



November 2015

BRIEF

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Child Care Employment

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Labor and Employment

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The [Early Childhood Higher Education Inventory](#) project is designed to inform the development of a more coordinated and comprehensive professional preparation and development system for early childhood practitioners throughout the nation. This is the first of several briefs based on findings from the ECE Higher Education Inventory conducted in several states.

Early Childhood Higher Education: Taking Stock Across the States

By Marcy Whitebook, Ph.D. and Lea J.E. Austin, Ed.D.

Introduction

Midway through the second decade of this century, the importance of early care and education (ECE) to children's lifelong learning and to our nation's economic well-being is widely acknowledged. This public understanding represents a dramatic shift from earlier decades, and carries with it heightened expectations for what teachers of young children should know and be able to do,ⁱ particularly in light of mounting evidence about unequal educational quality for children based on race, ethnicity, language, and family income.ⁱⁱ

Over the last two decades, considerable public and private resources have been spent on efforts to raise educational levels for ECE practitioners. In 2007, for example, the Head Start program mandated that at least 50 percent of teachers have a bachelor's or advanced degree in early childhood education or a related field by 2013. The T.E.A.C.H. Early Childhood[®] program, established in 1990 and currently operating in 24 states and Washington, D.C., provides scholarships to early childhood practitioners to complete college-level coursework.

A decade ago, two separate examinations of the state of early childhood teacher preparation programs across the nation identified multiple areas in need of improvement.ⁱⁱⁱ Among the recommendations of these studies were calls to update courses of study in order to reflect new knowledge about children's development and learning, and to increase and improve opportunities for field-based learning experiences in teacher preparation programs.

More recently, the Institute of Medicine and the National Research Council of the National Academy of Sciences commissioned a study focused on the implications of the science of child development and early learning for the professional preparation of early childhood practitioners. Their 2015 report, *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation*,^{iv} underscored the complexity of working with children during each of the first eight years of life, and included recommendations for strengthening professional preparation standards for early childhood practitioners and for institutions of higher education. Specifically, the report called for: 1) transitioning to a minimum requirement of a bachelor's degree, with specialized knowledge and competencies for all lead teachers working with children from birth to age eight; and 2) the development and enhancement of interdisciplinary higher education programs for early care and education professionals, including practice-based and supervised learning opportunities.^v The study also called upon higher education programs to provide students with foundational knowledge about development and learning throughout the birth-to-age-eight continuum, in addition to differentiated instruction for specific age ranges and subject matter, in order to ensure that ECE professionals are prepared to support consistent learning experiences for children during this crucial, multi-year phase of early development.

In light of such research findings and recommendations, the Center for the Study of Child Care Employment has designed the *Early Childhood Higher Education Inventory*, a research tool for describing the landscape of a state's early childhood degree program offerings at the associate, bachelor's, master's, and doctoral levels.^{vi} Although the Inventory addresses many of the same topics as previous research, it looks more closely at a number of variations among programs at different degree levels, such as the age-group focus of course content and field-based learning experiences.

This policy brief highlights findings from inventories conducted in seven states to date--California, Indiana, Nebraska, New Hampshire, New Jersey, New York, and Rhode Island--on the extent to which ECE teacher preparation is currently integrated across the birth-to-age-eight continuum, and on variations in field-based practice opportunities for teachers of young children.^{vii}

Finding One: The Early Childhood Higher Education Landscape, A Complex Network of Degree Programs

In each of the states examined to date, we find a network of public and private institutions of higher education that offer a complex array of early childhood degree programs. Early childhood higher education offerings within states mirror the complexity of each state's education and certification requirements for teachers working with children from birth to age eight, which in turn

reflect the states' fragmented service delivery systems for young children, particularly children under age five.

