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A Golden Opportunity

Advancing California’s Early Care and Education Workforce Professional Development System

Lynn A. Karoly

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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-
children 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

<table>
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<tr>
<th>Domain</th>
<th>Recommendation</th>
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<tbody>
<tr>
<td><strong>ECE workforce</strong></td>
<td><strong>EW 1</strong> 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</td>
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<td></td>
<td><strong>EW 2</strong> 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)</td>
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<td><strong>EW 3</strong> 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</td>
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<td></td>
<td><strong>EW 4</strong> 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)</td>
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<tr>
<td><strong>Education and training providers</strong></td>
<td><strong>ET 1</strong> 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</td>
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<td></td>
<td><strong>ET 2</strong> Continue to address gaps in higher education program capacity, course offerings, opportunities for practicums, and faculty quality and diversity</td>
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<td><strong>ET 3</strong> Phase in specialized accreditation for ECE AA and BA programs</td>
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<td></td>
<td><strong>ET 4</strong> 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</td>
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<td><strong>ET 5</strong> 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</td>
</tr>
<tr>
<td><strong>Workforce investment dollars</strong></td>
<td><strong>WI 1</strong> Collect the required information through the workforce registry to track workforce investment program participants and their outcomes (e.g., retention)</td>
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<td></td>
<td><strong>WI 2</strong> 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</td>
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<tr>
<td></td>
<td><strong>WI 3</strong> 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)</td>
</tr>
</tbody>
</table>

**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.