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Authors
Copeman Petig, Abby
Montoya, Elena
Austin, Lea J.E.
et al.

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Teaching the Teachers of Our Youngest Children

The State of Early Childhood Higher Education in Washington

Narrative Report

2018

Abby Copeman Petig, Elena Montoya,
Lea J.E. Austin, & Bethany Edwards

Center for the Study of Child Care Employment
Institute for Research on Labor and Employment
University of California, Berkeley

CSCCE

Teaching the Teachers of Our Youngest Children
The State of Early Childhood Higher Education in Washington

The Center for the Study of Child Care Employment (CSCCE) was founded in 1999 to focus on achieving comprehensive public investments that 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.

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Introduction

The importance of early care and education (ECE) to children's lifelong learning and to our nation's economic well-being is recognized up to the highest levels of government and in businesses, schools, and living rooms across the country. This 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 (Whitebook, Phillips, & Howes, 2014), especially in light of mounting evidence about inadequate and unequal educational quality for many children, particularly those of color and those living in low-income families (Hernandez, 2011; Karoly, 2009; Yoshikawa et al., 2013).

Early educators play a central and critical role in the development and learning of infants, toddlers, and preschool-age children. In 2015, the Institute of Medicine and the National Research Council of the National Academies of Sciences, Engineering, and Medicine asserted that teaching young children requires knowledge and skills just as complex as those required to teach older children and issued several recommendations to strengthen professional preparation standards for early childhood practitioners and the institutions responsible for their preparation and ongoing learning. Among the recommendations for improving the preparation of the ECE workforce, *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation* (Institute of Medicine [IOM] & National Research Council [NRC], 2015) emphasizes how critical it is that all ECE teachers — regardless of role — possess foundational knowledge of child development and developmentally appropriate teaching practices. Furthermore, the report details the training and qualifications necessary for all lead teachers working with children from birth to age eight, which include a minimum of a bachelor's degree in early childhood education or a related field, as well as specialized knowledge and competencies. The report offers additional considerations for strengthening early educator competencies in multiple domains, including mathematics, family engagement, and support for dual language learners (IOM & NRC, 2015).

The state of Washington[1] is home to more than 566,000 children under the age of six (U.S. Census Bureau, 2017). About 306,000 of these children have all available parents in the workforce and, thus, potentially need child care (Child Care Aware of America, 2017). Like many states in recent years, Washington has committed public and private resources toward multiple efforts to improve early care and education services, including early education degree and certification programs, in order to improve the preparation of their graduates to meet the complex needs of young children (Hyson, Horm, & Winton, 2012; Ray, Bowman, & Robbins, 2006; Swartz & Johnson, 2010). Critical to these efforts is the establishment of a well-coordinated, comprehensive professional preparation and development system that can prepare and support an incoming generation of educators, while also strengthening the skills of the existing early education workforce. Institutions of higher education are crucial to meeting the evolving and increasing demands identified as improving developmental and learning outcomes for the state's young child population.

Teacher preparation in the field of ECE has historically included a variety of higher education degree programs in various child-related disciplines, all of which have generally been considered equally acceptable. Too often, these highly diverse degree programs are assumed to produce equivalent results (Maxwell, Lim, & Early, 2006; Whitebook et al., 2012). In contrast, programs to prepare teachers and

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[1] This report is based on a study conducted in the state of Washington and not Washington, D.C. The report will refer simply to "Washington" from here forward.

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administrators to work with older children reflect far greater uniformity and stringency related to specific preparation standards and certification requirements. In recent years, however, rising expectations about the knowledge and skills that early childhood practitioners need to work effectively with young children before kindergarten, along with the introduction of new ECE programs and standards, have led many stakeholders to question whether the current wide array of ECE-related degree programs can be assumed to produce equivalent results.

To address the great variability in early childhood degree programs and in light of the recognition of the complex and challenging nature of delivering early care and education, as well as the changing expectations for effective teacher preparation recommended by the Institute of Medicine and National Research Council, it seemed the appropriate time to examine the status of early childhood higher education offerings in Washington in order to allow policymakers, institutions of higher education, and other stakeholders to assess the capacity of the state's higher education system and to inform policy, practice, and investment. To undertake this assessment, the Center for the Study of Child Care Employment (CSCCE) implemented the *Early Childhood Higher Education Inventory II* (CSCCE, 2016), a research tool used to describe the landscape of a state's early childhood degree program offerings at the associate, bachelor's, and graduate degree levels and to provide a portrait of early childhood higher education faculty members.[2] The *Inventory* describes early childhood degree programs offered in the state, focusing on variations in program content, age-group focus, student field-based learning, and faculty characteristics (see **Box 1** for a description of *Inventory* methodology).

In addition, the IOM/NRC report documented the need to strengthen early educator competencies along multiple dimensions, including mathematics, family engagement, and support for dual language learners (IOM & NRC, 2015). While the link between young children's math competency and later school success has been demonstrated in recent research, there is concern that institutions of higher education are not adequately preparing teachers of young children to assess or facilitate children's mathematical understanding and skills (Ryan, Whitebook, & Cassidy, 2014). Additionally, given research evidence that family involvement in children's learning at home and at school contributes to school success (Dearing & Tang, 2010; Reynolds & Shlafer, 2010), we were interested in learning the extent to which early childhood degree programs are addressing the topic of engaging with families to enhance children's learning. A series of questions developed for the *Inventory* focuses specifically on these issues, with particular attention to program content and faculty attitudes. Finally, while many teachers of young children are monolingual (speaking only English), census data indicate that, nationally, more than one-quarter of children under age six speak more than one language (Capps, Fix, Ost, Reardon-Anderson, & Passel, 2004). In light of this reality, the *Inventory* examines the capacity of higher education programs to prepare their students to teach dual language learners. The totality of the data collected through the *Inventory* allows stakeholders to identify gaps and opportunities in the available offerings and to assess the capacity of the state's higher education system over time.

The *Inventory* (CSCCE, 2016) was implemented in Washington during the 2016-2017 academic year. This report summarizes major findings and provides recommendations for policy changes that could lead to more effective teacher practices to support children's learning. An accompanying technical report presents more detailed findings.

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[2] Washington is one of 11 states (along with Arkansas, California, Florida, Indiana, Nebraska, New Hampshire, New Jersey, New York, Oregon, and Rhode Island) in which the *Inventory* has been completed at the time of publication of this report.

The Early Childhood Higher Education Landscape in Washington

A network of 29 community colleges and 10 public and private universities offers an array of early childhood degree programs serving prospective and current early childhood practitioners across the state of Washington. This network of higher education institutions offers 54 associate degree programs, 20 bachelor's degree programs, and five master's degree programs.[3]

The *Inventory* findings are presented in two sections. The first section, "Early Childhood Higher Education, Mapping the Scene" examines the extent to which Washington early childhood degree programs:

- Offer the knowledge, skills, and experiences associated with effective teaching practice and program leadership;
- Have a faculty workforce prepared to provide early childhood practitioners with the necessary knowledge and skills associated with effective teaching practice and program leadership; and
- Have the resources to support student and faculty success.

The second section of this report, "Early Childhood Higher Education, An Evolving Landscape," examines how these institutions of higher education are adapting to emerging knowledge about children's learning and development. Specifically, the report explores the extent to which Washington early childhood degree programs have incorporated recent findings related to the importance of:

- Promoting early mathematical understanding;
- Engaging families to support young children's optimal development, learning, and school success; and
- Teaching young dual language learners.

Box 1. Study Design

During the 2016-2017 academic year, researchers from CSCCE implemented the *Early Childhood Higher Education Inventory II*, which consists of three modules: a mapping of the population of higher education programs within a state; an online program survey completed by the degree program lead (e.g., dean, chair, or coordinator); and an online faculty survey completed by individual faculty members. The program findings reported here are drawn from a final sample of 16 associate and 12 bachelor's degree programs.[4]

The faculty findings are drawn from a final sample of 82 faculty members. Forty-four of these faculty members teach in associate degree programs, 42 teach in bachelor's degree programs, and 14 teach in graduate programs. There were a number of faculty members who taught in multiple levels of degree programs. Faculty members teaching at multiple degree levels are counted in each degree level.

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[3] No doctoral programs in early childhood education were identified in Washington.

[4] Data were collected from one early childhood education master's degree program in Washington. As data for this program cannot be de-identified, data collected for this program are not included in this report.

Distribution of Washington Early Childhood Degree Programs
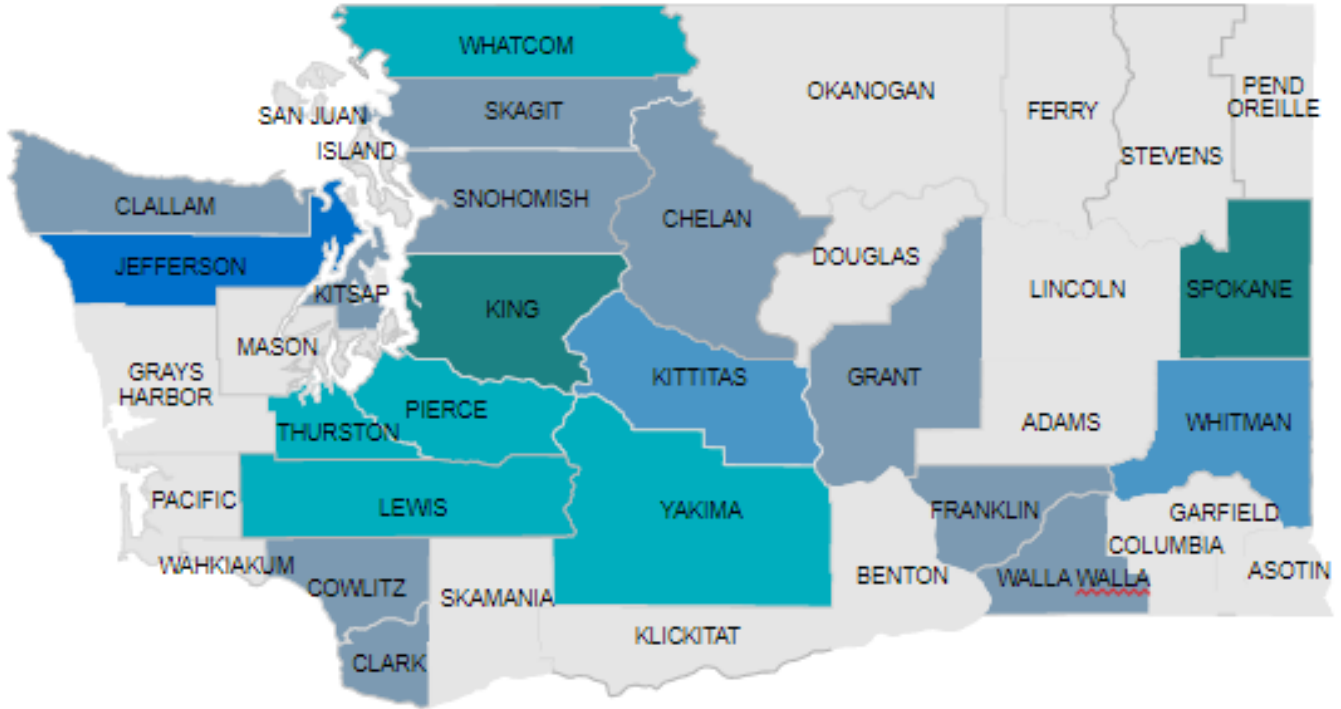
Legend:

- ⬤ No Early Childhood Degree Program
- ⬤ Associate
- ⬤ Bachelor's
- ⬤ Associate and Bachelor's
- ⬤ Bachelor's and Master's
- ⬤ Associate, Bachelor's, and Master's

Part 1: Early Childhood Higher Education, Mapping the Scene

This section of the report examines program offerings, faculty characteristics, student supports, and institutional challenges.

