while paying particular attention to the needs of infant/toddler provider preparation. States may want to analyze the current demographics, education/training, and experience levels of the early childhood workforce. For example, an analysis of 2007 data in [Illinois](#) found that a third of infant/toddler center providers had bachelor's degrees; in comparison, nearly half of preschool providers had bachelor's degrees.⁵⁹ States should take a leadership role in convening stakeholders in higher education,

training entities such as child care resource and referral agencies, individualized consultation programs, and infant/toddler providers. These stakeholders should then review the current strengths and weaknesses of their state's professional development and training/support systems, both in preparing new infant/toddler providers and sustaining experienced infant/toddler providers. In addition, states can build networks of infant/toddler consultants to work closely with providers to better meet the needs of babies and toddlers in their care.

Additionally, states can provide support for family, friend, and neighbor (FFN) caregivers who are caring for infants and toddlers, particularly those caregivers receiving payments from the state child care subsidy system. For example, New York offers higher child care subsidy payment rates to FFN caregivers who complete ten hours of training.⁶⁰ Research suggests that family support strategies, rather than formal education and classroom-based professional development, are likely to be more appropriate and effective for reaching FFN caregivers. After state [researchers](#) found that 78 percent of infants and toddlers in child care were in FFN care, the [Minnesota](#) legislature appropriated \$750,000 to fund community-based grant projects to support FFN caregivers in different areas of the states, including one managed by the [Minnesota Child Care Resource and Referral Network](#).

Visit www.clasp.org/babiesinchildcare for dynamically updated information related to this recommendation, including:

- **Policy Ideas** that states can use to move toward this recommendation
- **State Examples** profiling initiatives of policies under this recommendation
- **Online Resources** for state policymakers

¹ The author would like to thank Kathryn Tout and Marcy Whitebook for their comments on drafts of this resource.

² *Young Children Develop in an Environment of Relationships*, National Scientific Council on the Developing Child, 2004, http://developingchild.harvard.edu/library/reports_and_working_papers/wp1/.

