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# A Golden Opportunity

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## Advancing California's Early Care and Education Workforce Professional Development System

*Lynn A. Karoly*

Supported by the David and Lucile Packard Foundation  
and the Buffett Early Childhood Fund



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The research described in this report was conducted by RAND Labor and Population, a unit of the RAND Corporation. Funding was provided by the David and Lucile Packard Foundation and the Buffett Early Childhood Fund.

**Library of Congress Cataloging-in-Publication Data**

Karoly, Lynn A., 1961-

A golden opportunity : advancing California's early care and education workforce professional development system / Lynn A. Karoly.

p. cm.

Includes bibliographical references.

ISBN 978-0-8330-6011-2 (pbk. : alk. paper)

1. Early childhood educators—Training of—California. 2. Child care workers—Training of—California. I. Title.

LB1775.6.K37 2012

370.71'109794—dc23

2012001165

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Published 2012 by the RAND Corporation

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## Preface

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In an effort to inform preschool policy in California, an interdisciplinary team of RAND researchers conducted a multiyear study of preschool education known as the California Preschool Study. One of the recommendations from that study was the need for a more in-depth analysis of the effectiveness of the early care and education (ECE) workforce professional development system (PDS) in California. In response, this study focuses on two key questions:

- Does California's PDS prepare its ECE workforce well and provide ongoing supports to ensure that children receive the developmental benefits associated with a high-quality ECE system?
- Are the public resources that support the ECE workforce PDS in California used to maximum benefit?

In addressing these questions, the study focuses on the ECE workforce PDS in California as it promotes the preservice education and training of providers (alternatively referred to as caregivers or teachers) and their ongoing professional development, as well as that of the program administrators (e.g., center directors) who work with infants, toddlers, and preschool-age children, i.e., children from birth to kindergarten entry. The study considers the system as it applies to providers who work in center-based settings and family child care homes, as well as those who provide license-exempt care.

This study should be of interest to policymakers, practitioners, educators, and researchers, and those in the public more generally who seek a more complete understanding of the system of workforce professional development for ECE in California. Results for the earlier components of the RAND California Preschool Study are available in the following:

- Jill S. Cannon and Lynn A. Karoly, *Who Is Ahead and Who Is Behind? Gaps in School Readiness and Student Achievement in the Early Grades for California's Children*, Santa Monica, Calif.: RAND Corporation, TR-537, 2007
- Jill S. Cannon and Lynn A. Karoly, *The Promise of Preschool for Narrowing Readiness and Achievement Gaps Among California Children*, Santa Monica, Calif.: RAND Corporation, RB-9306, 2007

- Lynn A. Karoly, Elaine Reardon, and Michelle Cho, *Early Care and Education in the Golden State: Publicly Funded Programs Serving California's Preschool-Age Children*, Santa Monica, Calif.: RAND Corporation, TR-538, 2007
- Lynn A. Karoly, Elaine Reardon, and Michelle Cho, *Publicly Funded Early Care and Education Programs for California Preschool-Age Children*, Santa Monica, Calif.: RAND Corporation, RB-9307, 2007
- Lynn A. Karoly, Bonnie Ghosh-Dastidar, Gail L. Zellman, Michal Perlman, and Lynda Fernyhough, *Prepared to Learn: The Nature and Quality of Early Care and Education for Preschool-Age Children in California*, Santa Monica, Calif.: RAND Corporation, TR-539, 2008
- Lynn A. Karoly, Bonnie Ghosh-Dastidar, Gail L. Zellman, Michal Perlman, and Lynda Fernyhough, *Room for Improvement in the Use of High-Quality Preschool Programs for California's Children*, Santa Monica, Calif.: RAND Corporation, RB-9358, 2008
- Lynn A. Karoly, *Preschool Adequacy and Efficiency in California: Issues, Policy Options, and Recommendations*, Santa Monica, Calif.: RAND Corporation, MG-889, 2009
- Lynn A. Karoly, *Strategies for Advancing Preschool Adequacy and Efficiency in California*, Santa Monica, Calif.: RAND Corporation, RB-9452, 2009.

This project was requested by the California Early Learning Quality Improvement System (CAELQIS) Advisory Committee, which was established by the California state legislature under Senate Bill 1629. Funding was provided by the David and Lucile Packard Foundation and the Buffett Early Childhood Fund.

This research was undertaken within RAND Labor and Population. RAND Labor and Population has built an international reputation for conducting objective, high-quality, empirical research to support and improve policies and organizations around the world. Its work focuses on labor markets, social welfare policy, demographic behavior, immigration, international development, and issues related to aging and retirement with a common aim of understanding how policy and social and economic forces affect individual decisionmaking and the well-being of children, adults, and families.

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# Contents

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<b>Preface</b> .....	iii
<b>Figures</b> .....	ix
<b>Tables</b> .....	xi
<b>Summary</b> .....	xiii
<b>Acknowledgments</b> .....	xxix
<b>Abbreviations</b> .....	xxxix

## CHAPTER ONE

<b>Introduction</b> .....	1
Study Approach .....	2
ECE Workforce Professional Development Systems .....	3
Frameworks for ECE Workforce Professional Development Systems .....	4
Differences in Workforce Preparation in ECE Versus K–12 Education .....	6
Key ECE Stakeholders and Institutions in California .....	7
Numbers and Characteristics of the ECE Workforce .....	9
ECE Workforce Size and Demographics .....	9
Education Background of the ECE Workforce .....	10
Earnings of ECE Workers .....	12
Organization of This Monograph .....	14

## CHAPTER TWO

<b>What We Know from Research About Approaches to ECE Workforce Professional Development</b> .....	15
Professional Development Through Education .....	16
Professional Development Through Training .....	18
Strengthening Practices of Institutions and Organizations Providing Professional Development .....	23

## CHAPTER THREE

**What We Know from ECE Workforce Professional Development Systems in**

<b>Other States</b> .....	25
Alignment of ECE System Components (Competencies, Career Pathways, Credentials, and Curricula).....	26
Access and Outreach.....	29
Data Systems and Quality Assurance.....	30
Financial Incentives and Financing.....	32
California in Relation to Other States.....	34

## CHAPTER FOUR

<b>California ECE Workforce Requirements: Competencies and Credentials</b> .....	35
Desired Competencies for California's ECE Workforce.....	36
ECE Workforce Requirements .....	38
California Requirements.....	38
A Comparison with Other States.....	39
Evidence Regarding ECE Workforce Quality.....	43

## CHAPTER FIVE

**Public and Private Postsecondary Institutions That Provide ECE Workforce**

<b>Professional Development in California</b> .....	47
California Community Colleges.....	48
Enrollments in the ECE Field.....	49
Degrees in the ECE Field.....	52
California State University System and Other Four-Year Institutions.....	54
Enrollments and Degrees in Four-Year Institutions .....	54
Enrollments and Degrees in Postgraduate Programs .....	56
ECE Higher Education Program Quality, Access, and Outcomes.....	57
Program Quality, Alignment, and Articulation.....	57
Promoting Access for Diverse Populations.....	59
Implications of ECE Higher Education for Workforce Dynamics .....	60

## CHAPTER SIX

**Federal, State, and Local Funding Streams That Support ECE Workforce**

<b>Professional Development in California</b> .....	63
Public Investments in the ECE Workforce.....	64
Direct and Indirect Programs .....	65
Funding Streams and Total Funding.....	74
Program Targeting, Coverage, and Participation .....	75
Evidence of Effectiveness of Quality Investments.....	81
Process-Oriented Evaluation .....	81



Outcome-Oriented Evaluation ..... 83  
 Other Informal Training Opportunities ..... 84

**CHAPTER SEVEN**

**Recommendations for California’s ECE Workforce Professional Development**

**System** ..... 87  
 What Do We Know About California’s ECE Workforce PDS? ..... 87  
 Recommendations for California’s ECE Workforce PDS ..... 89  
     Make Better Use of Existing Resources ..... 91  
     Improve the Ability of the PDS to Prepare and Support the ECE Workforce ..... 95  
     Further Considerations ..... 100

**APPENDIXES**

**A. California Child Development Permit Matrix** ..... 103  
**B. Structure of California CSU Bachelor’s Degree Programs Focusing on Young Children** ..... 107  
**C. Informal ECE Training Opportunities in California** ..... 111  
**References** ..... 125



## Figures

---

4.1.	Mean Scores for CLASS Domains for Preschool-Age Children in California in Center-Based Settings: 2007 .....	44
6.1.	Publicly Funded ECE Workforce Professional Development Programs in California by Type of Provider Targeted, Approach, and Funding Level: SFY 2009–10 .....	77



## Tables

---

S.1.	Summary of Policy Recommendations by Domain .....	xxv
1.1.	Three Illustrative ECE Workforce Professional Development Frameworks .....	4
1.2.	Educational Attainment of ECE Workforce in Licensed Centers and Licensed Family Child Care Homes in California: 2004.....	11
1.3.	Hourly and Annual Wages for Child Care, Preschool, and Early Elementary Occupations in California: 2009 .....	13
4.1.	Staff Qualifications Requirements for Licensed ECE Programs and Publicly Funded ECE Programs in California .....	40
4.2.	Number of States with Specified Preservice Qualifications in Licensed ECE Settings by Staff Position: 2008.....	42
5.1.	California Community Colleges' Enrollments in Child Development Courses by Enrollment Characteristics: 2008–09.....	50
5.2.	California Community Colleges Awards in Child Development/Early Childhood Education: Academic Years 2005–06 to 2009–10.....	53
5.3.	California State University Undergraduate Enrollments of Students Majoring in Child Development, Early Childhood Education, or Early Childhood Studies, and Undergraduate Degrees Awarded in Those Fields: Fall 2008 or 2008–09 .....	54
5.4.	California State University Graduate Enrollments of Students Majoring in Child Development, Early Childhood Education, or Early Childhood Studies, and Graduate Degrees Awarded in Those Fields: Fall 2008 or 2008–09 .....	56
6.1.	Features of Publicly Funded ECE Workforce Professional Development Programs in California: SFY 2009–10 .....	66
6.2.	Coverage of Publicly Funded ECE Workforce Professional Development Programs in California: SFY 2009–10 .....	76
7.1.	Summary of Policy Recommendations by Domain .....	90
A.1.	Education and Training Requirements for California Child Development Permits .....	104
B.1.	Summary of the Structure of CSU Bachelor's Degree Programs with a Focus on Young Children as of November 2010.....	108

B.2.	Structure of CSU Bachelor's Degree Programs with a Focus on Young Children as of November 2010.....	109
C.1.	Sample of Informal Training Programs Offered as of 2010, by County.....	112

## Summary

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As California policymakers and the public continue to focus on the availability and quality of early care and education (ECE) programs in the state, attention has been drawn to the importance of the state's ECE workforce professional development system (PDS). Across the country, state policy initiatives to improve the quality of ECE programs have included efforts to develop and implement well-designed PDSs that determine who is qualified to serve in ECE settings and the mechanisms for preparing and qualifying the ECE workforce. Consistent with the policy importance attached to ECE professional development, this study aims to provide a comprehensive synthesis of what is and is not known about key dimensions of the ECE workforce PDS in California and the resulting outcomes. Specifically, the study addresses two questions related to the effectiveness of the ECE workforce PDS in California:

- Does California's PDS prepare its ECE workforce well and provide ongoing supports to ensure that children receive the developmental benefits associated with a high-quality ECE system?
- Are the public resources that support the ECE workforce PDS in California used to maximum benefit?

In addressing these questions, the study focuses on the ECE workforce PDS in California as it promotes the preservice education and training providers (alternatively referred to as caregivers or teachers), their ongoing professional development, as well as that of the program administrators (e.g., center directors) who work with infants, toddlers, and preschool-age children, i.e., children from birth to kindergarten entry. According to the 2004 California Early Care and Education Workforce Study (the most recent statewide data available), California had an estimated 7,000 center directors, 45,000 teachers, and 23,000 assistant teachers in licensed center-based programs, and another 37,000 licensed family child care home providers plus the 16,000 to 21,000 assistants they employ—all serving infants, toddlers, and preschool-age children—a total of nearly 130,000 individuals. In addition, as of 2008, an estimated 50,000 license-exempt caregivers—those who provide care in a child's own home or in their own home to children from at most one unrelated family—served nearly 100,000 chil-

dren up to age 12 in subsidized care. (Information on the number of license-exempt providers who are outside the subsidized system is not routinely available.)

This study primarily considers the system as it applies to the 130,000 or so providers who work in the formal ECE system—in other words providers in center-based settings and licensed family child care homes, who would typically be considered the core professionals in the ECE workforce. However, some consideration is given as well to professional development issues for those who provide license-exempt care—particularly those who provide subsidized care—even though these providers are often temporarily engaged in providing child care services for a relative (e.g., a grandchild) or for the child of a friend or neighbor and have not made a longer-term commitment to the field.

For the most part, the study does not consider the professional development of the broader workforce that might be considered part of the “ECE enterprise,” such as those who provide support services within ECE programs but do not directly work with children or those employed by infrastructure organizations (e.g., resource and referral agencies). While it is not a primary focus, we do consider, to some extent, workforce development issues for the professionals who prepare the ECE workforce through institutions of higher education, training programs, and other professional development activities.

Our analysis draws on various sources of information about ECE in California and the state’s current ECE workforce PDS, including administrative reports and other sources of publicly available data on program funding, requirements, participation, and outcomes. We also consider research evidence regarding effective systems and other elements of best practice, including examples from other states. Because there is often a lag in available data, our information primarily reflects California’s ECE system prior to the Great Recession, which began in December 2007. This is notably the case for statewide measures of the ECE workforce size and composition, last collected in 2004. Data on public funding for ECE professional development programs are for state fiscal year (SFY) 2009–10, but these figures are not necessarily stable given the prospect for significant future budget cuts as a result of the state’s ongoing fiscal crisis.

In the remainder of this summary, we first review what we know from research and from other states about building effective ECE workforce PDSs and describe the main avenues for ECE professional development in California. Next, we highlight the key findings with respect to the two study questions outlined above regarding California’s ECE workforce PDS. We conclude with a set of recommendations designed to advance the effectiveness of the state’s ECE workforce PDS.



## What We Know from Research and Other States About ECE Workforce Professional Development Systems

Much of the recent efforts to improve ECE workforce PDSs have taken place at the state level, typically in conjunction with other state policy initiatives in the ECE field, such as defining early learning standards, designing and implementing quality rating and improvement systems (QRISs), and extending longitudinal education data systems to include the preschool years. As of November 2010, 23 states and the District of Columbia were implementing ECE workforce PDSs, 16 states were making revisions to existing systems, and the remaining 12 states were planning and developing new systems.

Despite the enthusiasm for state PDSs, to a large extent, practice has proceeded in advance of having a solid research base to demonstrate the effectiveness of various approaches. For example, the research base is not sufficiently developed to identify definitively the types of education and training that are most effective, the most important content to incorporate into teacher preparation programs, the nature of the systems and workplace environments that need to be in place to best support professional preparation and effective practice, and the costs associated with alternative strategies.

Ultimately, policy and practice regarding the professional development of the ECE workforce are limited by the lack of rigorous studies documenting the causal relationship between education, training, and other professional development models and care quality or children's developmental outcomes, and how those relationships are mediated by the nature of the workplace environment. Nevertheless, the emerging research findings provide an important foundation for further advancing PDSs.

- A number of observational studies show that measures of overall ECE program quality, specific dimensions of care quality, and child developmental outcomes are positively linked with teachers who have more education and training as well as specialized preparation in early childhood development. This relationship has been found for both center-based care and family child care homes and for programs serving children across the 0–5 age range. Moreover, proven early childhood programs that have demonstrated shorter- and longer-term benefits for participating children all employ lead teachers with a bachelor's degree or higher and specialized ECE training.
- More recently, several large-scale observational studies have called into question the strength of the relationship between teacher education level or degree field and classroom quality and child outcomes, at least for center-based preschool programs. While there may be several explanations for the lack of consistency in the expected relationship in these recent analyses, one implication is that requiring the ECE workforce to attain a particular degree or credential—without attention to the content and quality of the degree program or the context of the ECE

environment that can support or hinder effective practice—will not ensure that classroom quality will be enhanced or that child developmental outcomes will be maximized. Instead, these findings point to the importance of ensuring that degree programs provide ECE educators with the required skills and competencies to be successful in their work with young children and that the work environment provides the needed supports to allow practitioners to be effective in their practice.

- Most research to date has focused on the contribution of education in terms of degrees attained and/or field of study. Less attention has been paid to the effect of training in general—much less accounting for the nature of the training (e.g., setting, pedagogical approach, intensity, quality) and training content—on teacher effectiveness. In order to improve on prior research, several recent efforts are studying the effectiveness of professional development models using randomized trials. Many of these models have been classified as relationship-based professional development (RBPD), a rubric that includes such strategies as mentoring, coaching, consultation, technical assistance, and apprenticeships. Given that recent experiments concerning professional development models have often been conducted with well-educated teachers in center-based settings, the generalizability of the findings to other early care and learning settings and the full diversity of caretakers and teachers is unknown. In addition, few of these more rigorous studies have yet to measure the effects on child developmental outcomes.
- In addition to evaluations of specific RBPD models, syntheses of the larger body of research suggest that ECE professional development programs are more likely to be effective when (1) there are specific and articulated objectives; (2) there is an explicit link between knowledge and practice; (3) professional development occurs collectively, with teachers in the same classrooms or schools participating together; (4) the intensity and duration of the professional development activities are consistent with the content; (5) educators know how to use child assessments and interpret the findings to guide their professional practice; and (6) the professional development activities are aligned with the organizational context and with existing state or local early learning standards.
- These inferences rest on an evidence base that is far from rigorous. Thus, ongoing research is aimed at refining some of these hypotheses about effective practice, such as determining the relationship of practice and child outcomes with the intensity of professional development activities, the timing and sequencing of training and practice components, and the practitioner's level of formal education or the stage of her career. Ongoing research also aims to fill the even greater gap in knowledge about effective approaches to professional development with providers in home-based settings, as well as those providers serving infants and toddlers and culturally and linguistically diverse groups of children.

- Research is also directed toward advancing the quality of ECE teacher preparation programs. In this area, attention has shifted from defining quality primarily in terms of *input-based criteria* (e.g., hours of class time or course credits in specific areas) to also capturing *results-* or *output-based criteria* (e.g., graduating students who demonstrate the required competencies, knowledge, and skills). In addition, there is a recognition that the nature of the input mix in teacher preparation programs needs to shift toward greater emphasis on such components as child development and the implications for pedagogy, building partnerships with families from diverse backgrounds, and earlier clinical experiences provided by qualified teacher educators. Accreditation of higher education programs is viewed as one mechanism for quality control, although the link between program accreditation through existing bodies and more effective classroom practices on the part of program graduates or better child outcomes remains to be verified.

Although several different frameworks exist for defining an effective ECE workforce PDS, core elements present in state systems include the following:

- **Alignment of ECE System Components.** As states have developed their PDSs, a key focus has been to bring into alignment the “four Cs”: competencies, career pathways (also called ladders or lattices), credentials, and the curriculum for ECE higher education and training. Although researchers have built conceptual models for integrating these and other PDS infrastructure elements, there is little research as to how best to create effective linkages. Moreover, there is great diversity across the states in their defined competencies and how those competencies are then mapped into career pathways and credentials, although they tend to share a focus on the adoption of career pathways and credentials that emphasize degrees or certification.
- **Access and Outreach.** Various methods are being employed to promote greater access to professional development opportunities, especially among underrepresented groups. These strategies include instituting cohort models (in which a small group of individuals with similar backgrounds and interests pursues a higher education degree program together) and dedicated counseling for postsecondary degree attainment, providing credit-bearing courses in community settings in collaboration with higher education institutions, offering courses at night and on weekends, and implementing distance-learning options. Technology-mediated learning is also gaining currency in the ECE professional development field, although these strategies are so new that they have not been widely adopted in statewide systems.
- **Data Systems and Quality Assurance.** Data systems support the monitoring and evaluation of PDS inputs and outcomes. More than half the states have implemented an ECE professional registry. Registries are used to track and vali-

date the education and training of the ECE workforce, improve access to education and training resources, enhance the recognition and status of the workforce, and track other relevant data on the workforce.

- **Financial Incentives and Financing.** Given the relatively low compensation of the ECE workforce, nearly all states incorporate some form of scholarships or stipends to support ECE staff in seeking out professional development opportunities; some also have mechanisms to raise compensation, at least in the short-term (e.g., retention bonuses, salary supplements) to retain those who advance their knowledge and skills. Evaluations of these types of financial incentives show, depending on the nature of the incentives, evidence of increased enrollment in higher education coursework and degrees earned, higher compensation, and greater retention in the field. The research to date, however, has not identified the relationship between the size of the financial incentives and participation rates or other outcomes. In terms of financing, states have used a variety of public and private funding streams to design, plan, create, and implement their ECE workforce PDSs.

## Avenues for ECE Professional Development in California

Unlike K–12 educators, who must have a bachelor’s degree to obtain a teaching credential, many members of the California ECE workforce enter the field before obtaining a higher education degree or even undertaking postsecondary credit-bearing coursework. Indeed, California Title 22 ECE licensing regulations do not require a postsecondary degree for lead teachers or providers in center-based settings and licensed family child care homes that serve children from birth to age five. The same is true for California’s Title 5 child development programs (including the California State Preschool program). Only the federal Head Start program has begun to require an associate or bachelor’s degree for lead classroom teachers.

Professional development for the ECE workforce in California may take place through two primary mechanisms: (1) *education*, defined as those professional development activities that occur within a formal education system (e.g., credit-bearing courses in a public or private postsecondary institution that could lead to a degree); and (2) *training*, consisting of those professional development activities offered by public and private providers that occur outside of the formal education system (e.g., workshops, seminars, coaching, technical assistance, or other activities that do not lead to a degree).

The bulk of the postsecondary education in the ECE field in California takes place at public institutions: either the 103 California Community Colleges (CCC) system campuses that offer courses of study related to child development or ECE or the 19 California State University (CSU) campuses with ECE programs. The CCC

programs granted about 6,500 awards in 2009–10, with roughly 1,800 being associate degrees and the remainder consisting of several types of certificates. However, we do not know how many of those receiving ECE associate degrees are currently in the ECE workforce or plan to enter the workforce.

The CSU programs produced about 1,600 bachelor's degrees in 2008–09. The structure of the CSU bachelor's degree programs with an emphasis on young children is extremely varied. Programs are represented in 11 different college configurations, and 11 different degree names are associated with either a bachelor of arts (BA) or bachelor of science (BS). Most of these programs are more focused on early elementary education (kindergarten to third grade), as opposed to early education prior to kindergarten. Just seven of the programs explicitly emphasize preparing teachers for work with young children and align their coursework with the California Child Development Permit (CDP) matrix.

The public-sector investment in the California ECE workforce extends to a diverse array of programs designed to improve the quality of care for children from birth to kindergarten entry in both licensed and license-exempt settings. Our inventory of these workforce investment activities in California shows that over \$74 million in federal, state, and local funding as of SFY 2009–10 was used to support ECE workforce professional development activities. These activities included the following:

- **Direct investments, such as the provision of education and training courses and other professional development activities.** This set of programs serves to increase the supply of education and training opportunities available to the ECE workforce or potential new recruits and shapes the content of those offerings. The programs provide formal and informal education and training opportunities (e.g., degree programs, courses, workshops, and seminars). About \$16 million was devoted to programs that incorporated these activities in SFY 2009–10.
- **Financial incentives designed to support further professional development and retain qualified workforce members.** This second set of programs offers financial incentives, such as scholarships, stipends, or other mechanisms, directly to the ECE workforce, thereby effectively increasing the demand for professional development opportunities and potentially increasing retention in the field. Programs with financial incentives consumed the bulk of the workforce professional development resources, about \$54 million in SFY 2009–10.
- **Indirect investments in the workforce, through efforts to raise the quality of the education and training programs themselves, by investing in the educators, curricula, or other materials.** This third set of programs seeks to shape the content of existing education and training programs and other professional development supports and/or raise their quality by training those who deliver the content, who themselves may be members of the ECE workforce. The remain-

ing \$3 million in SFY 2009–10 funding supported programs that offered these “train-the-trainers” activities.

In addition to these formal education and training programs in the ECE field, there is an array of informal ECE training opportunities made available at the local level by local resource and referral (R&R) agencies, local child care and development planning councils (LPCs), and county First 5 commissions. These are often less-intensive training programs (e.g., lasting a few hours or days); they are generally not coordinated across localities.

## What We Know from California’s ECE Workforce PDS

We next summarize our findings with respect to the two key study questions.

### California Has Taken Steps to Improve the Effectiveness of the ECE Workforce PDS, but Further Advances Are Needed

Like other states, California has recently published its Early Childhood Educator Competencies, which define the knowledge, skills, and dispositions that educators need to support the learning of children from birth to five. These professional requirements are derived from research evidence regarding what ECE professionals need to *understand* and what they need to be able to *do* to best support the development of the young children they interact with. However, information on the competencies of the ECE workforce is not collected in aggregate or for representative samples to know if the state’s requirements are being met.

Although we do not have direct information on the knowledge and skills of the ECE workforce to compare with the desired competencies, evidence about the quality of care that children receive provides an indirect way of inferring whether the current workforce meets the state’s objectives in terms of workforce competencies. This available research indicates that there is room for improvement:

- Evidence for preschool-age children in center settings, based on results from the Classroom Assessment Scoring System (CLASS) collected as part of the 2007 RAND California Preschool Study, shows both favorable and unfavorable results. Center-based caregivers scored relatively high on average in terms of providing a well-managed environment for learning and being emotionally supportive and engaging. However, they scored poorly on average in terms of promoting higher-order thinking skills, providing quality feedback, and developing students’ language skills.
- The ability to work with dual language learners is a key competency, especially for providers in California, where more than half of all children under age six are either first- or second-generation immigrants. Data from the 2007 RAND study

show that no more than 40 percent of children in center-based settings had a lead teacher with at least 1 noncredit hour of relevant training. The share was somewhat lower when the metric was at least one college credit on the subject of dual language learners, and the share fell further for more-extensive training. Even fewer providers in licensed family child care homes had such training, according to data collected in 2004.

- What little evidence we have suggests that care quality is probably no higher, and likely somewhat lower, in home-based settings compared with center-based settings, and that the same is true for care of infants and toddlers compared with care for preschool-age children.

Some of the shortfalls in the quality of observed teacher-child interactions may result from gaps in other structural features of the ECE environment that limit the ability of the ECE workforce to fully exploit their capacity for high-quality care. These barriers can include suboptimal group sizes and adult-child ratios, limits on curricula and other instructional materials, low levels of compensation, substandard working conditions, lack of paid preparation time, limited professional development opportunities, high turnover, and so on.

Recognizing these gaps in the knowledge and skills of its ECE workforce, California has taken steps to implement components that are part of comprehensive PDSs in other states. These actions include

- establishing early childhood workforce competencies that are aligned with the state's early learning standards, the curriculum frameworks used in ECE classrooms, and the child development assessment system
- addressing concerns regarding alignment and articulation within and across the CCCs and CSUs through the CCC ECE Curriculum Alignment Project (CAP) and corresponding articulation agreements with the CSUs in support of upper-division work
- developing an eight-course lower-division core curriculum as part of CAP, to be adopted across the CCC campuses, that responds to issues identified in prior studies, such as the need to integrate knowledge of child development with knowledge about subject-matter pedagogy, the need for effective field placements, and the need for courses on dual language learners and on working with families from diverse backgrounds
- providing a leading example of using the cohort model to promote postsecondary degree attainment among a diverse student body, with promising evidence from an ongoing evaluation of the benefits of this approach
- employing financial incentives as part of the state's workforce investment programs to support professional development activities.

However, the California system has yet to fully realize the potential from these infrastructure components, and other important elements are absent.

- With the components currently in place, such as California’s CDP matrix (which has not been aligned with other system elements), the ECE workforce requirements emphasize lower-division coursework without assurance that the education and training requirements adequately prepare members of the ECE workforce.
- In the absence of more-recent systematic assessments, concerns identified in prior research regarding aspects of quality in ECE higher education remain, including a lack of diversity among faculty, a reliance on part-time adjuncts, limited knowledge on the part of faculty of recent developments in the ECE field and how to teach adult learners, and a lack of recent (if any) experience in ECE classrooms. Although CCCs and CSUs undergo accreditation by the Western Association of Schools and Colleges (WASC), none of the CCC programs in ECE have been accredited through the more specialized accreditation offered by the National Association for the Education of Young Children (NAEYC), and no bachelor’s degree programs specific to children ages 0–5 have undergone NAEYC accreditation.
- The same issue of emphasizing participation over impact applies to the array of workforce investment activities, many of which do not necessarily draw on proven models or are rigorously evaluated as new models. These issues also apply to the local informal training opportunities where there are no standards for program content and the competencies of the trainers.
- Among the missing ingredients employed in other states is a workforce registry, now in the early planning stages in California, which can support both monitoring and evaluation of the state PDS.
- In light of these limitations, some of the recommendations discussed in the next section are designed to build from the existing system—making better use of the PDS components already in place and introducing key missing components—with the ultimate goal of producing a workforce that is effective in its delivery of care and early learning services to children from birth to five.

### **Information Gaps Limit Our Ability to Identify Inefficiencies in the Current ECE Workforce PDS**

In terms of the second research question, this study documents that substantial public resources are invested in ECE workforce professional development in California, yet the lack of data for monitoring and evaluation limits the options for evidence-based decisionmaking regarding how best to advance the professional development of the ECE workforce.



- Data gaps limit our understanding of the dynamics of the education and professional development activities of the ECE workforce. In addition to the lack of accurate, comprehensive statistics on ECE postsecondary enrollments and degrees and the characteristics of participating students, California does not have the data systems to track members of the ECE workforce in terms of preservice education or degrees; enrollments and degrees attained while working in the field; and subsequent participation, performance, and retention in the ECE workforce.
- We know relatively little about whether the ECE teacher preparation programs in California's public and private institutions of higher education provide students and graduates with the core competencies needed to deliver high-quality ECE services in their work with children as caregivers, teachers, or administrators.
- California lacks the data to determine if the current capacity of the higher education system in the ECE field is sufficient to support an increase over time in the educational attainment of the ECE workforce.
- There is also little information as to whether the more than \$70 million in annual federal, state, and local funding devoted to ECE workforce professional development programs is being put to its most effective use in terms of improving the competencies of caregivers, teachers, and administrators; increasing retention in the ECE field; and enhancing child development. Remarkably, existing data preclude generating accurate counts of how many individuals participate in any of these workforce professional development programs and who participates in multiple programs. With a few exceptions, most evaluations to date have focused on measuring process and program activities rather than on the effects the programs have on workforce competencies, retention, or child developmental outcomes. Even less is known about participation and outcomes for the local informal training available to the ECE workforce.

More generally, current data systems and research do not provide the information needed to understand which segments of the ECE workforce benefit from the public-sector investments in education and training and whether the resources spent actually achieve the objective of advancing the effectiveness of the ECE workforce. Do the public investments in the ECE workforce reach the full range of ECE practitioners in terms of demographic characteristics, ECE experience, and provider settings or are the resources concentrated among certain segments of the workforce? Does completion of postsecondary coursework, attainment of an associate or bachelor's degree, or participation in publicly supported professional development activities lead to improved knowledge and practice, higher-quality care and learning environments, or better child developmental outcomes? What are the costs associated with different approaches to advancing the skills and competencies of the ECE workforce relative to the return in terms of improved practice and improvements in child development? Without answers

to these questions, it is not possible to definitely assess the efficiency of the current system.

A number of the recommendations that follow in the next section are designed to address these information gaps and thereby support more-informed policymaking in the future.

## **Recommendations for California’s ECE Workforce Professional Development System**

Given various efforts in recent years to improve the quality of ECE in the state, California has many of the elements needed for an effective ECE workforce PDS. With the addition of several missing components and better integration and alignment of existing elements, California can advance its system. Our recommendations, shown in Table S.1, are organized by the three areas of focus in the body of the report: the ECE workforce, education and training providers who provide postsecondary workforce professional development, and public-sector workforce investment dollars. However, we can also view the recommendations in terms of two broad goals: improving the ability of the PDS to prepare and support an effective ECE workforce and making better use of existing resources. Given the state’s current fiscal crisis, we focus first on recommendations designed to make better use of existing resources.

### **Make Better Use of Existing Resources**

As discussed above, California already invests significant resources in its ECE workforce PDS, primarily through higher education of the ECE workforce at public postsecondary institutions and through the workforce investment programs funded through various federal, state, and local sources. Several of the recommendations are designed to ensure that those resources are employed as effectively as possible. These include the following:

- Implement an ECE workforce registry, ideally for all members of the ECE workforce, to track participation in postsecondary education and workforce investment programs and to assess the implications for professional competencies attained and other workforce outcomes such as retention in the field (recommendations EW 1 and WI 1).
- Continue the alignment and articulation of the ECE curriculum within and across the CCCs and CSUs and with other components of the workforce PDS; evaluate existing programs to ensure that individuals who pursue higher education will acquire the needed competencies to be successful in their work with young children (i.e., birth to kindergarten entry) (recommendation ET 1).

**Table S.1**  
**Summary of Policy Recommendations by Domain**

Domain	Recommendation
ECE workforce	EW 1 Implement an ECE workforce registry, inclusive of all members of the workforce, to identify who is in the field, their demographic characteristics, their educational and professional development experiences and credentials, and their employment history; support linking registry to a database of ECE programs to identify the context in which people are working
	EW 2 Develop a well-defined ECE career pathway (career ladder) and associated credentials aligned with the early educator competencies, the postsecondary education and training programs, and potential or actual QRIS (including the potential reintroduction of a Preschool–3 teaching credential)
	EW 3 Drawing on proven models, address need for financial supports for practitioners to pursue additional education and professional development through either the workforce investment programs or the QRIS if one is implemented
	EW 4 Through QRIS or other mechanisms, address other barriers to attaining high-quality care with fully competent providers (e.g., deficiencies in curricula or classroom materials, lack of paid preparation time, inadequate support for ongoing professional development, lack of a collaborative learning environment, high turnover, low compensation)
Education and training providers	ET 1 Continue the process of alignment and articulation of the ECE curriculum within and across the CCCs and CSU system, as well as alignment with the early educator competencies and career ladder; evaluate the effectiveness of higher education programs in promoting required ECE competencies
	ET 2 Continue to address gaps in higher education program capacity, course offerings, opportunities for practicums, and faculty quality and diversity
	ET 3 Phase in specialized accreditation for ECE AA and BA programs
	ET 4 Implement approaches to better serve the diverse needs of the current and potential ECE workforce seeking to advance their professional development; draw on proven models, including the use of cohort models, dedicated counseling, and technology-mediated professional development
	ET 5 Develop competencies for ECE teacher educators, trainers, mentors, coaches, resource and referral personnel, and staff in other organizations who support the professional development of the ECE workforce
Workforce investment dollars	WI 1 Collect the required information through the workforce registry to track workforce investment program participants and their outcomes (e.g., retention)
	WI 2 Institute a more rigorous program of evaluation for funded programs, including measurement of effects on participant competencies, quality of care provided, retention in the ECE field, and child developmental outcomes, and how those impacts are mediated by the work environment
	WI 3 Streamline and align the set of programs in light of evidence of program effectiveness and other system changes (e.g., ECE competencies, career ladder and credentialing, potential QRIS)

SOURCE: Author's analysis.

NOTES: AA = associate degree; BA = bachelor's degree; QRIS = quality rating and improvement system.

- Institute a more rigorous evaluation program for the workforce investment activities and use that information to streamline and align the programs that continue to be funded in light of evidence on program effectiveness (recommendations WI 2 and WI 3).

### **Improve the Ability of the PDS to Prepare and Support the ECE Workforce**

The discussion above has highlighted ways in which there is room for improving the effectiveness of the workforce that serves children from birth to kindergarten entry. These areas include advancing the skills of the workforce, particularly in such key areas as providing the types of instructional support that promote children's early learning and knowing how to effectively work with dual language learners. The remaining recommendations are therefore crafted to build and sustain a system in which the ECE workforce is well prepared, through both education and training, and provided with ongoing professional support, to ensure that children receive the developmental benefits associated with a high-quality ECE system. These recommendations include the following:

- Develop a well-defined system that covers an ECE career pathway (career ladder) and associated credentials, all aligned with the early educator competencies, the postsecondary training programs, and potential or actual QRIS (EW 2).
- Address the need for financial incentives for ECE providers to pursue additional education and professional development and sufficient compensation to retain them in the field, drawing on proven models where possible, through either the workforce investment programs or the QRIS if one is implemented (recommendation EW 3).
- Address other barriers, through a QRIS or other mechanisms, to delivering high-quality care and early learning with fully competent providers—for example, gaps in curricula or classroom materials, missing workplace supports, such as paid preparation time, support for ongoing professional development opportunities, provision of a collaborative learning environment, or other shortfalls in ECE program quality (recommendation EW 4).
- Improve the quality of teacher preparation programs by addressing any remaining gaps in specific program features (e.g., capacity, course offerings, course content, opportunities for practicum, and faculty quality and diversity) and by phasing in specialized accreditation for associate and bachelor's degree ECE programs (recommendations ET 2 and ET 3).
- Implement approaches for better serving the diverse needs of the current and potential ECE workforce, drawing on such proven models as the use of cohort or other peer models, dedicated counseling, and technology-mediated professional development (recommendation ET 4).