For the education of children age five and older, there is a nationwide agreement that teachers should obtain at least a bachelor's degree, and that public school teachers should also obtain a provisional certification prior to teaching. By contrast, no consistent educational floor exists for practitioners who work with younger children, and with the exception of state public pre-kindergarten programs, it is rare for teachers of preschool-age children to be individually licensed or certified.^{viii} Programs with different funding streams and located in different settings typically require different standards, resulting in multiple sets of qualifications for teachers working with children from birth to five, even for those working with children of the same age. In California, for example, a four-year old in a transitional kindergarten^{ix} classroom can expect that her lead teacher will hold a bachelor's degree plus teacher certification, while her peer in a public preschool classroom will be taught by a teacher only required to have completed 24 units of ECE and some general education, short of an associate degree. Meanwhile, a four-year old in a private center-based preschool can only expect that, to be fully qualified, her teacher has completed 12 units of ECE and has six months of experience. Such inconsistent teacher qualification standards, common across the states, are further complicated when Head Start and home-based care programs are taken into account.

This complexity of expectations is visible in states' early childhood higher education programs. Among institutions that offer early childhood programs, we commonly found that they operated multiple programs at the same degree level. This pattern varied depending on state policies related to teacher education and certification standards. The following examples from California, New York, and Nebraska represent three distinct approaches to early childhood teacher preparation.

- In California, the most commonly applied standard for early childhood teachers is the completion of 12 ECE units only, and public preschool teacher requirements fall short of an associate degree; seven different sets of standards exist for various teaching and caregiving roles for those working with children under age five.^x During the 2013-14 academic year, 103 public community colleges offered a total of 190 associate degree programs. Sixty percent of these colleges offered two or more degree programs, and 20 percent offered three to five programs.

In contrast, no ECE certification in the state is currently linked to a four-year degree, and ECE degree offerings at the baccalaureate level are only somewhat more streamlined than at the associate degree level. Only one-quarter of the 42 public and private colleges and universities operating ECE bachelor's degree programs offer more than one, for a total of 50 programs across the state.

Multiple subject teaching credential programs, for those preparing to work in transitional kindergarten and/or in higher grades, are offered by 79 colleges and universities in California; no institution currently offers more than one such program. Notably, state-issued program standards for this credential begin at kindergarten, and currently do not address content for four-year olds in transitional kindergarten classrooms.^{xi}

- The state of New York offers an Early Childhood Education (Birth to Grade 2) Teacher Certification, requiring the completion of post-baccalaureate education, but this is mandated only for teachers working in public school settings, in state preschool programs run or contracted by school districts, or in New York City pre-k programs. In the 2014-15 academic year, 65 public and private colleges and universities offered 136 ECE-related master's degree programs. Requirements vary for educators of children birth to five. Depending on the setting in which they are employed and the age of children with whom they work, many are not required to have a bachelor's degree or certification, although staff requirements intersect with the higher education system. Twenty-seven community colleges and one university offered 44 associate degree programs in the 2014-15 academic year.
- Nebraska offers a birth-through-age-eight certification, but this is required only for teachers working in public pre-kindergarten to third grade classrooms. In the 2014-15 academic year, three of the state's eight public community colleges offered more than one associate degree program, and six of the 12 public and private colleges and universities offered more than one bachelor's degree. Bachelor's degree programs, however, also offered various endorsements, creating an additional level of complexity to Nebraska's otherwise relatively streamlined early childhood higher education system.

Higher Education Institutions Offering Early Childhood Degree Programs Across Seven States





Finding Two: The Focus of Early Childhood Higher Education Degree Programs

Primary Goals

In all states, and at all degree levels, we also found that ECE higher education programs reported differing goals for preparing their students. Survey respondents were asked to select one of the following four options as their program's primary purpose:

- 1) to prepare students for teaching and/or administrative roles in early childhood education settings only;
- 2) to prepare students for teaching and/or administrative roles in early childhood and elementary education settings;
- 3) to prepare students for the roles of early interventionists or early childhood special educators; or
- 4) to prepare students for multiple roles involving young children, working in many types of settings.

In none of the states we examined was option 1--preparing teachers and administrators--the primary goal of all ECE degree programs. Employers, by contrast, whether from school districts or from Head Start, community-based preschool, or child care programs, typically rely on ECE degree programs to prepare students for teaching and/or administrative roles--an expectation also shared by many policy makers. Yet a sizeable portion of programs at all degree levels, in all of the examined states, reported that their primary goal was the preparation of students for multiple roles involving young children, working in many types of settings, rather than specifically for teaching or administration.