- ³ NICHD Early Child Care Research Network, “Characteristics of Infant Child Care: Factors Contributing to Positive Caregiving,” *Early Childhood Research Quarterly* 11, no. 3 (1996): 269-306.
- ⁴ Carollee Howes, “Children’s Experiences in Center-Based Child Care as a Function of Teacher Background and Adult: Child Ratio,” *Merrill-Palmer Quarterly* 43, no. 3 (1997): 404-425.
- ⁵ *Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8*, Position Statement, National Association for the Education of Young Children, 2009, <http://www.naeyc.org/files/naeyc/file/positions/PSDAP.pdf>.
- ⁶ Margaret R. Burchinal, Debby Cryer, Richard M. Clifford, and Carolee Howes, “Caregiver Training and Classroom Quality in Child Care Centers,” *Applied Developmental Science* 6, no. 1 (2002): 2-11.
- ⁷ NICHD Early Child Care Research Network, “Characteristics of Infant Child Care,” 269-306.
- ⁸ Carolee Howes, Marcy Whitebook, and Deborah Phillips, “Teacher Characteristics and Effective Teaching in Child Care: Findings from the National Child Care Staffing Study,” *Child and Youth Care Forum* 21, no. 6 (1992): 399-414.
- ⁹ Nancy L. Marshall, Cindy L. Creps, Nancy Burstein, Joanne Roberts, Frederic B. Glanz, and Wendy Robeson, *The Cost and Quality of Full-Day Year-Round Early Care and Education in Massachusetts: Infant and Toddler Classrooms*, Wellesley Center for Women and ABT Associates, 2004.
- ¹⁰ Howes, “Children’s Experiences,” 404-425.
- ¹¹ *From Neurons to Neighborhoods: The Science of Early Childhood Development*, eds. Jack P. Shonkoff and Deborah A. Phillips, National Research Council and Institute of Medicine, 2000.
- ¹² NICHD Early Child Care Research Network, “Characteristics of Infant Child Care,” 269-306.
- ¹³ Margaret Burchinal, Carollee Howes, and Susan Kontos, “Structural Predictors of Child Care Quality in Child Care Homes,” *Early Childhood Research Quarterly* 17, no. 1 (2002): 87-105.
- ¹⁴ Susan Kontos, Carollee Howes, and Ellen Galinsky, “Does Training Make a Difference to Quality in Family Child Care?” *Early Childhood Research Quarterly* 11, no. 4 (1996): 427-445.
- ¹⁵ Kathryn Tout, Martha Zaslow, and Daniel Barry, “Quality and Qualifications: Links Between Professional Development and Quality in Early Care and Education Settings,” in *Critical Issues in Early Childhood Professional Development*, eds. Martha Zaslow and Ivelisse Martinez-Beck, 2006, 77-110.
- ¹⁶ Kelly L. Maxwell, Cathie C. Field, and Richard M. Clifford, “Defining and Measuring Professional Development in Early Childhood Research,” in *Critical Issues in Early Childhood Professional Development*, eds. Martha Zaslow and Ivelisse Martinez-Beck, 2006, 21-48.
- ¹⁷ Martha Zaslow, Tamara Halle, Michelle McNamara, Debra Weinstein, and Ayonda Dent, *Working Towards a Recommended Common Core of Measures Of Early Childhood Professional Development: Issues and Preliminary Recommendations White Paper [Draft]*, Child Trends, July 2007, <http://www.childcareresearch.org/SendPdf?resourceId=12685>.
- ¹⁸ Kelly L. Maxwell, Chih-Ing Lim, and Dianne M. Early, *Early Childhood Teacher Preparation Programs in the United States: National Report*, Frank Porter Graham Child Development Institute, 2006, http://www.fpg.unc.edu/~npc/pdfs/national_report.pdf; Linda K. Smith, Mousumi Sarkar, Susan Perry-Manning, and Beverly Schmalzreid, *NACCRRA’s National Survey of Child Care Resource and Referral Training: Building a Training System for the Child Care Workforce*, National Association of Child Care Resource and Referral Agencies, 2007, 44.
- ¹⁹ Marcy Whitebook, Deanna Gomby, Dan Bellm, Laura Sakai, and Fran Kipnis, *Preparing Teachers of Young Children: The Current State of Knowledge, and a Blueprint for the Future, Part 2: Effective Teacher Preparation in Early Care and Education: Toward a Comprehensive Research Agenda*, Center for the Study of Child Care Employment, 2009, 26.
- ²⁰ Note that this analysis does not include information on community-based training or supports, but is based on Current Population Survey (CPS) data reports regarding formal education attainment; Stephen Herzenberg, Mark Price, and David Bradley, *Losing Ground in Early Childhood Education: Declining Workforce Qualifications in an Expanding Industry, 1979-2004*, Economic Policy Institute, 2005.
- ²¹ Nancy L. Marshall, Julie Dennehy, Elizabeth Starr, and Wendy Wagner Robeson, *Preparing the Early Education and Care Workforce: The Capacity of Massachusetts’ Institutions of Higher Education*, Wellesley Centers For Research on Women, 2005.
- ²² NICHD Early Child Care Research Network, “Characteristics of Infant Child Care,” 269-306.
- ²³ *State Requirements for Minimum Preservice Qualifications and Annual Ongoing Training Hours for Child Care Center Teachers and Master Teachers in 2007*, National Child Care Information and Technical Assistance Center, U.S. Department of Health and Human Services, 2009, <http://nccic.acf.hhs.gov/pubs/cclicensingreq/cclr-teachers.html>.
- ²⁴ California Department of Social Services Manual, *Child Care Center General Licensing Requirements*, Title 22 Division 12, Chapter 1, Subchapter 2: Infant Care Centers, <http://www.dss.cahwnet.gov/ord/entres/getinfo/pdf/cc7.pdf>.
- ²⁵ *The 2007 Child Care Licensing Study*, National Child Care Information and Technical Assistance Center, U.S. Department of Health and Human Services and the National Association for Regulatory Administration, 2009, <http://naralicensing.org/displaycommon.cfm?an=1&subarticlenbr=160>.
- ²⁶ *The 2007 Child Care Licensing Study*, Chart 3.6: Number of States with Requirements for Health and Safety Training for Center Staff.
- ²⁷ *The 2007 Child Care Licensing Study: 50-State Data Tables*, Table 34: Qualifications for Center Staff Working with Infants and Toddlers in 2007, <http://www.naralicensing.org/displaycommon.cfm?an=1&subarticlenbr=157>.
- ²⁸ Note that this analysis does not include information on community-based training or supports, but is based on Current Population Survey (CPS) data reports regarding formal education attainment; Herzenberg, Price, and Bradley, *Losing Ground*.
- ²⁹ Gitanja Saluja, Diane M. Early, and Richard M. Clifford, “Demographic Characteristics of Early Childhood Teachers and Structural Elements of Early Care and Education in the United States,” *Early Childhood Research and Practice* 4, no. 1 (2002), <http://ecrp.uiuc.edu/v4n1/saluja.html>.
- ³⁰ Marcy Whitebook, Laura Sakai, Fran Kipnis, et al., *California Early Care and Education Workforce Study: Licensed Child Care Centers*

and Family Child Care Providers, Center for the Study of Child Care Employment and California Child Care Resource and Referral Network, 2006,

http://www.iir.berkeley.edu/cscce/pdf/statewide_highlights.pdf;

Hannah Matthews and Deena Jang, *The Challenges of Change: Learning from the Child Care and Early Education Experiences of Immigrant Families*, CLASP, 2007,

http://clasp.org/publications/challenges_change.htm.