- Improve the quality of ECE education and training programs by developing competencies for teacher educators, trainers, mentors, coaches, and others who support the professional development of the ECE workforce (ET 5).

In advancing the ECE workforce PDS in California, we expect that the recommendations in Table S.1 can be pursued in a coordinated fashion by California's Early Learning Advisory Council (ELAC), together with the other stakeholders in the system. In many respects, the recommendations in Table S.1 are interdependent, so that implementing some without the others may not achieve the overall objective of improving the effectiveness of the ECE workforce PDS. For example, more-rigorous evaluation of workforce investment programs (WI 1) will benefit from the information obtained through the workforce registry (EW 1). Failure to address financial supports for practitioners who pursue further education and training (EW 3) would likely limit the extent to which practitioners would benefit from a well-defined career pathway and credentials (EW 2). Without addressing workplace barriers to high-quality care on the part of qualified providers (EW 4), the benefits from further investments in the quality of the postsecondary teacher preparation programs (ET 1, ET 2, ET 3, and ET 5) and workforce professional development programs (WI 3) may not be realized. Thus, a comprehensive approach, as outlined in the complete set of Table S.1 recommendations, is required to advance the PDS and realize the benefits for children participating in care and early learning programs.

In several cases, the recommendations involve the continuation of activities that are already under way, such as the integration of an ECE career pathway into a proposed California QRIS (EW 2) and the alignment and articulation of the ECE curriculum within the CCCs and CSUs (ET 1). In other cases, statewide efforts can build upon models already developed and implemented at the county level, such as the planned pilot registry involving several California counties (EW 1). The ELAC can also ensure that the ECE workforce professional development strategies are aligned with the state's K–12 system, including the new transitional kindergarten (TK) program established by the 2010 Kindergarten Readiness Act.

Given the tight fiscal constraints currently facing California, it is important to note that implementing many of the recommendations in Table S.1 will not necessarily require a significant infusion of new resources. For example, adopting a more rigorous approach to evaluating workforce investment programs (WI 2) could be accomplished by setting aside a modest fraction of current program spending for research and evaluation. The findings from the resulting evaluation could then be used to redirect funding away from less-effective programs toward those that are found to be more effective, where effectiveness may be defined in terms of the program impacts on such outcomes as caregiver or teacher competencies, the quality of care and early learning provided, caregiver or teacher retention in the field, or child developmental outcomes. If information on program costs is collected as part of the evaluation, resource allocation

decisions can be made that take cost-effectiveness into account. And if new resources become available, information on program cost-effectiveness can be used to direct the new funding to the programs where they will generate the most benefit per dollar spent. While other recommendations in Table S.1 may require some additional new resources, the goal of the recommendations is to ensure that existing resources are used efficiently to support an effective ECE workforce that prepares California's youngest children for success in school and beyond.

## Acknowledgments

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I am indebted to Meera Mani, my program officer from the Packard Foundation, for the guidance she provided to this project from start to finish. I also appreciate the input provided by other staff at the Foundation, including Lois Salisbury and Aaron Jiron. I am grateful, as well, for supplemental funding provided by the Buffett Early Childhood Fund.

I especially appreciate the willingness of various individuals from state and local government agencies and higher education institutions to provide data and other information in support of this study. Cecilia Fisher-Dahms and Nancy Remley from the Child Development Division at the California Department of Education and Lucy Berger at the California Community Colleges system deserve special mention in this regard. Deanna Gomby also helped to shape the approach to the project early in the course of the study. Valuable comments on an earlier draft were also provided by Joel Gordon at Santa Rosa Junior College, Florence Nelson at Zero to Three, Mary Jane Maguire-Fong at American River College, and George Philipp at WestEd.

This study would not have been possible without the numerous contributions throughout the course of this project from Marcy Whitebook and Fran Kipnis at the Center for the Study of Child Care Employment at the University of California, Berkeley. Together, they generously provided information specifically assembled for this study, as well as for other Center projects, with able assistance from Center staff Mirella Almaraz and Tara Wilson. The information they gathered includes the characteristics of students in higher education in the ECE field (Chapter Five), the structure of ECE higher education programs in the state (Chapter Five and Appendix B), the features of publicly funded professional development programs focused on the ECE workforce (Chapter Six), and the set of ECE workforce training programs offered at the local level (Chapter Six and Appendix C). Furthermore, they helped me understand other features of the ECE workforce professional development system in California and other states, as well as the research literature on education and professional development for the ECE workforce. Their influence on this project is further reflected in the numerous citations throughout the study to the Center's work on issues related to the ECE workforce. They also provided extensive comments on earlier drafts, which

served to substantially improve the accuracy and clarity of the prose. Needless to say, I take responsibility for all inferences drawn from the assembled data and literature.

Finally, among my RAND colleagues, Gail Zellman offered helpful comments on an earlier draft, and Adria Jewell provided skilled programming assistance.

The RAND Labor and Population review process employs anonymous peer reviewers, including at least one reviewer who is external to RAND. For this report, I benefited from the thorough and constructive reviews of two anonymous reviewers.



## Abbreviations

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AA	Associate of Arts
AB	Assembly Bill
ACF	Administration for Children and Families
AP	Alternative Payment
API	Academic Performance Index
ARRA	American Recovery and Reinvestment Act of 2009
AS	Associate of Science
BA	Bachelor of Arts
BLS	Bureau of Labor Statistics
BPECE	Baccalaureate Pathways in Early Care and Education
BS	Bachelor of Science
CAELQIS	California Early Learning Quality Improvement System
CALTIDES	California Longitudinal Teacher Information Data Education System
CalWORKs	California Work Opportunity and Responsibility to Kids
CAP	Curriculum Alignment Project
CARES	Comprehensive Approaches to Raising Educational Standards (First 5)
CARES	Compensation and Retention Encourage Stability (AB 212)
CBEST	California Basic Educational Skills Test
CCC	California Community Colleges (System)
CCCR&RN	California Child Care Resource and Referral Network
CCD	Child Care and Development (program)
CCDBG	Child Care and Development Block Grant
CCDF	Child Care and Development Fund

CCIP	Child Care Initiative Project
CCSESA	California County Superintendents Educational Services Association
CD	child development
CDA	Child Development Associate (credential)
CDC	Child Development Careers
CDD	Child Development Division
CDE	California Department of Education
CDP	Child Development Permit
CDSS	California Department of Social Services
CDTC	Child Development Training Consortium
CECMP	California Early Childhood Mentor Program
CECT	California Exempt Care Training
CLASS	Classroom Assessment Scoring System
CLI	Children's Learning Institute
CPIN	California Preschool Instructional Network
CSU	California State University (System)
CTC	Commission on Teacher Credentialing
DHHS	Department of Health and Human Services
ECE	early care and education
ECCRN	Early Child Care Research Network
ECERS	Early Childhood Environment Rating Scale
ELAC	Early Learning Advisory Council
ELL	English language learner
ESL	English as a Second Language
FCC	family child care
FCCB	Family Child Care at Its Best
FCCH	family child care home
FDCRS	Family Day Care Rating Scale
FIP	Faculty Initiative Project
FTES	full-time-equivalent student

GED	General Educational Development (certificate)
ITERS	Infant/Toddler Environment Rating Scale
LPC	local (child care and development) planning council
MRTQ	Maine Roads to Quality
MTP	MyTeachingPartner
NACCRRA	National Association of Child Care Resource and Referral Agencies
NAEYC	National Association for the Education of Young Children
NARA	National Association for Regulatory Administration
NCATE	National Council for Accreditation of Teacher Education
NCCIC	National Child Care Information and Technical Assistance Center
NICHD	National Institute of Child Health and Human Development
PBS	Public Broadcasting System
PDA	personal digital assistant
PDS	professional development system
PFA	Preschool for All
PGA	Professional Growth Advisor
PITC	Program for Infant Toddler Care
QRIS	quality rating and improvement system
QUINCE	Quality Interventions in Early Care and Intervention
R&R	resource and referral
RBPD	relationship-based professional development
SB	Senate Bill
SFY	state fiscal year
STAR	Student Transfer Achievement Reform (Act)
TANF	Temporary Assistance for Needy Families
T.E.A.C.H.	Teacher Education and Compensation Helps
TEEM	Texas Early Education Model
TK	transitional kindergarten
TNRA	The National Registry Alliance

TSR

Texas School Ready!

UC

University of California

WASC

Western Association of Schools and Colleges

## Introduction

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As California policymakers and the public continue to focus on the availability and quality of early care and education (ECE) programs in the state, an important area to address is the effectiveness of the state's ECE workforce professional development system (PDS). The ECE workforce PDS is multifaceted. The system includes those institutions that provide education and ongoing professional development for the caregivers, teachers, and administrators who provide care and early education services to children from birth to kindergarten entry. It encompasses the public resources and the associated programs that support workforce professional development activities. The system also includes other infrastructure elements, such as the required credentials for ECE providers and associated career pathways, the curricula that ensure that trainees obtain the required competencies to be effective in their work with children, and the information systems that are used to track how public-sector supports are used and their effects on desired outcomes.

The goal of this study is to address two key questions related to the effectiveness of the ECE workforce PDS in California:

- Does California's PDS prepare its ECE workforce well and provide ongoing supports to ensure that children receive the developmental benefits associated with a high-quality ECE system?
- Are the public resources that support the ECE workforce PDS in California used to the maximum benefit?

In addressing these two questions, the study focuses on the workforce PDS in California as it promotes the preservice education and training of providers (alternatively referred to as caregivers or teachers), their ongoing professional development, as well as that of the program administrators (e.g., center directors), who work with infants, toddlers, and preschool-age children, i.e., children from birth to kindergarten entry. The study primarily considers the system as it applies to providers who work in the formal ECE system, that is, providers in center-based settings and licensed family child care homes, who would typically be considered core professionals in the ECE

workforce.<sup>1</sup> However, we give some consideration, as well, to workforce professional development for those who provide license-exempt care—particularly those who provide subsidized care—even though these providers are often temporarily engaged in providing child care services for a relative (e.g., a grandchild) or for a child of a friend or neighbor and have not made a longer-term commitment to the field.

For the most part, this study does not consider the professional development of the broader workforce that might be considered part of the “ECE enterprise,” such as those who provide support services within ECE programs but do not directly work with children or those employed by infrastructure organizations (e.g., resource and referral agencies). Although it is not a primary focus, we do consider, to some extent, workforce development issues for the professionals who prepare the ECE workforce through institutions of higher education, training programs, and other professional development activities.

## Study Approach

To address the two questions of interest, the study provides a comprehensive synthesis of what is and is not known about key dimensions of the ECE workforce PDS in California and the resulting outcomes. Specifically, we have assembled evidence regarding the nature of the existing workforce preparation programs and ongoing professional supports, the public resources devoted to these system elements, and the effectiveness of the current ECE workforce and of the workforce training and professional development programs. The issues examined include the following:

- What workforce competencies are needed for the current ECE system to deliver high-quality ECE services to California’s children from birth to five? What is the current capacity of the ECE workforce vis-à-vis the required competencies?
- What public and private entities provide workforce professional development services, including preservice education and training, and ongoing professional development? Is the system well integrated and articulated across different types of education and training institutions?
- What federal, state, and local funding streams provide resources to support the initial education and training and the ongoing professional development of the

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<sup>1</sup> Under California’s Title 22 licensing code, administered by the Community Care Licensing Division of the California Department of Social Services (CDSS), center-based programs caring for children in a group, with some exceptions, are required to be licensed. Those who provide regular care in their own home for children from more than one unrelated family must also be licensed under Title 22 and are classified as either small or large family child care homes. Those who provide care in the child’s own home or in their own home to children from at most one unrelated family, possibly in addition to their own children, are exempt from Title 22 licensing. Relatives providing care to a child are also exempt. For further detail, see Karoly, Reardon, and Cho, 2007a.

ECE workforce, and what are the constraints on how those resources are used? Who is eligible for such programs and who participates?

- Is there evidence of the effectiveness of other programs or workforce professional development approaches implemented outside of California?
- How effective is the existing workforce PDS in terms of increasing the number of credentials given and preparing the ECE workforce to deliver high-quality services? What should be the structure of an ECE workforce PDS for California?

Our analysis draws on various sources of information about ECE in California and the state's current workforce PDS, including administrative reports and other sources of publicly available data on program funding, requirements, participation, and outcomes. We also consider research evidence regarding effective systems and other elements of best practice, including examples from other states. Given that there is often a lag in available data, the information primarily reflects California's ECE system prior to the Great Recession, which began in December 2007. This is notably the case for statewide measures of ECE participation rates and of the ECE workforce size and composition. These indicators were last collected in one-time or periodic surveys conducted between 2004 and 2007 and would likely have changed with the economic downturn. The study relies on data on enrollments in subsidized ECE programs and public funding for ECE professional development programs as late as state fiscal year (SFY) 2009–10, but these figures are not necessarily stable given the prospect for future budget cuts as a result of the state's ongoing fiscal crisis.

In the remainder of this introductory chapter, we provide important contextual information for readers not as familiar with ECE workforce PDSs or the California context. First, we provide an overview of ECE workforce PDSs as they are being developed across the United States and by reviewing how professional development in the ECE field differs from that in K–12 education. Next, we briefly summarize key features of ECE in California in terms of the use of ECE by families, the types of ECE providers and workforce members, the institutions that provide ECE education and training, the array of publicly provided ECE programs and the associated public-sector agencies that administer them, and elements of the ECE PDS infrastructure. We also provide key statistics of the size and make-up of the California ECE workforce. Readers familiar with this background material may choose to proceed directly to the road-map for the remainder of the monograph at the end of this chapter.

## **ECE Workforce Professional Development Systems**

With growing public-sector investments in ECE programs at the federal level (e.g., Early Head Start, Head Start, the Child Care and Development Fund) and the state level (e.g., state prekindergarten programs), policymakers have recognized the need

for well-designed PDSs to support the ECE workforce (LeMoine, 2008). Investments in the size and effectiveness of the ECE workforce ensure that families can access high-quality care and early learning environments for their infants, toddlers, and pre-school-age children. Given the growing evidence of the returns from high-quality ECE programs in terms of child development and school readiness (Karloly, Kilburn, and Cannon, 2005), such investments in an effective ECE workforce also ensure that the public dollars that support ECE services will achieve their expected benefits.

### Frameworks for ECE Workforce Professional Development Systems

In support of these efforts, several organizations have defined the core elements that constitute a well-designed system. Table 1.1 lists the defining elements for three such frameworks—the template that the Administration for Children and Families (ACF) of the U.S. Department of Health and Human Services (DHHS) requires states to complete as part of their biennial Child Care and Development Fund (CCDF) Plan; the National Association for the Education of Young Children (NAEYC) framework; and the blueprint developed by the National Child Care Information and Technical Assistance Center (NCCIC)—to illustrate the range of approaches that are available to system designers. Each of these frameworks in some way incorporates four key system elements:

- *competencies, credentials, and a career ladder* to define what ECE professionals are required to know, how they demonstrate that knowledge, and how they advance professionally; *alignment* and *articulation* across PDS elements and the rest of the ECE system to ensure integration, consistency, continuity, and efficiency
- *outreach* and *access* to professional development opportunities, for both formal education and ongoing training, to ensure a diverse ECE workforce

**Table 1.1**  
**Three Illustrative ECE Workforce Professional Development Frameworks**

DHHS CCDF	NAEYC	NCCIC
Five system elements:	Six essential policy areas:	Five system elements:
Core knowledge and competencies	Professional standards	Core knowledge
Career pathways (or career lattice)	Career pathways	Qualifications, credentials, and pathways
Professional development capacity	Articulation	Access and outreach
Access to professional development	Advisory structure	Quality assurance
Compensation, benefits, and working conditions	Data	Funding
	Financing	

SOURCES: ACF, 2011; LeMoine, 2008; NCCIC, 2009.



- *data systems* and other infrastructure supports to ensure *quality*
- the *financial incentives and financial resources* required to support the system.

Based on these and other related system frameworks, the common features of state systems being developed and implemented include

- a well-specified career ladder with defined research-based competencies and associated credentials at each level
- a well-articulated formal curriculum for ECE postsecondary education coursework and degrees that is aligned with the state's early learning standards, required workforce competencies, career ladder, and quality rating and improvement systems (QRISs)
- other curricula for ongoing professional development and skill upgrading
- methods for outreach and access to the PDS to ensure that the ECE workforce reflects the diversity of the children and families served
- data systems that support the measurement of system inputs and outcomes, including an ECE workforce registry that tracks who is in the workforce, their education and training experience, their place on the career ladder, and their retention in the field
- the use of financial incentives in the form of scholarships or stipends to support additional education and training, as well as retention bonuses or other salary supplements to retain qualified workforce members in the field
- financing through CCDF quality improvement funds, funding from the 2009 American Recovery and Reinvestment Act (ARRA), and other state and local funding streams to support the development and implementation of ECE workforce PDSs.

Terminology is not always consistently used in discussions of PDSs and their associated components. Throughout this study, we adopt the definitions provided by Maxwell, Feild, and Clifford (2006) for three key components of professional development. Specifically, *education* is defined to be those professional development activities that occur within a formal education system (e.g., credit-bearing courses in a postsecondary institution that could lead to a degree). Measures of education may focus on overall attainment (e.g., highest degree or number of credits earned), or the content of the education, such as the major field or field of concentrated coursework. *Training* consists of those professional development activities that occur outside of the formal education system (e.g., workshops, seminars, coaching, technical assistance, or other activities that do not lead to a degree). A *credential*, such as the Child Development Associate (CDA), signifies completion of a course of study and/or practice, where the organization that grants the credential is not necessarily the one that provided the

knowledge acquisition. Other examples of credentials include certificates, licenses, and permits.

### **Differences in Workforce Preparation in ECE Versus K–12 Education**

In framing the ECE workforce PDS, it is worth noting how workforce preparation in ECE differs in several ways from that for K–12 education (see Whitebook, Gomby, et al., 2009a, 2009b). Unlike elementary and secondary school teachers, for whom preservice education and training are the norm and professional development refers to in-service activities, many ECE providers begin caring for children before they have had formal professional development, often as classroom assistants or home-based providers. As they remain in the field and gain on-the-job experience, they may choose to invest further in their skills through noncredit-bearing short courses, workshops, or practicums or through credit-bearing courses and practicums at a community college or four-year college. They may eventually complete the requirements for a CDA credential or take enough courses to complete an associate degree or bachelor's degree, perhaps with a concentration in child development or related ECE field. In California, ECE providers may also seek to advance along the ECE career ladder manifested in the sequence of Child Development Permits, beginning with the Assistant Teacher Permit and continuing through the Program Director Permit (see Appendix A and Table A.1 for details). California currently has no ECE-related teaching credential as part of the regular elementary and secondary teacher credentialing system.<sup>2</sup>

Like teachers in the K–12 system, however, members of the ECE workforce need to continually upgrade their skills and advance their knowledge of new developments in the field. Thus, there is a need for ongoing professional development, even for those who have obtained a postsecondary degree and are progressing along the career ladder. In addition, those who serve as educators and trainers also need to invest in their own professional development, both in their initial preparation to serve as educators or trainers and as part of their ongoing career development. Thus, in addition to pre-service education and training, professional development for the ECE workforce can include

- formal in-service education through credit-bearing courses and associated degrees and practicums (e.g., internships, fieldwork)
- in-service training and other professional development through noncredit courses, seminars, workshops, coaching, and mentoring
- education and training for those who provide formal education
- training of teachers, coaches, mentors, and other professional development support personnel who provide training.

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<sup>2</sup> An early childhood to early elementary credential (preschool to grade 3) was phased out in the 1970s (Bellm et al., 2004).

## Key ECE Stakeholders and Institutions in California

Given the focus of this study on ECE workforce professional development in California, it is useful to start with an understanding of the key features of ECE in California in terms of stakeholders and institutions (see Karoly, Reardon, and Cho, 2007a, for more detail). The five most relevant stakeholder groups are as follows:

- **Families.** Given current birth rates, about 2.8 million California children are younger in any given year than the age at which they would enter kindergarten. During the period from birth to kindergarten entry, survey data show that most California children are cared for by someone other than their parents on a regular basis before they enter kindergarten—starting with just under half of infants and toddlers and reaching 75 to 80 percent of preschool-age children (Karoly, 2012). Low-income or other qualifying families may receive a full or partial subsidy from a publicly funded program (e.g., through programs funded by grants or contracts to such providers as Early Head Start, Head Start, and California’s State Preschool program or through programs that provide vouchers to parents to pay for care such as the Alternative Payment [AP] program). Administrative data for California indicate that, as of 2008, subsidized programs served approximately 5 percent of the state’s infants and toddlers, 18 percent of three-year-olds, and 34 percent of four-year-olds, most in licensed settings (Karoly, 2012). Infants and toddlers were more likely to be in license-exempt settings compared with three- and four-year-olds.
- **ECE Providers.** In California, ECE providers are typically divided into those that are licensed—a group that includes center-based programs as well as family child care homes—and home-based providers who are license-exempt. In California, both licensed and license-exempt providers may receive public subsidies to cover some or all of the costs of providing child care and early learning services to the qualifying families they serve.<sup>3</sup>
- **ECE Workforce.** Licensed centers and licensed family child care homes employ caregivers, teachers, and administrators from what we refer to as the “formal” segment of the ECE workforce. License-exempt providers are essentially both providers and members of the “informal” ECE workforce.
- **ECE Education and Training Providers.** Members of the ECE workforce may take courses in child development, early childhood education, or related topics or may obtain a degree in those fields from institutions of higher education such as one of the California Community Colleges (CCCs), California State Universities (CSUs), or another public or private degree-granting postsecondary institution in the state. California also has other formal and informal professional development

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<sup>3</sup> For additional information on the ECE public-subsidy system in California, see Karoly, Reardon, and Cho, 2007a.

opportunities through workshops, seminars, and other trainings offered by public and private providers.

- **Public-Sector ECE Funders.** Publicly subsidized ECE programs include (1) those funded by federal dollars (e.g., primarily Early Head Start, Head Start, and Title I); (2) those funded by some combination of federal and state dollars but administered by the California Department of Education (CDE) or the California Department of Social Services (e.g., voucher-based child care through CalWORKs [California Work Opportunity and Responsibility to Kids] or non-CalWORKs AP, as well as contracted California Title 5 child development programs, including the State Preschool program and several smaller subsidized programs); and (3) those funded and administered locally (e.g., the Preschool for All programs funded by First 5 California and county First 5 Commissions) (see Karoly, Reardon, and Cho, 2007a, and Karoly, 2012, for details). Of these public agencies, the primary responsibility for the development of a statewide ECE PDS rests with CDE.

Beyond the central stakeholders, the context of ECE workforce development in California includes the following additional key institutional features:

- **Publicly Funded ECE Workforce Professional Development Activities and Supports.** Public dollars from the federal, state, and local level are used to invest in the effectiveness of the ECE workforce through a variety of education, training, and professional development activities and supports. These services are available directly to the members of the ECE workforce, but they are also sometimes directed toward ECE providers or those who provide education and training. These activities are administered through the CDE, First 5 California, and other agencies.
- **Other ECE Workforce PDS Infrastructure and Supports.** The workforce PDS includes other infrastructure elements, typically determined and provided by the public sector, such as educator competencies, credentials and career pathways (also known as *ladders* or *lattices*), early learning standards, and information systems, all of which are designed to support an effective PDS. In California, these supports are primarily provided by the CDE, although several other agencies have purview over some elements (e.g., the California Commission on Teacher Credentialing [CTC] administers the system of Child Development Permits [CDPs] that defines the state's ECE career ladder and credentialing system).<sup>4</sup>

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<sup>4</sup> The child development permits are discussed in more detail in Appendix A.

## Numbers and Characteristics of the ECE Workforce

Before delving into the ECE workforce PDS in California, it is important to have an understanding of the size and makeup of the ECE workforce in the state. Doing so requires drawing on several data sources to ascertain what is known about the workforce's overall numbers, as well as its members' demographic characteristics, educational background, and earnings.<sup>5</sup>

In this section, as in the rest of the monograph, our primary focus is on the formal segment of the ECE workforce, as this group is more likely to consist of those who consider themselves to be employed in the ECE field. Although many license-exempt providers may consider the ECE field their career, this group also includes those who provide care to a particular related or unrelated child that they have a connection with, but they do not intend to remain as a caregiver once that child's family no longer requires their services. However, as detailed in Karoly, Reardon, and Cho (2007a), some license-exempt providers do receive public subsidies, so the public has an interest in the quality of the care they provide and the effectiveness of those members of the ECE workforce. For this reason, we do not exclude members of the informal ECE workforce from our purview.

### ECE Workforce Size and Demographics

Periodic surveys provide a snapshot of the workforce in terms of the number of providers, their demographic makeup, and their education and training background. The most recent of these data collection efforts was the 2004 California Early Care and Education Workforce Study which focused on providers in licensed centers and family child care homes (Whitebook, Sakai, et al., 2006a, 2006b). According to the 2004 study, the state had an estimated 7,000 directors, 45,000 teachers, and 23,000 assistant teachers in licensed center-based programs, and another 37,000 licensed family child care home providers plus the 16,000 to 21,000 assistants they employ—all serving infants, toddlers, and preschool-age children (Whitebook, Sakai, et al., 2006a, 2006b).<sup>6</sup> These figures show that at any given time the formal ECE workforce in California includes nearly 130,000 individuals with varying levels of workforce qualifications in terms of formal and informal education and training.

The 2004 workforce study also sheds light on the demographic composition of the ECE workforce (Whitebook, Sakai, et al., 2006a, 2006b). As expected, the workforce in licensed centers and family child care homes was dominated by women. In center-based settings, directors and lead teachers were predominately white non-Hispanic (63 and 53 percent, respectively), although less so than teachers in the K–12 public educa-

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<sup>5</sup> The lack of a regular source of information about the ECE workforce is a problem at the national level and in most states (Brandon and Martinez-Beck, 2006).

<sup>6</sup> Some 20 percent of the children in licensed family child care homes are in kindergarten or a higher grade (Whitebook, Sakai, et al., 2006b).

tion system (74 percent white non-Hispanic). Assistant teachers, in contrast, were distributed more representatively across the range of race and ethnic groups that make up California's population (e.g., 37 percent white non-Hispanic and 42 percent Latina). Consistent with this pattern, a larger share of assistant teachers were reported to be fluent in at least one other language (typically Spanish), compared with lead teachers or directors (49, 37, and 25 percent, respectively). Providers in family child care homes were also dominated by nonwhites (58 percent, with 35 percent Latina) and were more linguistically diverse than the general population.

There is no comparable survey of license-exempt providers to ascertain their numbers or characteristics. Even counts of license-exempt providers receiving subsidies through the CalWORKs stages or the AP program are not readily available. Unpublished administrative data from CDE for November 2009 indicate that there were nearly 30,000 license-exempt providers serving children up to age 12 who received payments through CalWORKs Stages 2 or 3 or through the non-CalWORKs AP program. With just over 60,000 children in those subsidized programs as of October 2008 (see Karoly, 2012), there is about one license-exempt provider for every two children receiving subsidies. Assuming that this ratio also applies to CalWORKs Stage 1 (which is administered by CDSS and is therefore not included in the CDE administrative data), we estimate that there were about 50,000 subsidized license-exempt providers serving children through age 12 based on the subsidized enrollment figures as of 2008 (see Karoly, 2012).

The 2007 RAND California Preschool Study collected some information on the characteristics of home-based caregivers for the preschool-age children in the sample, of whom 20 percent and 13 percent were regularly cared for in a home-based setting by a relative or nonrelative, respectively (Karoly et al., 2008a). Among children cared for by a relative, about 76 percent of the relatives were grandparents or great-grandparents, and another 21 percent were aunts or uncles. About 35 percent of relative and non-relative caregivers lived in the child's home. The racial and ethnic background of the caregivers was not ascertained in the survey.

### **Education Background of the ECE Workforce**

Again, the 2004 California Early Care and Education Workforce Study is the most current source of information on the various characteristics of the ECE workforce in licensed settings, including their education background (Whitebook, Sakai, et al., 2006a, 2006b). Based on that sample, Table 1.2 provides a summary of the educational attainment of staff—directors, lead teachers, and assistant teachers—in licensed care settings, either centers (panel A) or family child care homes (panel B), that serve children from birth to five. The overall pattern is one in which the educational attainment is higher (1) for those in higher-level positions in center-based programs (i.e., directors over teachers, lead teachers over assistant teachers); (2) for lead teachers in centers versus providers in family child care homes; (3) for center-based teachers in pro-

**Table 1.2**  
**Educational Attainment of ECE Workforce in Licensed Centers and Licensed Family Child Care Homes in California: 2004**

Position	Percentage Distribution						
	High School Diploma or Less	Some College				Associate Degree	Bachelor's Degree
		Total	1–23 ECE Credits	24+ ECE Credits			
<b>A. Licensed Centers</b>							
Director	0.2	18.4	3.3	15.1	26.1	55.3	
Lead teacher	0.3	46.7	16.6	30.1	27.8	25.2	
Centers with infants	0.4	53.3	19.0	34.3	27.0	19.3	
Centers without infants	0.3	42.5	15.0	27.5	28.3	28.9	
Assistant teacher	12.0	68.2	48.8	19.4	12.4	7.4	
Centers with infants	13.4	72.1	54.1	18.0	10.2	4.3	
Centers without infants	11.2	65.6	45.2	20.4	13.8	9.4	
<b>B. Licensed Family Child Care Homes</b>							
Total	28.6	42.8	—	—	14.7	14.0	
Small homes	32.6	41.8	—	—	13.8	11.8	
Large homes	21.2	44.6	—	—	16.3	17.9	

SOURCE: Whitebook, Sakai, et al., 2006a, Table 3.34; and Whitebook, Sakai, et al., 2006b, Figure 3.16.

NOTES: Row percentages may not sum to 100 because of rounding. Dashes indicate that data are not available.

grams with no infant care versus those in centers with infant care; and (4) for licensed family child care providers in large homes versus small homes.<sup>7</sup> For example, fully 55 percent of directors in licensed centers reported having a bachelor's degree versus 25 percent of lead teachers and 7 percent of assistant teachers. Among lead teachers, 29 percent of those in centers without infants had a bachelor's degree compared with 19 percent of teachers in centers with infant care. The same pattern holds for assis-

<sup>7</sup> A license for a small family child care home allows up to eight children to be cared for if at least two children are six years old or older and no more than two children are infants (younger than 24 months). Otherwise, if there are no school-age children, a maximum of six children may be cared for, including at most three infants. In large family child care homes, up to 14 children may be cared for if at least two children are six years old or older and no more than three are infants. If there are no school-age children, a maximum of 12 children can be cared for, including no more than four infants.

tant teachers. A bachelor's degree was held by just 12 percent of licensed providers in small family child care homes but 18 percent of those in large homes.

While the 2004 Child Care Workforce Study provides key indicators of ECE workforce characteristics in licensed settings, we know far less about the characteristics of license-exempt providers in terms of their educational background. The 2007 RAND California Preschool Study provides some information, based on parental reports, regarding the education level of home-based caregivers for preschool-age children, where those caregivers may be either a relative or nonrelative (Karoly et al., 2008a). It is worth noting that 21 percent of parents did not know the educational attainment of their child's caregiver. Among the remaining 79 percent who gave a response, the parent reports indicate that about 16 percent of caregivers had less than a high school education, 47 percent were high school graduates, 18 percent had some college education, and the remaining 20 percent had a college degree or higher. Although these figures should ideally be validated by self-reports from the caregivers themselves, they do suggest that there is considerable variation across license-exempt providers in their educational background.

### **Earnings of ECE Workers**

It has been routinely documented that ECE workers earn less than their teacher counterparts in the early elementary grades, in part because of their lower average educational attainment (Center for the Child Care Workforce, 2010). This pattern is confirmed by data shown in Table 1.3 for California from the Bureau of Labor Statistics (BLS) Occupational Employment Statistics program, which produces annual state-level wage estimates by occupation based on establishment-level data.<sup>8</sup> As of 2009, child care workers in California earned an average of just over \$11.40 per hour which equates to a full-time annualized wage of \$23,730 (assuming 40 hours per week for 52 weeks per year, see panel A). The typical or median child care worker earned somewhat less than the mean. At the upper end of the wage distribution, the 90th percentile, a child care worker earned just over \$32,000 per year, while those at the lower end of the wage scale, the 10th percentile, earned about \$17,600 per year (see panel B). Those classified as preschool teachers earned nearly 30 percent more on average than child care workers, yet their annualized wage was about 55 percent of the wage for kindergarten teachers and 50 percent of that for elementary school teachers. The wage gap evident in panel B of Table 1.3 for annual wages is even larger on an hourly basis because kindergarten and elementary school teachers typically earn their annual salary over a nine- or ten-month academic year, as opposed to the twelve-month schedule assumed for annualizing the wages of the child care workers and preschool teachers.

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<sup>8</sup> Because these data are from business establishments, they primarily capture the formal segment of the ECE workforce. In addition, the BLS occupational definitions of child care workers versus preschool teachers may not correspond to those used by others in the ECE field.



**Table 1.3**  
**Hourly and Annual Wages for Child Care, Preschool, and Early Elementary Occupations in California: 2009**

Occupation	Mean	Percentile		
		10th	50th (Median)	90th
<b>A. Hourly Wage</b>				
Child care workers	11.41	8.48	10.64	15.46
Preschool teachers (except special ed.)	14.66	9.71	13.76	21.08
Kindergarten teachers (except special ed.)	—	—	—	—
Elementary school teachers (except special ed.)	—	—	—	—
<b>B. Annual Wage</b>				
Child care workers	23,730	17,630	22,130	32,160
Preschool teachers (except special ed.)	30,500	20,200	28,630	43,850
Kindergarten teachers (except special ed.)	56,660	35,120	54,850	82,490
Elementary school teachers (except special ed.)	61,230	37,760	60,110	87,500

SOURCE: BLS, 2010.

NOTES: For child care workers and preschool teachers, hourly wages are reported, and the BLS calculates the annualized wage assuming a full-time schedule of 2,080 hours per year (40 hours per week times 52 weeks per year). For kindergarten and elementary school teachers, only annual wages are reported because teachers generally work less than 2,080 annual hours. Dashes indicate not applicable.

The BLS occupational wage figures do not take into account the differences in educational attainment for California child care and preschool workers, of whom fewer than one in three has a bachelor's degree (see Table 1.2), in contrast to kindergarten and elementary school teachers, who are required to have a bachelor's degree. The 2004 Child Care Workforce Study collected information on the minimum and maximum hourly wage for lead teachers in licensed centers with at least a bachelor's degree (Whitebook, Sakai, et al., 2006a). As of 2004, the average annualized wage was just under \$34,400 for the highest-paid center-based bachelor's-level teachers and \$29,300 for the lowest-paid bachelor's-level teachers. In contrast, for that year, the annual wage for kindergarten teachers in California, according to the BLS data, was \$52,290, indicating that even ECE workers with bachelor's degrees earned 56–66 percent of the salary of a kindergarten teacher with the same educational attainment.

## **Organization of This Monograph**

To set the stage for our consideration of ECE workforce professional development in California, we begin in the next chapter with a review of the research base regarding effective ECE professional development. Chapter Three extends our review by summarizing what we know about best practices in ECE workforce PDSs, based on implementation in other states. The next three chapters center on aspects of ECE professional development in California: desired workforce competencies, the education and training requirements embedded in state licensing and program regulations, and the state's career ladder and credentialing system (Chapter Four); the set of higher education providers in the state, both public and private (Chapter Five); and the ECE workforce professional development activities in California supported with public dollars (Chapter Six). The final chapter synthesizes our assessment of the California's current ECE workforce PDS and makes recommendations to further advance the existing system. Supporting information is provided in a series of appendixes.

## What We Know from Research About Approaches to ECE Workforce Professional Development

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Despite the enthusiasm for state PDSs, practice has largely proceeded in advance of having a solid research base to demonstrate the effectiveness of various approaches to ECE workforce professional development.<sup>1</sup> Policy and practice regarding the professional development of the ECE workforce are limited by the lack of rigorous studies documenting the causal relationship between education, training, and other professional development models, on the one hand, and care quality or children's developmental outcomes, on the other hand (Whitebook, Gomby, et al., 2009a; Zaslow et al., 2010). And the existing research has yet to fully explore how those relationships are mediated by the nature of the workplace environment. Nevertheless, it is important to understand the current state of knowledge in order to provide a foundation for strengthening California's approach to ECE professional development.