What we asked about program goals, course content, and age-group focus:

Program leads participating in the *Inventory* (e.g., deans, coordinators) were asked to indicate the primary goal of their degree program(s) from among five options:

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 role of early interventionist or early childhood special educator;
4. To prepare students for multiple roles involving young children, working in many types of settings; or
5. To prepare students for a career as a researcher or a college-level faculty member.

Program leads were also asked to identify course content topics for the degree related to:

1. Child development and learning;
2. Teaching, with three primary categories:
   - Teaching diverse child populations;
   - Teaching and curriculum; and
   - Teaching skills in early childhood settings; and
3. Administration and leadership.

For the child development and learning domain as well as the teaching domains, respondents were asked to indicate whether a series of specific topics were required and, if so, the specific age-group or grade-level focus of each topic. For the leadership and administration domain, respondents were asked to identify course content topics offered to students in the degree program (see **Table 1**).

Program leads were also asked what standards or competencies degree programs incorporated into their coursework.

Most Washington early childhood degree programs identify their primary goal as preparing students to work in multiple roles involving young children, working in many types of settings. While these programs offer a range of topics related to child development and approaches to teaching in reflection of their program goals, both associate and bachelor's degree programs tend to require more content focused on preschool-age children than children birth through age two or school-age children. Across degree levels, the availability of content related to administration and leadership is inconsistent.

Like most states across the country, education requirements in Washington for those administering or teaching in early care and education programs vary and depend more on the program's location and funding source than children's developmental needs (Whitebook, McLean, & Austin, 2016). In Washington, there are different requirements for those teaching in certified family child care homes, those teaching in certified child care centers, and those teaching in preschool programs (see **Table 1**). These requirements vary from no formal educational requirements for teachers in family child care homes to a bachelor's degree in early childhood education or a related field for lead teachers working in pre-K programs based in licensed private or public K-12 schools (Washington State Department of Early Learning, 2017a). Such divergent qualifications disadvantage educators across Washington's ECE field as well as children who may have teachers with vastly different experience and qualifications, depending on the setting in which they receive care and education services.

Table 1. Washington Minimum Education Requirements for Select Roles

Type of Program	Role	Minimum Education Requirements
Certified family child care home	Provider	High school diploma or GED
Certified child care center	Lead teacher	High school diploma or GED
ECEAP[5]	Lead teacher	Associate degree or higher with at least 30 quarter credits in early childhood education
Head Start	Lead teacher	Bachelor's degree in early childhood education or related field
Preschool located in a licensed Private or public K-12 school	Lead teacher	Bachelor's degree in early childhood education

It is likely, however, that many early childhood teaching staff in Washington mirror their counterparts nationally and possess higher levels of education and training than may be required (Whitebook et al., 2016). Several initiatives encourage and support many professionals in the ECE workforce to pursue further college-level education. Early Achievers, Washington's statewide Quality Rating and Improvement System (QRIS), provides grants and scholarships to early educators pursuing certificates, a Child Development Associate (CDA) credential, or a degree in early childhood education (Washington State Department of Early Learning, 2017b). Early educators in Washington are encouraged to participate in the Managed Education and Registry Information Tool (MERIT), an online professional development

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[5] ECEAP is the Early Childhood Education and Assistance Program funded by Washington State. It provide free services and support to eligible children and their families, including: preschool; family support and parent involvement; and child health coordination and nutrition.

registry used to track education, professional development, and employment history. MERIT also helps early educators to identify training opportunities, share qualifications with current and prospective employers, and gain recognition and rewards for professional achievements, including reimbursement for approved trainings (Washington State Department of Early Learning, 2016). Finally, Washington has developed a set of stackable or portable certificates that can be earned at a number of community and technical colleges across the state. These certificates will be discussed in more detail in Finding Five.

Program Goals

Not all early childhood higher education degree programs are alike, nor should they be. However, it is important to distinguish between programs that have an intent to prepare teachers and administrators and those that identify other goals related to early childhood. Reflecting the inconsistent qualifications required of early educators, across the country there has been a default acceptance of "early childhood-related" programs as acceptable for preparing early educators (Whitebook et al., 2012). This reality has resulted in wide variation in the goals and content of programs, though graduates of these different programs are often held to the same expectations of what they should know and be able to do upon degree completion (Whitebook & Ryan, 2011).

The majority of early childhood higher education degree programs in Washington are not primarily focused on teacher preparation. One-half of associate degree programs and bachelor's degree programs reported that their primary goal is to prepare students to work in multiple roles involving young children in many types of settings (see **Figure 1**). The second-most common primary goal identified by both associate and bachelor's degree programs is teacher and administrator preparation. Associate degree programs were more likely to report preparing educators for roles in ECE settings, while bachelor's degree programs were more likely to report preparing educators for roles in ECE *and* elementary settings. Although none of the programs participating in the *Inventory* listed their primary goal as preparing early interventionists or early special education teachers, these programs may offer degrees and certificates in early intervention and early childhood special education. It is important to recognize that even if programs reported a primary goal other than teacher or administrator preparation, these degree programs may still be preparing students for teaching and administrative roles.

Figure 1: Primary Goal of Washington Early Childhood Degree Programs, by Degree Level

Chart data:

Associate Degree (N=16)
- 50% — To prepare students for multiple roles involving young children, working in many types of settings
- 6% — To prepare students for teaching and/or administrative roles in early childhood AND elementary education settings
- 44% — To prepare students for teaching and/or administrative roles in early childhood education settings ONLY

Bachelor's Degree (N=12)
- 50% — To prepare students for multiple roles involving young children, working in many types of settings
- 33% — To prepare students for teaching and/or administrative roles in early childhood AND elementary education settings
- 17% — To prepare students for teaching and/or administrative roles in early childhood education settings ONLY

■ To prepare students for multiple roles involving young children, working in many types of settings

■ To prepare students for teaching and/or administrative roles in early childhood AND elementary education settings

■ To prepare students for teaching and/or administrative roles in early childhood education settings ONLY

Course Content

There is broad consensus that early childhood education degree programs should include course content that encompasses theories of development and learning, subject matter content (e.g., literacy), and methods of teaching and pedagogy (IOM & NRC, 2015). In addition, leadership preparation, program administration and principles, and practices related to adult learning are considered key content for creating high-quality experiences for children (IOM & NRC, 2015; Whitebook et al., 2012; Whitebook & Ryan, 2011).

Table 2. List of Domains and Topics of Course Content Included in the Washington Inventory

Domains	Topics
Child Development and Learning	Domains of development
	Effects of culture, gender, class, and race on development
	Effects of disability on development
	Development of children's early literacy skills
	Child development theory and its relationship to teaching
	Development of children's scientific understanding
Teaching	*Teaching Diverse Child Populations*: Teaching children who are experiencing poverty, who have special needs, who exhibit challenging behaviors, or who have experienced trauma
	Teaching and Curriculum: Implementing integrated curriculum and using play in teaching; implementing inclusion strategies; supporting social and physical development; and teaching art, literacy, science, and social studies
	Teaching Skills in Early Childhood Settings: Using observation, assessment, and documentation to inform teaching and learning; different teaching strategies; and classroom management
Leadership and Administration	*Supervision and Operations*: Building relationships with other teachers and/or early childhood professionals; guiding practitioners in implementing curriculum and appropriate teaching strategies; adult supervision; strategies to support ongoing adult learning; assessment and documentation to inform teaching and learning; assessment and documentation to inform program quality; program planning, development, and operations; and preparation to provide professional development services
	Organization and Systems: Human resources/personnel policies; fiscal procedures and management; grant management and proposal writing; organizational development and change; the early childhood system and public policy; effective advocacy, policy analysis, and development; and building community partnerships and developing familiarity with community resources for children and families

Child Development and Learning: Content Knowledge and Teaching

Almost all of the associate and bachelor's degree programs reported requiring all six of the course content topics related to the domain of child development and learning, with few exceptions. However, while programs were likely to require content knowledge of child development and learning, they were

more varied in course requirements for pedagogy related to these topics. For example, in the "teaching diverse child populations" domain, 83 percent of bachelor's degree programs require content addressing "children who have experienced trauma." In the domain of teaching and curriculum, 82 percent of bachelor's degree programs require students to take coursework on "teaching children art," and "supporting and extending children's physical skills" (see **Figure 2**). Finally, in the domain of teaching skills, 83 percent of bachelor's degree programs require content related to "classroom management."

Figure 2: Required Coursework Related to Teaching and Curriculum, by Degree Level

Implementing inclusion strategies for children of all abilities to participate in learning — Associate Degree 100%, Bachelor's Degree 100%

Supporting children's social development — Associate Degree 100%, Bachelor's Degree 100%

Using play in the curriculum — Associate Degree 100%, Bachelor's Degree 100%

Implementing integrated curriculum — Associate Degree 100%, Bachelor's Degree 92%

Teaching children social studies — Associate Degree 100%, Bachelor's Degree 91%

Teaching children literacy skills — Associate Degree 100%, Bachelor's Degree 91%

Teaching children science skills — Associate Degree 100%, Bachelor's Degree 91%

Supporting and extending children's physical skills — Associate Degree 94%, Bachelor's Degree 82%

Teaching children art — Associate Degree 94%, Bachelor's Degree 82%

■ Associate Degree (N=16)   ■ Bachelor's Degree (N=11-12)

Administration and Leadership

Course content is not consistently offered to prepare practitioners for early childhood supervisory, administrative, or other leadership roles. Overall, a smaller percentage of degree programs reported offering coursework related to this domain than any other domain. Associate degree programs were more likely than bachelor's degree programs to offer this coursework. In fact, 17 percent of bachelor's programs reported that they did not offer any of the topics listed in this section (see **Table 2**).

The topics most often offered across degree programs were "building relationships with other teachers and/or early childhood professionals," "assessment and documentation to inform teaching and learning," and "assessment and documentation to inform program quality," each of which was offered by at least 80 percent of associate degree programs and at least 40 percent of bachelor's degree programs.

In addition, the *Inventory* asked if programs offer coursework designed to prepare students to provide professional development services (e.g., mentoring, coaching, or training other ECE professionals). Only 40 percent of associate degree and 33 percent of bachelor's degree programs reported offering courses related to the provision of professional development services.

Age-Group Focus

Depending on the ages of the children they serve and the setting in which they work, teachers of young children are often perceived as requiring different levels of skill and knowledge and are expected to meet significantly more or less rigorous qualifications. These differing expectations contribute to long-standing variations in content and design among early childhood higher education programs (Whitebook et al., 2012; Whitebook & McLean, 2017). The Institute of Medicine and the National Research Council conclude that educators working with children at any age from birth to eight require equivalent levels of education and training, and this variability in preparation is both inconsistent with the science of early development and learning and unlikely to produce consistently effective preparation of teachers and administrators for early learning programs serving children in this age span (IOM & NRC, 2015).

Creating an integrated birth-to-age-eight early care and education system, inclusive of the institutions preparing the ECE workforce, has thus emerged as a major goal and as a metric by which to measure progress toward it. The *Inventory* intentionally sought to examine differences among programs in preparing students to work with children of different ages. For child development and learning and teaching topics, associate degree programs required content on all three age groups (birth to 2 years, preschool, and kindergarten to third grade) at similar rates, while bachelor's degree programs were slightly more likely to require an age-group focus on preschool-age children than the other two age groups (see **Figure 3** for an example). This trend continued throughout the other domains included in the survey (e.g., teaching diverse populations, teaching and curriculum, and teaching skills).