And even among programs with a stated primary goal of preparing teachers and administrators, we found some further variety. In Nebraska, for example, as was true in many states, we found that associate degree programs with such a primary goal were focused on the birth-to-five age group, rather than on older children. At the bachelor's degree level, however, Nebraska programs with this primary goal were more likely to focus on both early childhood and elementary settings, in line with the state's birth-through-age-eight certification system. We also found this pattern in other states with certification systems spanning the preschool and early elementary years.

To further complicate the situation, the titles of degree programs often do not carry a clear indication of their content and purpose. Programs bearing the same nomenclature may not share the same primary goal, while programs with varying names may indeed do so. Multiple factors have contributed to this lack of clarity. In the absence of uniform qualifications and certification

across the age span, programs have adopted different approaches to program design. While higher education programs that focus on preparing teachers of children in grades K-3 have been designed in response to codified expectations from school districts and well-defined teacher roles, programs that are more focused on teachers of children from birth to age five have evolved to meet multiple purposes and expectations. This latter group of students may be seeking degrees--e.g., Head Start teachers needing to meet new qualifications--or they may wish only to complete a specific number of college units, in response to state licensing requirements, program standards, or quality improvement initiatives that offer incentives for practitioners to advance their education beyond such standards. As a result, ECE higher education programs serving such students have not typically been designed in response to unified, clear mandates; further, they often address the needs both of pre-service students and of practitioners who are already employed, providing in the latter case what the field of K-12 education would consider ongoing professional development.

Even when degree programs report a primary goal other than teacher or administrator preparation, it is important to note that they may still be preparing students for such roles. Nor is it necessarily negative that programs report differing goals--yet, combined with inconsistent nomenclature, the result may be that students find their educational and career goals misaligned with program content. Further, efforts to track the impact on quality of such policies as the requirement of a bachelor's degree can be impeded when there is no clear way to assess whether practitioners are engaged in similarly defined teacher preparation programs with equivalent and appropriate content.