In this chapter, we provide an overview of what we know from research about approaches to professional development through the education of practitioners, through the training of practitioners, and through strengthening the practices of the providers of professional development. For the most part, evidence of the relationship between teacher or caregiver characteristics in ECE settings and care quality or children's outcomes is based on observational data, so the results are correlational, not causal. Research on approaches to professional development for the ECE workforce is equally limited, with most studies providing descriptive findings or evidence of correlations and only a handful of studies presenting the gold standard of experimental evaluations. Even the extensive body of research on ECE curricula focuses more on evaluating implementation than on the preparation of caregivers and educators to use the curricula. In sum, the research base is not sufficiently developed to identify definitively the types of education and training that are most effective, the most important content to incorporate into teacher preparation programs, the nature of the systems

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<sup>1</sup> The debates over the role of teacher preparation in ECE discussed here and the limitations of the existing research are mirrored in the literature regarding the preservice and in-service preparation of teachers for K–12 education and the role of such factors as degree level, subject-matter preparation, certification, and ongoing professional development (for reviews, see Wilson, Floden, and Ferrini-Mundy, 2001; Rice, 2003; Committee on the Study of Teacher Preparation Programs in the United States, 2010).

that need to be in place to best support professional preparation and effective practice, and the costs associated with alternative strategies (Zaslow and Martinez-Beck, 2006).

In the discussion that follows, we first review what is known about effective professional development through education and then turn to effective professional development through training. We also cover approaches to strengthening the practices of the institutions that provide professional development. As part of the review, we highlight findings from recent syntheses across multiple studies that point to reasonable inferences regarding approaches that are most likely to be effective. We also identify how ongoing research will help to fill existing knowledge gaps. In the next chapter, we discuss the approaches to state systems that have been adopted to date, identifying any other relevant research regarding the effectiveness of various components of state PDSs.

## Professional Development Through Education

Drawing on decades of observational and experimental research, many researchers and advocates in the ECE field have concluded that more-educated caregivers or teachers and those with specialized ECE training provide higher-quality care and produce larger child developmental gains.<sup>2</sup> Many of the earliest studies of children in community-based ECE settings documented a positive correlation between degree attainment and/or specialized preparation in early childhood development and aspects of care quality—both on global measures of quality, such as the Early Childhood Environment Rating Scale (ECERS), and on specific dimensions of care quality, such as environments that are more supportive in their interactions with children and richer in terms of enhancing language development and other cognitive skills (see, for example, Howes, Whitebook, and Phillips, 1992; Howes, 1997; Phillipson et al., 1997; Burchinal et al., 2002; and National Institute of Child Health and Human Development [NICHD] Early Child Care Research Network [ECCRN], 2002). This relationship between teacher preparation and aspects of ECE quality has been found for both center-based care and family child care homes, as well as for programs serving children across the 0–5 age range. Various dimensions of ECE quality have, in turn, been found in other studies to be positively associated with child behavior and cognitive development (Bowman, Donovan, and Burns, 2001), thereby providing an indirect connection between teacher preparation and child developmental outcomes. In addition, a handful of observational studies have also linked higher teacher education directly with gains in child developmental assessments (for examples, see Burchinal et al., 2000; NICHD ECCRN and Duncan, 2003; and Early et al., 2006).

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<sup>2</sup> For reviews of this body of research or meta-analyses, see Shonkoff and Phillips, 2000; Bowman, Donovan, and Burns, 2001; Whitebook, 2003; Tout, Zaslow, and Berry, 2006; Kelley and Camilli, 2007; and Weber and Trauten, 2008.

Moreover, smaller- and larger-scale early childhood programs that have demonstrated shorter- and longer-term benefits for participating children as part of experimental or quasi-experimental evaluations—such as the Abecedarian program, Chicago Child-Parent Center program, HighScope Perry Preschool program, and Oklahoma universal preschool program—all employ lead teachers with a bachelor’s degree or higher and specialized ECE training (Cannon and Karoly, 2007a). The structure of these model programs suggests that having a high level of teacher education and training is crucial for program success, although this assumption has not been formally tested as part of the program evaluations. Nevertheless, this body of evidence from observational research and studies of effective programs led the National Research Council’s Committee on Early Childhood Pedagogy to conclude that “a college degree with specialized education in child development and the education of young children ought to be required for teachers of young children” (Bowman, Donovan, and Burns, 2001, p. 276).

Beyond the methodological issue that this evidence is largely nonexperimental, another limitation of these studies is that they are not able to determine if there are thresholds that define optimal levels of education or training (Tout, Zaslow, and Berry, 2006). Findings regarding possible thresholds appear to differ by the setting (e.g., center- or home-based care) and the ages of the children, but some of the variation across studies may reflect methodological differences in how the studies were conducted rather than an indication that thresholds vary by setting or child age. Finally, these studies generally do not consider how other aspects of program structure interact with staff characteristics to produce high-quality settings. Thus, in the absence of a “culture of quality,” a high level of teacher professional development may not be sufficient to ensure high-quality care (Raikes et al., 2006).

More recently, several large-scale observational studies have called into question the strength of the relationship between teacher education level or degree field and classroom quality and child outcomes, at least for center-based preschool programs. For example, in a series of studies using an array of data sources and a consistent methodology, Early, Maxwell, Burchinal, et al. (2007); Howes, Burchinal, et al. (2008); and Mashburn et al. (2008) did not find a consistent, positive, and statistically significant relationship between teacher education and certification and classroom-quality measures or child outcomes. The lack of consistency in the expected relationship may indicate that some degree programs do not provide future ECE educators with the required skills and competencies to be successful in their work with young children. Thus, a measure that reflects only attaining a degree does not capture the relevance of the content and quality of that degree program in determining the effectiveness of program graduates. Another explanation may be that the statistical models did not account for the role of the work environment (e.g., the educational levels of other staff in the classroom; access to paid preparation time and professional development supports; levels of compensation and turnover) in mediating the ability of teachers with postsecond-

ary degrees to put their knowledge learned in a degree program into effective practice. Finally, the expansion of early education programs in the last decade may have attracted highly effective teachers without postsecondary degrees into the field, while the more successful teachers with bachelor's degrees moved into the early elementary grades (Early, Maxwell, Burchinal, et al., 2007; Burchinal, Hyson, and Zaslow, 2008). Such possible selection patterns may be different than what was observed in the past.

Ultimately, the lack of consensus among empirical studies reflects the fact that observational studies are not the optimal research design to resolve the debate over the contribution of caregiver or teacher education to ECE program quality and child developmental progress (Whitebook and Ryan, 2011). Nevertheless, one implication of these findings is that requiring the ECE workforce to attain a particular degree or credential—without attention to the content and quality of the degree program or the context of the ECE environment that can support or hinder effective practice—will not necessarily ensure that classroom quality will be enhanced or that child developmental outcomes will be maximized.

## Professional Development Through Training

Most research to date has focused on the contribution of education in terms of degrees attained and/or field of study. Much less attention has been paid to the effect of training in general—even less to the nature of the training (e.g., setting, pedagogical approach, intensity, quality) and training content—on teacher effectiveness (Maxwell, Feild, and Clifford, 2006). Here again, much of the research is descriptive. There are several more recent efforts to study the effectiveness of professional development models using randomized trials, although few of these more rigorous studies measure the effects on child outcomes (Zaslow et al., 2010). Some of the professional development models focus more generally on improving quality, sometimes through specific comprehensive curricula, while others target specific domains of child development, such as early language and literacy, early mathematics skills, or social-emotional behavior. Many of these latter interventions have proven to be effective in raising child developmental outcomes, but the study designs do not identify which components of the model were responsible for the favorable outcomes (Zaslow et al., 2010).

MyTeachingPartner (MTP), an experimental evaluation of several alternative professional development approaches using web-based resources, is illustrative of the recent efforts to bring more-rigorous evaluation methods to identify effective approaches to teacher preparation (Pianta, Mashburn, et al., 2008).<sup>3</sup> MTP, implemented by the same research team based on the University of Virginia Curry School Education that devel-

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<sup>3</sup> MTP and the Texas program discussed next are also featured in Fuller, Gasko, and Anguiano, 2010; and Mead and Carey, 2011.

oped the Classroom Assessment Scoring System (CLASS) quality measurement tool, targets for improvement the interactions of teachers with the children in their classrooms. In one published study, the professional development supports involved on-demand access to online video exemplars alone or in combination with web-based collaborative consultation support. The consultation approach allowed teachers to submit, every two weeks, videos of their classroom interactions to the MTP consultants, who then reviewed the videos and provided direct, specific feedback and active follow-up through web-mediated mechanisms (e.g., video conferencing). The videotaped interactions focused on specific language and literacy activities developed by MTP. CLASS provided the validated assessment tool of high-quality teacher interactions that the exemplars were designed to model and that could be referenced by teachers and their consultant partners in providing and receiving feedback.

Results from the first two years of the MTP evaluation involving 113 relatively well-educated teachers in state-funded prekindergarten classrooms show that those with the more extensive supports had greater improvement over the course of the school year in their CLASS component scores than those who received access only to the video clips (Pianta, Mashburn, et al., 2008). The positive effects of the consultation support on teacher interactions were even greater for those in classrooms with larger shares of low-income children. In addition, the consultation model produced stronger gains in the language and literacy development of the children in the classrooms compared with the web-only (no consultation) model (Mashburn et al., 2010). The generalizability of these findings to other early care and learning settings and the full diversity of caretakers and teachers, as well as the costs of such interventions, are unknown (for example, how well these strategies work with providers with varying levels of prior education), yet the results are promising and point to the value of rigorous evaluation in identifying effective approaches.

Another example of the new professional development research is the Texas School Ready! (TSR) project, part of the Texas Early Education Model (TEEM). The model, developed by researchers at the Children's Learning Institute (CLI) at the University of Texas Health Science Center at Houston, combines a research-based curriculum, a mentoring-based professional development program, and child progress monitoring (CLI, 2011). The primary professional development tool, known as eCIRCLE (developed by the Center for Improving the Readiness of Children for Learning and Education), is applicable to a range of curricula. It incorporates small-group online training (including videotaped exemplars) facilitated by a mentor, small-group role-playing and practice in the trainee's classroom, and posting of in-class experiences and facilitator feedback. Monitoring of child progress using a technology-driven assessment tool (e.g., a laptop, notebook, or PDA—personal digital assistant) also provides feedback on the teacher's performance and informs how the teacher works with each child. The project is integrated with the state's certification system, a type of quality rating system akin

to accreditation. As of the 2009–10 academic year, TSR reached 41,000 children in 1,800 classrooms (CLI, 2011).

The expansion of the TSR program has been prompted by favorable evidence from experimental evaluations. For example, a year-long version of the eCIRCLE model, combined with ongoing onsite mentoring, was evaluated in a randomized trial involving 262 classrooms serving low-income children across four states. The combination of professional development approaches (online training with supportive mentoring) and child progress monitoring was found to improve teaching behavior and lead to gains in children’s language and literacy (Landry et al., 2009). Favorable impacts were found for sites with varying levels of teacher education—from public school settings, where all teachers had a bachelor’s degree, to community-based settings, where most teachers did not have any postsecondary degree.

MTP and TSR fall under the broader approach to ECE training known as *relationship-based professional development* (RBPD) (Weber and Trauten, 2008; NCCIC, 2010c). The philosophy behind RBPD is to provide training that establishes a relationship between more-skilled and less-skilled members of the ECE workforce. This rubric encompasses approaches such as mentoring, coaching, consultation, technical assistance, and apprenticeships (Weber and Trauten, 2008; NCCIC, 2010c). Another recent experimental evaluation of relationship-based professional development approaches includes the Quality Interventions in Early Care and Intervention (QUINCE) study (discussed further below). Other models have been evaluated using less-rigorous quasi-experimental and nonexperimental methods (Weber and Trauten, 2008).

Despite the limitations of the research base (notwithstanding more-recent rigorous research), the literature review by Zaslow et al. (2010) reached several tentative conclusions about effective practice in ECE professional development.<sup>4</sup> Specifically, the available evidence suggests that professional development programs are more likely to be effective when the following are present:

- *There are specific and articulated objectives.* Rather than being open-ended, the more specific the training is, the stronger the effects are on caregiver competence. Using an observational measure of quality as part of the intervention can provide clear goals to guide quality improvement.
- *There is an explicit link between knowledge and practice.* Effective approaches combine course work or training programs with individualized modeling and feedback. The practice component may be provided as part of the coursework or training. Or it may be provided in classrooms or home settings, either onsite or through remote mechanisms like the Internet.

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<sup>4</sup> These inferences are consistent with the findings identified by Whitebook, Gomby, et al., 2009c, in their review of research on professional development for both ECE and K–12 teachers, and with the review of research specific to ECE professional development by Weber and Trauten, 2008.



- *Professional development occurs collectively, with teachers in the same classrooms or schools participating together.* Participating in professional development together—where groups may include teachers and administrators or teachers who work with children of different ages—helps foster a community or culture of learning that is shared in common by program staff, so that new knowledge and practice are more consistently applied and more readily sustained.
- *The intensity and duration of the professional development activities are consistent with the content.* If the goals of the professional development are more extensive, then a short workshop is not sufficient.
- *Educators know how to use child assessments and interpret the findings to guide their professional practice.* Child assessments provide a tool for educators to obtain feedback regarding the effectiveness of their knowledge and skills overall and for individual children.
- *The professional development activities are aligned with the organizational context and existing state or local early learning standards.* Professional development may need to vary according to the nature of the setting, such as the degree of ongoing monitoring and supervision and the nature of the standards articulated by state or local agencies.

Again, it is important to stress that these inferences are drawn from an evidence base that is far from rigorous, and not all programs that adopt these approaches will necessarily be effective. Ongoing research is aimed at refining some of these hypotheses about effective practice, such as determining the relationship of practice and child outcomes with the intensity of professional development activities or the timing and sequencing of training and practice components. In K–12 education, for example, new teachers routinely benefit from relationship-based induction programs upon completing their degrees (Whitebook, Gomby, et al., 2009b). Such professional development opportunities are not typically available for early childhood teachers but may promote practices that lead to better child outcomes. The relationship between professional development approaches and the prior education and training of the practitioners also needs to be addressed.

Zaslow et al. (2010), among others, point out that much of the research to date on professional development beyond formal education has concentrated on ECE providers who work in center-based settings, specifically for preschool-age children. The research is even more limited regarding effective strategies for promoting quality in home-based settings—where most infants and toddlers are served—through caregiver professional development. A recent review by Paulsell, Porter, and Kirby (2010) examined 96 initiatives that used a range of strategies (often multiple strategies)—from on-site technical assistance, to peer support, to professional development through education or training—to improve care quality in home-based settings. However, fewer than half

(40) of these initiatives had any formal evaluation, and only four of them used random assignment to treatment and control groups.

Of the four studies reviewed by Paulsell, Porter, and Kirby (2010) that used random assignment, the evaluation findings showed significant improvements in care quality as measured by environment rating scales (e.g., the Family Day Care Rating Scale, or FDCRS), but no significant effect on child developmental outcomes. Two of the four evaluations were of initiatives evaluated as part of the QUINCE study, which tested two coaching and consultation models: “Right from Birth” Immersion Training for Excellence (RITE) (evaluated with 17 providers in Mississippi) and Partnership for Inclusion (PFI) (evaluated with 24 agencies in five states) (Ramey and Ramey, 2008; Bryant et al., 2009). In both cases, the evaluations found improved indicators of care quality in the home settings but no significant gains in children’s outcomes up to 12 months after the intervention ended.<sup>5</sup> Notably, both models were also tested in center-based settings serving infants (RITE) or preschool-age children (PFI). For the intensive RITE apprenticeship model, which provided 20 full-day job-embedded coaching days distributed over four to six weeks, improvements were found in children’s language development at age 12 months (Ramey and Ramey, 2008). Likewise, the PFI onsite consultation model showed a positive gain in receptive language from fall to spring for children in center settings (Bryant et al., 2009). These random assignment studies, while informative, only just begin to fill the knowledge gap about what works in professional development, in either home- or center-based settings.

Another important gap in the research is determining how best to provide ECE educators with the competencies to work with culturally and linguistically diverse groups of children (Whitebook, Gomby, et al., 2009a). The Zaslow et al. (2010) literature review did not identify any peer-reviewed research that studied or evaluated professional development programs aimed at improving the cultural or linguistic competence of providers working with young children. Recommended practices, drawn from innovative programs, for higher education ECE teacher training programs include enhancing the knowledge of ECE higher education faculty concerning non-English speakers’ language acquisition; engaging faculty in diverse communities as part of their service and research; infusing substantial diversity content in all areas of the higher education curriculum and coursework; requiring student internships and practicums in diverse settings; and requiring ECE students to take coursework related to dual language learners (Daniel and Friedman, 2005). While these approaches sound promising, there is no evidence to confirm their effectiveness.

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<sup>5</sup> Such a finding may result if there are threshold effects. In other words, depending on the initial level of quality, the gains in quality, while significant, may not be sufficiently large for a provider to reach the level at which the quality of care provided would affect child outcomes.

## Strengthening Practices of Institutions and Organizations Providing Professional Development

In addition to studies examining the effects of formal education and professional development training on the quality of care and early learning delivered and the developmental progress of children, another strand of research has begun to focus on the importance of the quality of ECE teacher preparation programs, as well as the quality of other professional development programs. In terms of higher education, Hyson, Tomlinson, and Morris (2008, 2009), based on a survey of ECE postsecondary degree programs across the United States, provide further evidence of the challenges facing institutions of higher education in providing high-quality ECE workforce preparation. These include capacity constraints given rising demand for degree programs coupled with heavy teaching loads and reliance on part-time faculty. There is also a lack of attention to the latest research on developmentally supportive practices (e.g., teacher-child interactions) and the translation of knowledge into practice. At the same time, there is little research that has identified effective models for ECE higher education or those practices that can successfully prepare early childhood educators in moving from the college classroom to the ECE setting or that can help experienced practitioners improve their classroom behaviors prior to obtaining additional education (Zaslow et al., 2010).

With the growing attention on the quality of teacher preparation programs, attention has shifted from defining quality primarily in terms of *input-based criteria* (e.g., hours of class time or course credits in specific areas) to also capturing *results- or output-based criteria* (e.g., graduating students who demonstrate the required competencies, knowledge, and skills) (Hyson, Tomlinson, and Morris, 2009). In addition, there is a recognition that the nature of the input mix in teacher preparation programs needs to shift toward greater emphasis on such components as child development in the early years and its implications for pedagogy, building partnerships with families from diverse backgrounds, and earlier clinical experiences provided by qualified teacher educators (National Council for Accreditation of Teacher Education [NCATE], 2010; Bornfreund, 2011; NAEYC, 2011; Whitebook and Ryan, 2011).

Accreditation provides one mechanism for quality control of higher education programs for ECE educators. NCATE provides accreditation for bachelor's and postgraduate programs in schools of education, while NAEYC has a new accreditation program for associate degree programs. Both the NAEYC and NCATE accreditation processes rely on a set of standards that define high-quality teacher preparation programs—standards that are oriented toward such results-based criteria as promoting child development and learning, using developmentally effective approaches, and

building family and community relationships (NAEYC, 2011).<sup>6</sup> A large share of higher education programs nationwide are not accredited, and about 25 percent of them are not successful in their first attempt at accreditation (Hyson, Tomlinson, and Morris, 2008, 2009). Whether or not completion of an NCATE- or NAEYC-accredited program is associated with more effective classroom practices and better child outcomes remains to be examined by researchers (Zaslow et al., 2010).

Another issue for strengthening teacher preparation programs is the extent to which those programs are aligned with the state's early learning standards or other aspects of the state PDS, such as caregiver competencies. A recent case study evaluated the alignment of nine programs in Ohio that offered three credentials—CDA, associate degree, and bachelor's degree—with Ohio's P–12 Academic Content Standards, promulgated in 2001 (Roskos, Rosemary, and Varner, 2006). The focus was specifically on the alignment of standards and higher education curricula with respect to early literacy development. The strongest alignment was found for the bachelor's level programs, a result potentially attributable to the more rigorous NCATE accreditation requirements for programs at that level. The weakest alignment was found for the CDA programs.

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<sup>6</sup> As of 2010, NAEYC defines seven standards in total that apply to programs providing both initial and advanced teacher preparation: (1) Promoting child development and learning; (2) Building family and community relationships; (3) Observing, documenting, and assessing to support young children and families; (4) Using developmentally effective approaches; (5) Using content knowledge to build meaningful curriculum; (6) Becoming a professional; and (7) Having early childhood field experiences (NAEYC, 2010).

## What We Know from ECE Workforce Professional Development Systems in Other States

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Much of the recent effort to improve ECE workforce PDSs has taken place at the state level, typically in conjunction with other state policy initiatives in the ECE field, such as defining early learning standards, designing and implementing QRISs, and extending longitudinal education data systems to include the preschool years. According to the NCCIC, Delaware was one of the first states to initiate a planning process for a statewide PDS (NCCIC, 2009). As of November 2010, 23 states and the District of Columbia were implementing ECE workforce PDSs, 16 states were making revisions to existing systems, while the remaining 12 states were planning and developing new systems (NCCIC, 2010a). These state efforts are designed to overcome the conclusion on the part of the National Research Council Committee on Early Childhood Pedagogy that “the amount, scope, and quality of professional development provided to early childhood teachers [are] inconsistent, fragmented, and often chaotic” (Bowman, Donovan, and Burns, 2001, p. 276).

In this chapter, we discuss what we know about ECE workforce PDSs from these various state efforts. Given the state of knowledge regarding effective professional development practices, it is not surprising that states that have sought to build more rigorous ECE workforce PDSs are forging ahead without a strong evidence base to support their policy initiatives. Although researchers have built conceptual models for integrating various PDS infrastructure elements, there is little research as to how best to create effective linkages or of the demonstrated effectiveness of those systems in place (Pianta, Barnett, et al., 2009). Moreover, there is a great deal of variation in the approaches the states have taken. In many cases, the state systems are early in their development or implementation, so that rigorous research to assess the effectiveness of alternative strategies is in its infancy.

In theory, statewide PDSs define a set of requirements that determine who is qualified to serve in ECE settings and the mechanisms for preparing and qualifying the ECE workforce (Howes, Pianta, et al., 2008). Thus, we organize our discussion around four system elements, those discussed previously in Chapter One in the context of the ECE workforce professional development frameworks presented in Table 1.1: alignment of ECE system components (e.g., competencies, career pathways,

credentials, and curricula); access and outreach; data systems and quality assurance; and financial incentives and financing.<sup>1</sup>

## **Alignment of ECE System Components (Competencies, Career Pathways, Credentials, and Curricula)**

As states have developed their PDSs, a key focus has been to bring into alignment the “four Cs”: competencies, career pathways (also called ladders or lattices), credentials, and curricula for ECE higher education and training. Alignment also needs to occur between the state’s early learning standards and the QRIS, where they exist. Early learning standards, for example, are linked to ECE educator competencies; those competencies, in turn, are articulated through the career pathway. The desired competencies also dictate the required content of the higher education teacher preparation program curriculum and practicum. Howes, Pianta, et al. (2008) provide a conceptual model for integrating the following infrastructure elements: early learning standards, early childhood educator competencies, PDSs, and QRISs—although they note that there is little research as to how best to create linkages across these elements.

As of 2010, 45 states had developed ECE competencies for practitioners. These are often complex outlines of major knowledge domains and the associated subskills in those domains (NCCIC, 2010d). As of the same year, nearly as many states—42 in total—had established credentials for ECE workforce positions, often defined separately for infant/toddler care versus early childhood, and separately for directors. Finally, a somewhat smaller number, three states, had delineated career lattices or ladders, as well. There is wide variation across the states in their defined competencies and how those competencies are then mapped into career pathways, by either job title, degree, or level on the career ladder (Pianta, Barnett, et al., 2009). The types of credentials and their requirements vary as well. Little evidence exists to guide the precise structure of the competencies and their mapping onto credentials or the career ladder. And alternative structures have generally not been evaluated in terms of their effectiveness. Moreover, core competencies are rarely defined for those who provide education training, such as higher education ECE faculty and training and technical assistance providers (Pianta, Barnett, et al., 2009).

The Maine Roads to Quality (MRTQ) system provides an arguably typical example of the approaches that states have taken to define and align key elements of

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<sup>1</sup> It is important to note that this formulation of the key elements of a PDS does not take into account other aspects of the ECE system that may influence the effectiveness of the PDS. Thus, beyond the issues discussed in this chapter, it is important to consider how the PDS interacts with other infrastructure elements that affect other dimensions of ECE program quality beyond the workforce (for example, ECE program licensing standards, program regulations, or a QRIS).

their ECE workforce PDS.<sup>2</sup> The state’s planning process dates to 1992, and MRTQ was realized in 1999 with the establishment of the Early Care and Education Career Development Center, managed by the Muskie School of Public Service, University of South Maine, under contract with the state Department of Human Services. MRTQ incorporates three of the “four Cs.”<sup>3</sup> The system’s career lattice for direct care practitioners specifies eight tiers with some variation across center-based, family child care, and school-age settings.<sup>4</sup> For example, at Level One on the lattice, center- and school-based providers are required to have six months of experience and 30 hours of relevant training. A CDA is one way to achieve Level Three, while an associate degree in an ECE-related field or a degree in another field combined with 12 credits in ECE satisfies Level Four, and a bachelor’s degree in ECE or a degree in another field combined with 12 ECE credits meets Level Five. A master’s degree and doctorate are associated with Levels Six and Seven, respectively. At each level, a lower degree with sufficient experience is usually also an option. Level Five, for example, can be met with a bachelor’s degree but also with an associate degree and two years of experience or a CDA and six years of experience. In terms of credentials, the state has defined the Infant/Toddler Credential I, which can be used to attain Levels Three, Four, or Five, depending on years of experience. The credential requires 96 hours of specialized infant/toddler training.

Finally, specialized ECE training begins with the Maine Roads Core Knowledge Training Program, a 180-hour program that may be tailored to infant/toddler care, preschool-age care, care in family child care homes, and program administration. The program, delivered through the state’s network of Child Care Resource Development Centers (Maine’s resource and referral [R&R] agencies) by registered trainers, leads to a certificate that satisfies training requirements for state licensing, the CDA, and advancement along the career lattice. As a result of a somewhat unique articulation agreement with the state’s community college system, those who complete the certificate program may apply to one of the state’s two-year public colleges for credit toward their ECE degree. Maine also secured articulation agreements between its two-year community colleges and four-year colleges and universities.

Maine’s PDS was subsequently integrated with its QRIS, known as *Quality for ME* (Maine Department of Health and Human Services, 2007). “Staffing and professional development” is one of eight quality elements in the four-tier QRIS, which varies to some degree across center-based programs, Head Start, family child care homes, and

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<sup>2</sup> This discussion draws on material available from the Maine Department of Health and Human Services (undated) *Maine Roads to Quality* website. The Maine system also includes a workforce registry, financial incentives, and the PDS components discussed later in the chapter.

<sup>3</sup> The state does not have a set of defined competencies for practitioners or trainers.

<sup>4</sup> Another career lattice applies to those in administration or management, while a third is specific to family education and support personnel.

school-age programs. At Step 2 for Head Start and center-based programs, for example, at least half of lead teachers must be at Level Five or higher on the lattice. Step 3 requires the same for the more inclusive group of staff who provide direct care. At the final stage, Step 4, at least half of lead teachers must be at Level Six or higher on the lattice, and the director must be at Level Five or higher.

Most state strategies, like Maine's, have focused on the adoption of career pathways and credentials that emphasize degrees or certification. In addition, methods under the RBPD rubric are gradually being integrated into many state systems, although typically on a small scale and not always using proven models (NCCIC, 2010c). The expanding statewide TSR program in Texas is one exception because it places emphasis not on credentialing but on professional development through e-learning and mentoring, paired with evidence-based curricula and child progress monitoring. In drawing on evidence-based methods across both education and training models, state PDSs are giving more attention to the structure, content, and relevance of education and professional development programs. Through both education and ongoing professional development, effective PDSs would be expected to emphasize observation and feedback on the climate in the classroom and instructional quality, with the goal of improving teaching practices and child developmental outcomes (Pianta, Barnett, et al., 2009). Thus, the emerging evidence suggests that an effective PDS should go beyond defining career pathways and credentials to address the quality of teacher preparation and professional development programs, to recognize the need for ongoing professional development support in addition to further formal education, and to strengthen the provision of a supportive work environment that allows practitioners to fully utilize their knowledge and skills.

Alignment efforts have also extended from the birth-to-five period to encompass K–12 education. In the realm of professional development, one approach has been to integrate the workforce credentials across early childhood and early elementary grades, notably through a P–3 teaching credential. This approach has been most feasible when states expand the public education system to include preschool and require that preschool teachers meet the same requirement for a bachelor's degree as kindergarten and early elementary teachers. Perhaps the best-known example of this approach is the Abbott Preschool Program in New Jersey, which implemented a court-mandated state-funded preschool program for three- and four-year-olds in the state's lowest-income school districts. In implementing the Abbott program, the state introduced a P–3 teaching certification that could be met through multiple pathways, expanded higher education programs to meet the need for bachelor's level preschool teachers, and provided full-tuition scholarships and other supports to those needing to upgrade their educational backgrounds. Within a four-year deadline, the state successfully raised the qualifications of most preschool teachers to the bachelor's level, matching the degree requirement and compensation level in kindergarten and beyond (Coffman and Lopez, 2003). Built into this approach is an extensive mentoring system, which combines edu-



cation and RBPD, with promising results for children's outcomes (Frede et al., 2007, 2009).

## Access and Outreach

As states enhance their ECE workforce PDSs, they are using a variety of strategies to promote greater access to professional development opportunities, especially among underrepresented groups. These strategies include instituting cohort models for post-secondary degree attainment, providing credit-bearing courses in community settings in collaboration with higher education institutions, offering courses at night and on weekends, and implementing distance learning options (NCCIC, 2009).<sup>5</sup> The student cohort model is structured so that a small group of individuals with similar backgrounds and interests pursue a higher education degree program together, while receiving various supportive services (Whitebook, Sakai, et al., 2008, 2010; Whitebook, Kipnis, et al., 2011). The model is motivated by the challenges facing members of the ECE workforce who often work full-time and lack the financial, logistical, and emotional resources needed to pursue additional education. Participants are often *nontraditional students*, defined as having four or more of the following characteristics: no high school diploma, delayed postsecondary enrollment, part-time school attendance, full-time employment while in school, financial independence from their family of origin, responsibility for dependents, or single parenthood. The cohort programs aim to attract and retain a diverse workforce with upgraded skills, build institutional capacity to support such students within higher education institutions, and ensure that students complete their degree program and attain the desired skills and competencies.

Technology-mediated learning is also gaining currency in the ECE professional development field, although these strategies are new enough that they have not been widely adopted in multiple statewide systems. MTP and TSR, discussed above in the context of evaluations of training programs, provide two examples of how digital technology and the Internet can facilitate meaningful interactions at a distance between the teacher and a facilitator or mentor. In the MTP model, for instance, teachers send their consultant a 30-minute digital video of their implementation of an instructional activity in their classroom. The consultant posts selected short clips from the video

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<sup>5</sup> A broader literature considers the role of a range of supports for students in higher education designed to increase their retention rates in degree programs and rates of eventual degree completion (see, for example, Cuseo, 2003; Purnell et al., 2004; and Dukakis et al., 2007). A recent randomized experiment evaluated the Opening Doors Programs in six community colleges that offered four different forms of support for students. The evaluation showed somewhat stronger effects for financial incentives (specifically, performance-based scholarships), instructional reform (namely learning communities that offered linked coursework, enhanced counseling and tutoring, and textbook vouchers), and enhanced targeted services for students on academic probation. Relatively weak or short-lived impacts were found for enhanced student services (specifically enhanced counseling) (Scrivener and Coghlan, 2011).

on a secure website, along with written feedback regarding the teacher-child interactions, for the teacher to review. After viewing the clips, the teacher responds to reflective questions posted by the consultant in an online journal. Finally, the teacher and the consultant hold a 30-minute online videoconference to review lessons learned and establish subsequent goals. This process occurs over a two-week period and is repeated throughout the year-long consultancy.

An early effort to test onsite versus remote coaching models in a randomized trial for a sample of Head Start classrooms showed no difference in how either method improves instructional practice or child outcomes, suggesting that remote coaching may be a promising approach for extending access to harder-to-reach providers (Pianta, Barnett, et al., 2009; Powell, Diamond, et al., 2010). Other models in this area include an advanced web-based hypermedia resource for improving teaching practice that combines interlinked narrative and video illustrations of case-based instructional practice (Powell, Diamond, and Koehler, 2010). The case-based hypermedia approach facilitates efficient “one-click” access to video exemplars and narrative information tied to specific areas of teaching and learning.

## Data Systems and Quality Assurance

As states enhance their ECE systems more generally, data systems are receiving more attention, given their importance for supporting the monitoring and evaluation of system outcomes. In the ECE workforce professional development arena, the key data system being implemented in more than half the states is an ECE professional registry (NCCIC, 2009; The National Registry Alliance [TNRA], 2009). The earliest registries date to the 1990s, with initiatives in Alabama (1993), Connecticut (1993), Delaware (1992), Montana (1995), South Carolina (1994), Tennessee (1993), and Wisconsin (1991) (Bellm and Whitebook, 2004). As of November 2010, at least 33 states had registries in place, while a number of other states had systems in development (NCCIC, 2010a).

The earliest registries and the others that have followed have been used variously to track and validate the education and training of the ECE workforce, improve access to education and training resources (e.g., by listing trainers or approved trainers and providing a calendar of training opportunities), enhance the recognition and status of the workforce (e.g., by awarding stipends to those who advance their professional development), and track other relevant data on the workforce (e.g., compensation, turnover, retention) (Bellm and Whitebook, 2004). Registries can be another infrastructure element that supports the alignment of early learning standards, competencies, PDSs, and QRISs (Howes, Pianta, et al., 2008). As of 2009, it was most common for registries to be housed in institutions of higher education, followed by independent 501(c)(3) organizations, and resource and referral agencies (TNRA, 2009). Registries

in many states are voluntary, but in some they are mandatory and integrated into the licensing of child care facilities. Mandatory participation is also tied to such quality initiatives as scholarship programs or wage supplements (TNRA, 2009). Participation rates, even with voluntary systems, can be relatively high (75 percent or more) (Bellm and Whitebook, 2004).

As one example, Arkansas established its registry, known as Traveling Arkansas' Professional Pathways (TAPP), as part of the development of its statewide Arkansas Early Childhood Professional Development System (Miller and Bogotova, 2007; TAPP, undated). The registry has three main components: a registry of practitioners, a registry of trainers, and a registry of trainings. The first component tracks members of the ECE workforce through an online transcript documenting their prior education and training and identifies next steps to advance along the state's career lattice, known as the Spectrum. The second component tracks trainers to ensure that they have the required experience to serve as trainers. Finally, the third component compiles all training opportunities offered by registered training agencies. Practitioners can use the registry to search online for training opportunities by location, date, or topic, and then register online for specific programs. The unique identifiers assigned to practitioners in the registry are used by the practitioners to sign up for training events and receive credit for programs completed.

Registries are one of several mechanisms used by states to ensure that their PDSs achieve their objectives of supporting effective caregivers and teachers in high-quality programs. Registries have been used to monitor the size and professional qualifications of the ECE workforce, which practitioners participate in various professional development opportunities, how professional development advances over time, and who is retained in the field (Demma, 2010). Another quality control mechanism is having a system in place to approve trainers and training programs, a practice followed by 32 and 27 states, respectively, as of 2010 (NCCIC, 2010d).<sup>6</sup> Finally, states have also sponsored independent evaluations of their PDSs or system components to assess their effectiveness. For example, Arkansas commissioned an evaluation of its Early Childhood Professional Development System, with a focus on specific elements such as the registry, career pathway, and training programs, as well as the interrelationships among system elements (Miller and Bogotova, 2007). Such evaluations, however, have generally not assessed the effects of the systems on overall ECE program quality or child developmental outcomes.

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<sup>6</sup> Like the example of Arkansas provided earlier, approval of trainers and training programs is often based on meeting specific requirements in terms of the trainer's background or training program content and does not necessarily provide a measure of trainer or training program quality.

## Financial Incentives and Financing

Access to adequate funding is a final, essential element in the development of statewide PDSs. Given the relatively low compensation of the ECE workforce (see the discussion in Chapter One), a key component is financial incentives such as scholarships to support ECE staff to seek out professional development opportunities and supplemental compensation in order to retain them in the field. Beyond financial incentives, funding is also required to design, plan, create, and implement the ECE workforce PDS.