Figure 3: Child Development Theory and Its Relationship to Teaching: Required Age-Group Focus of Programs Participating in the Washington Inventory, by Degree Level

Chart data:

Associate Degree (N=16):
- Birth to 2 years: 94%
- 3 and/or 4 years (pre-K): 94%
- K to grade 3 or higher: 88%
- No age-group focus: 6%

Bachelor's Degree (N=12):
- Birth to 2 years: 67%
- 3 and/or 4 years (pre-K): 83%
- K to grade 3 or higher: 75%
- No age-group focus: 17%

Legend:
- Birth to 2 years
- 3 and/or 4 years (pre-K)
- K to grade 3 or higher
- No age-group focus
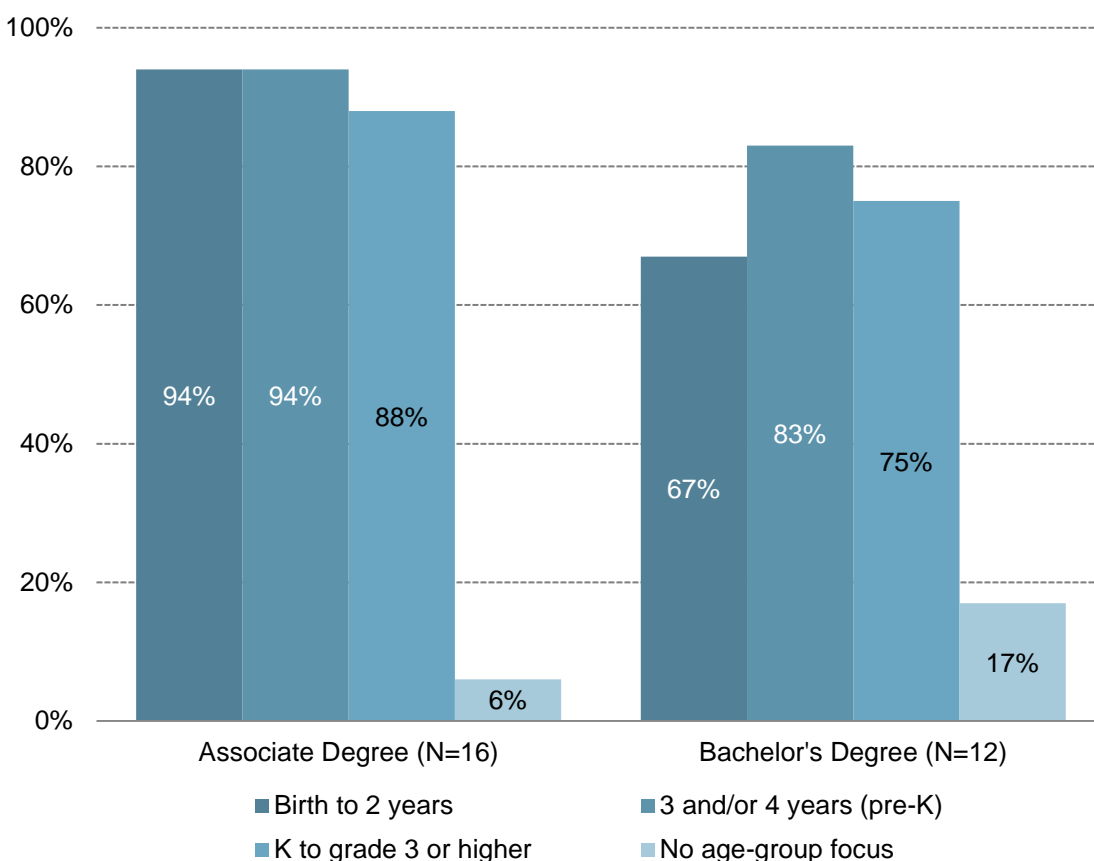
Integration of Standards and Competencies Into Coursework

In recent years, growing attention to the importance of early childhood development has led to the development of standards and core competencies outlining what early educators should know and be able to do to meet children's developmental needs (Whitebook, McLean, & Austin, 2016). However, despite increasing agreement on the value of these standards and competencies for ensuring the professionalism of the ECE workforce, Washington early childhood degree programs vary in their requirement of courses aligning to specific standards.

The Washington State Core Competencies for Early Care and Education Professionals, the Washington State Early Learning and Development Guidelines, Washington Early Achievers (Washington's QRIS), and the Washington State Student Learning Outcomes were the most commonly reported standards that early childhood degree programs integrated into coursework (see **Figure 4**). Nearly all associate degree programs (94 percent) reported integrating the Core Competencies for Early Care and Education

Professionals into coursework; however, less than one-half (42 percent) of bachelor's degree programs did so. The vast majority (88 percent) of associate degree programs and 75 percent of bachelor's degree programs reported incorporating the Early Learning and Development Guidelines into their program content. Three-quarters of associate degree programs and less than one-half (42 percent) of bachelor's degree programs aligned their curriculum with the Early Achievers QRIS standards. Finally, one-half of all programs integrated the Student Learning Outcomes (K-3) into their coursework.

Figure 4: Alignment of Curriculum in Washington Early Childhood Degree Programs With State Standards and Competencies, by Degree Level
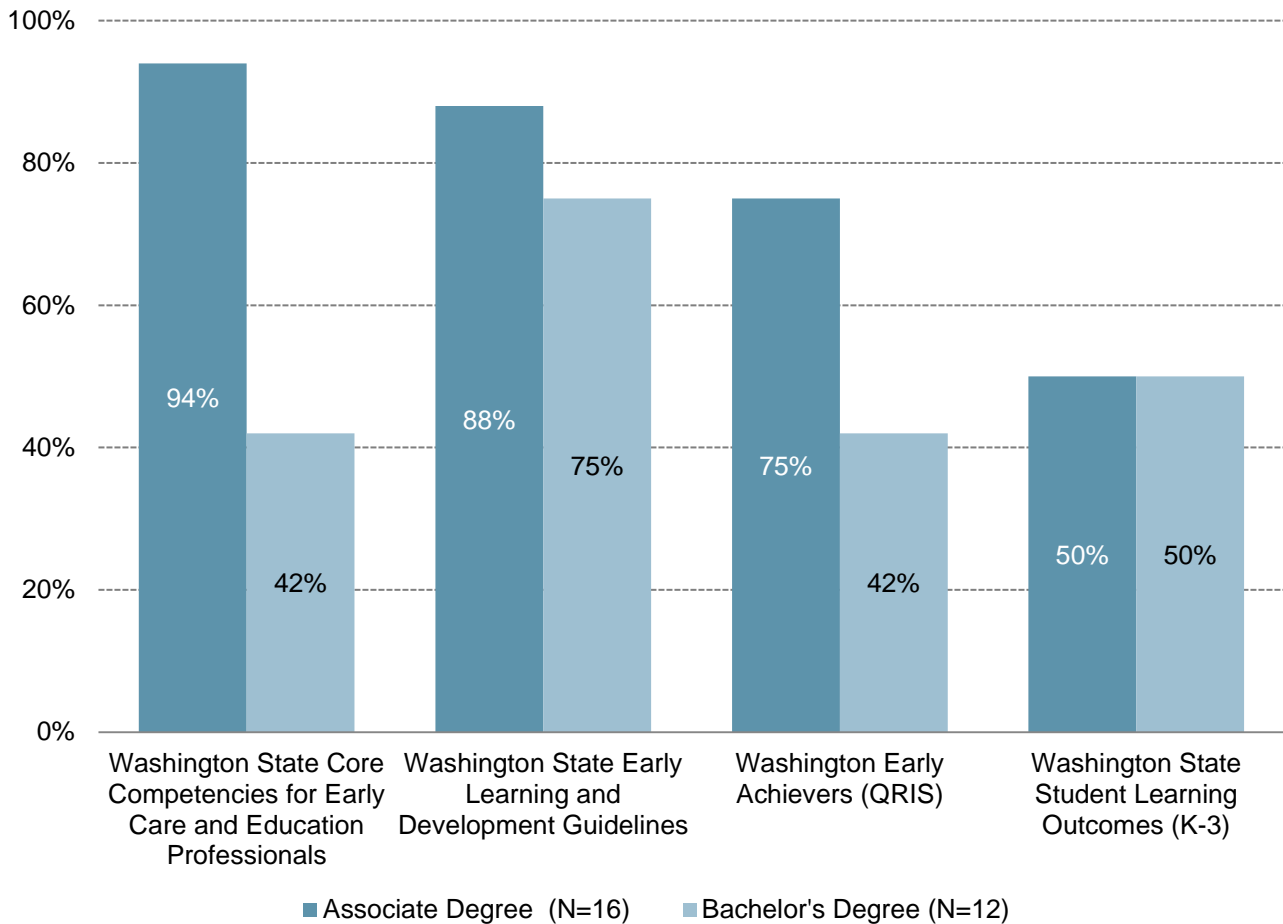
Legend: ■ Associate Degree (N=16) ■ Bachelor's Degree (N=12)

Categories and values:
- Washington State Core Competencies for Early Care and Education Professionals: 94%, 42%
- Washington State Early Learning and Development Guidelines: 88%, 75%
- Washington Early Achievers (QRIS): 75%, 42%
- Washington State Student Learning Outcomes (K-3): 50%, 50%

All students earning either associate or bachelor's degrees in early childhood are required to complete a practicum experience, though there is little consistency as to the duration and frequency of these field-based experiences. In contrast, students in both associate and bachelor's degree programs are less likely to be required to complete a student teaching experience.

What we asked about field-based experiences:

Program leads were asked about two distinct types of field experiences: student teaching and practica. By student teaching, we mean full-time immersion in a classroom, with increasing responsibility for curriculum planning and teaching and supervision by a faculty member, *and/or* cooperating teacher, *and/or* mentor. By practicum, we mean an experience, associated with a course, which is short in duration, often focused on a particular skill or population, and includes supervision by a faculty member, *and/or* cooperating teacher, *and/or* mentor. For each, respondents were asked to indicate whether the field experience was required in order to attain the degree, and if so, they were asked a series of questions pertaining to the field experience, including timing, duration, and differences in field experience structures for pre-service and experienced teachers.

Program leads were also asked whether students in student teaching and practica were required to work with specific age groups of children, children with particular characteristics (e.g., children who are dual language learners, children with special needs), or families.

Finally, program leads were asked to identify practices that students were required to incorporate during student teaching and practica, including the following:

- Scaffolding children's mathematical development and promoting their ability to solve problems;
- Scaffolding children's literacy development and promoting their oral and written skills;
- Supporting children's socioemotional development and skills;
- Facilitating the developmental course of motor development in young children;
- Integrating families in partnerships to support children's learning;
- Utilizing assessment effectively to inform and individualize instruction; and
- Collaborating with community organizations to support children and families.

There is widespread agreement that field-based learning experiences for teachers working with children of all ages are critically important for developing new teaching skills or improving existing ones (IOM & NRC, 2015; NCATE, 2010b; Whitebook et al., 2012). In the K-12 community, this recognition has led to efforts to increase the length of student teaching, introduce it earlier into a program of study, and strengthen student supervision during field experiences (CSCCE, 2017; Whitebook et al., 2012). In early childhood, however, there is no widely implemented standard of field experience, such as student teaching (Whitebook, 2014; Whitebook & Ryan, 2011). This structural divide in educator preparation runs counter to the call by many ECE experts, policymakers, and other stakeholders for a more integrated birth-to-age-eight educational system (IOM & NRC, 2015).