Child Age-Group Focus

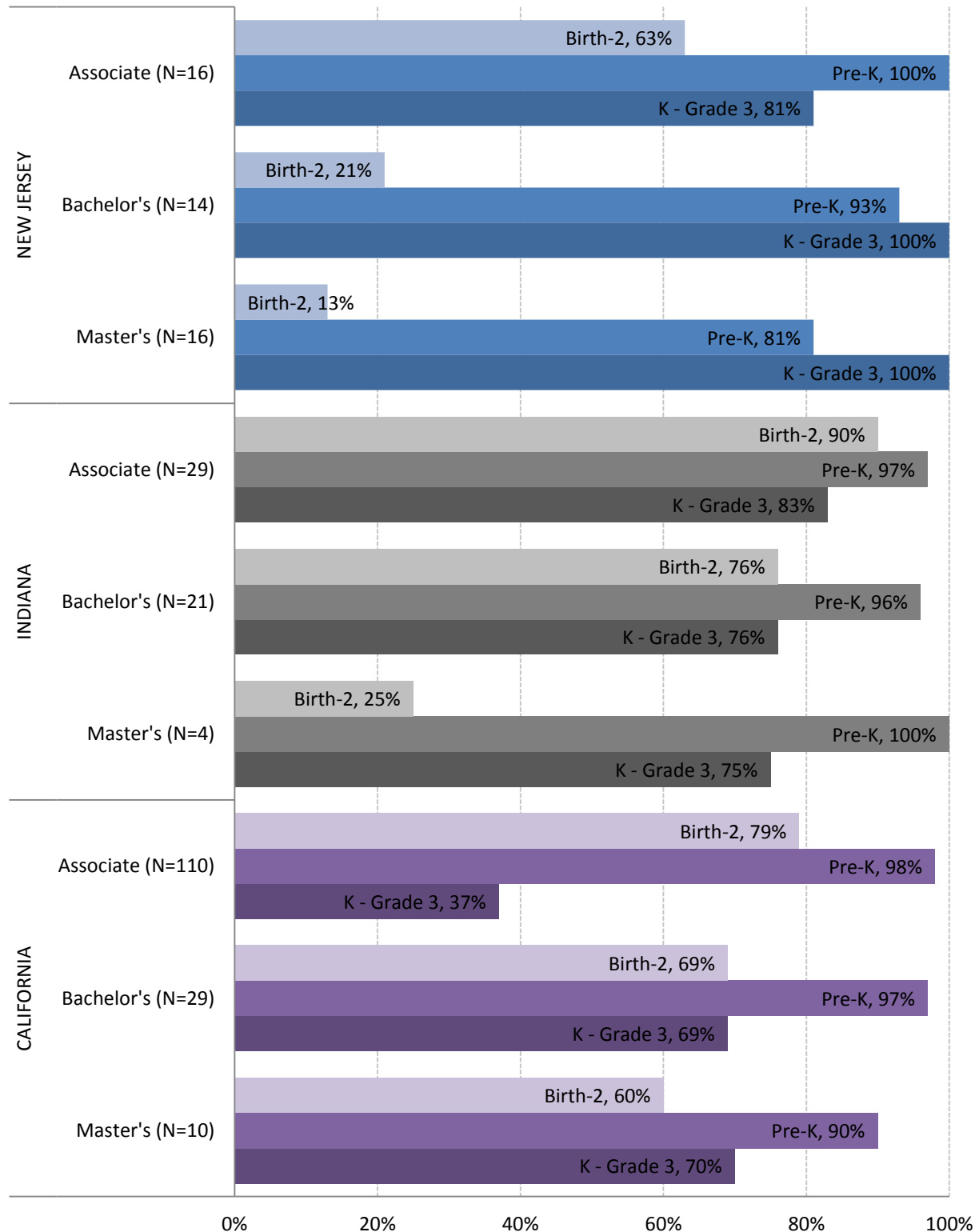
Almost all ECE higher education degree programs, in all the states we examined, reported requiring course content in the "child development" and "learning and teaching" domains (see Table 1.) The child age-group focus of such course content varied, however. While programs in all states, at all degree levels, reliably required course content related to preschool-age children for all learning domains and topics, this was less consistently true for content related to infants and toddlers.

Variations in required course content related to teaching literacy skills can serve as a typical example of how ECE degree programs varied in their child age-group focus. As shown in Figure 1, associate degree programs across states were most likely to consistently require course content in this domain for infants and toddlers as well as for preschoolers, but associate degree programs seldom focused their content on children in kindergarten or higher grades. In contrast, bachelor's and graduate degree programs displayed the reverse pattern; while less likely to require infant- and toddler-related course content, they consistently required a focus on older children. These variations among programs likely reflect education and certification requirements in various states, with teachers of children from birth to age five typically required to hold an associate degree or less, and elementary school teachers required to hold at least a bachelor's degree. Depending on

the state and the funding source of the program in which they work, teachers of preschool-age children (ages three and four) could fall on either side of this requirements divide.

Table 1. List of Domains and Topics of Course Content Included in the Early Childhood Higher Education Inventory	
Domain	Topics
Child Development and Learning	Knowledge about children’s development in different domains
	Effects of culture, gender, class, and race on development
	Effects of disability on development
	Development of dual language learners
	Development of children's understanding and skills: early literacy, and science
	Child development theory and its relationship to teaching
Teaching	<i>Teaching diverse child populations:</i> children who are living in poverty, are dual language learners, have special needs, and/or exhibit challenging behaviors, and children from diverse ethnic and cultural backgrounds
	<i>Teaching and curriculum:</i> using integrated curriculum and play in teaching, supporting social and physical development, and teaching art, literacy, science, and social studies
	<i>Teaching skills in early childhood settings:</i> using observation, assessment, and documentation to inform teaching and learning; different teaching techniques; and classroom management

Figure 1: Teaching Literacy Skills to Children: Coursework Required in Early Childhood Higher Education in Selected States, by Age Group and Degree Program



Finding Three: Field-Based Learning Experiences

Definition of Field-Based Experiences:

Inventory respondents were asked about two types of field-based learning experiences, and were provided the following definitions:

Student teaching is full-time immersion in a classroom, with increasing responsibility for curriculum planning and teaching, and supervision by a cooperating teacher.