As of 2010, the challenge of increasing the qualifications of the ECE workforce has been addressed in 48 states by providing scholarships or stipends for obtaining additional education or training (NCCIC, 2010d). Perhaps the best-known program is T.E.A.C.H. (Teacher Education and Compensation Helps), a program started in 1990 in North Carolina that is now being implemented in 22 states and the District of Columbia. T.E.A.C.H. provides scholarships for professional development, usually coursework leading toward a credential or degree. Upon completion, T.E.A.C.H. provides increased compensation in the form of retention bonuses for remaining in the field, usually for six months to a year (Child Care Services Association, 2006a). For example, Pennsylvania enacted its T.E.A.C.H. program in 1998–1999, initially as a pilot program, expanding to statewide coverage by 2000–2001 (Pennsylvania Child Care Association, undated). Scholarships cover most of the cost for tuition and books, as well as a travel stipend. The scholarship recipient's sponsoring ECE program must offer paid released time to attend classes and study. Scholarship recipients must successfully complete a required number of credit hours each academic year—typically 9 to 15—toward a degree or credential in ECE. At the end of the scholarship year, those who complete the requirement are eligible for a bonus or raise but must agree to remain in the current program for one year after each scholarship year.

Another financial incentive strategy used by 23 states as of 2010 is wage supplements (NCCIC, 2010d). Again, North Carolina has one of the model programs: the WAGE\$ Project. The WAGE\$ Project, in effect statewide since 1999, provides education-based salary supplements to low-wage teachers and directors in licensed centers and school-based programs, as well as licensed family child care providers, who work with children from birth to five (Child Care Services Association, 2006b). Awards are determined annually based on education level, job position, work schedule, and the income cap for the county and allocated in two installments, where each installment is conditional on remaining in the same program for the prior six-month period. Thus, the program aims to provide a reward for both increased educational attainment and employment stability. WAGE\$ is currently being implemented in three other states (Florida, Kansas, and New Mexico), although variants of the program have been implemented in other states and communities.

The T.E.A.C.H. model is one example of a financial incentive initiative that awards scholarships to support course work and degree attainment and stipends or

bonus payments in return for achieving targeted professional development goals (NCCIC, 2008). Likewise, the WAGE\$ program is an example of providing financial incentives through supplementing the low wages of ECE providers with advanced degrees. Such initiatives are usually limited to members of the current ECE workforce who met specific criteria, such as work experience or program participation in the state QRIS. Some initiatives target members of the workforce in underserved communities or specific types of settings. While scholarships are typically tied to an individual member of the ECE workforce, the financial reward for degree attainment may be paid directly to the individual in the form of a bonus or stipend, or it may be paid to the sponsoring program (Weber and Trauten, 2008). The salary supplements are designed to directly benefit the ECE practitioner. Scholarships, stipends/payments, and wage supplements vary considerably across states (and sometimes localities within states), and the financial incentives are usually graduated with the level of professional development. Participation in the program may be tied to enrollment in the state provider registry. Some programs, like T.E.A.C.H., may require a commitment for continuation in the field for a set time period, or, like WAGE\$, require stable employment in a given program.

Evaluations of the financial incentive initiatives in various states provide evidence of increases in enrollment in higher education coursework and degrees earned, higher compensation, and greater retention in the field—depending on the nature of the financial incentive (for recent literature reviews, see Park-Jadotte, Golin, and Gault, 2002; Whitebook and Bellm, 2004; NCCIC, 2008; and Weber and Trauten, 2008). The research to date has not identified the relationship between the size of the financial incentive (scholarships or stipends) and participation rates or degree attainment or the relationship between the size of salary supplements and other outcomes such as retention. Moreover, such initiatives have not assessed whether the resulting increases in education and training, given the nature of the available professional development programs, are associated with changes in knowledge and practice or ultimately child developmental outcomes.

In terms of financing, states have used a variety of funding streams to support the development of ECE workforce PDSs. These funds include CCDF quality funds, which are used by nearly all the states to support system-building efforts, in addition to those initiatives that specifically target practitioners (e.g., the California programs discussed in Chapter Six) (NCCIC, 2010a). For example, the funds have been used to articulate caregiver competencies, define career pathways, and establish registries. More recently, these and other activities related to PDSs have also been supported by ARRA funds in at least 20 states (NAEYC, 2009; NCCIC, 2010a). Finally, states have also turned to other sources of state and local funds, as well as the private sector, to support such specific activities as T.E.A.C.H. scholarships.

## California in Relation to Other States

California is not counted by NCCIC as one of the states with a fully established ECE workforce PDS (NCCIC, 2010a). Thus, in the next three chapters we turn our attention to three aspects of the ECE professional development infrastructure in the state that potentially make up a system: workforce competencies and credentialing; opportunities for professional development through the state's public and private higher education system; and the set of publicly funded ECE workforce professional development activities that support education and training. As discussed in more detail in those chapters, California has some of the elements in place that other states are developing as part of their ECE workforce PDSs. These include early learning standards and defined workforce competencies (Chapter Four), coursework and associated degrees at two- and four-year postsecondary institutions (Chapter Five), a promising cohort model to promote attainment of higher education in the ECE field for diverse groups (Chapter Five), and an array of other professional development opportunities with financial supports for those who seek additional education and training (Chapter Six). At the same time, other key infrastructure elements are missing or not fully developed. For example, the ECE career ladder and credentialing system represented in the Child Development Permit (CDP) matrix have been in place for some time but are not necessarily aligned with the new competencies (Chapter Four), nor does California have a statewide ECE workforce registry (Chapter Six).

## California ECE Workforce Requirements: Competencies and Credentials

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Each of the ECE workforce PDS frameworks introduced in Chapter One included elements that delineate the professional standards for the workforce, variously defined through desired competencies, required qualifications in the form of credentials or degrees, and career ladders or lattices to denote the pathway for advancement in the profession. Such elements may apply to both the formal and informal segments of the workforce—those in both licensed and license-exempt settings—while others may pertain only to those in licensed settings or in publicly funded programs. These elements also form the core of the various state PDS being developed, as discussed in Chapter Three.

In this chapter, we turn our attention to California's ECE workforce professional requirements. We first consider the desired competencies for those serving children from birth to age five, as well as the minimum requirements for staff education and training embodied in California's licensing regulations and in the standards for publicly funded programs that reference the state's permitting system, the CDP matrix. We then review evidence about the quality of care that children receive as an indirect way of inferring whether the current workforce meets the state's objectives in terms of workforce competencies.

The chapter details California's Early Childhood Educator Competencies, which define the knowledge, skills, and dispositions that educators need to support the learning of children from birth to age five. The competencies are structured to align with the state's early learning standards and child development assessment system. Workforce requirements are also embodied in California Title 22 ECE licensing regulations and in the program requirements for the federal Head Start program and the state's Title 5 child development programs (including the California State Preschool program), each with varying standards for the minimal levels of education and training required in center settings and licensed family child care homes that serve children from birth to five. Although California's Title 22 child care licensing standards do not require a postsecondary degree for lead teachers or providers, the state's licensing requirements for preservice education and training, for the most part, are modestly stronger than those in most other states. On the other hand, the standards for

the state's Title 5 child development programs serving preschool-age children—where again no postsecondary degree is required—are not consistent with the shift in Head Start and many state preschool programs toward requiring an associate or bachelor's degree for lead classroom teachers.

Although direct measures of the competencies of the ECE workforce are lacking, the chapter reviews other evidence that points to gaps in knowledge and skills in such key areas as promoting children's language and critical thinking skills and supporting dual language learners. Some of the shortfalls in the quality of observed teacher-child interactions may result from gaps in other structural features of the ECE environment that limit the ability of the ECE workforce to fully exploit their capacity for high-quality care. These barriers can include suboptimal group sizes and adult-child ratios, limits on curricula and other instructional materials, low levels of compensation, substandard working conditions, limited professional development opportunities, high turnover, and so on.

## **Desired Competencies for California's ECE Workforce**

As part of the process of developing comprehensive ECE workforce PDSs, the vast majority of states have engaged in a process of defining the core knowledge and skills that are required for caregivers and teachers to be effective in their work with young children and their families (Bellm, 2008). As noted in Chapter Three, almost all the states have articulated these professional requirements, typically described as competencies or core knowledge (NCCIC, 2010d). These professional requirements are derived from research evidence regarding what ECE professionals need to understand and what they need to be able to do in order to best support the emotional, social, cognitive, and physical development of the young children with whom they interact.

While a range of state models exists, they share a common orientation (Bellm, 2008). In most cases, the state-defined core knowledge and competencies are specific to children from birth to age five, although a few cover children up to age eight or school-age children more generally. Most state competencies are defined by levels or tiers that correspond implicitly or explicitly to specific job categories or career stages. For each level, the knowledge and skills are typically divided by domains that may be defined by developmental areas (e.g., physical development, cognitive development, social development), as well as features of the care environment (e.g., safety, health, nutrition, learning), functional roles (teaching, observation and assessment, management and administration, professionalism, and leadership), and external relationships (e.g., families, communities). The standards are usually designed to be aligned with other elements of the ECE system, such as early learning standards, career pathways, and higher education curricula.



California has recently engaged in a process of developing its own Early Childhood Educator Competencies, led by the Child Development Division (CDD) of the CDE and First 5 California and guided by a literature review and public engagement process conducted by the Center for the Study of Child Care Employment (Bellm, 2008). The recently published competencies, organized into 12 domains, define the knowledge, skills, and dispositions that educators need to support the learning of children from birth to five (CDE, 2011). Specifically, the 12 interrelated domains are

1. Child Development and Learning
2. Cultural Diversity and Equity
3. Relationships, Interactions, and Guidance
4. Family and Community Engagement
5. Dual-Language Development
6. Observation, Screening, Assessment, and Documentation
7. Special Needs and Inclusion
8. Learning Environments and Curriculum
9. Health, Safety, and Nutrition
10. Leadership
11. Professionalism
12. Administration and Supervision.

Each domain provides key concepts based on theory, research, and practice; a set of dispositions in the form of attitudes, values, approaches to learning, and motivational factors needed to advance toward competency; a defined set of performance areas and associated topics that delineate the specific knowledge and skills required; and, finally, a continuum of competencies advancing from Level I to Level IV for each topic. Level I competencies are those expected of people in supportive or assisting roles in a classroom; Level IV describes those competencies associated with the leading staff at a program or site who have the potential for broader influence on policy and practice in the community or in the ECE field.<sup>1</sup>

The competencies were structured to align with the state's early learning standards as articulated in the Infant/Toddler Learning and Development Foundations (CDE, 2009d) and the Preschool Learning Foundations (CDE, 2008), the associated curriculum frameworks for use in ECE classrooms (CDE, 2010a; CDE, forthcoming).

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<sup>1</sup> For example, in the first domain, Child Development and Learning, there are two specific performance areas: Knowledge About Child Development and Learning; and Supporting Child Development and Learning. For the first performance area, the Level I competency requires that the individual: "Is aware that developmental theory and research represent particular perspectives that are not necessarily universal." At Level IV, the competency has advanced to include: "Stays current on cross-cultural developmental theory and research. Uses an understanding of the context of developmental research and theory to inform decisions about policies and practices for diverse groups of children and families" (CDE, 2011, p. 13). Competencies for this performance area are also specified for the two intermediate levels.

ing as well as the state's Desired Results child development assessment system (CDE, 2010b).

## ECE Workforce Requirements

While competencies serve to define the expected knowledge and skills of the ECE workforce, it is challenging to assess individual members of the workforce to determine if they meet the full range of those expectations. Thus, requirements for the ECE workforce are typically defined—as part of a state's licensing regulations and program standards for publicly funded programs—in terms of the minimal levels of education and training, and sometimes experience, needed to hold a particular position, attributes that are more readily verified. States may also establish a system of credentials that serve to define the career pathway in the ECE field, from assisting in the care and teaching of children to directing a center or group of programs. We first review California's requirements and then make a comparison with those in other states.

### California Requirements

For providers in California that are license-exempt, there is no requirement for formal training or a postsecondary degree. And license-exempt providers that are reimbursed through vouchers as part of the CalWORKs stages or the AP program are only required to complete a health and safety self-certification and a criminal background check (a requirement that is waived when the provider is the child's grandparent, aunt, or uncle).

For center- and home-based ECE providers that are required to be licensed, California's Title 22 licensing regulations provide only minimal requirements in terms of education and training as shown in panel A of Table 4.1.<sup>2</sup> For example, in Title 22 centers, there is no postsecondary degree requirement at any of the staff levels, from assistant teacher to program director. Fully qualified lead teachers and program directors are required to have 12 semester units of college-level courses in child development (CD) or ECE. The Title 22 licensing standards have no education and training requirements for staff in licensed family child care homes.

Panel B of Table 4.1 shows the qualifications required for staff in publicly funded ECE programs in California, including Head Start (and Title I Preschool) and the California State Preschool program and other Title 5 child development programs.<sup>3</sup> In recent years, federal legislation has gradually been increasing the requirements for

<sup>2</sup> Table 4.1 omits some other education and training requirements under Title 5, such as requirements for experience and specific coursework. See Karoly, Reardon, and Cho (2007a) for additional detail.

<sup>3</sup> The education requirements reported in Table 4.1 apply to statewide programs. In the past few years, several California counties have been implementing Preschool for All (PFA) initiatives that aim to increase preschool access and raise quality. These counties provide tiered reimbursement for subsidized care, with higher rates of reimbursement if program staff have higher levels of education and the programs meet other criteria. At the high-

Head Start staff. Under current law, by the end of 2011, all lead Head Start teachers must have an associate degree in the ECE field or an associate degree with sufficient coursework in the field. By 2013, at least half of Head Start teachers nationwide will be required to have a bachelor's degree in the ECE field or a bachelor's degree with relevant ECE coursework. The Head Start education requirements contrast with those for California Title 5 and State Preschool programs. As shown in Table 4.1, there is no postsecondary degree requirement for the lead classroom teacher in either program. The site supervisor requirement is an associate degree (with coursework requirements in the ECE field and administration), while a bachelor's degree (with relevant coursework) is required for a program director.

The California ECE workforce education and training requirements summarized in Table 4.1 correspond to different levels on the ECE career ladder manifested in the CDP Matrix (see Appendix A for details). For example, the Title 22 lead teacher requirements at hiring corresponds to the Assistant Teacher permit, while the Associate Teacher permit meets the requirements for a fully qualified lead teacher. These two permits also correspond to the assistant teacher and lead teacher requirements, respectively, for the State Preschool and Title 5 programs.

Chapter One presented data showing that, as of 2004, more than half of lead classroom teachers in center-based programs and nearly 30 percent of licensed family child care home providers had an associate degree or higher (see Table 1.2). This fact may be viewed as unexpected, given that the California Title 22 licensing requirements for center-based programs and family child care homes do not require a postsecondary degree for either position. The same is true for the State Preschool and Title 5 child development programs. Indeed, with 53 percent of lead teachers in center-based programs having an associate degree or higher, more than half of such teachers are likely to already qualify for the Master Teacher permit, which requires only 40 college-level units (24 in child development or ECE) or a bachelor's degree. As noted above, among statewide programs in California, only Head Start has begun to require an associate degree for the lead teacher, and eventually a bachelor's degree for at least half of all lead teachers nationwide (by 2013).

### **A Comparison with Other States**

With one exception, the California Title 22 licensing requirements with respect to staff qualifications exceed those in most other states. Table 4.2 tallies the 50 states and District of Columbia according to the preservice qualifications for staff in licensed settings by setting type and staff position as of 2008 (NCCIC and National Association

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est tier, for example, the lead classroom teacher is required to have a bachelor's degree. See Karoly, Reardon, and Cho (2007) for additional details on the PFA initiatives.

**Table 4.1**  
**Staff Qualifications Requirements for Licensed ECE Programs and Publicly Funded ECE Programs in California**

Program	Assistant Teacher	Lead Teacher	Site Supervisor	Program Director
<b>A. Requirements for Licensed Programs</b>				
Title 22 Centers	High school graduate or enrolled in high school occupational program	At hiring: 6 semester units of college-level CD/ECE  Fully qualified: 12 semester units of college-level CD/ECE with 6 months of experience	—	12 semester units of college-level CD/ECE and 3 units administration
Title 22 Family Child Care Homes	None	— <sup>a</sup>	n.a.	n.a.
<b>B. Requirements for Publicly Funded Programs</b>				
Head Start/ Title I Preschool	Through 9/2013: None  As of 10/2013: CDA or enrolled in program leading to a CDA or AA/BA	Through 9/2011: CDA  or AA in ECE or AA with relevant ECE coursework  As of 10/2011: AA in ECE or AA with relevant ECE coursework  As of 10/2013: At least 50 percent of teachers nationwide have a BA in ECE or BA with relevant ECE coursework	—	n.a. (12 units CD/ECE; 3 units GE; 4 years of experience)
California State Preschool and Title 5 Centers	6 semester units of college-level CD/ECE	12 semester units of college-level CD/ECE	AA (or 60 units) with 24 semester units of college-level CD/ECE and 8 units of administration	BA or higher with 24 semester units of college-level CD/ECE and 8 units of administration
Title 5 Family Child Care Homes	None	— <sup>a</sup>	n.a.	More than one site:  BA or higher with 24 semester units of college-level CD/ECE and 8 units of administration

SOURCE: Head Start Performance Standards and Title 5 and Title 22 regulations.

NOTES: All coursework requirements are college-level semester units. AA = associate degree; BA = bachelor's degree; CD = child development; ECE = early care and education; GE = general education; n.a. = not applicable; dashes indicate not specified.

<sup>a</sup> Licensed family child care home providers are required to complete 15 hours of noncredit training on preventative health practices, pediatric cardiopulmonary resuscitation (CPR), and pediatric first aid.

for Regulatory Administration [NARA], 2010).<sup>4</sup> For licensed centers as of 2008, most states either did not regulate the assistant teacher position or had no requirements for that role. California is one of three states that required a high school diploma. Just two states (Hawaii and Minnesota) required a CDA for the classroom assistant. Those two states plus three others (Illinois, New Jersey, and Vermont) also required the CDA for the lead classroom teacher. California is one of five states that required credit-bearing coursework for the lead teacher position, and no state required a postsecondary degree as of 2008. For the program director position as of 2008, California was less stringent than the 22 other states that required a CDA, the two states (Indiana and Pennsylvania) that required an associate degree, and the one state (New Jersey) that required a bachelor's degree.

Across the other states, as in California, the preservice requirements for staff in licensed family child care homes as of 2008 were lower than those for center staff, and they were typically lower for staff in small homes compared with large homes (see Table 4.2). California was like most other states that regulate such settings in having no requirements for assistants in family child care homes. The requirement for some form of training in health and safety or other vocational skills for the family child care home owner/lead provider was shared by a handful of other states. Just one state required the provider in a small family child care home to have a CDA, while seven states had that requirement for the provider in large homes.

As part of its Title 22 regulations for ECE staff, California has licensing standards that require modestly more preservice preparation than most other states. However, the state has fallen behind in the trend toward increased educational requirements among staff in child development–oriented programs, particularly those serving preschool-age children. As noted earlier, educational requirements have been gradually increasing over time for the federal Head Start program. Likewise, as states have initiated their own public preschool programs, the educational requirements usually exceed those associated with child care center licensing standards. Notably, as of the 2009–10 academic year, 15 of the 40 states with state-funded preschool programs serving three- or four-year-olds required the assistant teacher to have a CDA credential or equivalent, and 22 states required the lead teacher to have a bachelor's degree (Barnett et al., 2010). California's State Preschool program clearly sets a lower standard than that of these other states.

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<sup>4</sup> This discussion focuses specifically on preservice qualifications for staff in licensed centers and family child care homes as of 2008, and some states have raised their licensing requirements since that time. We do not take into account how California compares with other states on other licensing requirements, such as group sizes, child-to-staff ratios, and so on. Nor do we consider how California compares with other states in terms of licensing oversight and enforcement. For a cross-state comparison of child care regulations and oversight specifically for center-based settings, see the latest evaluation of state systems by the National Association of Child Care Resource and Referral Agencies (NACCRRRA) (2011). Based on the ten benchmarks for center child care licensing requirements and the five benchmarks for regulation oversight used by NACCRRRA, California ranked third from the bottom among the 50 states and the District of Columbia.

**Table 4.2**  
**Number of States with Specified Preservice Qualifications in Licensed ECE Settings by Staff Position: 2008**

Setting Type and Qualifications	Assistant Teacher/ Provider	Lead Teacher/ Provider	Program Director
<b>Licensed Centers</b>			
Setting type or role not regulated	22	1	1
No preservice requirement	15	13	1
General experience or ECE hours only	7	14	12
High school diploma or GED <sup>a</sup>	3	13	8
ECE coursework or vocational program <sup>a</sup>	2	5	4
CDA or other state credential <sup>a</sup>	2	5	22
AA <sup>a</sup>	0	0	2
BA <sup>a</sup>	0	0	1
<b>Licensed Small Family Child Care Homes</b>			
Setting type or role not regulated	28	7	—
No preservice requirement	<b>20</b>	23	—
General experience or ECE hours only	2	14	—
High school diploma or GED <sup>a</sup>	1	2	—
Health & safety or vocational training <sup>a</sup>	0	<b>4</b>	—
CDA or other state credential <sup>a</sup>	0	1	—
<b>Licensed Large Family Child Care Homes</b>			
Setting type or role not regulated	17	12	—
No preservice requirement	<b>21</b>	8	—
General experience or ECE hours only	10	16	—
High school diploma or GED <sup>a</sup>	2	3	—
Health & safety or vocational training <sup>a</sup>	0	<b>5</b>	—
CDA or other state credential <sup>a</sup>	1	7	—

SOURCE: Author's tabulations based on NCCIC and NARA, 2010, Tables 20, 49, and 75.

NOTES: Cells in bold indicate the qualifications required in California under Title 22. AA = associate degree; BA = bachelor's degree; GED = General Educational Development certificate. Dashes indicate not applicable.

<sup>a</sup> May be combined with experience requirement.

The bachelor's degree is also the minimum education requirement to teach in public K–12 education in California, as it is for every other state. The California CTC, the same agency that issues CDPs, offers several K–12 credentials that are valid for five years (California CTC, 2010). Teaching at the elementary level requires the Multiple Subject Teaching Credential. In addition to the degree requirement, qualifying for a credential requires passing the California Basic Educational Skills Test (CBEST) or an approved alternative, demonstrating relevant subject-matter competence through

exams or coursework, and completing a state-approved teacher preparation program and the associated student teaching and performance assessment. While there are provisions for internships and other alternatives to teaching in the classroom without a credential (e.g., emergency permits or waivers), as of 2008–2009, 96 percent of California K–12 public school teachers were reported to have the appropriate credentials (Ed-Data, 2010).

## Evidence Regarding ECE Workforce Quality

Although we are not able to directly observe the competencies of the ECE workforce, we can gain additional insight into the capacities of the current workforce through assessments of care quality. Although assessments of quality in the past have often focused on structural elements of child care and early learning settings—such features as group sizes, staff-child ratios, and provider education and training—new measures allow researchers to evaluate quality in terms of the nature of staff-child interactions, capturing such dimensions as emotional support, classroom organization, and how staff support language development and learning.

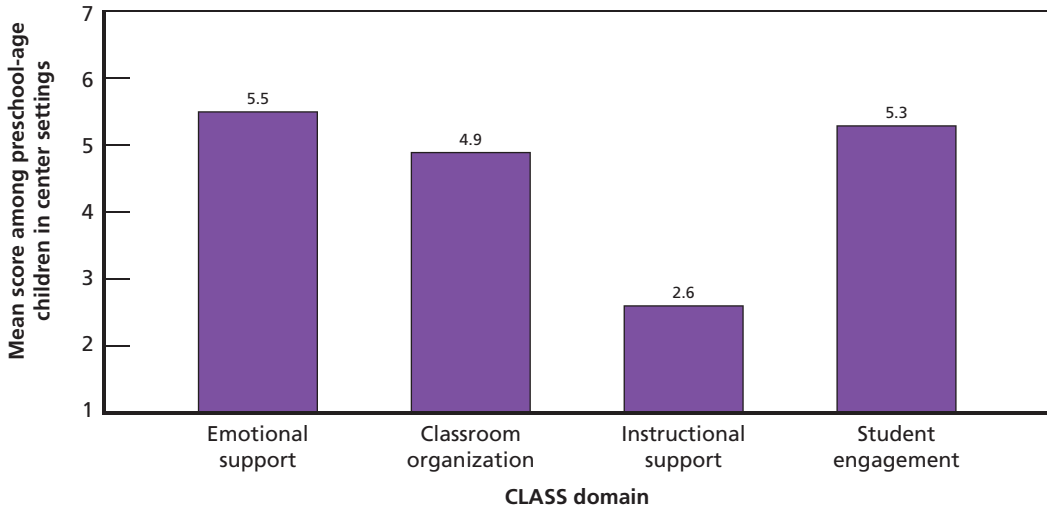
The 2007 RAND California Preschool Study provided information on multiple dimensions of quality for a representative sample of preschool-age children in the state in center-based settings (Karoly et al., 2008a). Notably, the RAND study collected the CLASS through direct observation in center classrooms. The CLASS is a global quality measure that captures elements of process quality, based on observed interactions among teachers and students in the classroom, without regard to the presence of various materials, the physical environment or safety, or the use of a specific curriculum. Thus, in CLASS, the focus is on how teachers use the materials they have and in the nature of the interactions they have with students. The CLASS is scored on a scale of 1 to 7, where 1 or 2 indicates a low score on the construct; 3, 4, or 5 indicates a mid-range score; and 6 or 7 indicates a high level of the construct.

Figure 4.1 reports the results for the four CLASS domains—emotional support, classroom organization, instructional support, and student engagement—reporting the mean scale score for California preschool-age children in center-based settings.<sup>5</sup> According to CLASS, center-based caregivers and teachers scored relatively high, on average, in terms of being emotionally supportive and sensitive to the perspectives of children in the room (mean of 5.5 on emotional support) and providing a well-

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<sup>5</sup> The version of the CLASS preschool instrument used in the 2007 RAND California Preschool Study measured 11 dimensions that were then aggregated to four domains (Pianta, La Paro, and Hamre, 2006). In the subsequent version of the CLASS instrument, the fourth domain (student outcomes), which consisted of one dimension (student engagement), was no longer included in the scale (Pianta, La Paro, and Hamre, 2008). Figure 4.1 uses the “student engagement” label for the fourth domain so as not to confuse it with a measure of student performance.

**Figure 4.1**  
**Mean Scores for CLASS Domains for Preschool-Age Children in California in Center-Based Settings: 2007**



SOURCE: Karoly et al., 2008a, Table 4.17, based on RAND California Preschool Study provider observation data.

NOTES: Sample is children in center-based ECE arrangements. Sample size is 615.

RAND MG1188-4.1

managed and productive environment for learning (mean of 4.9 on classroom organization). Teachers also performed well in terms of the overall level of engagement of children in the classroom (mean score of 5.3).

However, classroom staff scored poorly, on average, in terms of promoting higher-order thinking skills, providing quality feedback, and developing students' language skills (mean score of 2.6 for instructional support).<sup>6</sup>

The distribution of the instructional support measure across the score range shows that just 11 percent of children were in classrooms that achieved 4 or higher, while 66 percent were in classrooms that scored below 3. The low average score for this domain is especially noteworthy because, in other studies that have linked CLASS scores to student developmental outcomes, the instructional support component is a strong predictor of gains on cognitive assessments and subsequent achievement tests (Hamre and Pianta, 2005; Howes, Burchinal et al., 2008). Thus, according to this measure, only a small fraction of California preschool-age children in center settings are in classrooms

<sup>6</sup> Lower average scores for the instructional support domain relative to the other CLASS domains have been consistently found in other studies. For example, the level attained in Oklahoma's successful universal preschool program is 3.2 on average. However, just 24 percent of preschool-age children in California are in center-based classrooms that attain the Oklahoma average. See Karoly et al., 2008a, for further discussion of the CLASS results for California.



where the teachers provide language-rich discussions and other activities that support the development of pre-literacy and higher-order thinking skills—capacities that have been linked to success in kindergarten and beyond.

Beyond the quality dimensions recorded in Figure 4.1, the RAND study showed gaps in other important areas of care quality for preschool-age children (Karoly et al., 2008a). Indeed, some of the shortfalls in teacher-child interactions recorded in Figure 4.1 may result from gaps in other structural features of the ECE environment that limit the ability of the ECE workforce to fully exploit their capacity for high-quality care. These barriers can include suboptimal group sizes and staff-child ratios, limits on curricula and other instructional materials, low levels of compensation, substandard working conditions, lack of paid preparation time, limited professional development opportunities, high turnover, and so on. The RAND study showed, for example, that fewer than half of preschool-age children in center settings were in classrooms that used a research-based curriculum. While more children were in settings that would meet established benchmarks for group size and ratios based on the average of the observed measurements, upwards of 30 percent of children were in settings where the average group size or ratio during the observation period fell short of the quality benchmark, and more than half of children were in classrooms where those benchmarks were not met at least once during the day based on one or more specific measurements (Karoly et al., 2008a).

Unfortunately, we do not have comparable information on the overall quality of care received by statewide samples of infants and toddlers in center-based programs, nor do we have information on the quality of care received by representative samples of children—whether infants, toddlers, or preschoolers—in home-based settings. What little evidence we have suggests that care quality is probably no higher in home-based settings than in center-based settings, and that care for infants and toddlers may be of somewhat lower quality, whether in home-based settings or centers, than care for preschool-age children. For example, Fuller and Kagan (2000), found that centers in San Francisco and Santa Clara counties assessed in 1998 had scores on the Early Childhood Environment Rating Scale (ECERS)—another measure of global quality scored on a 7-point scale—just above 5 on average, whereas family child care providers had scores on the equivalent Family Day Care Rating Scale (FDCRS) just below 3 on average. Likewise, for the 42 centers assessed by Whitebook, Phillips, et al. (2004) in 2001–2003 in Alameda County, the average ECERS score was 5.3, compared with an average score on the FDCRS of 3.1 for the 60 family child care homes in the sample. The two strata of providers were more similar on measures of caregiver-child interactions and how children spent their time. Finally, the 1993 Cost, Quality, and Outcome Study, which included center-based programs in California (one of four states studied), found that quality was lower on average for center-based infant-toddler rooms based on the Infant-Toddler Environment Rating Scale (ITERS) compared with the ratings

for center-based rooms serving preschool-age children assessed with the ECERS (Helburn, 1995).

Finally, two other dimensions of ECE quality in licensed settings merit mention: training to work with English-language learners (ELLs) and with children with special needs. The ability to work with dual language learners is a key competency, especially for providers in California where upward of half of children under age six are either first- or second-generation immigrants (Karoly and Gonzalez, 2011). In terms of dual language training, the 2004 Child Care Workforce Study showed that three in ten centers had at least one teacher with formal college coursework focusing on young English learners, although upward of four in ten centers employed staff with at least some noncredit training in the subject (Whitebook, Sakai, et al., 2006a). Even fewer providers in licensed family child care homes had such training (Whitebook, Sakai, et al., 2006b). More-recent data reported by lead classroom teachers of three- and four-year-olds in center-based programs as part of the 2007 RAND California Preschool Study show a similar pattern (Karoly et al., 2008). Just over 40 percent of preschool-age children were in centers where the lead teacher reported one or more noncredit hours of ELL training (with 30 percent of children having a teacher with more than six hours of training), while 38 percent of children were in center-based settings where the teacher reported one or more college credits for coursework related to English-language learners (with 27 percent having a teacher with six or more credits). In the 2004 Child Care Workforce Study, it was far more common to have teachers with noncredit training or college credits focusing on working with children with special needs, both in licensed centers and licensed family child care homes. This contrast in preparation to work with special populations—dual language learners versus children with learning disabilities—reflects, in part, the differential availability of education and training opportunities on those subjects (Whitebook, Bellm, et al., 2005). In both cases, there is little information about the quality of the training received and its effect on the quality of the care provided.

Another aspect of ECE quality tied to child outcomes is the degree of stability in program staff, a feature that is positively associated with compensation (Whitebook, Howes, and Phillips, 1998; Whitebook and Sakai, 2004). Here again, the 2004 Child Care Workforce Study provides the most reliable estimates of staff turnover, albeit only for licensed centers. Notably, the survey showed that 22 percent of teacher positions and 26 percent of assistant teacher positions in licensed centers had turned over in the last 12 months, with even higher rates of turnover in centers serving infants. The stability of care arrangements in home-based settings, whether licensed or not, is not well documented.

## Public and Private Postsecondary Institutions That Provide ECE Workforce Professional Development in California

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As states have boosted their efforts to improve ECE workforce quality through PDSs, attention has centered on the quality of the programs that train the ECE workforce. Research cited in Chapter Two has pointed to the importance of the quality of teacher-training programs at all degree levels, as well as ongoing professional development opportunities, for ensuring that ECE providers have the required competencies to successfully support children from birth to age five (Bogard, Traylor, and Takanishi, 2008; Early, Maxwell, et al., 2008). As noted in Chapter One, unlike K–12 education in which a bachelor’s degree is required to obtain a teaching credential, many members of the ECE workforce enter the field before obtaining a higher education degree or even undertaking postsecondary credit-bearing coursework. However, those who choose to remain in the field may elect to obtain additional formal education through coursework or a postsecondary degree, while others may obtain further professional development through other public or private providers.

The goal of this chapter is to examine the landscape of public and private institutions that provide postsecondary education in support of professional development in the ECE field. California, with its university system, state colleges, and community colleges, has the largest public higher education system in the world. A number of private colleges and universities also offer credit-bearing ECE courses and associated degree programs. In this chapter, we focus primarily on the public postsecondary institutions that deliver the bulk of ECE teacher preparation. This focus is also dictated by the fact that the readily available data on such indicators as enrollments and degrees are limited to public institutions. We also draw on the findings from a systematic data collection effort for public and private postsecondary institutions with ECE teacher preparation programs conducted earlier in the decade by Whitebook, Bellm, et al. (2004, 2005). This earlier work provides important information about program quality, alignment, and articulation, although it does not reflect more-recent efforts, also covered in the chapter, to advance the higher education system in these areas.

The portrait that emerges of the higher education system in California that supports ECE professional development is one in which the bulk of the formal workforce

investment occurs in the public higher education system, with more than 150,000 part- and full-time students enrolled in ECE-related courses in the CCC system in the 2008–09 academic year. In 2009–10, 1,800 associate degrees in the ECE field were awarded in the two-year public system and a similar figure is estimated for the number of bachelor's degrees awarded across both public and private institutions, although not all of the BA programs focused on early education prior to kindergarten. Despite the importance of the higher education system, existing data do not allow us to determine how many of those taking ECE courses or graduating from two- or four-year institutions with a degree in the ECE field are currently in the ECE workforce or preparing for a career working with young children, nor can the data be used to determine whether the current capacity of the higher education system in the ECE field is sufficient to support an increase over time in the educational attainment of the ECE workforce. Moreover, we have a limited understanding of the effectiveness of postsecondary ECE teacher preparation programs in California because public and private programs are not routinely evaluated in terms of their effectiveness in providing students and graduates with the core competencies needed to deliver high-quality ECE programming in their work as caregivers, teachers, or administrators. Issues identified in the past concerning program alignment and articulation within and across the CCCs and CSUs are being addressed, although other concerns about program quality remain.

## California Community Colleges

The vast majority of students in California who take credit-bearing courses in child development and related ECE fields or work toward a degree in the subject do so at one of the state's 103 community college campuses or 19 state university campuses that currently offer a course of study in child development or ECE (out of a total of 110 and 23 campuses, respectively). We focus first on the California Community College system, which enrolled nearly 2.8 million students in total in the 2009–10 academic year (CCC, 2010). In the next section, we discuss the California State University system, which enrolled a total of 440,000 students in the same year (CSU, 2010b).

As this discussion proceeds, it is important to note that for both the CCC and CSU systems, we have no direct information as to whether or not those taking courses in the ECE field or receiving degrees in the field are current or future members of the ECE workforce. Some may be taking ECE courses to fulfill general education requirements, not because they currently work in center- or home-based child care or in an early education setting. Likewise, some of those receiving postsecondary degrees in the ECE field may end up working in jobs that do not provide direct service to children or may supervise those providing care to children. Thus, while not providing a direct linkage to the ECE workforce, the figures on enrollments and degrees considered in these two sections provide a perspective on the size of the higher education programs

that are *potentially* available to serve the ECE field in California (as well as students in other fields) and the composition of the students and graduates.

### Enrollments in the ECE Field

In terms of formal education in the ECE field, the bulk of ECE coursework occurs in the CCC system. As shown in Table 5.1, about 155,000 students in the CCC system enrolled in one or more child development courses for the 2008–09 academic year, although the majority (nearly 100,000, or 62 percent) took only one course in the field.<sup>1</sup> The largest share of the student population taking ECE courses (43 percent) are considered “continuing students” (i.e., enrolled in both the current and prior sessions), although nearly a majority are classified as freshman (50 percent). A part-time schedule is most common (56 percent), as is being a day student (66 percent). The student population is dominated by females, racially and ethnically diverse, and distributed across the age spectrum. There are no meaningful differences between those taking just one child development course and those taking two or more courses in terms of their academic level, unit load, day/evening status, and race/ethnicity. Compared with those taking one course, those taking two or more courses are more likely to be continuing students (47 versus 40 percent), female (92 versus 83 percent), and age 30 or older (44 versus 30 percent). These patterns are similar to those reported by Whitebook, Bellm, et al. (2004) based on data from the 2002–03 academic year.