Required Field Experiences

All associate degree and bachelor's degree programs require students to participate in at least one practicum course. In contrast, both associate degree and bachelor's degree students have limited opportunities to participate in student teaching experiences. Slightly more than one-quarter (27 percent) of associate degree and less than three-quarters (70 percent) of bachelor's degree programs require student teaching.

Number, Duration, and Timing of Practica

Practica are the most common (and for many students, the only) type of field experience required across Washington early childhood degree programs.[6] The total number of practica and total hours that students were engaged in practica is difficult to assess; the number of experiences varied, as did the number of hours per practicum (see **Table 3**).

Table 3. Number and Mean Hours of Practica Required by Programs Participating in the Washington Inventory, by Degree Level

Degree Level	One practicum required	Two practica required	Three practica required	Four or more practica required	Mean number of hours typically required to complete a practicum course
Associate Degree (n=14)	0%	29%	43%	29%	85
Bachelor's Degree (n=11)	40%	10%	10%	40%	95

Perhaps reflecting the differences in the total number of practica required, the first practicum experience occurred at different times for students at different degree levels. Associate degree programs were more likely than bachelor's degree programs to require that the first practicum occur at the beginning of the course of study (93 percent compared to 55 percent). Less than 15 percent of all degree programs structured practica differently for novice and experienced teachers.

Requirements of Practicum Experiences

Within the practicum experience, both associate and bachelor's degree programs were more likely to require an age-group focus on preschool-age children than infants and toddlers or school-age children. Nearly one-half (47 percent) of associate degree programs and nearly three-quarters (70 percent) of bachelor's degree programs required a focus on preschool-age children. Just one-third (33 percent) of associate degree programs required a focus on infants and toddlers, and about one-quarter (27 percent) required students to work with children in elementary grades. Less than one-third (30 percent) of bachelor's degree programs required a focus on infants and toddlers, while 60 percent required a focus

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[6]Because practica were the primary strategy for field experiences required by degree programs and due to small sample sizes of programs requiring student teaching, practica are the focus of this section of the report.

on children in early elementary grades. In almost one-third (30 percent) of bachelor's degree programs, students are not offered the opportunity to work with infants and toddlers.

Few programs participating in the survey required practicum students to work with young students with certain characteristics or to work with families. Less than 10 percent of associate degree programs and just 20 percent of bachelor's degree programs reported requiring students to complete practica that involved working with children who are dual language learners. One-quarter (27 percent) of associate degree programs and one-half (50 percent) of bachelor's degree programs required practicum students to work with children with disabilities. Finally, 43 percent of associate degree programs and 30 percent of bachelor's degree programs required working with families during students' practicum experiences (see **Figure 5**).

Figure 5: Required Group Focus in Practicum Experiences, by Degree Level
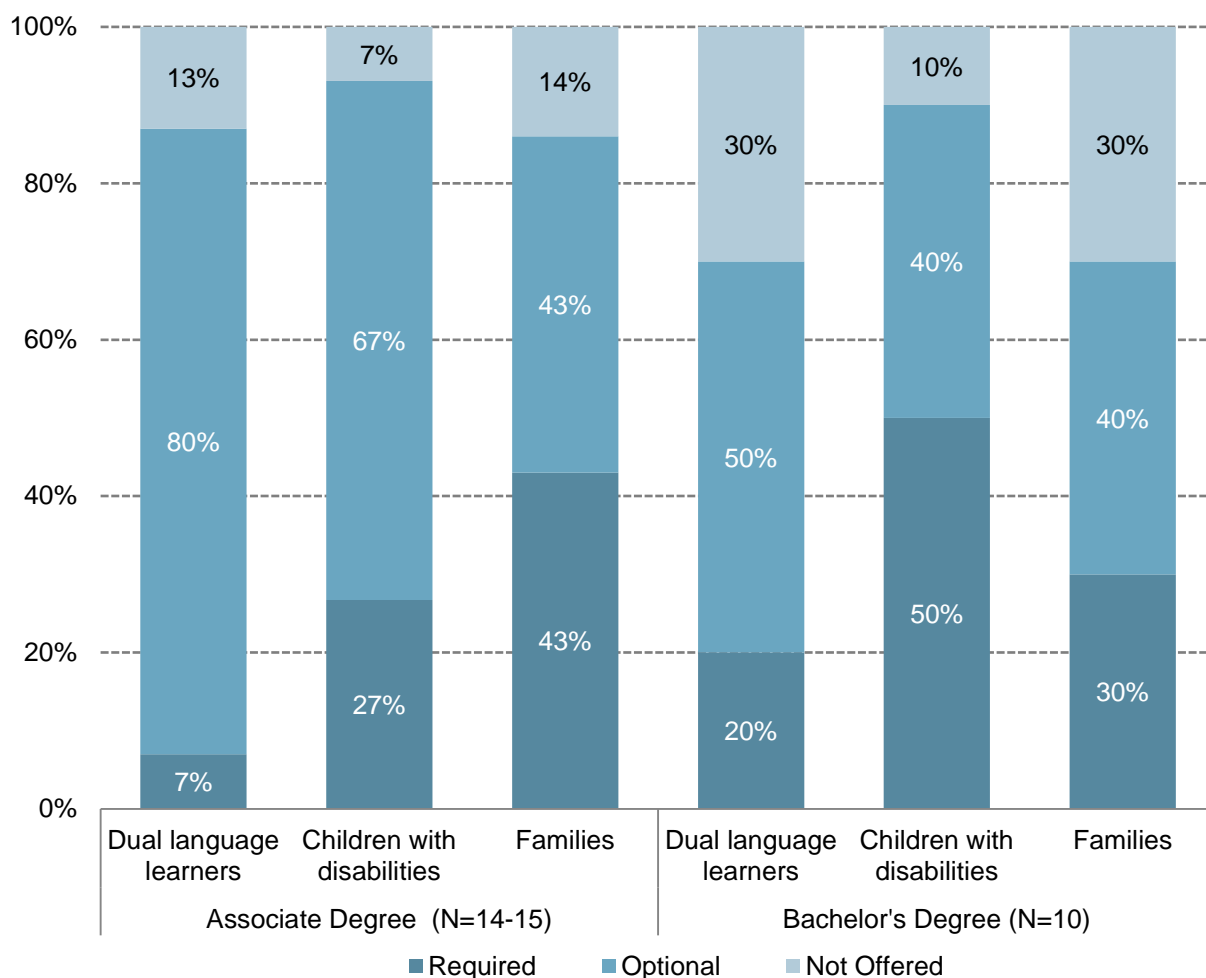
The *Inventory* also asked about specific practices that students may be required to incorporate into their practica (see **Figure 6** for select practices). The practices most likely to be required by associate degree programs were: supporting socioemotional development (80 percent); scaffolding children's literacy

development (67 percent); and using assessment to inform instruction (67 percent). The practices most likely to be required for bachelor's degree programs were: supporting socioemotional development: scaffolding children's literacy development: scaffolding math development and understanding: and utilizing assessment to inform and individualize instruction (all 80 percent).

When asked about challenges facing the program, 60 percent of associate degree programs noted that "insufficient access to quality clinical experience sites" is a challenge facing their program, and 27 percent of associate degree programs identified "lack of opportunities for non-traditional/working students to complete clinical experiences" as a barrier.

Figure 6: Select Practices Required for Students in Their Practica, by Degree Level

	Required	Optional	Not offered
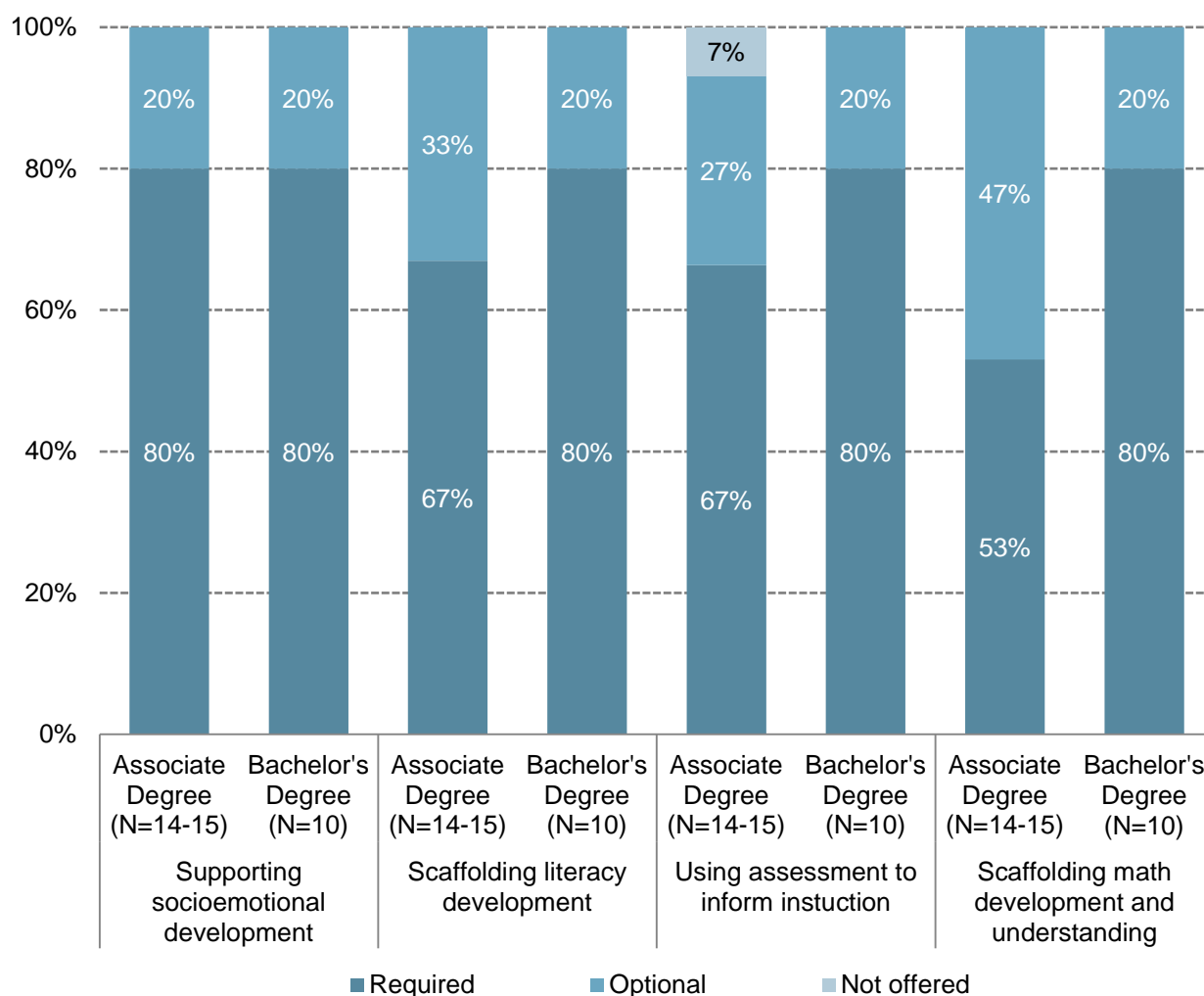
FINDING THREE: PORTRAIT OF FACULTY
Employment Status, Demographics, and
Professional Background

Washington early childhood degree programs are staffed with a mix of part- and full-time faculty, who are primarily women, white/Caucasian, and monolingual English-speaking. They are therefore less diverse than Washington's young child population. Most faculty members reported having had academic preparation specific to early childhood and also having worked in an array of ECE professional roles in the past decade.