Practicum is an experience that is short in duration, associated with a course, often focused on a particular skill or population of children, and supervised by a faculty member and/or mentor.

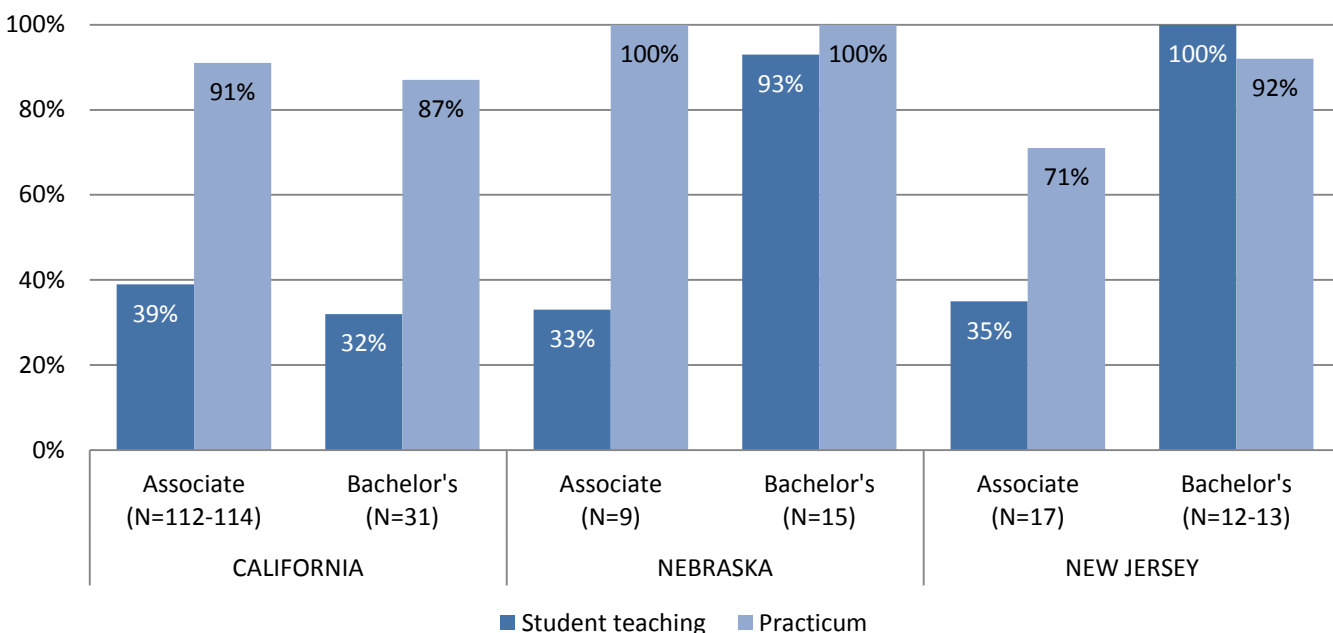
There is widespread agreement that field-based learning experiences are critically important for teachers working with children of all ages, in order to develop new teaching skills or improve on existing ones,^{xii} but as with other aspects of ECE degree programs, the availability and structure of such experiences reflect divisions in education and certification requirements for teachers across the birth-to-age-eight spectrum.

There is no widely implemented standard of field experience, such as student teaching, for the preparation of teachers working with children from birth to age five, and opportunities are unevenly applied for early childhood students to engage in a diversity of such field experiences.^{xiii} In K-12

education, however, student teaching experience is a widely accepted pre-service requirement, and various efforts are underway to increase the length of student teaching, introduce it earlier into a program of study, and strengthen student supervision during the field experience.^{xiv} Yet this structural divide runs counter to the call for a more integrated birth-to-age-eight educational system.^{xv}

Reflecting this divide, in all states we examined, bachelor's and master's degree programs that were linked to state teacher certification standards were more likely to require students to complete a student teaching experience than were associate degree programs or upper-level programs not linked to certification. They were also more likely to require participation in at least one practicum, in addition to student teaching. In Nebraska and New Jersey, for example, both of which confer an early childhood certification at the bachelor's degree level, nearly all baccalaureate programs required students to complete both a student teaching experience and at least one practicum. In contrast, in all states, the majority of ECE degree programs not linked to certification, including most associate degree programs, required students only to complete a practicum. In California, which lacks an early childhood certification linked to the completion of a degree, few programs at the associate or bachelor's degree level required student teaching, although most did require the completion of at least one practicum (see Figure 2.)