It is interesting to consider how the demographic makeup of the CCC student population in ECE—those who may currently be or who could potentially become members of the ECE workforce—compares with the existing ECE workforce. The available data make this problematic for several reasons. First, the CCC data in Table 5.1 do not differentiate between those who are majoring in the field and therefore more likely to be in the ECE workforce while they are students or in the future and those merely taking courses to fulfill a general education requirement. Second, the best available data on the workforce in licensed settings from the 2004 California Early Care and Education Workforce Study summarize demographic information not for the workforce as a whole but separately by staff position. With these caveats in mind, we note several ways in which the demographic makeup of the CCC student body taking ECE courses differs from the composition of the ECE workforce, at least for those in licensed settings.

First consider the age composition. Whitebook, Sakai, et al. (2006a) estimated that 33 percent of lead teachers in licensed centers and 49 percent of assistant teachers in those centers were under age 30. In contrast, among providers in licensed family child care homes, just 7 percent were under age 30 (Whitebook, Sakai, et al., 2006b).

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<sup>1</sup> Unlike the CSU data, the CCC data do not allow us to determine the number of majors in child development and related ECE fields, but only the number of students taking courses in those subjects, some of whom will just be fulfilling general education requirements.

**Table 5.1**  
**California Community Colleges' Enrollments in Child Development Courses by Enrollment Characteristics: 2008–09**

Characteristic	Number of Students			Percentage Distribution		
	One CD Course	Two or More CD Courses	Total	One CD Course	Two or More CD Courses	Total
<b>Student status</b>						
First-time student	17,743	7,501	25,244	18.3	12.8	16.2
First-time transfer student	10,260	5,705	15,965	10.6	9.8	10.3
Returning student	20,482	11,449	31,931	21.1	19.6	20.6
Continuing student	38,911	27,553	66,464	40.1	47.2	42.8
Unknown or not applicable	9,576	6,198	15,774	9.9	10.6	10.2
<b>Academic level</b>						
Freshman	50,277	26,969	77,246	51.8	46.2	49.7
Sophomore	13,209	7,853	21,062	13.6	13.4	13.6
Other undergraduate	7,933	5,778	13,711	8.2	9.9	8.8
AA degree recipient	4,337	3,122	7,459	4.5	5.3	4.8
BA degree recipient	6,963	5,991	12,954	7.2	10.3	8.3
Other level or unknown	14,253	8,693	22,946	14.7	14.9	14.8
<b>Unit load</b>						
Part-time (up to 12 units)	54,085	32,547	86,632	55.8	55.7	55.8
Full-time (more than 12 units)	42,887	25,859	68,746	44.2	44.3	44.2
<b>Day/evening status</b>						
Day student	63,549	39,552	103,101	65.5	67.7	66.3
Evening student	32,404	18,318	50,722	33.4	31.4	32.6
Unknown	1,046	547	1,593	1.1	0.9	1.0
<b>Student demographics</b>						
Female	79,034	52,746	131,780	82.7	91.7	86.1
Male	16,589	4,748	21,337	17.3	8.3	13.9
White	30,144	17,109	47,253	31.1	29.3	30.4
Hispanic	36,124	22,350	58,474	37.3	38.3	37.6
African-American	8,854	5,278	14,132	9.1	9.0	9.1

Table 5.1—Continued

Characteristic	Number of Students			Percentage Distribution		
	One CD Course	Two or More CD Courses	Total	One CD Course	Two or More CD Courses	Total
Asian	7,213	5,398	12,611	7.4	9.2	8.1
Filipino	2,782	1,235	4,017	2.9	2.1	2.6
Pacific Islander	684	313	997	0.7	0.5	0.6
American Indian/ Alaskan Native	873	487	1,360	0.9	0.8	0.9
Unknown	10,298	6,236	16,534	10.6	10.7	10.6
Age						
<19	28,673	8,109	36,782	29.6	13.9	23.7
20–24	26,528	14,967	41,495	27.4	25.6	26.7
25–29	12,194	8,688	20,882	12.6	14.9	13.4
30–34	8,191	6,966	15,157	8.4	11.9	9.8
35–39	6,562	6,196	12,758	6.8	10.6	8.2
40–49	8,848	8,135	16,983	9.1	13.9	10.9
50 +	5,593	4,593	10,186	5.8	7.9	6.6
Unknown	383	752	1,135	0.4	1.3	0.7
Total	96,999	58,417	155,416	100.0	100.0	100.0

SOURCE: Unpublished data provided by the CCC Chancellor's Office.

NOTES: Tabulations are unduplicated headcounts. Numbers in categories may not sum to totals because of missing data.

With 36 percent of those taking ECE courses in the CCC system in the same age range, the CCC student population in the ECE field is more similar in age to the lead teacher segment of the workforce than it is to the assistant teacher segment or the licensed home-based provider segment.

Second, in terms of race-ethnicity, although a majority of the ECE workforce in licensed centers surveyed by Whitebook, Sakai, et al. (2006a) was white (53 percent), with the next-highest group being Latina/o (27 percent), the ECE student population is dominated by Latinas/os (38 percent overall or 42 percent among those whose race/ethnicity is reported), followed by whites as the next-most populous group (30 percent overall or 34 percent among those whose race/ethnicity is known).<sup>2</sup> This may reflect the relatively lower levels of education among Latinas/os in the ECE workforce—and

<sup>2</sup> Among licensed family child care home providers, the dominant group is also whites (42 percent), followed by Latinas/os (35 percent) (Whitebook, Sakai, et al., 2006b).

hence, their greater representation among those seeking additional coursework or degrees.

Finally, the 2004 California Early Care and Education Workforce Study did not collect information about the gender of teaching staff in licensed center programs, given the expectation that the ECE workforce is predominantly female (Whitebook, Sakai, et al., 2006a). And the workforce in licensed family child care homes is almost exclusively female (96 percent) (Whitebook, Sakai, et al., 2006b). So it may be surprising that 14 percent of those taking ECE courses in the community college system are male, although that share drops to 8 percent among those taking two or more courses in the field, the group that may be more committed to the ECE field of study and to ECE employment.

### **Degrees in the ECE Field**

The CCC system awards two formal degrees (Associate in Arts, AA, and Associate in Science, AS), five certificates, and two other awards, although most individual campuses do not make awards in all categories.<sup>3</sup> As seen in Table 5.2, just over 6,500 awards were made in the child development and related ECE fields in the 2009–10 academic year, with the modal award being a certificate requiring 6 to 18 units (nearly 2,900 awards, or 44 percent). The number of associate degrees topped 1,800; 900 certificates with 18 to 30 units and almost 700 certificates with 30 to 60 units were also awarded. Notably, looking over the awards in the past five academic years, there has been a downward trend from a peak of about 8,100 awards in 2005–06. Much of this decline is concentrated in the number of certificates granted (almost 1,500 fewer awards since 2005–06), rather than in the formal degrees (a decline of about 100 degrees since 2005–06).

In their comprehensive assessments of the ECE and child development higher education programs, Whitebook, Bellm, et al. (2004) noted that one reason for the gap in ECE enrollments versus ECE associate degrees is the fact that California state licensing does not require a postsecondary degree or certificate for a person to serve as an associate or lead teacher in a licensed center or family child care home serving children from birth to kindergarten entry, nor is a degree required in state-funded Title 5 contract centers (see Table 4.1 and the associated discussion in Chapter Four, as well as Appendix A). It is also worth noting that some students will earn sufficient ECE credits to qualify for a Child Development Permit while majoring in another field, such as Liberal Studies, because such degrees broaden the career options for those who are

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<sup>3</sup> In the child development and related ECE fields, each community college typically offers either the AA or AS degree (a few offer both). Depending on the college, an associate degree in child development, for example, may be either an AA or AS degree. Likewise, a degree in early childhood education may be of either type. As of 2004, the AA degree was somewhat more common than the AS in early childhood teacher preparation programs in California (Whitebook, Bellm, et al., 2005). There is no difference in the two types of degrees in terms of their relevance for the CDP or for articulation in the four-year system.



**Table 5.2**  
**California Community Colleges Awards in Child Development/Early Childhood Education:**  
**Academic Years 2005–06 to 2009–10**

Type of Award	2005–06	2006–07	2007–08	2008–09	2009–10
AA degree	1,038	991	903	988	933
AS degree	908	937	943	974	900
Certificate requiring 12 up to 18 units	0	0	0	31	143
Certificate requiring 18 up to 30 units	1,462	1,713	1,115	1,067	906
Certificate requiring 30 up to 60 units	803	781	801	758	698
Certificate requiring 6 up to 18 units	3,743	3,441	3,308	3,492	2,850
Certificate requiring 60 or more semester units	89	41	40	19	32
Noncredit award requiring 288 up to 480 hours	33	0	9	34	0
Other credit award, under 6 semester units	48	43	58	51	87
<b>Total</b>	<b>8,124</b>	<b>7,947</b>	<b>7,177</b>	<b>7,414</b>	<b>6,549</b>

SOURCE: California Community Colleges, 2010.

NOTE: Awards are in the 4-digit code 1305 for Child Development/Early Childhood Education.

considering teaching at either the preschool or the early elementary level (Whitebook, Bellm, et al., 2004).

Whitebook, Bellm, et al. (2004) also report that demand for ECE programs in the CCC system in particular was “moderate to high” at the time they collected their qualitative data, driven in part by the increased educational requirements for Head Start teachers, as well as the workforce professional development initiatives discussed in more detail in the next chapter. Capacity constraints were also emerging in terms of a shortage of classroom space and faculty, especially those who are bilingual. In addition, with the emphasis on attainment of a bachelor’s degree, CCC students may obtain the required number of units and courses to transfer to the CSU system but otherwise do not receive the AA or AS degree. At the same time, the state budget crisis in recent years has pushed up tuition and fees and led to program cutbacks, such as reduced course offerings. A combination of these factors may explain some of the decline in CCC awards in the ECE field in recent years.

## California State University System and Other Four-Year Institutions

We know far less about those enrolled in ECE courses in the CSU system and other four-year public and private institutions, at both the bachelor's and postbaccalaureate levels.

### Enrollments and Degrees in Four-Year Institutions

As seen in Table 5.3, about 6,100 undergraduate students were majoring in child development, early childhood education, or early childhood studies at a CSU campus as of the fall of 2008, with the vast majority (nearly 80 percent) attending school full time (i.e., 12 units or more).<sup>4</sup> The number of bachelor's degrees awarded is about one-fourth the number of majors, with just over 1,600 undergraduate degrees awarded in child development and related ECE fields in the CSU system in the 2008–09 academic year, nearly all to women.

One complexity in capturing enrollments and the production of bachelor's degrees that are relevant for the ECE workforce is that there is little consistency across the CSU campuses in how they structure their degree programs with a focus on young children. Appendix B summarizes the structure of such programs across the 19 CSU campuses that offer a bachelor's degree in which the degree itself or a degree track or option explicitly mentions a focus on young children.<sup>5</sup> The summary illustrates the variation

**Table 5.3**  
**California State University Undergraduate Enrollments of Students Majoring in Child Development, Early Childhood Education, or Early Childhood Studies, and Undergraduate Degrees Awarded in Those Fields: Fall 2008 or 2008–09**

Enrollment/Degrees	Number	Percentage Distribution
Undergraduate enrollment total (Fall 2008)	6,140	100.0
Full-time	4,839	78.8
Part-time	1,301	21.2
Undergraduate degree total (2008–09)	1,628	100.0
Female	1,542	94.7
Male	86	5.3

SOURCE: California State University, 2009, Table 4; and California State University, 2010a, Table 5.

NOTE: Some ECE programs (such as at CSU East Bay) are part of a human development major, which is part of psychology and therefore not included in these enrollment counts.

<sup>4</sup> Information on the demographic makeup of the CSU student body or faculty in these ECE fields was not readily available.

<sup>5</sup> In addition to a summary, Appendix B also provides a detailed list of the programs and their degrees and content.

across four dimensions: the designated college, degree type, degree name, and degree content. For example, five of the 19 CSU programs are within colleges of education and another five within colleges of health and human services (or health and human development). The remaining programs are distributed across colleges of agricultural sciences (one program), arts and sciences or liberal arts (three programs), behavioral and social sciences (two programs), professional studies (two programs), or no college at all (one program). While the majority of programs (14) offer a BA degree (as opposed to a BS degree), the degree names are extremely varied, with the most common being child development (four programs) or human development with a concentration in child development (three programs). Ten other distinct degrees are offered by at most two colleges each. Ten of the programs explicitly define at least one of their goals or emphasis as preparing teachers of young children and/or aligning their coursework with the California CDP matrix. A focus on young children, however, may mean early elementary education (kindergarten to third grade), as opposed to early education prior to kindergarten. Interestingly, four of the five programs offered within colleges of education (Bakersfield, San Diego, San Jose, and Stanislaus) do not make this explicit (see Appendix B). At the same time, three of the programs offered within colleges of health and human services (Fullerton, Long Beach, and San Francisco), make explicit mention of their intent to prepare ECE teachers and align with the CDP. This is also true for three other programs located in other departments (Fresno, Sacramento, and San Bernardino). The two programs offering the most robust descriptions of the emphasis on ECE teacher preparation are the early childhood studies program offered at Channel Islands, where there are no colleges within the university, and the liberal studies program offered at Humboldt in the college of professional studies. This stands in contrast to the seven programs that do not have an applied focus in preparing teachers for the ECE workforce but rather concentrate on more-theoretical aspects of child development.

Other public four-year institutions where students may major in ECE-related fields include the two campuses of the University of California (UC) system that offer bachelor's degrees and three that offer master's degrees. Currently, at least a dozen other public or private institutions also offer bachelor's degrees in ECE-related fields, while a slightly higher number of such institutions provide master's degrees (Karen Hill-Scott and Company, undated). In the absence of systematic data collection across these institutions, however, it is difficult to further quantify ECE enrollments or degrees in these settings. Estimates generated by Whitebook, Bellm, et al. (2004) earlier in the decade indicate that three-quarters of enrollments in ECE-related coursework at the BA level were at a CSU institution. Thus, the numbers captured in Table 5.3 will miss perhaps another 1,200 to 1,500 enrolled undergraduate students and 300 to 400 bachelor's degrees. These estimates, together with the figures in Table 5.3, suggest that the total number of bachelor's degrees in the ECE field by public and private institutions may reach upward of 1,800 per year. Although, as suggested by the degree emphases

detailed in Appendix B, not all of these degree programs focus on teacher preparation, nor will graduates necessarily work in ECE center classrooms or home settings.

### Enrollments and Degrees in Postgraduate Programs

Compiling similar data for postgraduate enrollments and degrees in the relevant fields is more problematic. The publicly available data for the CSU system tally the number of master's-level enrollments and degrees specific to child development or early childhood education (only three CSUs), but the numbers are small, as shown in Table 5.4. As noted by Whitebook, Bellm, et al. (2005), master's-level programs that provide ECE teacher preparation are housed in other departments, as well, such as family/consumer studies, education, and psychology, currently representing another eight CSUs (Karen Hill-Scott and Company, undated).<sup>6</sup> Based on a survey of relevant CSU departments, their estimates for 2003 indicate about 1,200 students working toward a master's degree in the ECE field across all relevant departments, with about 300 degrees awarded in 2003 (Whitebook, Bellm, et al., 2005). Given a few larger private postgraduate programs in the field surveyed by Whitebook, Bellm, et al. (2004), there are perhaps another 900 master's students in private programs and 100 to 200 master's degrees awarded annually, as well as a handful of additional doctorates who complete a degree at the one institution of higher education that offers an Ed.D. in the field, who are not counted in Table 5.4. In addition to being in the ECE workforce, those receiv-

**Table 5.4**  
**California State University Graduate Enrollments of Students Majoring in Child Development, Early Childhood Education, or Early Childhood Studies, and Graduate Degrees Awarded in Those Fields: Fall 2008 or 2008–09**

Enrollment/Degrees	Number	Percentage Distribution
Master's enrollment total (Fall 2008)	84	100.0
Full-time	22	9.1
Part-time	62	90.9
Master's degree total (2008–09)	22	100.0
Female	2	9.1
Male	20	90.9

SOURCES: California State University, 2009, Table 10; and California State University, 2010a, Table 8.

NOTE: Some ECE programs (such as at CSU East Bay) are part of a human development major, which is part of psychology and therefore not included in these degree counts.

<sup>6</sup> This same issue applies to enrollments and degrees at the associate and bachelor's level, but most students are represented in the traditional child development/ECE fields captured in Tables 5.1 to 5.4.

ing postgraduate degrees may also teach at the community college level. However, as with the undergraduate degrees, it is not possible to link those receiving master's degrees or doctorates in the ECE field to those who belong to or join the ECE higher education faculty.

## **ECE Higher Education Program Quality, Access, and Outcomes**

Beyond having figures on enrollments and degrees, it is also important to understand whether the ECE teacher preparation programs in California's public and private institutions of higher education provide students and graduates with the core competencies needed to deliver high-quality ECE services in their work with children as caregivers, teachers, or administrators. Given the diversity of California's population, ensuring engagement with and success in higher education for diverse segments of the ECE workforce is also key. In terms of system outputs, it is also relevant for workforce planning to understand how participation in ECE higher education relates to workforce dynamics. We discuss each of these issues in turn.

### **Program Quality, Alignment, and Articulation**

The last systematic assessment of the ECE higher education programs in California, conducted by Whitebook, Bellm, et al. (2005), identified a number of important gaps in the programs of study based on information provided by department chairs or program directors.<sup>7</sup> For example, many programs did not require a full course of study that would cover the range of topics recognized by experts in the field as critical for ECE teachers and administrators. One such gap was in the provision of courses needed to acquire competency in working with dual language learners and with families from diverse ethnic, cultural, or linguistic backgrounds. The use of practicums was also not a routine requirement across programs, especially for certificate programs. It was also not clear that programs were able to meet the demand on the part of their diverse student bodies for courses in languages other than English (or other language supports) and on a schedule that would enable those who choose to combine work and school. Experts in ECE higher education have identified other issues that affect programs nationwide, including the need to integrate knowledge of child development with knowledge of subject-matter pedagogy and the need for longer and more focused fieldwork placements (Whitebook, Gomby, et al., 2009c; Bornfreund, 2011).

Whitebook, Bellm, et al. (2005) also noted that California's issues with the program of study were compounded by challenges with program faculty—notably, a lack of diversity in the racial, ethnic, and linguistic makeup of program faculty, as well as reliance on part-time adjuncts rather than full-time faculty. About one-quarter of the

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<sup>7</sup> For a discussion of issues with ECE teacher preparation programs more generally, see Bornfreund (2011).

programs had a part-time faculty that was all white and non-Hispanic; that distinction rose to nearly half of programs when considering the full-time faculty. Among the approximately 2,000 ECE faculty represented in the study, almost two-thirds were part-time or adjunct staff. Other issues that have been identified with faculty in ECE programs more generally include limited knowledge of recent developments in the ECE field, insufficient classroom experience working with children from birth to age five, and gaps in training concerning how to teach adult learners, including the use of technology-mediated learning (Whitebook, Gomby, et al., 2009c).

Another issue identified in the Whitebook, Bellm, et al. (2004; 2005) scan of the California ECE postsecondary education system was the need for articulation within the two-year CCC system and across the two- and four-year systems. Within the two-year system, community college autonomy means that there has been a lack of uniformity in the course offerings and degree requirements in terms of the division of the 60 units required for graduation between general education courses and courses in the child development/ECE field. In the absence of articulation agreements, students transferring between two-year institutions may find that they need to retake courses or acquire more credits to meet the requirements at their new institution. Likewise, articulation issues have been equally prevalent for students moving from a two- to a four-year institution because many four-year ECE programs recognize community college courses only as general electives rather than counting them toward the major. Moreover, the lack of a consistent curriculum across the CCCs and CSU campuses also limited the alignment with the California Teacher Permit process.

The CCC ECE Curriculum Alignment Project (CAP), initiated in 2005 by the California Community College Early Childhood Educators (the community college professional faculty association) in collaboration with the CSU faculty and other stakeholders, was a response to concerns about a lack of alignment and articulation within the state's higher education system (Child Development Training Consortium [CDTC], 2011a).<sup>8</sup> One outcome of this effort is a set of eight lower-division courses (24 units)—the Lower Division 8—that is designed to serve as consistent core curricular foundation for developing teaching competencies in the ECE field.<sup>9</sup> The structure of the core curriculum is designed to address a number of the gaps identified in prior studies, with explicit emphasis on working with families from diverse backgrounds and

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<sup>8</sup> A related effort, undertaken by the Child/Adolescent Development Faculty at several CSU campuses starting in 2006, was the Baccalaureate Pathways to Early Care and Education (BPECE). The goal of the Pathways project, which is no longer active, was to define the core competencies required for upper-division ECE courses in the CSUs, building on the foundation developed in lower-division courses and practicums.

<sup>9</sup> The total of 24 units was chosen to align with the Teacher-level permit on the Child Development Permit Matrix (see Appendix A). The breakdown into three-unit courses was based on the expectation that three-unit courses worked best for transfer (Brown, 2007). The eight courses include Child Growth and Development; Child, Family, and Community; Introduction to Curriculum; Principles and Practices of Teaching Young Children; Observation and Assessment; Health, Safety, and Nutrition; Teaching in a Diverse Society; and Practicum: Field Experience (CDTC, 2011a).

the integration of field experience with coursework. As of September 2011, 102 of the state's community colleges had agreed to participate in CAP, with 27 already officially aligned to the new curriculum, four provisionally aligned pending official documentation, and 20 more actively in the process of alignment (CDTC, 2011b). In addition, the CSU campuses of Fresno, Fullerton, Humboldt, and Sacramento have put in place transfer paths that accept the Lower Division 8 courses toward a bachelor's degree in the field (CDTC, 2011a).

This effort to address issues with alignment and articulation specific to the ECE curriculum is being reinforced through legislation signed into law in California in September 2010. Senate Bill (SB) 1440, known as the Student Transfer Achievement Reform (STAR) Act, requires California's community colleges to create two-year transfer degrees that guarantee admission to a CSU with junior status, so that students can more readily continue on toward a four-year degree (California State Senate, 2010). While this legislation affects all areas of study in the CCC system, it is already buttressing efforts to ease such transfers within the ECE field. In particular, eight CAP courses have now been approved as the required coursework for the new statewide ECE transfer degree under the STAR Act (CDTC, 2011b).

The development of a standardized competency-based ECE curriculum in higher education has the potential to improve the quality of the training received by students. This, in turn, should improve the quality of the early learning experience provided by those students, as they use the knowledge and experience acquired through their coursework to work with children in ECE programs. An important follow-on activity for the CAP effort will be assessing the effect of the revised aligned curriculum on the performance of program graduates.

Another mechanism for ensuring that higher education programs meet standards for high quality is accreditation, a process that typically involves self-study, external review, and program improvement. Although California's CCCs and CSUs undergo accreditation by the Western Association of Schools and Colleges (WASC), relatively few have been accredited by national organizations that offer specialized ECE accreditation. Notably, since 2006 NAEYC has been accrediting associate degree teacher preparation programs focused on early childhood, yet none of the California CCCs has been accredited by NAEYC. The National Council for Accreditation of Teacher Education is the main accrediting body for colleges and universities that prepare teachers to work in elementary and secondary schools. Although 23 California colleges and universities currently have NCATE accreditation (including 17 CSUs), only one is accredited within the NCATE early childhood specialization (in affiliation with NAEYC) and that one is specific to kindergarten to third grade, not birth to age five.

### **Promoting Access for Diverse Populations**

Chapter Three noted that state PDSs include efforts to ensure access to professional development opportunities for diverse populations. Notably, California is gaining

experience with the student cohort model for BA attainment through programs in Alameda, San Francisco, Santa Barbara, and Santa Clara counties associated with six public and private universities (Whitebook, Sakai et al., 2008, 2010). Like other programs, the California initiatives bring together small groups of adults—typically minority women (primarily Latina) who often speak a language other than English at home (usually Spanish)—to pursue the completion of a bachelor’s degree in ECE. The cohort groups receive various supports, including classes scheduled at convenient times and locations, financial aid, advising and counseling, and academic and technological supports, such as tutoring.

An ongoing evaluation by the Center for the Study of Child Care Employment shows that students provide high ratings for the program in terms of academic and socioemotional support, but they also note the need for support from family and employers (Whitebook, Sakai et al., 2008, 2010; Whitebook, Kipnis, et al., 2011). By the second year, students reported that many of the challenges they faced—school-work-home balance, language barriers, academic challenges (especially with writing)—had eased. By the third year of the program, the vast majority of the students in the program had completed their bachelor’s degree at a rate that exceeded the CSU average. In addition to the cohort models, First 5 Los Angeles has funded the Early Care and Education Workforce Initiative, which combines cohorts and other peer supports, dedicated academic counseling, supports in the transition from high school to community college or community college to a four-year college, and financial assistance. A first-phase qualitative evaluation of the initiative suggests that this approach may also be promising (Center for the Study of Child Care Employment, 2011).

### **Implications of ECE Higher Education for Workforce Dynamics**

While the somewhat detailed data on enrollments and degrees in the CSU and CCC systems are informative, the current data systems for these institutions—much less those for other higher education entities—cannot provide a more comprehensive picture of the dynamics of the formal education and professional development activities of the ECE workforce. For example, the systems do not shed light on the number of students taking courses prior to entering the ECE workforce (i.e., preservice education) versus those enrolled while working in the field, nor do they reveal how many students receiving two-year degrees continue on and take courses or obtain a degree at a four-year institution.

The data systems also do not support tracking of students who accumulate credits or obtain a degree in terms of their subsequent performance in ECE programs or their attachment to or retention in the ECE workforce. While some institutions may undertake periodic tracking studies, such information is not routinely collected across the state public higher education system or for private institutions (Whitebook, Bellm, et al., 2004). Whitebook, Bellm, et al. (2005) report, based on estimates provided by



institution officials, that about three-quarters of students earning an associate degree continue on the field versus about half of those receiving a bachelor's degree.

Likewise, current data systems do not allow us to determine the relationship between the current size of California's higher education programs in the ECE field and the potential change in the size of the workforce with postsecondary degrees. For example, based on the size of the ECE workforce and the share with an associate degree as of 2004, we can calculate that the addition of 1,800 ECE associate degrees per year (the figure discussed earlier in the chapter) could potentially increase the size of the ECE workforce in center-based programs with an associate degree by 12 percent.<sup>10</sup> But this is, of course, an upper bound; it does not account for the fact that a fraction of degree receipts will not enter the ECE field and that there will be annual losses in the size of the ECE workforce with an associate degree because of retirements, shifts in employment to other sectors, or increases in degree attainment (as those with an associate degree advance to a bachelor's degree).

Making the same calculation based on the estimate of 1,800 bachelor's degrees per year in the ECE field (as discussed earlier), the size of the ECE workforce with a four-year degree could potentially grow by 14 percent per year, based on the 2004 estimates of the size of the existing workforce with a bachelor's degree.<sup>11</sup> Again, this is an upper bound estimate because not all those graduating with a bachelor's degree will be in the ECE workforce, and some of the new degree recipients will replace those leaving the ECE workforce to retire or for other reasons. In the absence of more-accurate estimates of the relationship between ECE degree recipients and the ECE workforce and of the level of ECE workforce attrition by degree level, it is not possible to determine the extent to which the current capacity of the ECE higher education system in California will allow further growth in the educational qualifications of the ECE workforce.

Considering the ECE educator workforce—those who teach in postsecondary undergraduate and graduate degree programs—it is also worth noting that we do not have sufficient data to assess whether the current pipeline of graduates through master's and doctoral programs is sufficient to ensure the required size and caliber of that workforce now or in the future. Again, in the absence of routine workforce data linked to participation in higher education, we can only speculate on whether California has

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<sup>10</sup> This calculation is based on figures presented in Chapter One (see Table 1.2) showing 28 percent of the roughly 45,000 lead teachers in center-based programs with an associate degree and 12 percent of the 23,000 assistant teachers with an associate degree, or a total of about 15,000 members of the center-based ECE workforce with an associate degree.

<sup>11</sup> As with our calculation for associate degrees above, this estimate is based on figures presented in Chapter One (Table 1.2) showing bachelor's degrees for about 25 percent of the roughly 45,000 lead teachers in center-based programs and 7 percent of the 23,000 assistant teachers, or a total of about 12,900 members of the center-based ECE workforce with a bachelor's degree.

or could have an ECE educator workforce with the desired education, prior experience, and competencies.

Finally, given that enrollments in California's public higher education system are publicly subsidized, enrollments and degree attainment in the ECE field represent one component of public sector investment in the ECE workforce. Yet, the size of that investment is not routinely calculated or reported, in part because the information required to generate a rigorous estimate is not readily available. For example, we would need to know the number of courses taken annually in public higher education institutions in the state by current members of the ECE workforce or those individuals who will eventually join the ECE workforce. In the absence of a database for the ECE workforce that tracks their credit-bearing coursework and degree attainment, we cannot link the students enrolled in higher education courses with the current or future members of the ECE workforce. In addition, we would need an estimate of the size of the public subsidy associated with the courses in the higher education ECE curriculum. But such estimates are not calculated by department or for specific segments of the curriculum. As of the 2009–10 academic year, data for the CCC system generate a rough estimate of a public-sector subsidy of about \$150 per unit.<sup>12</sup> The enrollment data in Table 5.1 show nearly 97,000 students enrolled in one ECE course, while about 58,400 are enrolled in two or more courses as of 2008–09. Assuming that those in the second group take only two courses on average a year and that each course is worth three units, the enrollment in that year equaled just over 641,000 units. Even if only a fraction of those courses were taken by current or future members of the ECE workforce, the public sector investment would be in the tens of millions of dollars annually.

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<sup>12</sup> California has the lowest community college student fees in the country, so most of the system costs are covered by the public sector. At \$26 per unit for California residents as of the 2009–10 academic year, student fees translate into an annual cost of \$780, assuming a full-time course load per semester of 15 units (EdSource, 2010). In SFY 2009–10, the total student fees of \$346 million made up slightly more than 5 percent of the \$6.6 billion annual budget for the CCC system. Excluding the student fees and using an estimate of 1.3 million full-time equivalent students (FTESs), the state subsidy is approximately \$4,800 per FTES or about \$160 per unit, assuming 30 units per FTES. This may be an underestimate because it does not account for the additional public-sector contribution in the form of student financial aid. Alternatively, the subsidy can be measured in terms of the state (variable) apportionment that the CCCs receive per FTES, a figure that has stood at \$4,565 since SFY 2007–08 because of the state's fiscal crisis. This apportionment figure is for FTES credit courses leading to an associate degree, certificate, or transfer to a four-year institution. The amount is reduced for other types of courses (e.g., career development, college preparatory, and noncredit courses) (EdSource, 2010). This amounts to \$152 per unit, assuming a 30-unit load for a full-time student. This estimate would also be on the conservative side—and somewhat more so than the first estimate—in that it does not take into account additional public subsidies in the form of the fixed apportionment component, categorical funding, and student financial aid.

## Federal, State, and Local Funding Streams That Support ECE Workforce Professional Development in California

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As noted in Chapter One, there is a wide range in the education and training qualifications of California's ECE workforce in licensed settings, the formal segment of the workforce, and we can expect that this variation would apply as well to license-exempt providers, the informal segment of the workforce. In an effort to improve the quality of care for California children from birth to kindergarten entry in both licensed and license-exempt settings, federal, state, and local resources are invested in the ECE workforce through a diverse array of programs.

In this chapter, we inventory the major activities funded by public dollars that either directly or indirectly support the professional development of the ECE workforce in California, with a focus on the workforce serving children before they enter kindergarten. These activities include such direct investments as the provision of education and training courses and other professional development activities, as well as financial incentives designed to retain qualified workforce members and support their further professional development. We also include indirect investments in the workforce through efforts to raise the quality of the education and training programs themselves, by investing in the educators, curricula, or other materials. Our examination of publicly funded workforce professional development activities excludes a small set of state-level initiatives that focus on improving classroom resources, child care facilities, or other infrastructure elements, as well as those targeted exclusively to improvements in care quality for children with special needs. It also largely reflects a state-level perspective and therefore does not capture the activities and innovations taking place within counties and other local communities, although at the end of the chapter we briefly discuss the types of less-intensive informal professional development offerings that take place at the local level.

This inventory of workforce investment activities in California demonstrates that California invests substantial resources to improve the quality of the ECE workforce: over \$74 million in federal, state, and local funding as of SFY 2009–10. Existing data preclude generating accurate counts of how many individuals participate in any of these workforce professional development programs and who participates in mul-

multiple programs. Based on how funds are allocated, it is evident that most programs and the bulk of the funding are directed to those already in the ECE workforce—specifically to those formal providers in licensed center- and home-based settings. Relatively few programs aim to expand the size of the ECE workforce, and reported counts of new entrants by the programs that do aim to attract new entrants suggest a modest impact. Likewise, there are fewer programs that explicitly target license-exempt providers compared with programs that are not designed to serve them. Most important, limitations on the information available preclude a systematic assessment of whether public resources invested in workforce professional development are being put to their most effective use in terms of improving the competencies of caregivers, teachers, and administrators; increasing retention in the ECE field; and enhancing child development. With a few exceptions, most evaluations to date focus on measuring process and program activities, rather than the effects the programs have on workforce quality, retention, or child developmental outcomes.

## Public Investments in the ECE Workforce

Federal, state, and local governments may choose to invest in the competencies of the ECE workforce in several ways:

- direct provision of formal and informal education and training opportunities (e.g., degree programs, courses, workshops, and seminars)
- financial incentives—scholarships, stipends, or other mechanisms that reimburse individuals who participate in education and training programs, either for direct costs, such as tuition, books, and fees, or for indirect costs, such as the individual's time
- training teachers, trainers, mentors, or other professional development support personnel who provide preservice and in-service education and training and who themselves may be members of the ECE workforce.

The first investment strategy serves to increase the supply of education and training opportunities available to the ECE workforce or potential new recruits. It also shapes the content of the programs, potentially filling gaps in the scope of or raising the quality of the curricula covered by the existing supply. The costs with this approach are those associated with developing and delivering the education or training program content, although the delivery may not necessarily be subsidized for participants.

The second approach effectively increases the demand for professional development opportunities by providing financial resources directly to the members of the existing ECE workforce (or new recruits) if they engage in qualifying activities. Such payments in the form of scholarships, grants, or stipends may help individuals partici-

pate in programs they otherwise might not have been able to afford. Or, if cost is not the barrier, stipends may provide an incentive for individuals to invest in their own human capital, especially if the compensation structure in the ECE job market may not immediately reward them with a salary that is high enough to justify the investment in time and money. The up-front payment or any follow-on financial incentives (e.g., bonuses tied to educational attainment) may also serve to retain individuals in the field because they have made an investment in specific human capital.

The third mechanism seeks to shape the content of and/or raise the quality of existing education and training programs and other professional development supports by training those who deliver the content—the “train-the-trainers” model. This approach will not necessarily change the supply of workforce professional development opportunities. However, by increasing quality or making content more relevant, the demand for the affected programs on the part of the ECE workforce may increase. This approach also allows the most qualified members of the ECE workforce to impart their expertise through mentoring or other ways to provide professional guidance. This may also support their retention in the field.

In the discussion that follows, we classify the existing publicly funded ECE workforce professional development activities according to these three investment strategies based on the primary objective or approach, although in several cases a program may combine more than one of these strategies.

### Direct and Indirect Programs

Table 6.1 summarizes the features of the 19 major publicly funded ECE workforce professional development programs in California as of SFY 2009–10.<sup>1</sup> For each program, we list the starting year, goal or purpose, the main services or activities supported, the target population served, the agency responsible for the program and the associated funding source, the contractor or entity responsible for local delivery, summary participation counts (actual, when available, or expected), and funding for SFY 2009–10.<sup>2</sup>

Panel A consists of seven programs that fall under the first investment strategy discussed above. Three of the programs focus on specific age groups: infants and toddlers in the case of the Child Care Initiative Project and the Program for Infant/

<sup>1</sup> One local program that is not included in Table 6.1 is the San Francisco WAGES+ initiative, which provides monthly wage supplements to teachers and staff in licensed centers and family child care homes based on education level and job responsibilities (Human Services Agency of San Francisco, undated). In order to qualify, programs must serve a minimum share of low-income families and agree to an external assessment and development of a quality improvement plan.