What we asked about and of faculty members:

Program leads were asked to provide information about the number of full- and part-time faculty members employed in their degree programs during the term in which the survey was administered.

Individual faculty members were asked to identify:

1. Their employment status;
2. Their demographic characteristics, including: a) age; b) race/ethnicity; and c) linguistic capacity;
3. Their academic background;
4. The primary focus of their teaching and expertise related to children across the birth-to-age-eight continuum; and
5. Their professional experiences, in addition to college-level teaching, over the previous 10 years;

The faculty findings discussed below are drawn from a final sample of 82 faculty members out of 178 faculty members who received the *Inventory*.[7] Forty-four of these faculty members teach in associate degree programs, 42 teach in bachelor's degree programs, and 14 teach in graduate programs.[8,9]

Employment Status

Part-time faculty members constitute two-thirds or more of faculty in colleges and universities nationwide (Center for Community College Student Engagement [CCCSE], 2014; Curtis & Thornton, 2014), and this reality can pose multiple challenges for both faculty and students. Part-time faculty members are often not as integrated into the department in which they teach and not engaged in curriculum planning; furthermore, they are typically paid to teach particular courses and are not paid for additional responsibilities, such as student advising or program evaluation (CCCSE, 2014). This situation can lead to full-time faculty taking on a greater share of administrative, institutional, and student-advising

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[7]The faculty members included in the *Inventory* represent a portion of faculty currently teaching in early childhood degree programs in Washington. Nonetheless, these findings can provide insight into the experiences and needs of the wider population of early childhood faculty in the state.

[8]Faculty members who teach at multiple degree levels are counted in each degree level.

[9]We were able to include some findings on faculty members who teach in graduate degree programs in the *Inventory,* even though we were not able to include graduate degree *program* level data due to small sample sizes.

responsibilities in addition to their teaching load (CCCSE, 2014; Curtis & Thornton, 2014; Early & Winton, 2001; Maxwell, Lim, & Early, 2006; Whitebook, Bellm, Lee, & Sakai, 2005).

Among those who participated in the *Inventory,* 43 percent of faculty members teaching in associate degree programs and 38 percent of faculty members teaching in bachelor's degree programs identified themselves as adjunct faculty or part-time lecturers, lower than the national average in both cases. In contrast, only 21 percent of faculty members teaching in graduate degree programs identified themselves as adjunct faculty or part-time lecturers. As discussed in more detail below, challenges related to insufficient staffing were cited by program leads and faculty members alike.

Demographic Characteristics

The well-documented absence of racial and ethnic minorities among early childhood higher education faculty — in contrast to their students and the child populations that these ECE professionals will serve — has implications for the degree of focus on diversity in coursework and the availability of role models for students (Bornfreund, 2011; Early & Winton, 2001; Johnson, Fiene, McKinnon, & Bahu, 2010; Lim, Maxwell, Able-Boone, & Zimmer, 2009; Maxwell, Lim, & Early, 2006; Ray, Bowman, & Robbins, 2006; Whitebook, Bellm, Lee, & Sakai, 2005). Evidence suggests that a racially and ethnically diverse faculty is more likely to recognize the need to respond to a diverse student body and child population and more likely to address issues of diversity in course curriculum (Lim, Maxwell, Able-Boone, & Zimmer, 2009).

Racial, Ethnic, and Linguistic Diversity

Most faculty members participating in the *Inventory* identified as female, white/Caucasian (see **Figure 7**), and monolingual. In general, faculty members are similar in background to the early childhood teaching workforce[10] in Washington: in 2013, 72 percent of ECE teachers in the state identified as white, 14 percent as Hispanic/Latino, 8 percent as Asian, and 5 percent as African American (Migration Policy Institute, 2015). However, census data point to an increasingly diverse population in the state, with the child population under the age of five being 52-percent white (non-Hispanic), 24-percent Hispanic/Latino, 10-percent multiracial, 7-percent Asian, and 4-percent African-American (Annie E. Casey Foundation, 2016).

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[10] This population includes teachers in family/home-based child care, center-based child care, and preschool settings.

Figure 7: Race/Ethnicity of Faculty Members Participating in the Washington Inventory, by Degree Level[*]
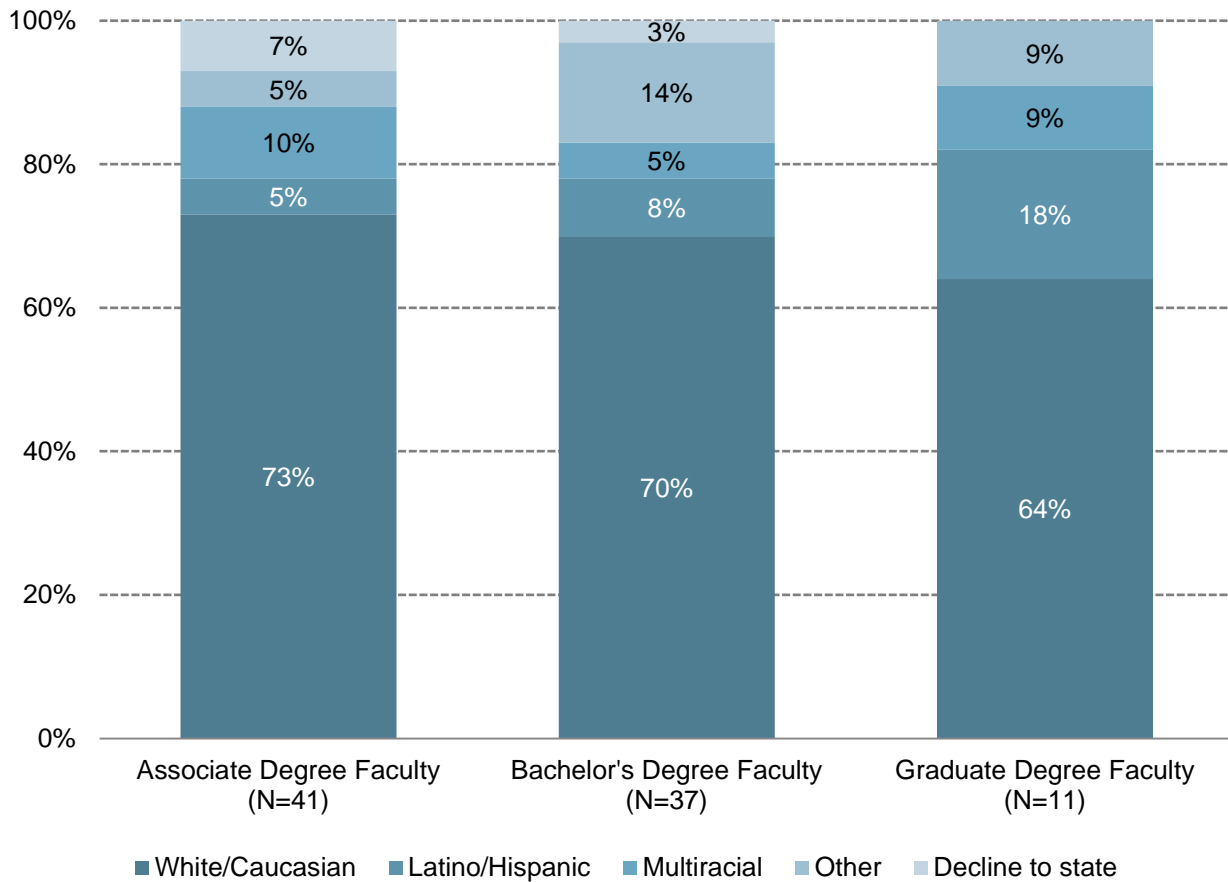
*Other racial/ethnic categories have been included in "other" where percentages were not large enough to protect confidentiality.

While all faculty members at all degree levels reported fluency in English, fewer than 10 percent of faculty members teaching at all degree levels reported fluency in another language. However, 70 percent or more of faculty members across degree levels reported that it would be helpful to know another language, primarily Spanish, in order to communicate better with their students. Overall, about 90 percent of faculty members who would like to know another language identified Spanish as a language of interest. About one-quarter of faculty members at the bachelor's degree level and one-fifth of faculty members at the associate degree level also identified Arabic as a language they would like to know. A significant number of bachelor's degree faculty members also reported wanting to learn Cantonese/Mandarin (26 percent) and Korean (22 percent). Of note, Washington's dual language learner child population has increased 48 percent since 2000, experiencing a growth rate twice as high as the national average. Thirty-two percent of children in Washington under the age of eight are dual language learners (Park, O'Toole, & Katsiaficas, 2017).

Age

Faculty members teaching in bachelor's degree programs were, on average, slightly younger than their colleagues teaching in other programs. The average age of faculty members teaching in associate degree programs was 51 years; for faculty members teaching in graduate degree programs, it was 58 years; and for faculty teaching in bachelor's degree programs, it was 49 years. Faculty teaching in graduate degree programs were more likely to report being 60 years or older (thus, potentially close to retirement) than associate and bachelor's degree program faculty members (see **Figure 8**).

Figure 8: Age of Faculty Members Participating in the Washington Inventory, by Degree Level
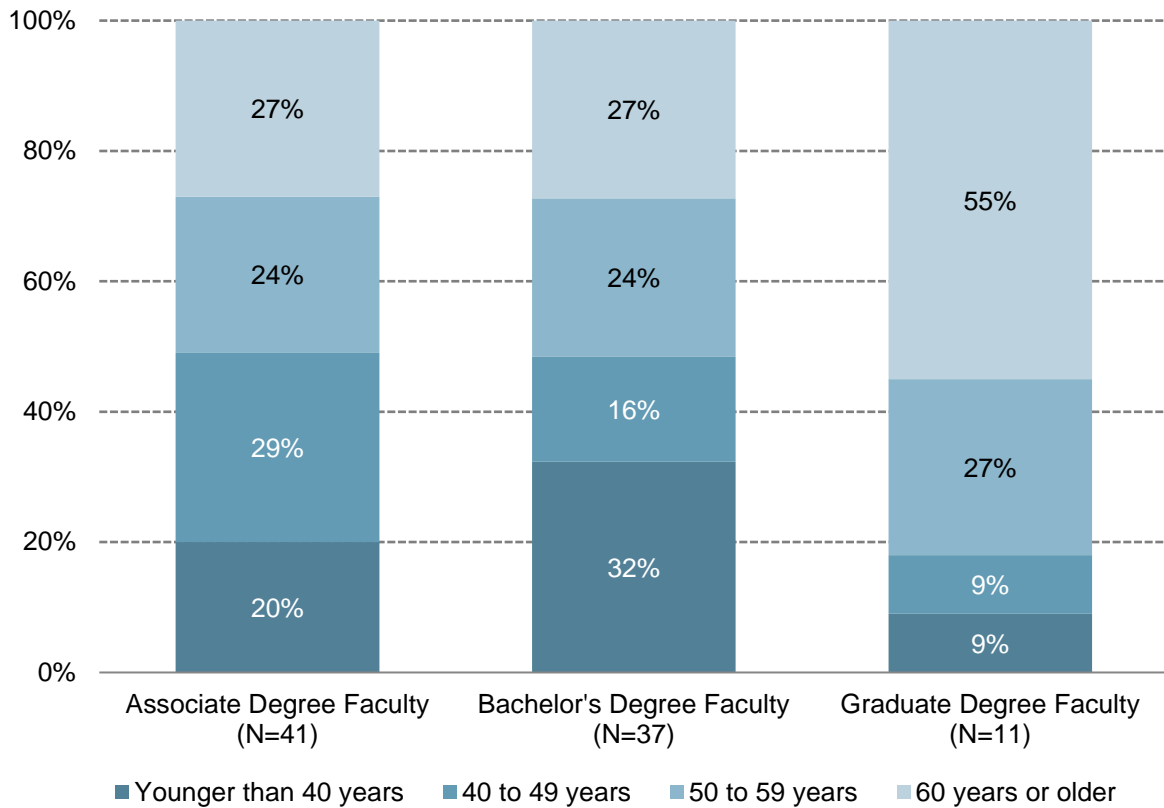
Academic and Professional Background

Teachers of adults, like those who teach children, require appropriate preparation as well as ongoing opportunities to refine their knowledge and skills (Whitebook & Ryan, 2011). Based on a review of the extant research, the Institute of Medicine and National Research Council (2015) have called for early childhood higher education faculty to be versed in the foundational theories of development and learning, subject matter content, and methods of pedagogy that comprise the basic competencies expected of ECE practitioners working with young children. Additionally, teacher educators themselves are increasingly called upon to be effective practitioners, preferably having had classroom experience with children within the past decade (National Council for Accreditation of Teacher Education [NCATE], 2010a & 2010b).