Figure 2: Field-Based Experience Required in Early Childhood Higher Education in Selected States, by Degree Program



Practica are the most common--and for many, the only--type of field-based learning experience required by early childhood degree programs. The inconsistent application of practica, however, significantly hampers the ability to assess whether such experiences offer students the depth and diversity they need for developing their teaching skills. Across degree levels, programs were inconsistent about the timing of the first practicum experience in a student's course of study. The total numbers of practica and of required hours for each were also difficult to assess, as the number of on-site hours typically required for completing a practicum course ranged from only a few to more than 100 hours. Additionally, across degree levels and states, very few ECE degree programs reported structuring practicum experiences differently for novice and experienced teachers.

In order for early childhood practitioners to build an applied understanding of development and learning across the age spectrum, it is critically important that they engage in varied field-based learning opportunities. Inventory findings in all states, however, indicate that most field-based experiences did not require a focus on infants and toddlers. Among degree programs that required student teaching, most mandated a focus on preschool and/or school-age children, and many did not offer any experience related to infants and toddlers. Among degree programs that required an age-group focus in practica, bachelor's and master's degree programs were more likely to focus on preschoolers, and/or on school-age children, than on infants and toddlers. Nebraska was a notable exception, requiring that practica in all associate degree programs and in nearly all bachelor's degree programs include an infant and toddler focus.

Discussion and Recommendations

This brief portrait of the early childhood higher education landscape in several states is set against the backdrop of multiple efforts to invest in, strengthen, and coordinate early childhood workforce development, in order to realize the goal of high-quality early learning experiences for all young children. Calls for an integrated system of early learning rest upon an understanding of the critical importance of children's first eight years, from birth to Grade 3, in shaping their optimal development and lifelong success. But the early care and education infrastructure, of which higher education is a cornerstone, is poorly integrated, ascribing widely differing expectations for teacher preparation across this age spectrum, and assigning different resources to teachers.

A Path Forward

Findings from Inventories conducted in seven states suggest that when states intentionally redesign their certification systems for early childhood educators, the higher education system adjusts by making appropriate changes in required course content, age-group focus, and field-based practice. But in the absence of well-articulated statewide certification standards that apply to early childhood teachers and administrators in all types of ECE programs, working with all age groups of children, institutions of higher education have largely responded only to the emphasis placed on preschool-age children in public settings, which affects just a limited segment of the ECE workforce. Creating a unified approach to the preparation of educators working with children from birth through age eight, in line with recommendations from the Institute of Medicine and the National Research Council of the National Academy of Sciences, will require transforming policies and practices in multiple arenas, and the engagement and collaboration of diverse players.

Revising Current Systems of Teacher and Administrator Certification

A revision of states' current systems for certifying teachers, administrators, and other practitioners could erase disparities in professional expectations and preparation among age groups in the birth-to-age-eight spectrum, and lead to clarification of the purpose of ECE higher education degree programs.^{xvi} The result would be clearer roadmaps for students who enroll in degree programs to meet teacher education or administrator requirements, helping them identify whether particular courses of study will prepare them for the demands of their chosen careers.

Aligning Content with Evidence to Strengthen Content for Infants and Toddlers and Field-Based Learning Experiences

Many ECE stakeholders emphasize relying on research evidence to guide ECE policy and practice, yet our findings suggest an uneven application of such evidence across multiple domains of early learning and development for children, from infancy through the early elementary grades. In particular, ECE higher education degree programs were most likely to exclude course content and

field-based experiences related to working with infants and toddlers, compared to those for preschool and school-age children.