<sup>2</sup> The set of ECE workforce professional development programs is not static over time. Indeed, the funding levels and scope of the programs in Table 6.1 have changed in several cases in SFY 2010–11 (Fitzharris, 2010). Specifically, funding was eliminated for the PBS Preschool Education Project and the CDP Matrix Professional Growth Advisors program. The Child Care Initiative Project (CCIP) license-exempt training (Growing, Learning, Caring), CARES–AB212, and TANF CDC WORKS! each received cuts (44, 21, and 10 percent, respectively). In addition, Family Child Care at Its Best was changed to focus only on licensed providers.

**Table 6.1**  
**Features of Publicly Funded ECE Workforce Professional Development Programs in California: SFY 2009–10**

Program Name (Year Started)	Purpose	Services / Activities	Target Population	Auspices/ Funding Source	Local Delivery	Year: Estimated Participation	SFY 2009–10 Funding (\$1,000s)
<b>A. Programs Providing Direct Training for Workforce Professional Development</b>							
Child Care Initiative Project (CCIP) (1985)	Recruit, train, and retain family child care providers, with a current focus on infant and toddler care providers	Outreach, materials (e.g., publications and other resources), training, and technical assistance to providers	Potential and licensed family child care providers, with priority for those serving infants and toddlers	CDE CDD/CCDF quality earmark activities, CCDBG, state general funds, and local private matching funds	CCCR&RN; implemented through local R&Rs	2008–09: 1,100 new providers recruited; 2,000 providers trained; 4,500 new slots created	\$3,784
California Exempt Care Training (CECT) Project ( <i>Growing, Learning, Caring</i> ) (2005)	Provide outreach and training to license-exempt child care providers	Outreach, materials (e.g., publications and other resources), training, and technical assistance to providers	License-exempt providers; priority for those receiving state subsidies	CDE CDD/CCDF quality activities	CCCR&RN; implemented through local R&Rs	2008–09: 4,000 providers attended 7,400 hours of training	\$2,500
California Preschool Instructional Network (CPIN) (including ELL support) (2003–04)	Provide professional development, technical assistance, and support to preschool program administrators and teachers	Professional development opportunities, training, technical assistance, and resource materials, including those targeted for ELLs and children with disabilities; coordination with First 5, Head Start, and other preschool programs	Networks of prekindergarten administrators and teachers in centers and FCC home networks, especially in areas with low API schools	CDE CDD/CCDBG	Sacramento County Office of Education and WestEd; administered through 11 CCSESA regions	n.a.	\$4,600
Desired Results Training and Technical Assistance Project (2002–03)	Train agencies in the effective use of the Desired Results system to improve their child care and development services	Materials, training, and technical assistance on use of Desired Results system (e.g., components, procedures, forms)	Administrators and teachers in CDE Title 5 contract centers and FCC programs	CDE CDD/CCDF quality activities	WestEd	Expected: 500 contractors attend three-day trainings	\$653

Table 6.1—Continued

Program Name (Year Started)	Purpose	Services / Activities	Target Population	Auspices/ Funding Source	Local Delivery	Year: Estimated Participation	SFY 2009–10 Funding (\$1,000s)
Family Child Care at Its Best (FCCB) (2003)	Deliver university-based continuing education on infant/toddler care and school readiness to licensed and license-exempt FCC providers	Training and quality improvement services; certification for continuing education units and academic credit; offered in multiple languages	Licensed FCCH and license-exempt providers	CDE CDD/CCDBG	Center for Excellence in Child Development (UC Davis)	Expected: 7,500 FCC providers attend courses	\$1,000
Program for Infant Toddler Care (PITC) Partners for Quality Regional Support Network (1998)	Coordinate regional PITC training and TA in designated regions	Compensation for PITC trainers to provide training and TA (including observation and coaching) for center-based programs at the site and for small groups of FCC providers; regional coordination of training and TA services and supervision of trainers	Licensed FCCHs and centers providers serving infants and toddlers	CDE CDD/CCDF quality earmark activities and CCDBG	WestEd	2007–08: 12,500 hours of training and TA to 4,300 staff or providers serving 17,300 infants and toddlers	\$4,317
PBS Preschool Education Project (1999)	Provide training for family child care providers and parents in selected viewing areas	Training on PBS national Ready to Learn curriculum through workshops; training materials, props, and story books for providers	At-home providers and parents in viewing areas of PBS stations in Eureka, Fresno, Los Angeles, Sacramento, San Diego, San Francisco, San Jose, and Redding	CDE CDD/CCDBG	Partner PBS stations	Expected: 2,500 FCC providers and parents receive training, affecting more than 90,000 children	\$455

Table 6.1—Continued

Program Name (Year Started)	Purpose	Services / Activities	Target Population	Auspices/ Funding Source	Local Delivery	Year: Estimated Participation	SFY 2009–10 Funding (\$1,000s)
<b>B. Programs Providing Financial Support or Incentives for Workforce Professional Development</b>							
Child Development Training Consortium (CDTC) and Career Incentive Grant Program (1987)	Fund eligible educational costs for unit-bearing coursework in 102 CCs (or other eligible institutions) for eligible students pursuing careers in child care/development to meet the requirements of the Child Development Matrix	Reimburse students for CC enrollment fees; establish lending library of texts and other resources; provide classes that college will not fund out of general budget; tutorial and/or translation services	Employees in licensed or exempt center or licensed FCCH seeking to maintain or advance CDP; priority to those at centers/ FCCH with CDE Title 5 contracts or accepting AP vouchers	CDE CDD/CCDF quality activities, CCDBG, and state general funds	Yosemite CC District; implemented at CCs through local advisory committee and CDTC Campus Coordinator	2006-07: 8,200 students at 96 CCs enrolled in more than 59,000 units of ECE college coursework	\$3,512
Child Development Permit (CDP) Stipends (1982)	Provide incentive for child care teaching staff to obtain CDP	Pay cost of CDP application and fingerprint processing fees	Potential or existing teachers in licensed or exempt center or licensed FCCH	CDE CDD/CCDBG	Implemented through CDTC	Expected: Fees paid for 3,700 CDP applicants; fingerprinting fees paid for 3,000 first-time applicants	\$500
Child Development Teacher and Supervisor Grant Program (1998)	Provide financial support for qualified staff with financial need to complete college coursework for teacher or supervisor level CDPs	Grants for college coursework leading the attainment of CDP at teacher, master teacher, supervisor, or program director levels; one year of service in licensed center for each grant year	Qualifying students based on academic achievement and demonstrated financial need	CDE CDD/CCDBG	California Student Aid Commission	Expected: 300 students obtain financial aid to pursue coursework leading to advanced permit	\$350



Table 6.1—Continued

Program Name (Year Started)	Purpose	Services / Activities	Target Population	Auspices/ Funding Source	Local Delivery	Year: Estimated Participation	SFY 2009–10 Funding (\$1,000s)
California Early Childhood Mentor Program (CECMP) (1988)	Provide resources and support for aspiring and experienced teachers and administrators in programs serving children 0–5 and in before- and after- school programs	Recruitment, training, and stipends for experienced teachers and administrators to serve as mentors; in-class practicums for student teachers with mentor teachers for high school, CC, or university credit; director mentors to work with new directors and administrators	Teachers and administrators who meet specified criteria regarding experience, education, and classroom quality	CDE CDD/CCDBG	City College of San Francisco; delivered through CECMP coordinators at 95 CCs	2008–09: 680 mentor teachers and 125 director mentors supervised 2,400 students and director protégés serving 120,000 children	\$3,272
Comprehensive Approaches to Raising Education Standards (CARES) (2000)	Support the education, professional development, and retention of early learning workforce serving children 0–5	Stipends (\$50 to \$5,100 per year) to caregivers on five tracks for continued education and retention; education and career development courses and programs, including evening, weekend, and ESL ECE courses at CCCs and CSUs; career supports and educational assistance such as counseling, tutoring, and mentoring and development of Professional Educational Development Plan reviewed annually; development of Early Learning Workforce Registry	Qualifying home-based licensed and license- exempt FCC providers and assistants, and center-based teachers and directors in public and private programs in participating counties; priority in First 5 School Readiness counties and areas with low supply of licensed providers or facilities	First 5/First 5 California and matching funds (from 2:1 to 4:1) from participating First 5 County Commissions (44 as of 2008–09)	Participating First 5 County Commissions; coordinated with AB 212 in 44 counties	2007–08: 9,300 stipends distributed; 1,500 participants obtained a CDP; 840 participants moved up the permit matrix; 400 participants earned a higher education degree (AA or above)	\$6,800 <sup>a</sup>

Table 6.1—Continued

Program Name (Year Started)	Purpose	Services / Activities	Target Population	Auspices/ Funding Source	Local Delivery	Year: Estimated Participation	SFY 2009–10 Funding (\$1,000s)
Compensation and Retention Encourage Stability (CARES)—AB 212 (2001)	Support the education, professional development, and retention of early learning workforce in Title 5 child development programs serving children 0–5	Stipends (\$1,500 on average) to pay for books and tuition for college credits (minimum of three college units per year) leading to advancement on CDP Matrix; career supports and educational assistance such as counseling, tutoring, and mentoring	Qualified administrators and teachers in CDE Title 5 contract centers and FCC programs with valid CDP	CDE CDD/ CCDF quality activities and state general funds	LPCs in 55 counties with Title 5 programs; coordinated with CARES in 44 counties	2008–09: Stipends provided to 2,500 assistant and associate teachers, 4,200 teachers and master teachers, 1,400 site supervisors, and 800 directors	\$15,000
Health and Safety Training for Licensed and License-Exempt Providers (1998)	Provide reimbursement to licensed center-based staff, licensed family child care providers, and license-exempt family child care and in-home providers for costs associated with health and safety training	Reimbursement of fees for training and certification; provision of equipment, materials, and supplies to create safe environments	Licensed center-based staff, licensed family child care providers, and license-exempt family child care and in-home providers	CDE CDD/CCDF quality activities	Local R&Rs; trainers and curriculum content are reviewed and approved by the Emergency Medical Services Authority	Expected: 15,000 providers receive health and safety training, equipment, materials, and supplies	\$500

Table 6.1—Continued

Program Name (Year Started)	Purpose	Services / Activities	Target Population	Auspices/ Funding Source	Local Delivery	Year: Estimated Participation	SFY 2009–10 Funding (\$1,000s)
TANF Child Development Careers (CDC) WORKs! (1997–2000 pilot; 2000+ full program)	Expand child care capacity for CalWORKs recipients by recruiting and training current or former CalWORKs recipients to become eligible for Associate Teacher or Teacher permits and placing students in publicly funded child care and development programs or other licensed centers	Tuition reimbursement for fast-track and regular semester coursework and high-quality practicum and/or work experiences with local mentors; coordinated with CDTC and CECMP	Current or former CalWORKs recipients	CDE CDD/CCDF quality activities	Foundation for CCC in collaboration with the CCC Chancellor's Office; implemented in 61 CCC campuses	2006-07: 1,250 CalWORKs students enrolled and working toward Associate Teacher or Teacher permits	\$4,000
<b>C. Programs Training Trainers or Other Professional Development Support Personnel</b>							
Child Development Permit (CDP) Matrix Professional Growth Advisors (PGAs) (1999)	Train PGAs to support those pursuing a CDP which requires consulting with a PGA to establish professional development goals and plan	Maintain a registry of PGAs; training for new PGAs and refresher training for existing PGAs	Qualifying individuals based on educational attainment, and/or professional experience, and/or level of CDP	CDE CDD / CCDBG	Implemented through CDTC	Expected: 84 trainings for 1,200 new PGAs; 1,200 PGAs participate in networking sessions; 5,500 PGAs in registry	\$250
Early Childhood Education (ECE) Faculty Initiative Project (FIP) (2004-05)	Align and integrate essential content and competencies of CDE/ CDD resources with core ECE curriculum of CCCs and CSUs, building on Curriculum Alignment Project	Presentations, seminars, instructional guides and companion resources, and other resources (including web-based) for public higher education ECE faculty	CCC and CSU system ECE faculty	CDE CDD / CCDBG	WestEd	Expected: 4 annual regional seminars train 200 CSU and CCC faculty; 500 faculty will use online materials	\$500

Table 6.1—Continued

Program Name (Year Started)	Purpose	Services / Activities	Target Population	Auspices/ Funding Source	Local Delivery	Year: Estimated Participation	SFY 2009–10 Funding (\$1,000s)
PITC Institutes (1986)	Improve quality of infant/toddler care through cadre of PITC trainers who receive intensive training and refresher courses	Training institutes leading to PITC certification, with associated multimedia materials, for program administrators, college faculty, early interventionists, and other trainers; annual conferences for certified trainers	Center-based program administrators; faculty and infant/toddler instructors from CCCs	CDE CDD/CCDF quality earmark activities	WestEd	2007–08: 110 trainees leading to 85 certified trainers who will provide 2,100 hours of training services in next 2 years	\$1,075
PITC Community College Infant/Toddler Demonstration Sites (1998)	Integrate PITC philosophy and practice into infant/toddler courses at five CCC demonstration programs	Provide follow-up TA to teams of faculty and infant/toddler teachers that attended PITC Community College Seminars in past years	Past PITC CC Seminar participants; five existing PITC CC demonstration programs	CDE CDD/CCDF quality earmark activities	West Ed and five existing PITC CC demonstration programs	2006–07: 450 visitors to demonstration programs; 1,900 hours of training at 45 CCs	\$723

SOURCE: CDE, 2009a, 2009b, 2009c; and program websites.

NOTES: CC = community college; TA = technical assistance; n.a. = not available.

<sup>a</sup> Figure is for First 5 California 2008–09 fiscal year and excludes county matching funds, which would bring the total to an estimated \$27 million.

Toddler Care (PITC) Partners for Quality Regional Support Network; and preschool-age children in the case of the California Preschool Instructional Network (CPIN). They provide both general training for ECE providers and specific training that focuses on such elements as the CDE/CDD–developed Desired Results system (in the case of the Desired Results Training and Technical Assistance Project) and the *Ready to Learn* curriculum and television programming (in the case of the Public Broadcasting Preschool Education Project). Several of the programs, namely Family Child Care at Its Best (FCCB) and California Exempt Care Training (CECT) also known as *Growing, Learning, Caring*, specifically target licensed family child care home providers or license-exempt home-based programs. This group includes one of the oldest workforce professional development projects, CCIP, which began in 1985 as a public-private partnership.

Panel B consists of eight programs that primarily offer financial incentives directly to members of the ECE workforce in support of their professional development, typically through formal education in the CCC or CSU system (the second investment strategy).<sup>3</sup> The two largest programs in terms of funding are the First 5 Comprehensive Approaches to Raising Education Standards (CARES) (implemented as CARES Plus in 2011) and Compensation and Retention Encourage Stability (CARES)—Assembly Bill (AB) 212.<sup>4</sup> Both programs—typically integrated within counties—use the stipend model to support the costs of additional qualifying coursework and other professional development activities leading to a degree or advancement on the CDP matrix. Since CARES–AB 212 is funded with federal and state dollars, it focuses on qualified staff in Title 5 contract centers, whereas CARES–First 5 supports the full range of formal and informal ECE providers. The stipend model is also used for the California Early Childhood Mentor Program (CECMP), which supports experienced teachers and administrators to serve as mentors for less experienced colleagues.<sup>5</sup>

<sup>3</sup> In the case of course-taking at the CCCs or CSUs, the financial incentives provided to participants under panel B are in addition to the public-sector subsidy provided to these institutions of higher education.

<sup>4</sup> CARES Plus has shifted away from the model under CARES–First 5 of providing stipends solely in support of degree attainment toward an emphasis on the RBPD approaches discussed in Chapter Two, combined with additional professional development through education. In particular, CARES Plus features a set of core activities (CARES Plus CORE) that focus on improving teacher-child interactions using the CLASS assessment framework and its associated professional development tools (First 5 California, 2010). For example, one optional component for county CARES Plus programs is participation in an MTP pilot program. County CARES Plus programs are required to incorporate at least one of two other components: (1) training in CDE-developed resources, such as the California early learning standards and associated child assessment tool, and (2) college coursework. Stipends to support ongoing CARES Plus activities (e.g., training and higher education) are available to those who successfully complete the CORE activities. The requirements for providers to participate in CARES Plus are somewhat more stringent than those in the original CARES program.

<sup>5</sup> The CECMP could arguably be classified in the first group in Panel A of Table 6.1 because the mentors provide training or in the third group in Panel C because the program also provides training for the mentors. However, since it is motivated by the need to supplement the salaries of experienced practitioners and retain them in the field, we have classified it with the second group of programs in Panel B. Likewise, CECMP, along with CARES-

The remaining programs in Panel B essentially provide reimbursement for specific expenditures related to education and training. For example, CDTC (and the associated Career Incentive Grant Program), as well as the Child Development Teacher and Supervisor Grant program, reimburse the cost of college coursework through grants. The latter program requires one year of service in a licensed center for each grant year received. The Temporary Assistance for Needy Families (TANF) Child Development Careers (CDC) WORKS! Program likewise covers the tuition cost of current and former CalWORKs recipients pursuing the coursework required to attain an Associate Teacher or Teacher permit. The two remaining programs cover the fees associated with specific professional development activities: the Health and Safety Training for Licensed and License-Exempt Providers program, which, as the name suggests, provides health and safety training, and the CDP stipend, which reimburses the application and fingerprint processing fees associated with the CDP process.

Finally, panel C covers four programs with a primary objective of training trainers, mentors, or other professional development support personnel, the third investment strategy. The CDP Matrix Professional Growth Advisors (PGAs) program, part of the CDTC listed in Panel B, trains individuals to serve as PGAs, experienced members of the ECE workforce who mentor individuals through the process of obtaining a CDP or moving up the CDP ladder. The ECE Faculty Initiative Project (FIP) provides instructional guides on CDE child development resources for incorporation in ECE coursework by child development faculty in the CCC and CSU systems. The two remaining programs are components of the PITC, namely the associated training institute and a set of CCC Infant/Toddler Demonstration Sites. The PITC offers a combination of training its own certified trainers and working to integrate the PITC model with the courses provided by CCC faculty.

### **Funding Streams and Total Funding**

The programs in Table 6.1 are financed through several funding streams. A major source of funds for these activities is the federal CCDF, which includes the Child Care and Development Block Grant (CCDBG) and the associated state matching funds. The CCDF requires states to allocate a minimum of 4 percent of the funds to increase the availability and quality of care; some of that funding is used to directly or indirectly invest in workforce professional development.<sup>6</sup> Federal law currently earmarks

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First 5 and CARES—AB 212, also provide professional development programs and courses, in addition to the scholarship support activities that would fall under Panel A.

<sup>6</sup> Among the programs California includes in the set of quality improvement activities, Table 6.1 excludes those that support (1) the system of local R&Rs; (2) the system of LPCs; (3) facilities or instructional materials; (4) help lines for parents and ECE providers; (5) programming for children with disabilities or inclusive care; (6) school-age care; (7) development of the Preschool Learning Foundations and Curriculum Frameworks; and (8) monitoring compliance with licensing and regulatory requirements (see CDE, 2009a, 2009b). A total of \$49.9 million in funding was allocated for these activities in SFY 2009–10.

portions of the CCDF quality funds to target infant and toddler care, school-age care, and child care resource and referral. Beyond the federal and state funds associated with the CCDF, another major source of workforce professional development funds in California has been state and county First 5 monies, the funding stream from the tobacco tax approved by voters in the 1998 Proposition 10 voter initiative. Other local public and private monies further supplement these funding streams but are not included in Table 6.1 because the amounts are not readily available.

In total, summing across the entries in the funding column, \$53.8 million was allocated in SFY 2009–10 for the 19 programs listed in Table 6.1 (\$47.0 million in state and federal funding combined with \$6.8 million in state-level First 5 California funding). Assuming a local county and private match for the \$6.8 million in state First 5 funds for CARES of about three to one (see the entry in Table 6.1), the above money would be augmented by another \$20 million ( $3 \times \$6.8$  million), bringing the total to about \$74 million.<sup>7</sup> To put that figure in perspective, it amounts to nearly \$600 in workforce professional development spending per person in the approximately 130,000 member formal ECE workforce. This figure is an underestimate to the extent that not all members of the formal workforce have access to the full array of publicly funded programs, or an overestimate to the extent that some programs are also available to license-exempt providers.

### **Program Targeting, Coverage, and Participation**

Given the array of programs in Table 6.1 and their different features, we provide two other perspectives on the set of workforce professional development opportunities that they represent. First, Table 6.2 summarizes the coverage of each program, grouped as in Table 6.1, in terms of (1) the workforce beneficiaries, namely existing members of the ECE workforce (i.e., those currently employed in the field) and/or new entrants; (2) the child care settings that are targeted by the programs, namely license-exempt providers, licensed family child care homes, and/or licensed centers; and (3) the ages of children targeted, namely infants and toddlers and/or preschool-age children.

Second, Figure 6.1 provides a schematic representation of the set of programs that is designed to capture the workforce investment approach, the child care setting targeted, the ages of children targeted, and the relative size of each program in terms of SFY 2009–10 funding. In the figure, each program or set of programs is represented by a shaded box labeled with the program name(s) and funding levels, as follows:<sup>8</sup>

<sup>7</sup> According to First 5 California (undated), the combined funding for CARES over five years (dates unspecified) totaled about \$157 million, or an average of about \$31 million per year. Thus, with about \$7 million in funding from the state First 5 commission, the estimate of \$20 million in funding at the county level may be an under estimate.

<sup>8</sup> Programs with small funding levels are grouped in several cases when they use the same workforce investment approach and serve the same types of providers, because otherwise the area for the program would not be visible given the scale of funding for the larger programs.

**Table 6.2**  
**Coverage of Publicly Funded ECE Workforce Professional Development Programs in California: SFY 2009–10**

Program Name	Workforce Beneficiaries		Child Care Settings Targeted			Child Ages Targeted	
	Entrants	Existing	License-Exempt	Licensed FCCH	Licensed Center	Infant/Toddler	Pre-school
<b>A. Programs Providing Direct Training for Workforce Professional Development</b>							
CCIP	✓	✓		✓		✓	
CECT Project		✓	✓			✓	✓
CPIN		✓		✓	✓		✓
Desired Results Training & TA Project		✓		✓ <sup>a</sup>	✓ <sup>a</sup>	✓	✓
FCCB		✓	✓	✓		✓	✓
PITC Partners for Quality Regional Support Network	✓	✓		✓	✓	✓	
PBS Preschool Education Project		✓	✓	✓		✓	✓
<b>B. Programs Providing Financial Support or Incentives for Workforce Professional Development</b>							
CDTC		✓		✓	✓	✓	✓
CDP Stipends	✓	✓		✓	✓	✓	✓
CD Teacher & Supervisor Grant Program		✓		✓	✓	✓	✓
CECMP		✓		✓	✓	✓	✓
CARES		✓	✓	✓	✓	✓	✓
CARES–AB 212		✓		✓ <sup>a</sup>	✓ <sup>a</sup>	✓	✓
Health & Safety Training		✓	✓	✓	✓	✓	✓
TANF CDC WORKS!	✓	✓			✓	✓	✓
<b>C. Programs Training Trainers or Other Professional Development Support Personnel</b>							
CDP Matrix PGAs	✓	✓		✓	✓	✓	✓
ECE FIP	✓	✓	✓	✓	✓	✓	✓
PITC Institutes	✓	✓		✓	✓	✓	
PITC CC Infant/Toddler Demonstration Sites	✓	✓	✓	✓	✓	✓	

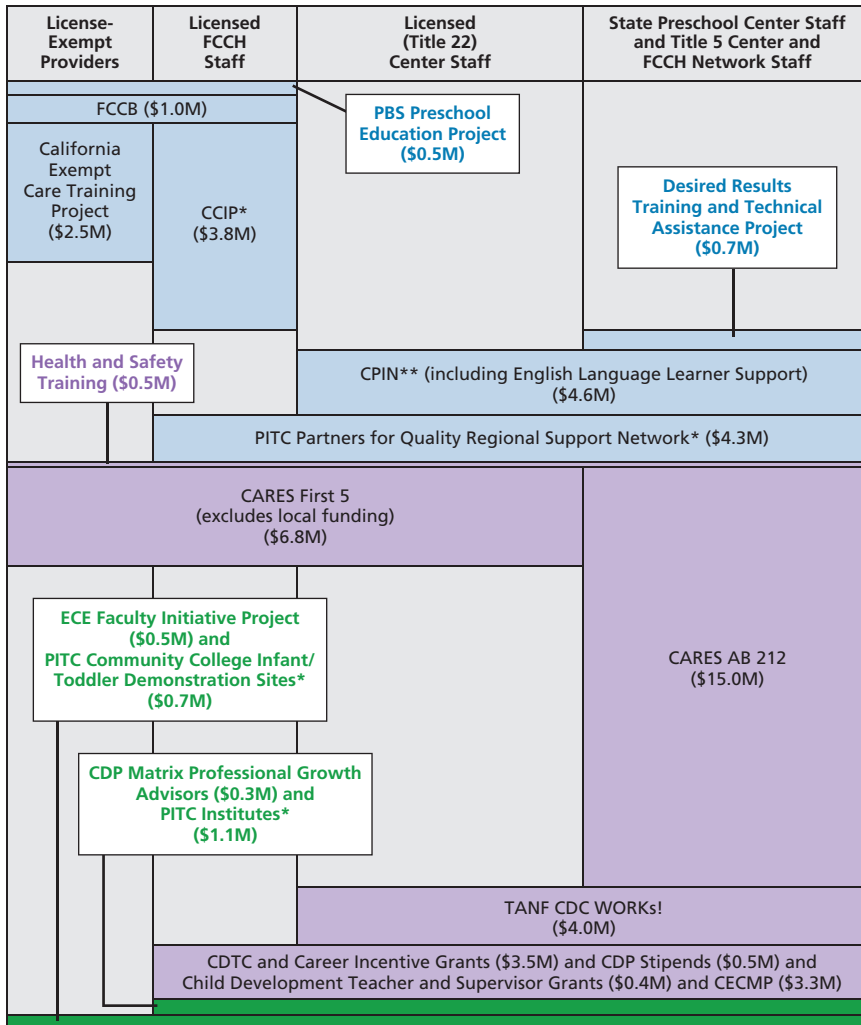
SOURCE: See Table 6.1.

NOTE: For full program names, see Table 6.1.

<sup>a</sup> Available only to providers with CDE contracts (e.g., Title 5 or State Preschool).



**Figure 6.1**  
**Publicly Funded ECE Workforce Professional Development Programs in California by Type of Provider Targeted, Approach, and Funding Level: SFY 2009–10**



- Programs providing direct training
- Programs providing financial support or incentives
- Programs training formal or informal trainers

\*Indicates program primarily focuses on providers serving infants/toddlers.  
 \*\*Indicates program primarily focuses on providers serving preschool-age children.

SOURCE: Author’s analysis based on Table 6.1.

NOTES: For full program names, see Table 6.1. Area of each program box is proportional to funding level. Labels in white boxes are for corresponding narrow colored boxes.

- The boxes for programs that offer direct provision of professional development services (the first investment approach; see Panel A of Tables 6.1 and 6.2) are shaded blue and shown in the top of the figure. Programs that provide financial incentives to engage in professional development activities (the second approach; see Panel B of Tables 6.1 and 6.2) are in the middle of the figure with purple shading. Finally, programs that target ECE education and training providers (the third investment approach; see Panel C of Tables 6.1 and 6.2) are shaded green and shown in the bottom of the figure.
- The figure has four columns stratified by the type of provider targeted: those who are license-exempt, those in licensed family child care homes, those in licensed (Title 22) centers, and those in State Preschool and Title 5 programs (whether centers or networks of family child care homes). The box for each program is arrayed across one or more columns to reflect the type or types of providers targeted (see Table 6.2).
- A single asterisk is used to denote programs that primarily focus on professional development for providers serving infants and toddlers, while two asterisks mark programs that target providers working with preschool-age children. The professional development activities of the other programs apply to providers serving children from birth to kindergarten entry (see Table 6.2).

The size of the colored square for each program or group of programs is proportional to the amount of SFY 2009–10 funding, measured in millions (see Table 6.1).

Considering the wide array of programs featured in the two tables and associated figure, several patterns are worth highlighting:

- *There is a wide range of funding and relatively more weight on financial incentives* (see Table 6.1 and Figure 6.1).<sup>9</sup> Annual funding for the 19 programs ranged from less than \$300,000 for the CDP Matrix of PGAs Program to \$15 million for CARES–AB 212 and over \$25 million in combined state and local funding for First 5 CARES. Aggregate spending for each of the three investment strategies was clearly largest for the programs that incorporated the second strategy (purple shading in Figure 6.1), providing financial incentives directly to members of the ECE workforce (about \$54 million, including local First 5 funding, which is not shown in the figure). The fewest resources were associated with programs that primarily used the third investment strategy (green shading in Figure 6.1), training the trainers (under \$3 million). The first investment approach, providing training, directly falls in between (with about \$16 million). The emphasis on financial

<sup>9</sup> As noted earlier, some programs in Table 6.1 could be classified in one or more of the other panels in the table. Thus, the dollar figures provided here by strategy should be viewed as approximations to the extent that some resources classified, for example, as going toward financial incentives (the second strategy) also support direct training (the first strategy).

incentives is consistent with the relatively low rate of pay for ECE caregivers and teachers, which can limit their ability to afford the costs associated with credit-bearing coursework and postsecondary degree attainment.

- *There is also tremendous variation in the reach of the programs in terms of the number of ECE providers or trainers who participate* (see Table 6.1). The funding level is not always uniformly related to program reach because the intensity of the program services (i.e., the per-participant cost) is also a factor. For example, the CD Teacher and Supervisor Grants program is expected to provide financial aid to about 300 participants each year with its \$350,000 budget, while the \$500,000 in funding for Health and Safety Training is expected to reach 15,000 providers annually. Other programs that serve a large number of participants, but with sizable budgets, include the two CARES programs, which together provide stipends to over 18,000 individuals in the ECE workforce each year.
- *Participation counts appear high, but we do not have the information required to know how many unique individuals are served and how many take part in multiple programs.* Although we do not have comparable data on actual participation for each of the programs in Table 6.1 and we cannot account for individuals who may be served by multiple programs, aggregating across programs provides an upper bound on the number of ECE workforce participants engaged by the programs. That summation indicates that upward of 65,000 caregivers, teachers, and administrators benefited from training or financial support, while upward of 3,000 individuals received training to serve as mentors, trainers, or educators for others, all as of SFY 2009–10. Although these figures suggest that tens of thousands of persons participate in these programs, the counts do not capture the intensity of the professional development activity. Some of the programs deliver just a few hours of training for each participant; others involve full-time college-level coursework. Unfortunately, estimates of total person-training hours or person-training years are not readily available for most programs, much less in the aggregate.<sup>10</sup>
- *Most programs and the bulk of the funding are directed to those already in the ECE workforce* (see Table 6.2). Within the first two investment strategies that focus on the ECE workforce (Panels A and B), all but three of the 15 programs effectively benefit only those who are already in the ECE workforce, thereby emphasizing quality improvement and retention of the existing workforce rather than workforce expansion. CCIP has an explicit goal of recruiting licensed infant/toddler family child care providers, along with improving the care offered by existing providers. TANF CDC WORKS! is open to both current and former welfare

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<sup>10</sup> CDE is in the process of developing a procedure for requiring participants in programs in Table 6.1 that they administer to complete a registration form that would collect identifying information, along with demographic characteristics, educational background, and employment situation.

recipients whether or not they have had previous child care experience. And the CDP stipends program is potentially available to those entering the field and able to qualify for a CDP. It is difficult to parse out how much of the funding for these three programs goes toward expanding the size of the workforce. In terms of impact on new entrants, CCIP reports recruiting about 1,000 new family child care providers annually, and TANF CDC WORKS! has about 1,250 individuals in training each year, although not all will attain a degree and a CDP. These are modest increments, even relative to the base of formal providers. At the same time, the third investment strategy, by expanding opportunities for high-quality workforce education and training, potentially benefits both current workforce members and new entrants.

- *The majority of programs and a larger share of funding focus on formal caregivers* (see Table 6.2 and Figure 6.1). Among the 14 programs that invest directly in the ECE workforce, seven provide support to license-exempt providers, the informal side of the child care market. Because First 5 CARES is open to all provider types, there is a sizable pool of funding that could potentially benefit license-exempt providers, although the requirements for participation in CARES are more likely to be met by those in the formal ECE workforce. As noted in Chapter One, a large, but hard-to-determine number of license-exempt home-based providers serve small groups of children. At the same time, as discussed in Karoly (2012), as children age from the infant and toddler years to the preschool ages, they are more likely to be in formal care settings. Thus, concentrating more of the public workforce professional development resources on formal care providers means that the beneficiaries are more likely to be preschool-age children.
- *Several programs are even more narrowly focused on State Preschool and Title 5 child development teachers and administrators or give priority to those in subsidized care settings* (see Table 6.1 and Figure 6.1). Again, of the 14 programs that invest directly in the ECE workforce, five either are limited to those in Title 5–funded child development programs (Desired Results Training and CARES–AB 212) or give priority to those in such programs or receiving other public subsidies (CECT, CPIN, and CDTC). Given that the state of California uses public resources to subsidize care and early education programs, it is natural that at least a share of the workforce investment dollars would be targeted toward the workforce that provides that subsidized care. At the same time, as noted in Karoly (2012), those subsidies serve only a portion of all eligible low-income children, so the broader coverage of the workforce investment dollars allows for benefits to a wider group of children, although not necessarily the most disadvantaged children.
- *Most programs and most of the dollars invested are relevant for the entire 0–5 age spectrum* (see Table 6.2). With the exceptions of the PITC programs and the CCIP—both of which are funded with quality earmark dollars to meet the federal priority for increasing access to and the quality of infant/toddler care—and

CPIN—which focuses on the preschool age group—most of the workforce professional development programs are designed to address the professional development needs of providers serving children from birth to kindergarten entry.

- *The programs use several different intermediaries between the funder and targeted participants* (see Table 6.1). For most workforce professional development programs, particularly those under the auspices of CDE/CDD, one intermediary or set of local intermediaries is generally responsible for delivering the program to the targeted participants. In some cases, a single statewide contractor (e.g., University of California, Davis, or WestEd) provides an interface with program participants. This is more likely to be the case for programs that provide training directly to the workforce (Panel A) or to trainers of the workforce (Panel C). In other cases, for those programs offering training and for those programs offering financial incentives (Panel B), there is a local intermediary, which may be either the LPC, the R&R, the CC, or some other local or regional entity. In some cases, the local intermediaries report to a central contracting agency (e.g., one of the CCs, which serves as the contractor to CDE/CDD). This structure flows from the fact that programs such as CARES–First 5 and CARES–AB 212 are administered at the county level rather than centrally. While this array of intermediaries has the advantage of allowing contractors to specialize in a more narrow set of activities and provide an infrastructure that is tailored to the local community, it creates a more complex set of players with which members of the ECE workforce may need to interact when they access the resources for which they are eligible.

## Evidence of Effectiveness of Quality Investments

Given the significant investment in workforce professional development activities, it is important for state policymakers to know whether those investments produce the desired results. Although there have been efforts to formally evaluate the effects of some of the programs in Table 6.1, the types of evaluations to date have tended to focus more on process and program activities rather than the effects of the professional development activities on the caregiving and teaching competencies of the workforce or on child developmental outcomes.

### Process-Oriented Evaluation

A recent report by the Center for the Study of Child Care Employment noted that there is considerable room for improvement in the information collected across the state-funded workforce professional development programs (Kipnis and Whitebook, 2010). When information is collected, it typically captures some information about the number of events held (e.g., courses, trainings), the number of participants served, or participants' ratings of program activities. For example, data collected for CPIN for

2008–09 as part of its external evaluation showed 18,000 attendees across network meetings and professional development sessions, an increase over the two prior years (Russell, 2009). This figure includes duplicate counts of individuals if they attended more than one session. Evaluation forms completed by participants showed that a plurality of participants were ECE/preschool teachers (45 percent) and that most were from publicly funded programs, including state-funded (42 percent), Head Start/Early Head Start (27 percent), general child care (13 percent), or First 5 (11 percent). Participants uniformly agreed that the materials and activities added to their understanding of the topics covered (92 percent), were relevant to their work (93 percent), and would increase the quality and effectiveness of their program (92 percent). For the 74 percent of participants who had attended previous CPIN events, 47 percent used the ideas and resources in their work and 45 percent shared information informally with colleagues.

As one of the larger initiatives, the First 5 CARES program has had several evaluation components (First 5 California and Harder and Company, 2008, 2009).<sup>11</sup> In terms of participation, program data show nearly 90,000 stipends were granted between 2000 and 2007. Between 2003 and 2007, participants were awarded nearly 1,100 associate degrees, about 1,300 bachelor's degrees, and 190 master's degrees. CARES may also be responsible for the jump in permit applications from just over 4,000 before CARES was launched to just over 7,000 after CARES was implemented statewide. In 2007, a survey of nearly 1,000 current and former CARES participants from center-based settings and family child care homes (most from the 2005–06 program year) showed that 93 percent of participants were still working in the ECE field, although not always in the same agency where they worked when they entered CARES (First 5 California and Harder and Company, 2008). Respondents attributed CARES with having a moderate impact on their decision to stay in the field, but they gave more credit to the incentives and stipends than to the support services. More than 90 percent of respondents indicated they probably will or definitely will stay in the field in the next five years and about 75 percent expressed that likelihood for the next ten years. Given the relatively low response rate on the survey (just under 20 percent), it is not clear how representative the findings are of the entire population of CARES participants.