Academic Preparation and Teaching Focus Related to Early Childhood

Overall, 80 percent of faculty members participating in the *Inventory* had earned at least a bachelor's degree in early childhood education or child development: 70 percent of graduate degree faculty had earned a bachelor's degree or higher, while 80 percent of associate degree faculty and 84 percent of bachelor's degree faculty had done so. While we did not ask about the primary focus of their own early childhood degrees, faculty members were asked to indicate whether the primary focus of their teaching in the degree program was "child development and learning," "curriculum and teaching methods," or "both equally." Faculty members teaching in associate degree, bachelor's degree, and graduate degree programs reported focusing primarily on both "curriculum and teaching methods" and "child development and learning" (66 percent, 50 percent, and 42 percent, respectively).

Faculty members were also asked about their expertise related to various age groups and age ranges of children. More than one-half of faculty members teaching in associate degree or graduate degree programs noted that their primary expertise in terms of age-group focus was on children birth through before kindergarten or birth through third grade or higher (59 percent and 54 percent, respectively). In comparison, 43 percent of faculty members teaching in bachelor's degree programs noted expertise across these age ranges, and 29 percent reported expertise primarily with preschool-aged children. In general, faculty members teaching in bachelor's degree programs were less likely to say that their expertise included children from birth to age two; only 45 percent did so, while 64 percent of faculty members teaching in associate degree programs and 54 percent of faculty members teaching in graduate degree programs included this age group as part of their primary expertise.

Professional Teaching and Administrative Experience

The majority (62 percent) of faculty members across associate degree programs and bachelor's degree programs reported experience in other professional roles over the past 10 years.[11] Of those faculty members who reported having worked in other roles, the majority (78 percent) had worked as ECE professional development providers (e.g., coach, mentor, trainer, or consultant). Additionally, 70 percent of faculty members across degree levels had worked as classroom teachers, and 41 percent of faculty members reported having worked as early childhood administrators.

Professional development provider experience and classroom teaching experience were most likely to have focused on children of preschool age (see **Figure 9**). However, nearly one-half (44 percent) of the faculty members participating in the study had provided professional development to other adults related to infants and toddlers, 28 percent had experience working as an administrator in settings with very young children, and 15 percent had experience teaching infants and toddlers.

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[11] Only results from faculty teaching in associate degree programs and bachelor's degree programs will be discussed here, as the number of graduate degree program faculty was too small to include.

Figure 9: Age-Group Focus of Select Job Roles in Past 10 Years, by Degree Level*

Classroom Teacher
- Associate Degree Faculty (N=17): 22%, 43%, 22%, 13%
- Bachelor's Degree Faculty (N=19): 16%, 52%, 32%, 0%

ECE Professional Development Provider
- Associate Degree Faculty (N=19): 52%, 78%, 30%, 13%
- Bachelor's Degree Faculty (N=19): 40%, 64%, 28%, 12%

■ Birth to 2 years   ■ 3 and/or 4 years (pre-K)
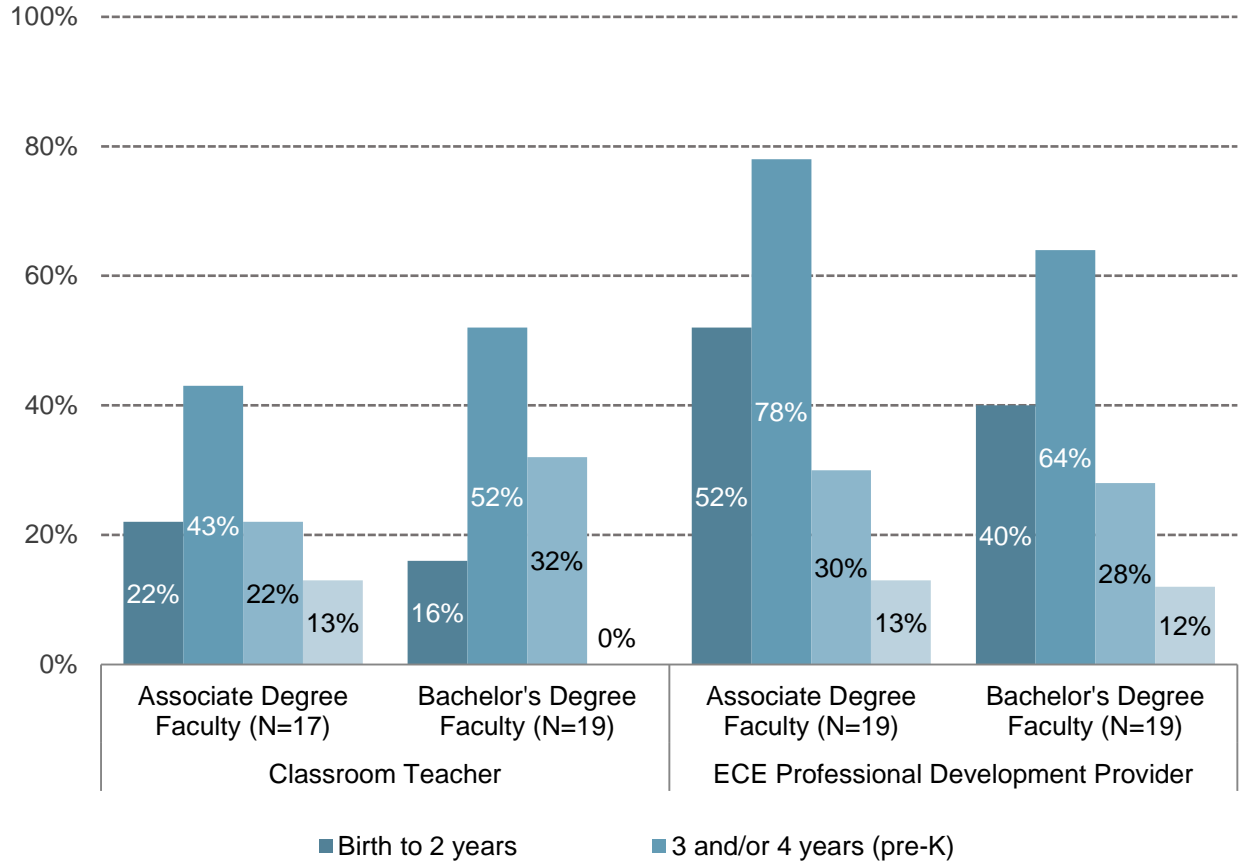
*Sample size too small to report on graduate degree faculty.

Washington early childhood degree faculty were more likely to consider the inclusion of socioemotional development very important, compared to other course content. In general, faculty members reported feeling most capable of preparing teachers to work with preschool-age children. Across content areas, faculty members reported feeling least capable of preparing teachers to support dual language learners. Washington early childhood degree program faculty are particularly interested in professional development related to working with children and families who have experienced trauma and children and families from diverse cultural and linguistic backgrounds, as well as strategies for mentoring adult students and supervising students in clinical experiences.

Faculty members' perspectives on the importance of including particular domains of development and assessment of their own teaching capacity are likely to affect faculty intent to include specific content in coursework (Hyson et al., 2012). Knowledge about faculty members' capacity to teach certain content areas and their own learning needs can further inform professional development opportunities for faculty members.

Perspectives on Program Content

We asked faculty members their opinions about the importance of including particular domains of development and learning in early childhood degree programs for infants and toddlers, preschool-age children, and school-age children (see **Box 3** for a description of how we gathered this information). The domain of socioemotional development was rated as "very important" by the highest percentage of faculty members. Almost all faculty members (95 percent) rated this domain as "very important" for all three age groups. Content related to working with diverse families was also rated as "very important" by almost all faculty members (90 percent or more). In general, faculty members across degree levels responded similarly regarding the importance of including various topics across the three age groups, with a few exceptions. Faculty were less likely to consider it "very important" to include coursework on early mathematical development and literacy development for infants and toddlers as compared to preschool-age children and school-age children. Conversely, faculty members were more likely to consider the inclusion of content on physical and motor development "very important" for very young children as compared to older children (see **Figure 10** for an example).

Box 3. Faculty Perspectives on Including Various Domains of Development and Learning in Teacher Preparation Programs

The *Inventory* assessed faculty members' perspectives on the relative importance of various domains of development and learning in teacher preparation programs. Faculty members were asked to use a Likert scale of 1 to 4, with 1 meaning "not important" and 4 meaning "very important," to indicate their views on including various domains for different age groups of children. The domains were:

Literacy Development
Understanding the components and sequence of literacy development in young children and how to promote children's skills related to oral and written language

Socioemotional Development
Understanding socioemotional development, its relationship to learning, and how to support children's socioemotional skills

Motor Development
Understanding typical and atypical motor development in young children, its relationship to learning, and how to support the development of children's motor skills

Assessment
Utilizing assessment effectively to inform and individualize instruction

Collaboration
Collaborating with community organizations to support children and families

Diverse Families
Working with families of various ethnic, racial, and cultural backgrounds

Family Engagement
Understanding and implementing an integrated strategy to engage families in ongoing and reciprocal partnerships and the relationship of such partnerships to outcomes for children

Early Mathematics
Understanding the domains and sequence of mathematical knowledge in young children and how to promote children's mathematical understanding and ability to solve problems

Dual Language Learners
Supporting the cognitive and social development of young dual language learners

Figure 10: Importance of Including Domains in Teacher Preparation Programs: Percentage of Faculty Members Reporting "Very Important," by Age Group (N=76-77)

Domain	Birth to 2 years	3 and/or 4 years (pre-K)	K to grade 3 or higher
Understanding the components and sequence of literary development	57%	83%	97%
Understanding socioemotional development	95%	96%	96%
Understanding typical and atypical motor development	82%	71%	53%
Utilizing assessment effectively to inform and individualize instruction	61%	73%	80%
Collaborating with community organizations	55%	56%	57%
Working with families of various ethnic, racial, and cultural backgrounds	92%	94%	91%
Understanding and implementing an integrated strategy to engage families	90%	91%	87%
Understanding the domains and sequence of mathematical knowledge	30%	66%	92%
Supporting the cognitive and social development of young dual language learners	75%	82%	83%

■ Birth to 2 years   ■ 3 and/or 4 years (pre-K)   ■ K to grade 3 or higher

Capacity to Teach Content

The *Inventory* asked faculty members to assess their capacity to prepare early educators to promote children's development and learning on the following topics:

- Children's literacy development;
- Children's socioemotional development;

- Facilitation of motor development in young children;
- Utilizing assessment;
- Collaborating with community organizations to support children and families;
- Working with families of various ethnic, racial, and cultural backgrounds;
- Integrating families in partnerships to support children's learning;
- Children's mathematical development; and
- Supporting the cognitive and social development of young dual language learners.