³¹ Hedy Chang, *Getting Ready for Quality: The Critical Importance of Developing and Supporting a Skilled, Ethnically and Linguistically Diverse Early Childhood Workforce*, California Tomorrow, 2006,

<http://www.californiatomorrow.org/media/gettingready.pdf>; Dan

Bellm and Marcy Whitebook, *Roots of Decline: How Government Policy Has De-Educated Teachers of Young Children*, Center for the Study of Child Care Employment, 2006,

http://www.iir.berkeley.edu/cscce/pdf/roots_decline06.pdf.

³² Diane Early and Pamela Winton, "Preparing the Workforce: Early Childhood Teacher Preparation at 2- and 4- Year Institutions of Higher Education," *Early Childhood Research Quarterly* 16, no. 3 (2001):

285-306; Maxwell et al., *Early Childhood Teacher Preparation*.

³³ Maxwell et al., *Early Childhood Teacher Preparation*.

³⁴ Marcy Whitebook, Laura Sakai, Fran Kipnis, Mirella Almaraz, Esther Suarez, and Dan Bellm, *Learning Together: A Study of Six B.A. Completion Cohort Programs in Early Care and Education: Year I Report*, Center for the Study of Child Care Employment, 2008,

http://www.irlc.berkeley.edu/cscce/pdf/learning_together08.pdf.

³⁵ Maxwell et al., *Early Childhood Teacher Preparation*.

³⁶ Lisa A. McCabe and Moncrieff Cochran, *Can Home-Visiting Increase the Quality of Home-Based Child Care?* Cornell Early Childhood Program, 2008,

<http://webstaging.bankstreet.edu/gems/naffncc/CaringforQuality.pdf>.

³⁷ Smith et al., *NACCRRRA's National Survey*, 44.

³⁸ NICHD Early Child Care Research Network, "Child Care Structure – Process – Outcome: Direct and Indirect Effects of Child Care Quality on Young Children's Development," *Psychological Science* 13, no. 3 (2002): 199-206.

³⁹ Diane Early, Kelly Maxwell, Margaret Burchinal, et al., "Teachers' Education, Classroom Quality, and Young Children's Academic Skills: Results from Seven Studies of Preschool Programs," *Child Development* 78, no. 2 (2007): 558-580.

⁴⁰ Ruben G. Fukkink and Anna Lont, "Does Training Matter? A Meta-Analysis and Review of Caregiver Training Studies," *Early Child Research Quarterly* 22, no. 3 (2007): 294-311.

⁴¹ Program for Infant/Toddler Care, *PITC's Six Program Policies*. http://www.pitc.org/pub/pitc_docs/138?x-r=disp.

⁴² Whitebook et al., *Preparing Teachers of Young Children*, 14-17.

⁴³ *Relationship-Based Professional Development: Models, Qualifications, Training, and Supports*, National Child Care Information and Technical Assistance Center, U.S. Department of Health and Human Services, 2009,

<http://nccic.acf.hhs.gov/poptopics/rbpd.html>.

⁴⁴ Richard Fiene, *The Effectiveness of an Infant Mentoring Project- Preliminary Findings*, Capital Area Early Childhood Training Institute, 2000, <http://ecti.hbg.psu.edu/publications/index.htm>.

⁴⁵ Juliet Bromer, Martha Van Haitsma, Kelly Daley, and Kathy Modigliani, *Staffed Support Networks and Quality in Family Child Care: Findings from the Family Child Care Network Impact Study*, Erickson Institute, 2009,

<http://erikson.edu/downloads/cmsFile.ashx?VersionID=4371&PropertyID=78>.

⁴⁶ Debra J. Ackerman, "Coaching as Part of a Pilot Quality Rating Scale Initiative: Challenges to—and Supports for—the Change-Making Process," *Early Childhood Research and Practice* 10, no. 2 (2008), <http://ecrp.uiuc.edu/v10n2/ackerman.html>.

⁴⁷ Sharon L. Ramey and Craig Ramey, *Training Models to Improve the Quality of Family-Based Early Care and Education*, presentation, National Association for the Education of Young Children Conference, 2007.

⁴⁸ QUINCE Research Team, *Delivering and Evaluating On-Site Consultation in a 5-State Collaborative Study*, presentation, National Association of Child Care Resource and Referral Agencies Public Policy Conference, March 2009.