The high retention rates for the CARES program are replicated in at least one other professional development program in California. Between 2000 and 2002, the California Child Care Resource and Referral Network (CCCR&RN) conducted a telephone follow-up survey of nearly 800 CCIP participants from the 1997–2002 time period (CCCR&RN, 2002; Porter et al., 2010). Overall, 87 percent of participants were still serving as family child care providers, and the CCIP trainings, materials, and

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<sup>11</sup> This discussion focuses on the most recent evaluations. See Whitebook and Bellm, 2004, for a synthesis of studies completed between 1999 and 2004. The findings from the earlier studies are generally consistent with those of the more recent evaluations. In addition, First 5 plans to conduct an evaluation of the new CARES Plus model, although the details of the evaluation design remain to be determined (First 5 California, 2010).

technical assistance were rated as significant factors in the decision to remain in the field. However, it is not clear how representative the survey sample was of the population that participated in CCIP during the coverage period. For example, if those no longer in the field were less likely to be reached for the survey or more likely to refuse to participate if reached, the survey results would overestimate the retention rate.

While the process information from the CPIN, CARES, and CCIP programs is valuable, the fact that the information collected is not consistent across programs precludes a systemwide perspective on who participates (including their demographic characteristics) and to what degree (Kipnis and Whitebook, 2010). Thus, for example, with the process information collected at present it is not possible to know which members of the ECE workforce are being served in terms of demographic characteristics, education and training backgrounds, current position, and ECE settings. Likewise, it is not possible to systemically track individuals through the workforce PDS and across all the varied programs, and to know who has participated in multiple programs, whether they have progressed through the career ladder as a result of their participation, and whether they remain in the field. Knowledge of these outcomes is important for understanding whether there is overlap or gaps in the professional development opportunities, as well as whether the system underperforms with respect to career advancement and retention.

As we discussed in Chapter Three, a number of states are developing registries for their ECE workforce that provide information on professional development activities for individuals over time so that this type of information is more readily available (Bellm and Whitebook, 2004). California does not currently have a statewide workforce registry, but CDE has recently contracted with an outside agency to convene and facilitate a California Workforce Registry Planning Group. The planned registry can build on pertinent information that is collected for other purposes. For example, the Commission on Teacher Credentialing maintains information on the education and training background of those with a CDP, although the information for this relatively small segment of the ECE workforce is updated only when permits are renewed every five years or when an individual advances to a new permit level. Information on training is also maintained in various county systems as part of the CARES program or the Preschool for All initiatives, but they were not developed in such a way as to readily support statewide integration and analysis.

### **Outcome-Oriented Evaluation**

Beyond effects on retention in the field, it is also critical that programs be formally evaluated to understand whether they achieve their intended effects in terms of enhancing the knowledge and skills of the workforce and promoting child development. Here too, efforts to evaluate the programs in Table 6.1 with these objectives in mind have been limited. Among the available analyses, two studies have assessed the effects of

PITC training on care quality for infants and toddlers. In one study, Mangione (2003) compared the quality of care before and two months after staff in 13 centers and 28 family child care homes in San Diego received 60 hours of PITC training and technical assistance services in the 2001–2003 period. Several global measures of quality (including the ITERS, ECERS, and FDCRS) showed statistically significant increases from the pre- to the post-training measurements, moving center-based programs and family child care homes from the “minimal” range of quality on average closer toward or into the “good” range. These findings were replicated in a similar study in Sacramento County (WestEd, undated).

In addition to the studies focusing on care quality, a random assignment evaluation is under way for the PITC program led by WestEd (WestEd, 2010). The study design includes about 1,000 children in 92 centers and 152 family child care homes in Arizona and California. The study is assessing the effects of PITC on measures of care quality, as well as on measures of children’s behavior and cognitive and linguistic development at 13–14 months and 22–23 months after random assignment, respectively. This type of rigorous evaluation is the exception rather than the rule for the programs included in Table 6.1.

## **Other Informal Training Opportunities**

While this chapter has focused on formal ECE professional development programs in California, a wide array of informal ECE training opportunities is also offered throughout the state, often through the auspices of local R&R agencies, LPCs, and county First 5 commissions (for more detail, see Cole [2005] and Appendix C). Some of these trainings are tied to the professional development programs listed in Table 6.1, but many others are more ad hoc. These offerings primarily provide education, training, or technical assistance to existing members of the ECE workforce and in some cases new recruits to the field.

These workshops, courses, and seminars are often sponsored and funded by the local R&R or hosted by the R&R but sponsored and funded by one or more outside organizations such as First 5. They may be intended for all types of providers or targeted to those in centers, licensed family child care homes, or license-exempt home-based care. Many of the activities are one-time offerings, while others may be part of a series, often with a specific topical focus. The duration is typically measured in a few hours, not days. Generally, these activities are not coordinated across localities to ensure comparable offerings, consistent standards regarding content, or appropriate qualifications of trainers. Since they are not centrally funded or managed, information on the total funding involved or levels of participation is not readily available. The



program participants and their background are generally not tracked, either. Finally, there are no systematic efforts to assess the effectiveness of these training programs (Cole, 2005).



## **Recommendations for California’s ECE Workforce Professional Development System**

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In its final report to the state legislature, the CAELQIS Advisory Committee (2010a) placed a spotlight on the importance of ECE workforce professional development, noting the need to “strengthen the links between early educator professional development and effective teaching to improve child outcomes” (p. 4). Consistent with the policy importance attached to ECE professional development, in this study we set out to address two questions related to the effectiveness of the ECE workforce PDS in California:

- Does California’s PDS prepare its ECE workforce well and provide ongoing supports to ensure that children receive the developmental benefits associated with a high-quality ECE system?
- Are the public resources that support the ECE workforce PDS in California used to the maximum benefit?

In this concluding chapter, we first highlight what we have learned regarding these two questions and then turn to recommendations designed to advance the state’s ECE workforce PDS.

### **What Do We Know About California’s ECE Workforce PDS?**

In terms of the first study question, an effective ECE workforce PDS for California would prepare and support an ECE workforce that has the competencies—the knowledge and practice—required to provide high-quality care and early learning environments that are developmentally appropriate and that support children’s cognitive, social, and emotional growth. As noted in Chapter Four, information on the competencies of the ECE workforce is not collected either in aggregate or for representative samples. Instead, we turned to evidence from studies that assess the quality of the care environ-

ment, particularly in terms of the important dimensions of teacher-child interactions that have been shown to be strongly linked to positive developmental outcomes.

As of 2007, evidence from the RAND California Preschool Study demonstrates that there is room for improvement. For center-based programs serving three- and four-year-old children in the state, classroom staff score relatively high on average in terms of providing a well-managed environment for learning and being emotionally supportive and engaging. However, they fall short on average in promoting higher-order thinking skills, providing quality feedback, and developing students' language skills, areas of instructional support that have been shown to strongly influence children's developmental trajectories. A more limited evidence base regarding quality in centers serving infants and toddlers and family child care homes suggests that competencies may fall even further from the desired level in these settings.

Recognizing these gaps in the knowledge and skills of the ECE workforce is the first step in working toward improvement. On the positive side, following other states that have taken the lead in putting comprehensive PDSs in place, California already has many of the elements that appear to be required for a strong PDS:

- CDE has defined early educator competencies that are aligned with the state's early learning standards and curriculum frameworks.
- There is a process under way to align and articulate the state's two- and four-year ECE teacher preparation programs.
- A promising cohort model promoting degree attainment among diverse members of the ECE workforce is being implemented in several communities and is being evaluated and refined.
- Public funds are used to provide various professional development opportunities—some using the approach (e.g., mentoring and technical assistance models) and some employing financial incentives—that provide a promising baseline from which to build.

However, the California system has yet to fully realize the potential from these infrastructure components, and other important elements are absent. With the components currently in place, California tends to emphasize lower-division coursework and an ECE-specific permit without assurance that the education and training requirements provide members of the ECE workforce with the required competencies to be effective in the classroom. The same issue of emphasizing participation over impact applies to the array of workforce investment activities, many of which do not necessarily draw on proven models or are rigorously evaluated as new models. Among the missing ingredients employed in other states is a workforce registry that can support both monitoring and evaluation of the PDS. Given these limitations, some of the recommendations discussed in the next section are designed to build from the existing system—making better use of the PDS components in place and introducing key miss-

ing components—with the ultimate goal of producing a workforce that is effective in their delivery of care and early learning services to children from birth to age five.

In terms of the second research question, this study has documented that substantial public resources are invested in ECE workforce professional development in California but that the lack of data for monitoring and evaluation limits the options for evidence-based decisionmaking regarding how best to advance the professional development of the ECE workforce. The public-sector investments include more than \$70 million in annual federal, state, and local funding devoted to the ECE workforce professional development programs summarized in Table 6.1 and Figure 6.1. In addition, as with other occupations that require postsecondary education, there is a substantial public-sector investment in current and future members of the ECE workforce who are engaged in coursework in public two- and four-year institutions. The inability to generate a more specific estimate of the size of the higher education public-sector investment reflects the absence of the data needed to identify who is in the ECE workforce and the education and training activities they engage in.

More generally, current data systems and research do not provide the information needed to understand which segments of the ECE workforce benefit from the public sector investments in education and training and whether the resources spent actually achieve the objective of advancing the effectiveness of the ECE workforce. Do the public investments in the ECE workforce reach the full range of ECE practitioners in terms of demographic characteristics, ECE experience, and provider settings, or are the resources concentrated among certain segments of the workforce? Does completion of postsecondary coursework, attainment of an associate or bachelor's degree, or participation in publicly supported professional development activities lead to improved knowledge and practice, higher-quality care and learning environments, or better child developmental outcomes? What are the costs associated with different approaches to advancing the skills and competencies of the ECE workforce relative to the return in terms of improved practice and improvements in child development? Without answers to these questions, it is not possible to definitely assess the efficiency of the current system. A number of the recommendations that follow in the next section are designed to address these information gaps in order to support more informed policymaking in the future.

## **Recommendations for California's ECE Workforce PDS**

With various efforts in recent years to improve the quality of ECE in the state, California has many of the elements needed for an effective ECE workforce PDS. With the addition of several missing components and better integration and alignment of existing elements, California can advance its system. Our recommendations, shown in Table 7.1, are organized by the three focus areas in the body of the report: ECE

**Table 7.1**  
**Summary of Policy Recommendations by Domain**

Domain	Recommendation
ECE workforce	EW 1 Implement an ECE workforce registry, inclusive of all members of the workforce, to identify who is in the field, their demographic characteristics, their educational and professional development experiences and credentials, and their employment history; support linking registry to a database of ECE programs to identify the context in which people are working
	EW 2 Develop a well-defined ECE career pathway (career ladder) and associated credentials aligned with the early educator competencies, the postsecondary education and training programs, and potential or actual QRIS (including the potential reintroduction of a Preschool–3 teaching credential)
	EW 3 Drawing on proven models, address need for financial supports for practitioners to pursue additional education and professional development through either the workforce investment programs or the QRIS if one is implemented
	EW 4 Through QRIS or other mechanisms, address other barriers to attaining high-quality care with fully competent providers (e.g., deficiencies in curricula or classroom materials, lack of paid preparation time, inadequate support for ongoing professional development, lack of a collaborative learning environment, high turnover, low compensation)
Education and training providers	ET 1 Continue the process of alignment and articulation of the ECE curriculum within and across the CCCs and CSU system, as well as alignment with the early educator competencies and career ladder; evaluate the effectiveness of higher education programs in promoting required ECE competencies
	ET 2 Continue to address gaps in higher education program capacity, course offerings, opportunities for practicums, and faculty quality and diversity
	ET 3 Phase in specialized accreditation for ECE AA and BA programs
	ET 4 Implement approaches to better serve the diverse needs of the current and potential ECE workforce seeking to advance their professional development; draw on proven models, including the use of cohort models, dedicated counseling, and technology-mediated professional development
	ET 5 Develop competencies for ECE teacher educators, trainers, mentors, coaches, resource and referral personnel, and staff in other organizations who support the professional development of the ECE workforce
Workforce investment dollars	WI 1 Collect the required information through the workforce registry to track workforce investment program participants and their outcomes (e.g., retention)
	WI 2 Institute a more rigorous program of evaluation for funded programs, including measurement of effects on participant competencies, quality of care provided, retention in the ECE field, and child developmental outcomes, and how those impacts are mediated by the work environment
	WI 3 Streamline and align the set of programs in light of evidence of program effectiveness and other system changes (e.g., ECE competencies, career ladder and credentialing, potential QRIS)

SOURCE: Author's analysis.

workforce competencies (Chapter Four), education and training providers that provide postsecondary workforce professional development (Chapter Five), and public-sector workforce investment dollars (Chapter Six). However, we can also view the 12 recommendations in terms of the two broad goals that are central to this study's research questions: improving the ability of the PDS to prepare and support an effective ECE workforce and making better use of existing resources. Given the state's current fiscal crisis, we focus first on recommendations designed to make better use of existing resources.

### **Make Better Use of Existing Resources**

As discussed above, California invests significant resources already in its ECE workforce PDS, primarily through higher education of the ECE workforce at public postsecondary institutions and through the workforce investment programs funded through various federal, state, and local sources. Five of the recommendations are designed to ensure that those resources are employed as effectively as possible.

#### **Implement an ECE workforce registry (EW 1) and collect the required information through the registry to evaluate workforce investment programs (WI 1).**

As discussed in Chapter Three, at least 33 states have implemented workforce registries which serve multiple purposes in support of state ECE workforce PDSs, contributing to the system as an information resource for monitoring and evaluation, a mechanism to support outreach and access, and a tool for quality control. In Table 7.1, the recommendation to implement a registry applies to both the ECE workforce domain (recommendation EW 1) and the workforce investment dollars domain (WI 1).

To be most effective in both domains, the statewide registry would have the following features and build from model systems in place in other states:

- a registry of practitioners
- a registry of trainings
- a registry of teacher educators and trainers.

The first registry can be used to identify who is in the ECE field, their background characteristics, their education and professional development experiences (including degrees and credentials earned and courses completed), and their work history. Ideally, it would be possible to match individuals in the registry to a database of providers so that participants can be linked with the characteristics of their work environment and the children they serve. By incorporating a registry of trainings, the system will include information that can be used to track participation in the set of workforce investment programs and the associated outcomes, such as advancement toward degrees or other professional development objectives and retention in the field. The registry of training programs also provides ready information to registrants about professional development opportunities by location and date and further promotes access to those

programs through online registration. Successful completion of programs can also be documented electronically. The registry of teacher educators and trainers—which can cover those who teach in higher education, as well as coaches, mentors, and other professional development support specialists—can be used to ensure that trainers have the needed qualifications to deliver high-quality professional development support. A statewide workforce registry would also benefit the state’s proposed QRIS and the associated planned early childhood data system that would link children in ECE programs to providers and teachers or caregivers, in the same way that such linkages are being developed in California for the K–12 system. The ECE workforce registry could also be potentially integrated with the system for tracking the K–12 workforce known as CALTIDES (California Longitudinal Teacher Information Data Education System).

In all three cases, the more complete the participation in the registries, the more effective they will be. This can be accomplished most readily by making the registries mandatory, but there are other alternatives. For practitioners, the registry may be mandatory for all, voluntary for all, or some combination of mandatory and voluntary based on specific conditions. For example, the system could be mandatory for those who participate in publicly funded workforce investment programs, such as those in Table 6.1, and voluntary for all others. It could also be mandatory for those who are employed in programs that receive public funding (e.g., Head Start, Title 5, AP) or that participate in the QRIS, if one is implemented. More broadly, it could be mandatory for those in licensed programs. The registry of trainers and trainings should, at a minimum, include public postsecondary institutions and those professional development programs supported with public funding at the state or local level, including those in Table 6.1. But it could be expanded to include private-sector education and training programs, as well, although a mechanism for quality control should be established.

Where possible, California should coordinate with other states on such issues as the data elements for the system, methods for data verification, the database technology, and so on. The state may also benefit from working with TNRA, a private, non-profit, voluntary coalition of state early childhood and school-age workforce registry and professional development leaders that provides a forum for networking and information exchange to improve state registries (TNRA, undated). Such cross-state collaborative efforts will ensure that California learns from best practices followed in other states. In addition, the more that California’s data system is harmonized with other states, the easier it will be to transfer information about professional development for new entrants to the California ECE workforce coming from other states.

**Continue the alignment and articulation of the postsecondary education ECE curriculum with other components of the PDS and evaluate higher education programs (ET 1).** California makes a substantial investment in higher education for the ECE workforce. Thus, there is a public sector interest in ensuring that the ECE course offerings and degree programs in the state’s public two- and four-year institutions are as successful as possible in preparing teachers to be effective in their work with



young children (i.e., birth to kindergarten entry). California has already made important strides in this area with the CAP effort to develop a core lower-division curriculum in the CCs based on child development research and to establish articulated pathways between the state's two- and four-year institutions. The 2010 STAR Act provides further support for a well articulated higher education system, with a more seamless transition between two- and four-year institutions that does not result in a loss of credits or require repetition of coursework. Another goal with these efforts is to align the higher education curriculum with other elements of the state's ECE workforce PDS, including the early childhood learning foundations and the educator competencies. These activities are all designed to ensure that the resources invested in higher education ECE programs are put to their most effective use. Our recommendation, listed as ET 1 in Table 7.1, is that these efforts continue.

Ultimately, beyond having an efficient two- and four-year higher education system, the goal is to ensure that students who complete postsecondary courses and graduate from degree programs develop the required competencies to be successful in early care and learning settings. As noted in Chapter Two, it is not sufficient to just promote further degree attainment as a strategy for raising ECE quality. Rather, attention must be given to the quality of the postsecondary education that individuals receive and whether the coursework and associated practicums provide students with the needed knowledge and the needed skills to apply that knowledge effectively in the ECE settings where they work. Moreover, it is not sufficient to show alignment "on paper" of coursework in associate or bachelor's degree programs with such PDS components as early learning standards, competencies, and career ladders. Instead, it is essential to evaluate the performance of the students who complete coursework and degrees. Finally, alignment with the PDS components should be considered broadly to also include the in-service professional development programs and the QRIS, if one is implemented. The ECE higher education alignment efforts will also benefit from the activities under the related recommendations for education and training providers (namely recommendations ET 2, ET 3, and ET 4 in Table 7.1) discussed below.

**Institute a more rigorous evaluation program for the workforce investment activities (WI 2) and use the results to streamline and align the offerings (WI 3).** As noted in Chapter Six, in recent years, California has allocated upward of \$70 million annually to fund a set of workforce investment programs, yet there is relatively little accompanying investment in rigorous evaluation of those programs to assess their impact. We recommend closing that gap through additional sound research and using that information to guide funding and implementation decisions (recommendations WI 2 and WI 3, respectively).

First, a more expansive evaluation program could draw on information collected through the workforce registry, as recommended above, to identify which practitioners are being served by the workforce investment programs and where there may be gaps in access. Those data could also be used to assess program effects on workforce out-

comes, such as education and training levels, compensation, and retention in the field. Second, targeted evaluations could use scientifically sound methods for determining if the programs have their intended effects on key outcomes not captured in the registry—practitioner knowledge and practice and child development—and how those outcomes vary with the nature of the work environment in different program settings. If information on program costs is collected as part of the evaluation, resource allocation decisions can take into account cost-effectiveness, as well. As noted in Chapter Six, an experimental evaluation is underway for the PITC program, but this type of evaluation is the exception rather than the rule.

Armed with more extensive knowledge about program impacts, state decision-makers could then identify ways to streamline the programs and better align them with the other elements of the PDS, such as competencies, career ladders, and credentials. Evaluations of California programs could also be compared with findings from demonstration or larger-scale programs in other states to determine if other proven or promising programs should be implemented instead. A more streamlined and rationalized system would also allow workforce members to more easily navigate the progression of professional development opportunities.

Currently, in allocating state and federal funds for workforce investment programs, CDE/CDD relies on the following set of guiding principles: (1) do not duplicate existing resources; (2) address unmet needs; (3) address emerging issues; (4) support statewide access; (5) maximize and leverage additional public and private resources to enhance the overall professional development of the field; and (6) align with the department's new infant/toddler and preschool learning and development foundations (CDE, 2009a). While these are all reasonable criteria, none of them reference directing public resources to their most effective use in terms of increasing the quality of the early care and learning experiences of California's children. Using the resources effectively to promote professional development raises questions such as the following:

- What is the best allocation of resources between serving members of the current workforce versus recruiting new members to the field?
- What is the right balance in terms of workforce professional development between those individuals in the workforce that serve children in subsidized care versus unsubsidized care?
- What is the optimal mix in terms of professional development for those serving infants and toddlers versus those serving preschool-age children, and how do we optimize professional development that applies to the full 0–5 age range?
- What is the appropriate balance between the three investment strategies discussed in Chapter Six of providing training programs, providing financial supports, and providing training for trainers?

Addressing these questions and determining whether or not current resources are used effectively requires information on the programs, their activities, cost, and impacts. Ideally, we would like to know how effective programs are for each dollar spent in terms of increasing caregiver or teacher competencies, improving the quality of caregiving or instruction they provide, raising rates of retention in the field, and improving child developmental outcomes. Such measures of cost-effectiveness can then be used to make decisions about how current resources should be allocated—for example, eliminating programs that are not effective and redirecting resources toward those that are—and how best to allocate new resources.<sup>1</sup> While some of the information to begin to address the above questions is collected for a number of programs now, it is not always done in a systematic and consistent way across programs. The two recommendations related to program evaluation and to restructuring the professional development portfolio would fill the knowledge gap and allow more-effective resource allocation.

### **Improve the Ability of the PDS to Prepare and Support the ECE Workforce**

Chapter Four, with its focus on the skills of the ECE workforce as evidenced by assessments such as the CLASS, highlighted ways in which there is room for improving the effectiveness of the workforce that serves children from birth to kindergarten entry. These areas include advancing the skills of the workforce, particularly in such key areas as providing the types of instructional support that promote children's early learning and knowing how to effectively work with dual language learners. Thus, the remaining seven recommendations listed in Table 7.1 are crafted to build and sustain a system in which the ECE workforce is well prepared, through both education and training, and provided with ongoing professional support to ensure that children receive the developmental benefits associated with a high-quality ECE system.

**Develop a well-defined and aligned ECE career pathway and associated credentials (EW 2).** California's ECE career pathway is currently delineated in the CDP matrix, which defines a career ladder starting with assisting positions (the assistant/associate teacher level), moving to lead teaching positions (teacher or master teacher), and concluding with administrative positions (site supervisor or program director). The permits associated with each level then identify where an individual is on the career ladder. The permits are specific to the early childhood field and are distinct from the credentials issued to teachers in public elementary and secondary schools. The general structure of the career ladder in California is similar to that of other states, although the number of levels and the education and training associated with each level vary. Since California's career ladder has not been revised in light of the new early learning standards and the early educator competencies, we recommend (see EW 2 in Table 7.1)

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<sup>1</sup> Kilburn and Karoly (2008) discuss resource allocation strategies given information on cost-effectiveness or benefit-cost.

that the state reassess the current ladder to determine if revisions are needed to bring it into alignment with the newest elements of the ECE system. Alignment would also be appropriate with the QRIS, if one is implemented.

In defining the career pathway and credentials, it is important to guard against a narrow focus on the number of courses, the specific degree, or other credentials to the detriment of recognizing that it is educator competencies that matter most. Indeed, one of the constructive features of the California early educator competencies is that for each competency domain, a continuum of competencies is defined, starting from those required for supportive or assisting roles (Level I, Supporting Early Learning and Development) extending to those needed for administrative roles (Level IV, Advancing the Early Childhood Profession). Any required degrees or credentials along the career ladder serve as proxies to indicate that an individual has completed a course of study and/or practice that signals their having achieved a given competency level. Thus, it is crucial, as recommended above (see ET1), that degree programs, as well as other professional development activities, are aligned with the competencies.

California should also consider the reintroduction of the P–3 teaching credential that was phased out in the 1970s. This credential is relevant given the requirement that at least half of Head Start teachers have a bachelor's degree by 2013. The credential is also germane in light of the state's new transitional kindergarten (TK) program instituted through the 2010 Kindergarten Readiness Act (SB 1381). Over a three-year transition period, the act moves the kindergarten entry birth date cutoff from December 2 to September 1 and creates a TK program, delivered through the public schools by certified teachers, for children with birthdays in September, October, and November. SB 1381 effectively establishes a universal preschool program for children with end-of-year birth dates.

According to Bornfreund (2011), it is not uncommon for states to have a teaching license or credential that spans from preschool to the early elementary grades. However, only four states (Arkansas, Georgia, Ohio, and Pennsylvania) currently have a licensing structure where the P–3 or P–4 credential does not overlap with an omnibus K–5 or K–6 credential. In those states with overlapping grades in the licensing system, teachers often prefer the omnibus credential over the narrower early childhood credential because they are more marketable to schools who value more versatile teachers. In states with the omnibus credential, teacher preparation programs often place little emphasis on early childhood given the wider age range covered (Bornfreund, 2011). In California, as in other states, another issue with creating a P–3 credential is the differential compensation for bachelor's level teachers for those in the public school system versus those in the ECE system. Members of the ECE workforce with a bachelor's degree may find it more attractive to obtain a credential to teach at the preschool or early elementary level in the public school system given the pay differential.

**Address the need for financial supports for ECE practitioners to pursue additional education and professional development (EW 3).** As discussed in Chap-

ter One, employment in the ECE field in California and nationwide is characterized by relatively low levels of compensation. In addition, California's reimbursement rates for subsidized ECE programs do not increase when programs employ staff with higher education and training levels, thereby limiting the ability of programs to raise compensation as practitioners move up the career ladder. For these reasons, it is challenging for members of the ECE workforce to make an upfront investment in furthering their education and training, and there is no assurance of a financial return to that investment through subsequent compensation gains. These circumstances would be expected to lead to an underinvestment in the human capital of the ECE workforce. This runs counter to other occupations in which individual workers cover the costs of further education and training (often through borrowing), with the expectation of higher earnings in the future that will more than pay back that investment in their own human capital.

Given these circumstances, California has recognized, like most other states, that publicly subsidized financial supports are needed for ECE practitioners to cover the costs of acquiring additional education and training and to boost compensation for those who advance their skill set. The two variants of the CARES program, discussed in Chapter Six, have served this purpose in California in terms of subsidizing the cost of acquiring additional education and training, similar to programs like T.E.A.C.H. in other states, while the WAGES+ program in San Francisco is an example of an ongoing wage supplement tied to education. With the shift in emphasis of the First 5 CARES to CARES Plus program and the prospects that budget cuts may diminish the size of the CARES–AB 212 program, funding for financial incentives may be considerably smaller in the future. With recommendation EW 3 in Table 7.1, we suggest that the state continue to address the need for financial supports under the current system, drawing where possible on proven models, evaluating those models that have yet to be rigorously assessed, and adapting the approach taken with other changes in the ECE system.

The CARES program has been the subject of several evaluation efforts, as discussed in Chapter Six. However, these assessments have mostly used descriptive methods, which limit the ability to conclude with a high degree of certainty that the program has had the intended effects. The recommendations to implement a registry (EW 1) and more rigorous evaluation for the set of workforce investment programs (WI 1 and WI 2) would support more in-depth assessments of which practitioners participate in CARES and the shorter- and longer-term impact of CARES on the ECE workforce. Further experimentation could assess, for example, the effect of varying the size or nature of the financial supports offered through CARES (e.g., scholarships versus wage bonuses) or of approaches to targeting the program to underserved groups.

We note that the mechanism for providing financial support to advance professional development may need to adapt to other changes in the ECE system. For example, implementation of a statewide QRIS, especially one with a tiered reimbursement

system tied to the education and training levels of program staff, would allow programs that hire staff with more education and training to offer higher compensation in return. The tiered reimbursement system could even be structured to ensure that the higher reimbursement rates paid to providers are channeled into wage enhancements for more qualified staff. Such tiered reimbursement linked with higher pay would come closer to replicating market mechanisms for rewarding private investments in human capital and thereby reduce the amount of public sector supports required through the CARES program or other similar programs.

**Address other barriers to delivering high-quality care and early learning environments (EW 4).** As discussed in Chapter Two, one explanation for the recent findings of a weaker link between the education and training of ECE practitioners and child outcomes is the lack of quality in other key program components. Deficiencies in curricula or classroom materials, paid planning and meeting time, support for ongoing professional development, program leadership, or other critical program elements may limit the ability of fully competent providers to achieve the high-quality environments that they are capable of providing with the associated benefits in terms of child developmental outcomes (Whitebook and Ryan, 2011). Recommendation EW 4 in Table 7.1 recognizes that there is a need to address such barriers to fully benefit from the skills and competencies of the ECE workforce.

A statewide QRIS that focuses on improving quality for the program elements most relevant for producing strong child development benefits is one strategy for achieving this objective. As proposed, the QRIS for California would address such important structural program components as group size and ratios, as well as other quality dimensions, such as the teaching and learning environment and program leadership (CAELQIS Advisory Committee, 2010b). Ultimately, it is critical to evaluate the QRIS to determine if it is measuring and incentivizing program features that are strongly predictive of child developmental gains. In the absence of a QRIS, licensing requirements, program standards, or technical assistance may offer other avenues for raising program quality in targeted areas.

**Continue to improve the quality of teacher preparation programs by addressing remaining gaps in specific program features (ET 2) and further validate quality through specialized accreditation of ECE associate and bachelor's degree programs (ET 3).** The research discussed in Chapter Two points to the growing recognition that there is a need to improve the quality of teacher preparation programs in order to fully realize the benefits from having the ECE workforce acquire more education and training. Prior research in California identified quality gaps in such areas as capacity and available resources, faculty education and training, and program structure (e.g., opportunities for practicums). While California has initiated reforms to its ECE higher education programs through CAP and other efforts since those studies were conducted, it is important to ensure that these efforts fully address any remaining quality shortfalls. Thus, beyond the process of alignment and articulation discussed

above in recommendation ET 1, recommendations ET 2 and ET 3 point to the need to remedy any remaining gaps in quality in the programs that prepare the ECE workforce to deliver high-quality care and early learning experiences. These improvements may come from a direct focus on quality shortfalls (ET 2) or through the validation of quality offered through specialized ECE degree program accreditation (ET 3).

Prior research in California and other states, summarized in Chapters Two and Five, identifies some of the issues that affect the quality of teacher preparation programs beyond the alignment issues discussed above. In California, these issues have included curricula that were not comprehensive enough, particularly in their focus on children younger than five and in preparing students to work with ethnically and linguistically diverse children and families; insufficient use of practicums; and the lack of a diverse, well prepared, full-time faculty. Many of these gaps may be addressed through targeted efforts like the alignment activities discussed as part of recommendation ET 1; others may be remedied through the workforce investment efforts discussed in Chapter Six that focus on improving the knowledge and skills of ECE educators. Another avenue is to increase the number of degree programs that have NAEYC or NCATE specialized ECE accreditation. Given that accreditation for ECE teacher preparation programs is relatively new, especially for associate degree programs, it is important that, as accreditation is phased in, research validate the linkage between accreditation and higher quality programs and more effective program graduates. In addition, any requirement for specialized accreditation will need to have the needed financial and related supports for programs to undergo the accreditation process.

**Implement proven models for advancing professional development given the diverse circumstances of the current and potential workforce (ET 4).** California has a diverse population of children participating in early care and learning environments, and the characteristics of the current and potential ECE workforce are equally diverse, as are their requirements for professional development. Recommendation ET 4 in Table 7.1 acknowledges the need to take that diversity into account when implementing education and training programs in support of the ECE workforce. That diversity includes the range of circumstances faced by ECE practitioners that affect their ability to engage in further education and training—from those seeking preservice education and training to those already working full- or part-time in the field—who have limitations on when they can take courses or constraints on their ability to travel to the location where courses are offered. Diversity is also reflected in the college-readiness skills of the workforce, especially those for whom English is their second language. The “nontraditional” students discussed in Chapter Six face other challenges, such as a lack of the financial, logistical, and emotional supports needed to pursue further education and training. Successfully accounting for these varied circumstances through relevant supports has the potential to produce an ECE workforce as diverse as the children they serve.

Here again, it is important to draw on proven models wherever possible. If the promising early evidence from the BA cohort model under way in several California counties is confirmed in further evaluation of the program's impacts, that model could be replicated on a larger scale. The related initiatives being implemented in Los Angeles County for advancing the educational attainment of the ECE workforce—from cohort models, to dedicated counseling, to transition supports—may also prove to be a successful model for replication. Likewise, the promise of technology-mediated approaches to professional development merits further study and wider implementation. The remote consultant or coaching model employed in MTP, for example, has great potential for matching high-quality professional development consultants with California's demographically diverse and geographically dispersed ECE workforce. Approaches that are successful with one demographic may not work for others, however. Thus, it is necessary to experiment with varied models to determine what works best for whom.

**Improve the quality of ECE education and training programs by developing competencies for those who support the professional development of the ECE workforce (ET 5).** In the same way that competencies have been defined for the members of the ECE workforce who work directly with children, there is a need to identify the competencies required on the part of those who provide professional development services for the ECE workforce, whether through postsecondary education programs or through other training and professional development opportunities. The list of relevant professionals would include teacher educators in two- and four-year degree programs; mentors, coaches, and other professional development advisors; and resource and referral personnel and others in organizations that support the professional development of the ECE workforce.

To our knowledge, this approach has been implemented to date in other states, but, as noted earlier, over half the states have quality control mechanisms in place to approve trainers (and training programs) that must implicitly or explicitly reference required competencies. The competencies for teacher educators could be incorporated in ECE master's degree and doctoral programs to ensure that program graduates will be effective educators. In addition, the competencies for teacher educators and other professional development specialists such as mentors and coaches could be used to guide the workforce investment dollars that are devoted to the "train-the-trainers" activities (Panel C of Table 6.1) to ensure that those training activities are focused on the needed knowledge and skills.

### **Further Considerations**

In many respects, the recommendations in Table 7.1 are interdependent, so that implementing some without the others may not achieve the overall objective of improving the effectiveness of the ECE workforce PDS. For example, more-rigorous evaluation of workforce investment programs (WI 1) will benefit from the information obtained



through the workforce registry (EW 1). Failure to address financial supports for practitioners who pursue further education and training (EW 3) would likely limit the extent to which practitioners would benefit from a well-defined career pathway and credentials (EW 2). Without addressing workplace barriers to high-quality care on the part of qualified providers (EW 4), the benefits from further investments in the quality of the postsecondary teacher preparation programs (ET 1, ET 2, ET 3, and ET 5) and workforce professional development programs (WI 3) may not be realized. Thus, a comprehensive approach, as outlined in the complete set of Table 7.1 recommendations, is required to advance the PDS and realize the benefits for children participating in care and early learning programs.

In advancing the ECE workforce PDS in California, the expectation is that the recommendations in Table 7.1 can be pursued in a coordinated fashion by California's Early Learning Advisory Council (ELAC), together with the other stakeholders in the system. In several cases, the recommendations involve the continuation of activities that are already under way, such as the integration of an ECE career pathway into the proposed state QRIS (EW 2) and the alignment and articulation of the ECE curriculum within the CCCs and CSUs (ET 1). In other cases, statewide efforts can build upon models already developed and implemented at the county level, such as the planned pilot registry involving several California counties (EW 1). The ELAC can also ensure that the ECE workforce professional development strategies are in alignment with the state's K–12 system, including the new TK program.

Given the tight fiscal constraints currently facing California, it is important to note that implementing many of the recommendations in Table 7.1 will not necessarily require a significant infusion of new resources. For example, adopting a more rigorous approach to evaluating workforce investment programs (WI 2) could be accomplished by setting aside a modest fraction of current program spending for research and evaluation. The resulting evaluation findings could then be used to redirect funding away from less-effective programs and toward those that are found to be more effective, where effectiveness may be defined in terms of the program impacts on outcomes such as caregiver or teacher competencies, the quality of care and early learning provided, caregiver or teacher retention in the field, or child developmental outcomes. If information on program costs is collected as part of the evaluation, resource allocation decisions can take cost-effectiveness into account, as well. Then, when new resources become available, information on program cost-effectiveness can be used to direct the new funding to the programs where they will generate the most benefit per dollar spent. While other recommendations in Table 7.1 may require some additional new resources, the goal of the recommendations is to ensure that existing resources are used efficiently to support a highly effective ECE workforce that prepares California's youngest children for success in school and beyond.