For each of the nine topics (see **Box 3**), faculty members were asked to identify whether they:

1. Had limited familiarity;
2. Were knowledgeable but not prepared to teach others; or
3. Were capable of preparing teachers to work with children in each of the following age groups:

- Birth to two years;
- Three to four years (pre-K); and
- Kindergarten to third grade or higher.

For each topic, at least 75 percent of faculty members across degree levels reported feeling capable of teaching content to students.[12] In general, a greater percentage of faculty members reported feeling capable of preparing teachers to work with preschool-age children, followed by infants and toddlers. Faculty members were least likely to report feeling capable of preparing teachers to work with school-age children, across all topics and degree program levels. The topics that faculty across degree levels felt the least capable of teaching were "supporting the cognitive and social development of young dual language learners," "scaffolding children's mathematical development and promoting their ability to solve problems," and "facilitating the developmental course of motor development in young children."

Recent Teaching Experience

Faculty members were asked about their experience teaching a variety of topics during the past two academic years and whether they taught the following content areas either as a separate course, embedded within a broader course, or both. Nearly all the faculty members (86 percent or more) participating in the *Inventory* reported teaching content related to "general domains of child development," "partnering with families to enhance children's learning in school and at home," and "observation, assessment, and documentation to inform teaching and learning" (see **Figure 11**). Faculty members were least likely to report having taught courses related to "fiscal procedures and management," "adult supervision and learning," and teaching strategies for science, technology, engineering, and math (STEM) content. Also of note, about one-third of faculty members teaching in bachelor's and graduate degree programs had not taught content related to the development of mathematical understanding and teaching children with special needs. Faculty members reported that topics listed in the *Inventory* were most likely taught within a broader course (rather than *only* as a separate course or in both formats).

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[12] Capacity to teach topics related to family engagement, early mathematical development, and working with dual language learners is described in detail in Part 2 of this report.

Figure 11: Recent Teaching Experience: Percentage of Faculty Members Reporting Having Taught Content Area in Past Two Years, by Degree Level

Content Area	Associate	Bachelor's	Graduate
General domains of child development	95%	92%	100%
Partnering with families to enhance children's learning	95%	86%	91%
Observation, assessment, and documentation	93%	86%	91%
Teaching children with special needs	90%	68%	64%
Language development	83%	81%	82%
Development of mathematical understanding	80%	67%	64%
Adult supervision and learning styles	76%	50%	80%
Teaching strategies for STEM	75%	62%	73%
Fiscal procedures and management	37%	24%	36%

- ■ Associate Degree Faculty (N=40-41)
- ■ Bachelor's Degree Faculty (N=36-37)
- ■ Graduate Degree Faculty (N=10-11)

Professional Development Participation and Interest

Professional Development
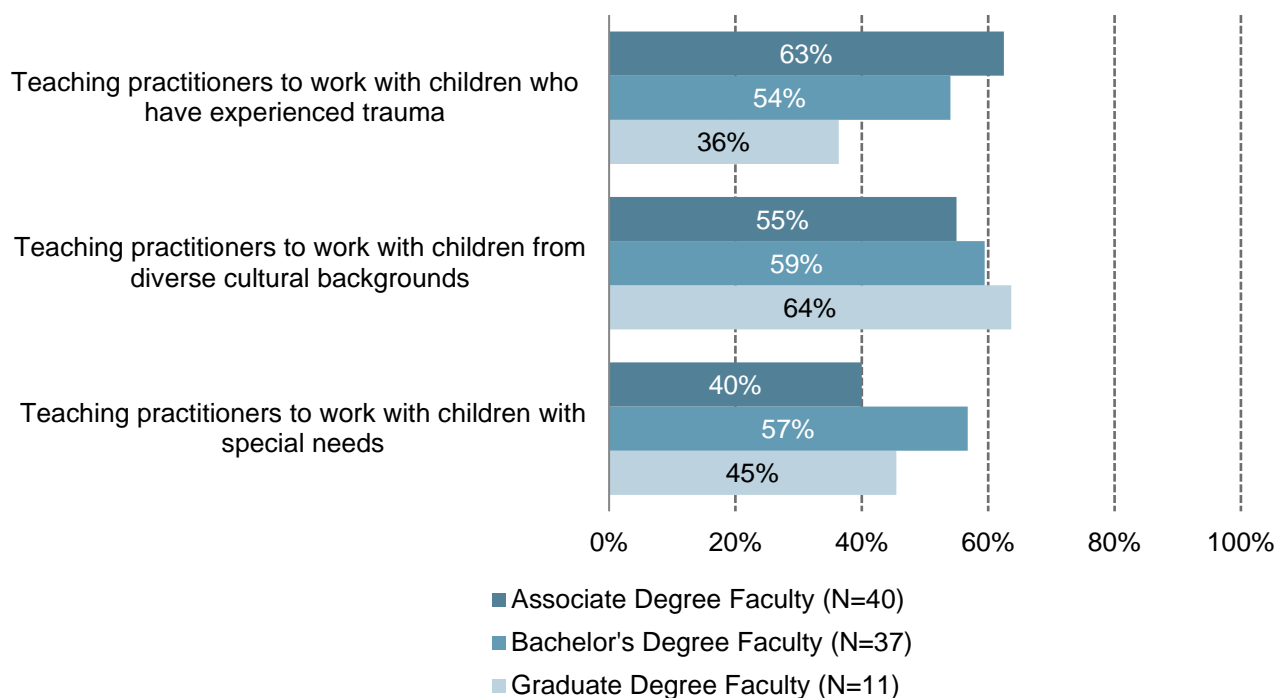
The vast majority of faculty members across degree levels reported participating in professional development during the past three years.[13] The most frequently reported professional development

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[13] Professional development focused on family engagement, early mathematical development, and working with dual language learners is described in detail in Part 2 of this report.

experiences, participated in by 50 percent or more of faculty members at all degree levels, included "teaching practitioners to work with children from diverse cultural backgrounds," "strategies and techniques for mentoring/coaching of adult students," and "evidence-based research on the importance and value of building respectful and trusting relationships with families." Faculty members were least likely to have participated in professional development related to administration and leadership; nearly 40 percent of faculty members had not participated in professional development on any of the topics related to administration and leadership in the past three years.

Faculty members at all degree levels indicated a number of areas in which they were interested in gaining additional knowledge or training (see **Figure 12** for an example). The most commonly identified topics focused on: teaching practitioners to work with particular groups of children; teaching practitioners to work with diverse families; offering strategies for mentoring, coaching and supervising adult learners; and teaching ethnically, culturally, and economically diverse college students. There was mixed interest in topics related to teaching skills and assessment, with greater faculty interest in topics such as using child assessment effectively and teaching developmentally appropriate practice in infant and toddler settings. Across degree levels, interest in professional development topics related to administration and leadership was low.

Figure 12: Interest in Professional Development Related to Diverse Child Populations Reported by Faculty Members Participating in the Washington Inventory: Percentage Reporting "Very Interested," by Degree Level

Teaching practitioners to work with children who have experienced trauma	63% / 54% / 36%
Teaching practitioners to work with children from diverse cultural backgrounds	55% / 59% / 64%
Teaching practitioners to work with children with special needs	40% / 57% / 45%

■ Associate Degree Faculty (N=40)
■ Bachelor's Degree Faculty (N=37)
■ Graduate Degree Faculty (N=11)

FINDING FIVE: SUPPORTING STUDENTS
Services Offered and Program Articulation

Washington early childhood degree programs offer multiple types of support services specifically tailored to help students access resources and strengthen their academic skills. Associate degree programs are more likely to offer blended programs (combining online and in-person courses) and alternative class schedules, while bachelor's degree programs are much more likely to offer cohort models in which small groups of students progress through the program together. Across degree levels, about one-half of programs offer academic tutoring for math and reading and writing. Although the vast majority of associate degree programs have articulation agreements with specific universities, inconsistencies and limitations related to articulation and transfer credits remain a challenge.

Typically, higher education students who work in early childhood settings are classified as "non-traditional" students because, in addition to working full-time, they are frequently older than recent high school graduates, may be among the first in their families to attend college, often represent linguistic and/or ethnic minorities, and may also be parents of children who are school age or younger (Sakai, Kipnis, Whitebook, & Schaack, 2014). In addition, increasing numbers of students are entering the higher education system as community college students with the intent to transfer to four-year colleges or universities, making the issue of articulation between associate and bachelor's degree programs ever more important (T.E.A.C.H. Early Childhood National Center, 2015). As states and locales seek to align with *Transforming the Workforce* recommendations, it is critical to attend to student services and infrastructure (such as articulation) that support student success. Programs that offer support specifically designed for non-traditional early childhood students are associated with greater-than-average success in helping students achieve their educational goals in a timely fashion (e.g., transferring to a four-year institution or completing a degree) (Chu, Martinez-Griego, & Cronin, 2010; Kipnis, Whitebook, Almaraz, Sakai, & Austin, 2012; Sakai, Kipnis, Whitebook, & Schaack, 2014; Whitebook, Schaack, Kipnis, Austin, & Sakai, 2013).

In the current study, all of the associate degree programs reported serving a mix of those already working in the early childhood field as well as more traditional pre-service students, while 55 percent of bachelor's degree programs said their enrollment consists of primarily pre-service students and another 36 percent served a mix of both types of students.

What we asked about services offered to students:

Program leads were asked about three general categories of services offered to students in their programs:

1. Skill support;
2. Counseling and cohort models; and
3. Access support.

Services Offered

Program leads were asked whether a range of services were *specifically* tailored to early childhood education students in the degree program or department. For example, while colleges and universities typically offer academic counseling to all students, we were interested in learning whether early childhood education students had access to dedicated academic counseling to help them plan a course of study that met specific ECE certification/licensing requirements. The services offered by degree programs ranged by type of services and degree level.

Skill Support

One-half (50 percent) of associate degree and bachelor's degree programs offered academic tutoring tailored for early childhood education students in reading and writing, while 56 percent of associate degree programs and 40 percent of bachelor's degree programs offered tutoring in math. Academic tutoring in other subject areas was available in 31 percent of associate degree programs and 20 percent of bachelor's degree programs. Forty percent of bachelor's degree programs offered tutoring in computers and technology training, while 31 percent of associate degree programs did so. Thirty-eight percent of associate degree programs and 20 percent of bachelor's degree programs offered assistance for students who are English-language learners. Finally, contextualized math courses[14] were offered in 25 percent of associate degree programs and 18 percent of bachelor's degree programs.

Counseling and Cohort Models

Seventy percent of bachelor's degree programs reported offering cohort programs tailored to students in the degree program, while only 19 percent of associate degree programs reported that this program model was available. One-half (50 percent) of programs across degree levels reported offering tailored academic counseling, and nearly the same percentage (50 percent of bachelor's degree programs and 38 percent of associate degree programs) offered financial aid counseling.

Access Support

Associate degree programs were more likely to offer formats other than or in addition to traditional/on-campus programs. The vast majority (88 percent) of associate degree programs offered a "blended" program (combining online and in-person courses), compared to only one-third of bachelor's degree programs. Far fewer associate degree programs (13 percent) and bachelor's degree programs (8 percent) offered the degree as an "online/distance learning" program. One-half of bachelor's degree programs reported offering only a traditional, on-campus program.