⁴⁹ Jeffrey Capizzano and Gina Adams, "Children in Low-Income Families Are Less Likely to be in Center-Based Child Care," *Snapshots III* no.6, Urban Institute, 2003,

http://www.urban.org/UploadedPDF/310923_snapshots3_no16.pdf.

⁵⁰ Sharon Lynn Kagan, Kristie Kauerz, and Kate Tarrant, *The Early Care and Education Teaching Workforce at the Fulcrum: An Agenda for Reform*, 2008, 27-28.

⁵¹ Steven G. Anderson, Dawn M. Ramsburg, and Jeff Scott, *Illinois Study of License-Exempt Child Care: Final Report*, prepared for the Illinois Department of Human Services, 2005,

<http://www.researchconnections.org/SendPdf?resourceId=7350>;

Richard N. Brandon, Erin J. Maher, Jutta M. Joesch, and Sharon Doyle, *Understanding Family, Friend, and Neighbor Care in Washington State: Developing Appropriate Training and Support*, Human Services Policy Center, University of Washington, 2002, http://www.hspc.org/publications/pdf/FFN_report_2002.pdf; Richard Chase, Laura Schauben, and Ben Shardlow, *Family, Friend, and Neighbor Caregivers: Results of the 2004 Minnesota Statewide Household Child Care Survey*, prepared for the Minnesota Department of Human Services, 2006,

<http://www.wilder.org/download.0.html?report=1893>; Toni Porter, *Neighborhood Child Care: Family, Friends, and Neighbors Talk About Caring for Other People's Children*, Bank Street College of Education, 1998,

<http://www.bankstreet.edu/kithandkin/neighborhood.pdf>.

⁵² Nina Sazer-O'Donnell, Moncrieff Cochran, Kristi Lekies, et al., *Sparking Connections, Phase II: A Multi-Site Evaluation of Community-Based Strategies to Support Family, Friend and Neighbor Caregivers of Children, Part 1: Lessons Learned and Recommendations*, Families and Work Institute, 2006,

<http://familiesandwork.org/site/research/reports/sparking.pdf>.

⁵³ McCabe and Cochran, *Can Home-Visiting Increase the Quality*.

⁵⁴ The Parent-Child Home Program, "The Parent-Child Home Program for Family Child Care Providers," 2009, received via e-mail from Sarah Walzer on July 8, 2009. For more information on using home visiting with family, friend, and neighbor caregivers, see Elizabeth Hoffmann and Tiffany Conway Perrin, *Extending Home Visiting to Kinship Caregivers and Family, Friend, and Neighbor Caregivers*,

CLASP, 2009,

<http://www.clasp.org/admin/site/publications/files/homevisitingkinshipffin.pdf>.

⁵⁵ Chang, *Getting Ready for Quality*.

⁵⁶ Douglas Powell, *Who's Watching the Babies? Improving the Quality of Family, Friend, and Neighbor Care*, ZERO TO THREE, 2008.

⁵⁷ Carollee Howes, Robert Pianta, Donna Bryant, Bridget Hamre, Jason Downer, and Sandra Soliday-Hong, *Ensuring Effective Teaching in Early Childhood Education through Linked Professional Development Systems, Quality Rating Systems and State Competencies: The Role of Research in Evidence-Driven System*, White Paper, National Center for Research in Early Childhood Education, 2008, <http://www.ncrece.org/wordpress/wp-content/uploads/2008/09/ncrecewhitepaper2008.pdf>.

⁵⁸ Kara Dukakis and Dan Bellm, *Clearing a Career Path*, Center for the Study of Child Care Employment and First 5 Alameda County, 2006,

http://www.irlle.berkeley.edu/cscce/pdf/clearing_careerpath06.pdf. See also the CARES Web site,

<http://cares.edgateway.net/cs/cares/print/docs/cares/home.htm>, and *CARES Promising Practices for Supporting the Early Learning Workforce, Executive Summary*, First 5 California, 2008,

http://cares.edgateway.net/cs/cares/download/uwba_r/312/First_5_CA_RES_Promising_Practices_-_Exec_Summary_Apr._2008.pdf?x-r=pcfile.d.

⁵⁹ Susan Fowler, Paula Jorde Bloom, Teri N. Talan, Sallee Beneke, and Robyn Kelton, *Who's Caring for the Kids? The Status of the Early Childhood Workforce in Illinois—2008*, McCormick Tribune Center for Early Childhood Leadership at National-Louis University and Early Childhood and Parenting Collaborative at University of Illinois, 2008, http://cecl.nl.edu/research/reports/whos_caring_report_2008.pdf.

⁶⁰ New York State Child Care and Development Fund Plan, FFY 2008-2009, 27,

<http://www.ocfs.state.ny.us/main/childcare/New%20York%20State%20Plan%202008-2009.pdf>.