## California Child Development Permit Matrix

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The California CTC offers a series of six child development permits that range from Assistant Teacher to Program Director.<sup>1</sup> These permits are used primarily to define staff requirements in the California Title 5 child development programs, including the California State Preschool program (see Chapter One). As seen in Table A.1, the permit requirements, developed in 1998, typically include two options for qualifying through a combination of coursework, degrees, field experience, and work experience. Each of the permits is renewable at five-year intervals with evidence of ongoing professional development. The exception is the Associate Teacher permit, which is renewable only once because it is intended to be a transition permit while an individual works toward the Teacher permit.

At the lowest level, the Child Development Assistant Teacher permit requires six semester units of college-level coursework in child development or ECE.<sup>2</sup> The Associate Teacher permit requires 12 units of specialized child development or ECE coursework. This permit can also be attained with a CDA credential. The Teacher permit requires 24 units of child development or ECE coursework as part of 40 units in total or an associate degree in child development or ECE or a related field. The Master Teacher level can be met with 60 units in total, including 24 units in child development or ECE or a bachelor's degree. The Site Supervisor permit has similar requirements to those for the Master Teacher Permit, with the addition of a qualifying associate degree. Finally, with a minimum of a bachelor's degree plus one year of Site Supervisor experience or a master's degree in child development or ECE, the Program Director Permit level can be reached. As indicated in Table A.1, varying amounts of experience in child care and development programs are also needed for the Associate Teacher Permit and higher.

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<sup>1</sup> This appendix draws on material presented in Karoly, Reardon, and Cho, 2007a.

<sup>2</sup> A unit is based on the number of hours of instruction required in the classroom, laboratory, and/or independent study. A course that earns three semester units will typically meet three hours per week over the semester (which is typically 15 weeks long in the CSU system). One quarter unit is two-thirds of a semester unit.

**Table A.1  
Education and Training Requirements for California Child Development Permits**

Permit Level (Renewal Options)	Requirements
Assistant Teacher: (5 years, renewable with 105 hours of professional growth)	6 semester units of college-level CD/ECE
Associate Teacher: (5 years, renewable once with 15 semester units toward Teacher permit)	12 semester units of college-level CD/ECE (with required courses in core CD/ECE areas) 50 days' instructional experience in CCD program in last 2 years  OR CDA credential
Teacher: (5 years, renewable with 105 hours of professional growth)	24 semester units of college-level CD/ECE (with required courses in core CD/ECE areas) (CDA credential may substitute for 9 units) 16 semester units of GE 175 days' instructional experience in CCD program in last 4 years  OR AA or higher in CD/ECE or related field 3 semester units of supervised field experience in ECE setting
Master Teacher: (5 years, renewable with 105 hours of professional growth)	24 semester units of college-level CD/ECE (with required courses in core CD/ECE areas) (CDA credential may substitute for 9 units) 16 semester units of GE (with required courses in core areas of arts and sciences) 6 semester units in area of ECE specialization 2 semester units of adult supervision coursework 350 days' instructional experience in CCD program in last 4 years  OR BA or higher 12 semester units of CD/ECE 3 semester units of supervised field experience in ECE setting
Site Supervisor: <sup>a</sup> (5 years, renewable with 105 hours of professional growth)	24 semester units of college-level CD/ECE (with required courses in core CD/ECE areas) (CDA credential may substitute for 9 units) AA degree or 60 semester units 6 semester units in admin./supervision of CCD programs 2 semester units of adult supervision coursework 350 days' instructional experience in CCD program in last 4 years, with 100 days supervising adults  OR BA or higher 12 semester units of CD/ECE 3 semester units of supervised field experience in ECE setting

**Table A.1—Continued**

<b>Permit Level (Renewal Options)</b>	<b>Requirements</b>
Program Director: <sup>a</sup> (5 years, renewable with 105 hours of professional growth)	24 semester units of college-level CD/ECE (with required courses in core CD/ECE areas) (CDA credential may substitute for 9 units) BA degree or higher 6 semester units in admin./supervision of CCD programs 2 semester units of adult supervision coursework 1 year site supervisor experience OR MA or higher in CD/ECE or closely related field

SOURCE: California Commission on Teacher Credentialing, 2006; and Karoly, Reardon, and Cho, 2007, Table 4.6.

NOTES: AA = associate degree; BA = bachelor's degree; CCD = child care and development; CD = child development; GE = general education.

<sup>a</sup> Two other options based on Administrative Services Credential and Teaching Credential are not shown.



## Structure of California CSU Bachelor's Degree Programs Focusing on Young Children

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Table B.1 summarizes information about the structure of the 19 CSU bachelor's programs as of November 2010, where the degree itself or a degree track/option explicitly mentions a focus on young children. In Table B.1, each column summarizes a program feature: the designated college, the degree type, the degree name, and the degree content. In each column, all applicable descriptors (colleges, degree types, degree names, or degree content) are shown, with the number in parentheses denoting the number of programs with this descriptor (out of 19 total). The most frequent labels are shown in bold. Table B.1 was compiled from the detailed information provided in Table B.2. Table B.2 records, for each of the 19 relevant CSU programs, the designated college where the program resides, the degree type and name, and the degree content.

**Table B.1**  
**Summary of the Structure of CSU Bachelor's Degree Programs with a Focus on Young Children as of November 2010 (number of programs in parentheses)**

Designated College	Degree Type	Degree Name	Degree Content
Agricultural Sciences and Technology (1)	<b>B.A. (14)</b> B.S. (5)	Child, Adolescent, and Family Studies (1)	<b>Aligns with CDP matrix (7)</b>
Arts and Sciences (1)		Child and Adolescent Development (2)	Teacher preparation, including early childhood (3)
Behavioral & Social Sciences (1)		Child and Adolescent Development, with concentration in early childhood or young children (2)	Teacher preparation other than early childhood (3)
<b>Education (5)</b>		Child and Family Development (1)	<b>Theory and application, but not teacher preparation (6)</b>
<b>Health &amp; Human Development (2)</b>		Child Development (4)	
<b>Health &amp; Human Services (3)</b>		Child Development, with Early Development, Care, and Education concentration (1)	
Letters, Arts, and Social Science (1)		Child Development, with practitioner option (1)	
Liberal Arts (1)		Early Childhood Studies (1)	
Professional Studies (2)		Family and Consumer Sciences, Child Development, and Family Studies (1)	
Social & Behavioral Science (1)		<b>Human Development, with concentration in child development or related field (3)</b>	
None (1)		Liberal Studies Child Development, Teaching track with early childhood option (1)	
		Liberal Studies, Concentration in Child Development (1)	

SOURCE: Author's analysis based on unpublished compilation by the Center for the Study of Child Employment. See Table B.2 for additional detail.

NOTE: Most common approaches are shown in bold.



**Table B.2**  
**Structure of CSU Bachelor's Degree Programs With a Focus on Young Children as of**  
**November 2010**

<b>Campus</b>	<b>Designated College</b>	<b>Degree Type and Name</b>	<b>Content</b>
Cal Poly, San Luis Obispo	Liberal Arts	B.S., Child Development, includes minor in psychology	Applied and teaching focus; birth to adolescence
Bakersfield	Education	B.A., Child, Adolescent, & Family Studies	Theory (developmental)
Channel Islands	N/A	B.A., Early Childhood Studies	Explicit about teacher preparation and diversity for birth to age 8; aligns with NAEYC professional preparation standards
Chico	Behavioral & Social Sciences	B.A., Child Development	Applied and teaching focus; birth to adolescence
Dominguez Hills	Professional Studies	B.S., Child Development	Theory (developmental); birth to adolescence
East Bay	Letters, Arts, and Social Science	B.A., Human Development, option in early childhood development	Theory (developmental) and application
Fresno	Agricultural Sciences and Technology	B.S., Child Development, practitioner option	Aligns with CD Permit; practitioner-focused
Fullerton	Health and Human Development	B.S., Child and Adolescent Development, option in early childhood development	Aligns with CD Permit; practitioner-focused
Humboldt	Professional Studies	B.A., Liberal Studies Child Development, teaching track with early childhood option	Aligns with CD Permit; practitioner-focused
Long Beach	Health & Human Services	B.A., Family & Consumer Sciences, Child Development, & Family Studies	Aligns with CD Permit; practitioner-focused
Los Angeles	Health & Human Services	B.A., Child Development	Teacher preparation emphasis on elementary education
Northridge	Health & Human Development	B.A., Child & Adolescent Development	Theory (interdisciplinary); birth to adolescence
Sacramento	Education	B.A., Child Development, concentration in Early Development, Care, and Education	Aligns with CD Permit; practitioner-focused
San Bernardino	Social & Behavioral Science	B.A., Human Development, Child Development track	Aligns with CD Permit; practitioner-focused
San Diego	Education	B.S., Child & Family Development	Theory (developmental) and application; preparation for jobs but not teaching

**Table B.2—Continued**

<b>Campus</b>	<b>Designated College</b>	<b>Degree Type and Name</b>	<b>Content</b>
San Francisco	Health & Human Services	B.A., Child & Adolescent Development, concentration in Young Children and Family	Aligns with CD Permit; practitioner-focused
San Jose	Education	B.A., Child & Adolescent Development	Teacher preparation; emphasis on elementary education
San Marcos	Arts and Sciences	B.A., Human Development, concentration in Children's Services	Theory (developmental) and application; preparation for jobs but not teaching
Stanislaus	Education	B.A., Liberal Studies, concentration in Child Development	Teacher preparation; emphasis on special and elementary education

SOURCE: Unpublished compilation by the Center for the Study of Child Employment based on program websites.

## Informal ECE Training Opportunities in California

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As discussed in Chapter Six, local county agencies offer an array of professional development programs in the form of workshops, short training programs, and other activities. Table C.1 provides a sampling of such offerings as reported on the websites of the relevant county R&R agencies, LPCs, and county First 5 commissions as of early 2010. Offerings that were explicitly linked to programs covered in Table 6.1 (e.g., CCIP, CPIN, PITC, etc.) were not included. Not all counties list their informal training opportunities on their website. In total, 26 counties are represented in Table C.1. The table lists the training program name, the language(s) of instruction, the types of providers served, the type of program, the hours for the training program, and the cost. In some cases, there was insufficient information to determine some of the program features such as the type of program, hours, or existence of a fee and/or the fee amount.

Since these programs change over time, the list in Table C.1 provides a snapshot of the types of less formal locally provided professional development opportunities available for ECE providers beyond the statewide programs discussed in Chapter Six. The informal training opportunities cover basic health and safety issues, various topics in child development, and aspects of good business practices. Some offerings are targeted to specific provider types, such as family child care homes or exempt providers. Programs are typically two to three hours long and either are free or require a modest fee.

**Table C.1**  
**Sample of Informal Training Programs Offered as of 2010, by County**

County (Intermediary)	Program Title	Languages	Providers Served	Type	Hours	Cost
Alameda (R&R)	A Singing & Signing Series	E	Center / FCC	Workshop	2	Free
Alameda (R&R)	Business of FCC (Beyond Health & Safety)	E, S	FCC	Workshop	2	Free
Alameda (R&R)	Business of FCC (Contracts & Policies)	C, S	FCC	Workshop	2	Free
Alameda (R&R)	Business of FCC (Contracts, Policies & Procedures)	E	FCC	Workshop	2	Free
Alameda (R&R)	Business of FCC (Marketing)	C	FCC	Workshop	—	Free
Alameda (R&R)	Business of FCC (Record Keeping & Taxes)	E	FCC	Workshop	2	Free
Alameda (R&R)	Business of FCC (Recordkeeping & Marketing)	S	FCC	Workshop	2	Free
Alameda (R&R)	Business of FCC (Taxes & Recordkeeping)	C	FCC	Workshop	2	Free
Alameda (R&R)	Children w/ Challenging Behavior	E, S	Center / FCC	Workshop	7	Free
Alameda (R&R)	Children with Autism in Early Childhood	E	Center / FCC	Workshop	2	Free
Alameda (R&R)	Circle Time Fun	E, C	Center / FCC	Workshop	2	Free
Alameda (R&R)	CPR & First Aid Training	E	Center / FCC	Training	8	Fee
Alameda (R&R)	Culture & Care of Young Children	E	FCC	Academic	5.5	Free
Alameda (R&R)	Diversity	S	Center / FCC	Workshop	2	Free
Alameda (R&R)	Eco Healthy Child Care	E	Center / FCC	Workshop	2	Free
Alameda (R&R)	FCC Business	E	FCC	Workshop	6.5	Free
Alameda (R&R)	Get Organized	E	FCC	Workshop	1.5	Free
Alameda (R&R)	Harms Clifford: FCC	E	FCC	Workshop	3	Free
Alameda (R&R)	Harms Clifford: Infants, Toddlers & Preschoolers	E, S	Center / FCC	Workshop	3	Free
Alameda (R&R)	Hiring Practices in the FCC Business	E	FCC	Workshop	3	Fee
Alameda (R&R)	Immunizations	E, C	All	Workshop	2	Free
Alameda (R&R)	Inclusion Strategies in Child Care	C	Center / FCC	Workshop	2	Free
Alameda (R&R)	Inexpensive Curriculum	S	Center / FCC	Workshop	2	Free

**Table C.1—Continued**

County (Intermediary)	Program Title	Languages	Providers Served	Type	Hours	Cost
Alameda (R&R)	It Makes Sense	E	Center / FCC	Workshop	2	Free
Alameda (R&R)	KQED Science Series	S	Center / FCC	Workshop	2	Free
Alameda (R&R)	Liabilities & Insurance	E	FCC	Workshop	2	Free
Alameda (R&R)	Little Chefs (Parts I, II, or III)	E	Center / FCC	Workshop	2	Free
Alameda (R&R)	Many Right Ways (Designing Your Home Environment)	E, S	FCC	Workshop	2	Free
Alameda (R&R)	New Provider Training	E	Center / FCC	Workshop	2.5	Free
Alameda (R&R)	Nurturing Touch (Simple Massage for Babies & Children)	E, C	Center / FCC	Workshop	2	Free
Alameda (R&R)	Plan for Success	E	Center / FCC	Workshop	3.5	Free
Alameda (R&R)	Preventative Health	E	FCC	Training	7	Fee
Alameda (R&R)	Ready or Not, Here We Come	E	Center / FCC	Workshop	2	Free
Alameda (R&R)	Simplifying Family Child Care Taxes	S	FCC	Workshop	2	Free
Alameda (R&R)	Smile More & Have Less Stress	S	Center / FCC	Workshop	6.5	Free
Alameda (R&R)	Spirited Child Series	E	Center / FCC	Workshop	2	\$40 / \$55
Alameda (R&R)	Tax Update	F	FCC	Workshop	2	Free
Alameda (R&R)	Taxes	S	FCC	Workshop	2	Free
Alameda (R&R)	Taxes & Employees	S	FCC	Workshop	2	Free
Alameda (R&R)	Taxes & Recordkeeping	E	FCC	Workshop	3	Free
Alpine (First 5)	Teaching Math & Science Through Art	E	Center / FCC		4	Free
Alpine (R&R)	CPR	E	Center / FCC	Training	4	\$45
Alpine (R&R)	First Aid	E	Center / FCC	Training	4	\$35
Alpine (R&R)	Make & Take	E	Center / FCC	Workshop	—	Free
Alpine (R&R)	Play Power	E	Center / FCC	Workshop	4	Free
Butte (R&R)	FCC Provider Resource	E	FCC	Networking	1	Free
Butte (R&R)	Getting Started: The Business of FCC	E	FCC	Workshop	2	Free
Butte (R&R)	Make It & Take It	E	FCC	Workshop	2	Free
Butte (R&R)	Math & Science for All Ages	E	FCC	Workshop	2	Free
Butte (R&R)	Reading	E	FCC	Workshop	2	Free
Butte (R&R)	Recordkeeping & Taxes	E	FCC	Workshop	2	Free

Table C.1—Continued

County (Intermediary)	Program Title	Languages	Providers Served	Type	Hours	Cost
Butte (R&R)	Valley Oak Annual Conference	E	Center / FCC	Conference	—	Free
Contra Costa (R&R)	16th Annual Early Learning Conference	E	FCC	Conference	8	—
Contra Costa (R&R)	Child Care Means Business	E, S	FCC	Workshop	2 or 3	—
Contra Costa (R&R)	Constructive Play & Creative Develop. for Young Children	E	FCC	Workshop	2	—
Contra Costa (R&R)	Curriculum Development	E	FCC	Workshop	2	—
Contra Costa (R&R)	Keeping Records for Your FCC Business	E	FCC	Workshop	3	—
Contra Costa (R&R)	Learning Through Play	E, S	FCC	Workshop	2 or 3	—
Contra Costa (R&R)	Referrals & Marketing	E	FCC	Workshop	2	—
Contra Costa (R&R)	Reporting Child Abuse	E, S	FCC	Workshop	2	—
Contra Costa (R&R)	Science Safari	E	FCC	Workshop	3	—
Contra Costa (R&R)	Self Assessment Nutrition & Physical Activity	E	FCC	Workshop	1.5	—
El Dorado (R&R)	CPR	E	Center / FCC	Training	4	\$45
El Dorado (R&R)	Early Childhood Literacy Workshop	E	FCC	Workshop	3	—
El Dorado (R&R)	First Aid	E	Center / FCC	Training	4	\$35
El Dorado (R&R)	Provider Networking Group	E	FCC	Networking	2.5	—
Kern (R&R)	Create a Parent Handbook	E, S		Training	2	—
Kern (R&R)	From Baby Sitter to Business Owner	E	FCC	Training	2.5	\$22
Kern (R&R)	Infant Toddler Seminar	E		Seminar	4	—
Kern (R&R)	Kindergarten Readiness Parts 1-4	E, S		Training	8	—
Kern (R&R)	Learning Environments—Dramatic Play	E		Training	2	—
Kern (R&R)	Learning Environments—File Folder Games	E		Training	2	—
Kern (R&R)	Learning Environment—Low/No Cost Activities	E		Training	2	—

**Table C.1—Continued**

County (Intermediary)	Program Title	Languages	Providers Served	Type	Hours	Cost
Kern (R&R)	Learning Environments— Music	E		Training	2	—
Kern (R&R)	Reframing Discipline (3 part series)	E		Training	2	—
Kern (R&R)	Tom Copeland Returns to Bakersfield!	E		Training	7	\$25
Los Angeles (R&R)	A Balanced Child Care Provider	E	FCC	Workshop	2	Free
Los Angeles (R&R)	Acknowledge/Ask/ Adapt	E	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Adult, Child & Infant CPR & Pediatric First Aid	E	FCC	Training	8	\$75
Los Angeles (R&R)	An Educator with Patience	S	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Baby & Kids Yoga	E	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Behavior	E, S	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Beyond Discipline	S	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Building Numeracy Skills & Beyond	E	FCC	Workshop	5	—
Los Angeles (R&R)	Building Positive Relationships with Families	S	Center / FCC	Workshop	4	Free
Los Angeles (R&R)	Child Care Health & Safety	E	FCC	Training	8.5	\$50
Los Angeles (R&R)	Contracts & Policies	S	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Cooking with Literacy	E, S	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	CPR Renewals	E, S	Center / FCC	Training	4	\$20
Los Angeles (R&R)	CPR, First Aid, Health & Safety	E	Center / FCC	Training	9	\$60
Los Angeles (R&R)	Creating a Peaceful Environment for Children	E	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Culturally Sensitive Child Care	S	Center / FCC	Workshop	4	Free
Los Angeles (R&R)	Difficult Family Issues in Child Care	E	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Disaster Preparedness for FCC	E, S	FCC	Workshop	3	Free
Los Angeles (R&R)	Diversity	E	All	Workshop	2	Free
Los Angeles (R&R)	Early Identification of Autism	E, S	Center / FCC	Workshop	2	Free

**Table C.1—Continued**

<b>County (Intermediary)</b>	<b>Program Title</b>	<b>Languages</b>	<b>Providers Served</b>	<b>Type</b>	<b>Hours</b>	<b>Cost</b>
Los Angeles (R&R)	Eco-Healthy Child Care	E	FCC	Workshop	2	—
Los Angeles (R&R)	Exploring Math & Science with Art	S	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Family Child Care Environments	E	FCC	Workshop	2	Free
Los Angeles (R&R)	Fun with Transitions	E	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Language Development in Older Infants	E	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Language to Literacy	E	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Learning to Study	E	All	Workshop	2	Free
Los Angeles (R&R)	Money Management	E, S	FCC	Workshop	2	Free
Los Angeles (R&R)	Mr. Rodgers Neighborhood	E	Center / FCC	Workshop	4	Free
Los Angeles (R&R)	Music in Your Program	E	Center / FCC	Workshop	2	Free
Los Angeles R&R)	Parent & Provider Communication & Documentation	E	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Process v. Product	E	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Professional Development	S	Center / FCC	Workshop	4	Free
Los Angeles (R&R)	Provider Wellness	E	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Reading to Children	E	All	Workshop	2	Free
Los Angeles (R&R)	Recognizing Early Signs of Special Needs	E, S	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Recordkeeping & Taxes	E	FCC	Workshop	4	—
Los Angeles (R&R)	Reggio & Children's Art	E	All	Workshop	4	Free
Los Angeles (R&R)	Scientific Inquiry for Young Children	E	FCC	Workshop	5	—
Los Angeles (R&R)	Sensory Profile: Individual Differences & Assoc. Behaviors	E	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Sesame Street	S	Center / FCC	Workshop	2 or 4	Free
Los Angeles (R&R)	Setting the Stage for Social Competence	E	FCC	Workshop	5	—
Los Angeles (R&R)	Signing with Children	E	Center / FCC	Workshop	3	Free
Los Angeles (R&R)	Study Techniques & Strategies for Learning	S	Center / FCC	Workshop	2	Free



Table C.1—Continued

County (Intermediary)	Program Title	Languages	Providers Served	Type	Hours	Cost
Los Angeles (R&R)	Supporting Self Esteem & a Positive Self Image	E	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Tax Prep & Record Keeping	E, S	FCC	Workshop	3	Free
Los Angeles (R&R)	Teaching Your Kids to Express Their Anger	E	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	The Beginning	S	Prospective	Workshop	2 or 3	Free
Los Angeles (R&R)	The Value of Play	E	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Theoretical Concepts of Children's Play	S	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Theory Round Table	E	Center / FCC	Workshop	2	Free
Los Angeles (R&R)	Understanding & Responding to Abuse & Neglect of Infants & Toddlers	E	Center / FCC	Workshop	4.5	Free
Los Angeles (R&R)	Understanding IT Development	E, S	Center / FCC	Workshop	4	Free
Los Angeles (R&R)	You ARE an Advocate for Your Child Care Program	E	Center / FCC	Workshop	2	Free
Marin (R&R)	Infant/Child/Adult CPR	E, S	Center / FCC	Training	5	\$55
Marin (R&R)	Infant/Child/Adult CPR & First Aid	E, S	Center / FCC	Training	8	\$70
Marin (R&R)	Infant/Child/Adult CPR & First Aid & Child Care Health & Safety	E, S	Center / FCC	Training	15	\$70
Mariposa/ Tuolumne (R&R)	Eco-Healthy Child Care	E	Center / FCC	Workshop	2	Free
Mono (Other)	Building Early Literacy	E	Center / FCC	—	2	—
Mono (Other)	Health & Nutrition	E	Center / FCC	—	2	—
Mono (Other)	Kids Count: Math Curriculum	E	Center / FCC	—	2	—
Mono (Other)	Language & Literacy	E	Center / FCC	—	2	—
Mono (Other)	Music & You	E	Center / FCC	—	2	—
Mono (Other)	Outdoor Play a Whole New Way	E	Center / FCC	—	2	—
Mono (Other)	RESPECT: Celebrating Diversity	E	Center / FCC	—	2	—
Mono (Other)	Science Safari	E	Center / FCC	—	2	—
Mono (Other)	Unlock the Power of Blocks	E	Center / FCC	—	2	—
Monterey (First 5)	Early Childhood Environmental Rating Scale	E, S	Center	—	6	Free

**Table C.1—Continued**

<b>County (Intermediary)</b>	<b>Program Title</b>	<b>Languages</b>	<b>Providers Served</b>	<b>Type</b>	<b>Hours</b>	<b>Cost</b>
Monterey (First 5)	Family Child Care Environmental Rating Scale	E, S	FCC	—	6	Free
Napa (R&R)	Effects of TV on Children	E	All	Workshop	1.5	—
Napa (R&R)	Great Places to Be a Baby	E	Center / FCC	Workshop	1.5	—
Napa (R&R)	Playing Is Learning	E	All	Workshop	2	—
Nevada/Sierra (R&R)	FCC Education Network Meeting	E	Center / FCC	Networking	—	—
Nevada/Sierra (R&R)	Partnership Project Orientation	E	Center / FCC	Workshop	—	—
Orange (Other)	Super Sat. Staff Development for ECE Professionals	E	Center / FCC	Workshops	6	\$10
Plumas (R&R)	CPR/First Aid	E	Center / FCC	Training	8	\$45
Sacramento (Other)	Quickbooks (Beginning or Intermediate)	E	Center / FCC	—	3	\$40
Sacramento (Other)	Bookkeeping for Small Businesses	E	Center / FCC	—	3	\$40
Sacramento (Other)	Branding & Marketing for Small Business	E	Center / FCC	—	3	\$40
Sacramento (Other)	Business Basics	E	Center / FCC	—	3	\$40
Sacramento (Other)	Business Plan Guidelines	E	Center / FCC	—	3	\$80
Sacramento (Other)	Doing Business with the City of Sacramento	E	Center / FCC	—	3	Free
Sacramento (Other)	Employee v. Independent Contractor	E	Center / FCC	—	3	Free
Sacramento (Other)	Federal/State Tax Payroll Seminar	E	Center / FCC	—	3	Free
Sacramento (Other)	Government Subcontracting	E	Center / FCC	—	3	Free
Sacramento (Other)	How to Buy a Business	E	Center / FCC	—	2	\$30
Sacramento (Other)	Inclusion Symposium	E	Center / FCC	Conference	12	—
Sacramento (Other)	Mandated Child Abuse Reporting	E	Center / FCC	—	2	Free
Sacramento (Other)	SBA Financing Options	E	Center / FCC	—	2.5	Free

Table C.1—Continued

County (Intermediary)	Program Title	Languages	Providers Served	Type	Hours	Cost
San Bernardino (R&R)	Communication	E	Licensed	Workshop	3	Free
San Bernardino (R&R)	Creativity	E	Licensed	Workshop	3	Free
San Bernardino (R&R)	Discipline	E	Licensed	Workshop	3	Free
San Bernardino (R&R)	Diversity, Observation, Nutrition	E	Licensed	Workshop	3	Free
San Bernardino (R&R)	Guidance & Discipline	E	Exempt	Workshop	2	Free
San Bernardino (R&R)	Harms Clifford	E	All	Workshop	3	Free
San Bernardino (R&R)	Health & Safety	E	Exempt	Workshop	2	Free
San Bernardino (R&R)	Healthy Eating	E	Exempt	Workshop	2	Free
San Bernardino (R&R)	Managing Stress, Taking Care of You, Your Family, Your Business	E	Licensed	Workshop	3	Free
San Bernardino (R&R)	Record Keeping, Business Practices & Schedules	E	Licensed	Workshop	3	Free
San Bernardino (R&R)	Special Needs	E	Licensed	Workshop	3	Free
San Bernardino (R&R)	Stages of Development	E	Licensed	Workshop	3	Free
San Bernardino (R&R)	Temperaments	E	Licensed	Workshop	3	Free
San Bernardino (R&R)	What is FCC?	E	FCC	Workshop	3	Free
San Diego (Other)	2010 Leadership Institute	E	All	Conference	16	\$210–289
San Diego (R&R)	A Closer Look at Language & Literacy-Part 1	E	Center / FCC	Workshop	16	—
San Diego (Other)	Building Blocks for Writing	E	Center / FCC	Workshop	2	Free
San Diego (R&R)	Challenging Behaviors	E	Center / FCC	Workshop	3	\$15
San Diego (Other)	Closer Look at Language & Literacy	E, S	Center / FCC	Workshop	16	\$15 / \$35
San Diego (R&R)	CPR	E	Center / FCC	Training	4	—
San Diego (R&R)	CPR & First Aid	E	Center / FCC	Training	5	—
San Diego (Other)	Dialogues for Quality in Education	E	All	Conference	24	\$380

Table C.1—Continued

County (Intermediary)	Program Title	Languages	Providers Served	Type	Hours	Cost
San Diego (R&R)	Early Childhood Environmental Ratings Scale	E	Center / FCC	Workshop	4	\$20
San Diego (R&R)	Family Literacy & Language	E	All	Workshop	2	Free
San Diego (R&R)	Guiding & Disciplining Children	E, S	Exempt	Workshop	2	Free
San Diego (R&R)	Introduction to Inclusion	E	All	Workshop	2	Free / \$15
San Diego (R&R)	Mr. Rogers': What Do You Do with the Mad You Feel	E, S	All	Workshop	3	\$15
San Diego (R&R)	Partnering with Families	E	All	Workshop	2	Free / \$15
San Diego (R&R)	Play in the Lives of Children	E	Exempt	Workshop	2	Free
San Diego (R&R)	Positive Behavior Support	E	All	Workshop	2	—
San Diego (R&R)	Ready to Learn About Conflict	E, S	All	Workshop	3	\$15
San Diego (R&R)	Respectful Accommodations	E	All	Workshop	2	Free / \$15
San Diego (R&R)	Sesame Street: Talk, Read, Write	E	All	Workshop	3	\$15
San Diego (R&R)	Talk, Listen, Connect	E	All	Workshop	2	Free / \$15
San Diego (R&R)	Taxes & Record Keeping for FCC	E	FCC	Workshop	2	Free / \$15
San Diego (R&R)	Ticket to Guidance for Young Children	E, S	FCC	Training	3	Free / \$15
San Diego (R&R)	Ticket to Positive Provider/Family Relationships	E, S	FCC	Training	4	Free / \$15
San Diego (Other)	Understanding Behavior from the Outside In	E	Exempt	Workshop	5	\$60
San Francisco (R&R)	Child Abuse Prevention	E	Center / FCC	Workshop	2	Free
San Francisco (R&R)	CPR & First Aid	E, C, S	Center / FCC	Training	5	\$75
San Francisco (R&R)	Everyone Belongs	E	Center / FCC	Workshop	2.5	—
San Francisco (R&R)	Introduction to Inclusion	E	Center / FCC	Workshop	2	—
San Francisco (R&R)	Inclusion Training	E	Center / FCC	Workshop	2.5	—
San Francisco (R&R)	Inclusion Session II	E	Center / FCC	Workshop	3	—

**Table C.1—Continued**

County (Intermediary)	Program Title	Languages	Providers Served	Type	Hours	Cost
San Francisco (R&R)	Maintaining Oral Health	E	Center / FCC	Workshop	3	—
San Francisco (R&R)	Money Management	E	FCC	Workshop	3	—
San Francisco (R&R)	Orientation to Quality Child Care	E, C, S	Center / FCC	Workshop	2 or 3	—
San Francisco (R&R)	Physical Fitness	E	Center / FCC	Workshop	2	—
San Francisco (R&R)	Preventative Health & Safety	C, S	Center / FCC	Training	5 or 8	\$75
San Francisco (R&R)	Program Development & Structure	E	Center / FCC	Workshop	2	—
San Francisco (R&R)	Supporting Socio-Emotional Development	E	Center / FCC	Workshop	3	—
San Francisco (R&R)	Taxes & Record Keeping	E	FCC	Workshop	2	—
San Joaquin (R&R)	Art & Creativity	E, S	Center / FCC	Workshop	2	Free
San Joaquin (R&R)	California Child Care Health & Safety	E, S	Center / FCC	Training	8	Free / \$50
San Joaquin (R&R)	Child Care CPR & First Aid	E	Center / FCC	Training	8	Free / \$50
San Joaquin (R&R)	Creating Toys with a Purpose	E	Center / FCC	Workshop	2	Free
San Joaquin (R&R)	Desired Results/ Observations	E	Center / FCC	Workshop	4	Free
San Joaquin (R&R)	Discover Art	E	Center / FCC	Workshop	2	Free
San Joaquin (R&R)	Family Child Care Environmental Rating Scale	E	FCC	Workshop	2	Free
San Joaquin (R&R)	Healthy Habits	E	Center / FCC	Workshop	2	Free
San Joaquin (R&R)	Intro to Child Care	E	Center / FCC	Workshop	2	Free
San Joaquin (R&R)	Intro to Child Care II	E	FCC	Workshop	2	Free
San Joaquin (R&R)	Knowledge Is Power	E	Center / FCC	Workshop	2	Free
San Joaquin (R&R)	Learning Group	E	Center / FCC	Workshop	1 or 2	Free
San Joaquin (R&R)	Lesson Plan Workshop	E	Center / FCC	Workshop	2	Free
San Joaquin (R&R)	Portfolios	E	Center / FCC	Workshop	2	Free
San Joaquin (R&R)	Reading & Writing Skills	E	Center / FCC	Workshop	2	Free
San Joaquin (R&R)	Ready to Learn: Talk, Read, Write	E	Center / FCC	Workshop		Free

**Table C.1—Continued**

<b>County (Intermediary)</b>	<b>Program Title</b>	<b>Languages</b>	<b>Providers Served</b>	<b>Type</b>	<b>Hours</b>	<b>Cost</b>
San Joaquin (R&R)	Sifting Through Science	E	Center / FCC	Workshop	2	Free
San Joaquin (R&R)	Understanding Children's Behavior	E	Center / FCC	Workshop	2	Free
San Luis Obispo (R&R)	9th Annual Child Development Conference	E	Center / FCC	Conference	8	Free
San Luis Obispo (R&R)	Business Basics for Your FCC	E, S	FCC	Workshop	2	Free
San Luis Obispo (R&R)	Car Seat & Fire Safety	E	Center / FCC	Training	2	Free
San Luis Obispo (R&R)	Child Behavior: Ages, Stages & Fun	E	Center / FCC	Workshop	5	Free
San Luis Obispo (R&R)	Communicating Effectively with Families	S	Center / FCC	Workshop	2	Free
San Luis Obispo (R&R)	CPR & First Aid	E	Center / FCC	Training	8	Free
San Luis Obispo (R&R)	Environments that Boost Your Business	E	FCC	Workshop	5	Free
San Luis Obispo (R&R)	Home Tours	E, S	FCC	Networking	2	Free
San Luis Obispo (R&R)	Igniting the Spark: Connecting to Hope	E	Center / FCC	Conference	8	—
San Luis Obispo (R&R)	Impact of Depression on Families	E	Center / FCC	Workshop	8	Free
San Luis Obispo (R&R)	Make It & Take It	E, S	Center / FCC	Workshop	2	Free
San Luis Obispo (R&R)	Mandated Reporting	E, S	Center / FCC	Workshop	2	Free
San Luis Obispo (R&R)	Music & Movement	E, S	Center / FCC	Workshop	2	Free
San Luis Obispo (R&R)	Positively Nutritious	E, S	Center / FCC	Workshop	2	Free
San Luis Obispo (R&R)	Program Philosophies & Current Developments in ECE	E	Center / FCC	Workshop	5	Free
San Luis Obispo (R&R)	Schedule & Routine	S	Center / FCC	Workshop	2	Free
San Mateo (R&R)	123 & Beyond	E, S	Center / FCC	Workshop	2	Free
San Mateo (R&R)	CPR & First Aid	E, S	Center / FCC	Training	8	—
San Mateo (R&R)	Gardening Inside & Out	E	Center / FCC	Workshop	4	Free

**Table C.1—Continued**

County (Intermediary)	Program Title	Languages	Providers Served	Type	Hours	Cost
San Mateo (R&R)	Preventive Health Practices	E	Center / FCC	Training	8	—
Santa Clara (R&R)	Family Child Care Matters	E	FCC	Workshop	3	Free
Santa Clara (R&R)	Please Touch	E	Center / FCC	Workshop	3	Free
Santa Clara (R&R)	Taxes & Bookkeeping for FCC	E	FCC	Workshop	3	Free
Solano (R&R)	CPR	E	Center / FCC	Training	4	Free / \$50
Solano (R&R)	Disaster Preparedness	E	Center / FCC	Training	3	Free
Solano (R&R)	Financial Management for FCC	E	FCC	Workshop	3	Free
Solano (R&R)	First Aid	E	Center / FCC	Training	4	\$35
Solano (R&R)	Getting Started FCC Business	E	FCC	Workshop	7	Free
Solano (R&R)	Make Every Day a Good Day for IT	E	Center / FCC	Workshop	3	Free
Solano (R&R)	Marketing Your Business	E	Center / FCC	Workshop	2	Free
Solano (R&R)	Preventative Health & Safety	E	Center / FCC	Training	8	Free / \$50

SOURCE: Unpublished compilation by the Center for the Study of Child Employment based on R&R and First 5 county websites.

NOTES: Programs for one or more days were converted to hours assuming 8 hours per day. C = Chinese; E = English; F = Farsi; S = Spanish; FCC = family child care; dashes indicate data not available.





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