To strengthen required content in order to align with research evidence on child development and teacher preparation, and to equalize required content for all children across the birth-to-age-eight spectrum, will require defining well-articulated expectations for ECE higher education program improvement, and supporting faculty to engage in appropriate program improvement activities and professional development.

Identifying Leadership and Committing Resources to Strengthen Early Childhood Higher Education

Strengthening how early childhood teachers and administrators are prepared will mean identifying resources from state, federal, and philanthropic sources, along with reallocating a portion of existing revenues for quality improvement and workforce development. State policymakers can take the lead by emphasizing the importance of unified expectations and pathways for ECE workforce preparation. This would include initiating state-level processes to create a timeline and pathway toward a system in line with the Institute of Medicine recommendations, in order to strengthen competency-based requirements for all early childhood professionals--such as a requirement that all lead teachers working with children from birth to age eight hold at least a bachelor's degree, with specialized knowledge and competencies. Federal policymakers can bolster state leadership by identifying how to finance not only the transformation of how we prepare teachers and administrators working with children from birth to age eight, but also the necessary support and rewards that will allow ECE practitioners to continually deepen their knowledge, effectiveness, and skill.

Author Acknowledgements

Early Childhood Higher Education: Taking Stock Across the States brief was made possible through the generous support of the Alliance for Early Success, with additional support for the Early Childhood Higher Education Inventory from the David & Lucile Packard Foundation and the Heising-Simons Foundation.

The views presented in this report are those of the primary authors only and do not reflect the opinions of the report's funders.

Suggested Citation

Whitebook, M. & Austin, L.J.E. (2015). *Early Childhood Higher Education: Taking Stock Across the States*. Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley.

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^v Ibid.

^{vi} Kipnis, F., Ryan, S., Austin, L. J.E., Whitebook, M., & Sakai, L. (2012). *Early Childhood Higher Education Inventory*. Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley.

^{vii} Due to small sample size for degree programs in Rhode Island, data for that state's degree programs are not represented in any of the figures or tables presented in this brief.

^{viii} Barnett, W.S., Carolan, M.E., Squires, J.H., Clarke Brown, K., & Horowitz, M. (2015). *The state of preschool 2014: State preschool yearbook*. New Brunswick, NJ: National Institute for Early Education Research.

^{ix} California's 2010 Kindergarten Readiness Act introduced Transitional Kindergarten (TK) for four-year-old children, adding a new grade to the public school system. Additional information about TK can be accessed at <http://www.cde.ca.gov/ci/gs/em/kinderfaq.asp>.

^x These standards include varying qualifications for: transitional kindergarten teachers, California state preschool teachers, Head Start teachers, Early Head Start teachers, licensed childcare center teachers, licensed family childcare providers, and license-exempt childcare providers.

^{xi} In 2014, a provision was added to the TK law that requires all teachers who are first assigned to a TK classroom after July 1, 2015 to meet *one* of the following requirements by August 1, 2020: at least 24 units in early childhood education, or childhood development, or both; as determined by the local education agency employing the teacher, professional experience in a classroom setting with preschool-age children that is comparable to the 24 units of education described above; or a child development teacher permit issued by the California Commission on Teacher Credentialing (California Department of Education, 2015).

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^{xv} IOM and NRC (2015). Op. cit.

^{xvi} Ibid.

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The Center for the Study of Child Care Employment (CSCCE) was founded in 1999 to focus on achieving comprehensive public investments which enable and reward the early childhood workforce to deliver high-quality care and education for all children. To achieve this goal, CSCCE conducts cutting-edge research and proposes policy solutions aimed at improving how our nation prepares, supports, and rewards the early care and education workforce to ensure young children's optimal development.

Upcoming briefs based on Early Childhood Higher Education Inventory findings will focus on: professional backgrounds and challenges of early childhood degree program faculty members; how institutions of higher education are adapting to emerging research on family engagement and early mathematics; how institutions of higher education are responding to the changing demographics of ECE students and the children they are being prepared to teach; and how institutions of higher education are preparing practitioners for leadership roles in the ECE field.