Seventy-five percent of associate degree programs and 30 percent of bachelor's degree programs offered alternative class schedules for working adults. Sixty-nine percent of associate degree and 40 percent of bachelor's degree programs offered financial assistance other than federal financial aid to early childhood education students. Degree programs were much less likely to offer classes off campus in community-based settings: less than one-third of associate degree (31 percent) and bachelor's degree (20 percent) programs reported doing so.

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[14] A contextualized math course is a course that focuses on the mathematics required for early childhood educators or administrators, for example, calculating child enrollment and ratios or developing a classroom budget.

Articulation

What we asked about articulation:

The *Inventory* asked program leads whether their degree programs had formal articulation agreements with other degree programs.

Respondents were then asked what challenges students face in transferring their associate degree credits into bachelor's degree programs.

More than one-third (36 percent) of Washington bachelor's degree programs reported that most of their incoming students entered as transfer students, and another one-quarter (27 percent) reported an even mix of freshman and transfer students. The vast majority (87 percent) of associate degree programs participating in the *Inventory* reported articulation agreements with early childhood bachelor's degree programs, but more than one-half (53 percent) of associate degree programs reported that inconsistent articulation was a program challenge. Furthermore, the majority (60 percent) of bachelor's degree programs reported articulation agreements with associate degree programs, indicating that agreements are limited to select colleges and universities.

The *Inventory* asked program leads what challenges students faced in transferring their associate degree credits into bachelor's degree programs. Nearly two-thirds (62 percent) of associate degree programs reported that lower division early childhood education courses did not transfer into bachelor's degree programs. Bachelor's degree programs most often reported that general education courses did not transfer into the college.

To support matriculation and student success, some states and institutions across the country are employing the strategy of "stackable credentials." Stackable credentials are a sequence of ascending credentials that can be earned over time, allowing students to move along a career pathway and progress to higher education degrees. If they are portable, these credentials are also verified and can be transferred from one institution to another (Austin, Mellow, Rosin, & Seltzer, 2012).

In Washington, early childhood associate degree programs are far more likely than bachelor's degree programs to offer and accept these credentials/certificates, allowing students to move into and through the community college system. Ninety-three percent of associate degree programs both offer these certificates and accept certificates that students have earned elsewhere. Fewer than one-half (44 percent) of bachelor's degree programs either offer or accept these certificates, and one-third (33 percent) reported they have no plans to do so in the future.

Washington early childhood degree programs experience challenges related to the recognition and valuation of the early childhood education field and resources necessary to support student learning. Program leads and faculty members also identified the need for faculty members with specific expertise and who represent diverse racial and ethnic backgrounds. Early childhood faculty members are likewise in need of resources to support their ability to participate in professional development and program planning.

What we asked about program- and faculty-related challenges:

Program leads were asked to identify any challenges facing their degree programs. Faculty members were asked to identify any resources needed in order to improve the early childhood degree program.

Program-Related Challenges

Lack of Recognition and Value of Early Childhood Education

Nearly one-half of associate degree and bachelor's degree program leads identified "lack of recognition of the value of early childhood from within the department or school" as a challenge (47 percent and 42 percent, respectively). Similarly, almost one-half of associate degree program leads (47 percent) identified "inequitable distribution of resources compared to other programs in the institution" as a challenge for their program. Around one-half of all program leads noted "difficulty recruiting and retaining students related to the low pay of the ECE field" as a challenge (53 percent of associate degree programs and 42 percent of bachelor's degree programs).

Need for Additional Resources to Support Student Learning

About one-third of associate degree and bachelor's degree program leads also noted a "lack of time or resources to sufficiently support students for whom English is a second language" as a barrier (27 percent and 33 percent, respectively). Furthermore, 54 percent of associate degree faculty members, 51 percent of bachelor's degree faculty members, and 55 percent of graduate degree faculty members noted the need for "increased financial resources for students." In addition, 39 percent of associate degree faculty members identified the need for "increased academic support for students," while 27 percent of bachelor's degree faculty members and 18 percent of graduate faculty members noted this need.

Faculty-Related Challenges

More than one-half (53 percent) of associate degree program leads and 42 percent of bachelor's degree program leads reported that "insufficient number of full-time faculty" was a challenge for their programs. Among faculty members, 56 percent of associate degree faculty, 41 percent of bachelor's degree faculty,

and 36 percent of graduate degree faculty reported that additional full-time faculty were needed to improve their degree programs. In addition, faculty members across degree levels desired more resources for faculty professional development (42 percent), more planning time (38 percent), and effective faculty mentoring (44 percent).

Faculty Expertise

Sixty percent of associate degree program leads identified the "need for additional faculty expertise in teaching young children who are dual language learners" as a challenge, while 17 percent of bachelor's degree program leads identified this need in their programs. In addition, 33 percent of associate degree program leads and 17 percent) of bachelor's degree program leads identified the "need for additional faculty experience in working with college students who are English learners." Fifty-three percent of associate degree program leads and 33 percent of bachelor's degree program leads noted a "need for additional faculty expertise in teaching infants and toddlers," and 33 percent of all degree program leads identified the "need for additional faculty expertise in math pedagogy for young children." Forty-two percent of bachelor's degree program leads reported facing none of the challenges listed related to additional faculty expertise.

Faculty Diversity

A significant percentage of faculty members across degree levels identified the need for increased racial/ethnic and linguistic diversity among faculty. More than one-third of faculty members across degree levels identified increased linguistic diversity as a need (34 percent of associate degree faculty, 49 percent of bachelor's degree faculty, and 45 percent of graduate degree faculty). Fifty-nine percent of faculty members teaching in bachelor's degree programs, 55 percent of faculty members teaching in graduate degree programs, and 34 percent of faculty members teaching in associate degree programs reported the need for increased racial/ethnic diversity among faculty.

Part 2: Early Childhood Higher Education, An Evolving Landscape

This section of the report examines how institutions of higher education are adapting to emerging research related to three key domains: family engagement, early mathematics, and dual language learners.

FINDING SEVEN: FAMILY ENGAGEMENT
Required Offerings, Faculty Attitudes, Teaching Experience, and Professional Development Interests

Faculty members consider the inclusion of family engagement to be important in the preparation of early childhood teachers. Multiple topics related to family engagement are embedded in all levels of degree programs, with minor variation in age-group focus by degree level and topic. Faculty members expressed varied levels of interest in professional development in this topic area.

What we asked about family engagement:

Program leads were asked to identify family engagement-related course content topics that were required for the degree.

We asked faculty members about:

1. Attitudes/beliefs about the importance of including family engagement;
2. Capacity to teach students about specific family engagement topics;
3. Experience with teaching specific family engagement content in the past two years; and
4. Participation and interest in professional development focused on topics related to family engagement.

The family engagement learning domain focuses on the environment of young children's relationships and the knowledge and skills that early childhood educators need in order to help families support children's development and learning. Over the past two decades, mounting evidence has demonstrated how family involvement in children's learning at home and school contributes to school success (Dearing & Tang, 2010; Reynolds & Shlafer, 2010). As a consequence, the importance of including family engagement in teacher preparation has gained traction, particularly in light of research suggesting that teacher education programs currently focus limited attention on building student competence in this area (Epstein, Sanders, & Clark, 1999; Nathan & Radcliffe, 1994; Shartrand, Weiss, Kreider, & Lopez, 1997).
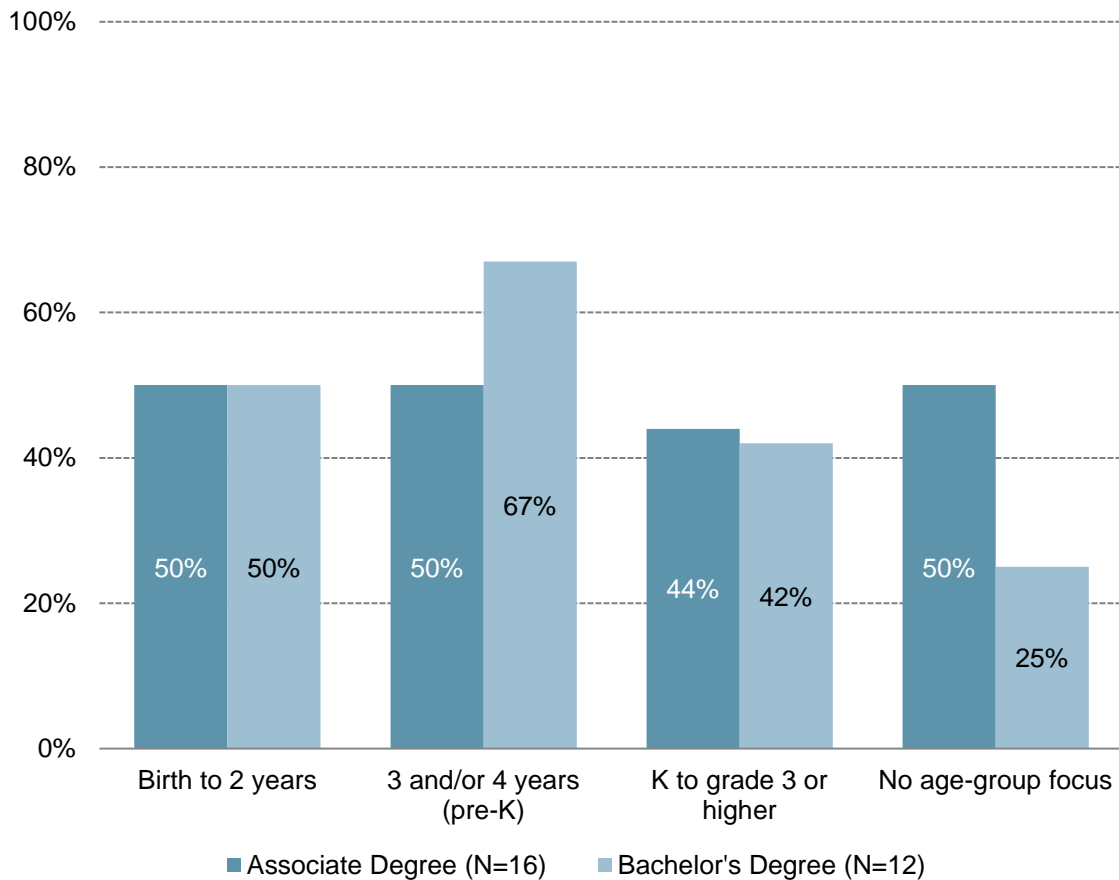
Required Family Engagement Topics in Degree Programs

Program leads were asked about required course content and age-group focus related to eight topics of family engagement (see **Table 4** for the list of topics). Across the eight topics, at least 83 percent of bachelor's degree programs and all associate degree programs reported requiring the topic, with one exception: "working with families of children exposed to trauma" was required by just 75 percent of programs at each degree level. Age-group and grade focus for these content areas was highly variable, depending on topic and degree level (see **Figure 13** for an example). In general, associate degree programs required these topics at similar rates for teachers working with infants and toddlers, preschool-age children, and children in grades K-3 or higher. Bachelor's degree programs typically required a focus on preschoolers and sometimes infants and toddlers and, to a slightly lesser extent, children in grades K-3 or higher. A significant proportion of both associate degree and bachelor's degree programs required these topics, but did not require them for a specific age group.

Table 4. List of Family Engagement Topics Included in the Washington Inventory

Topic
Evidence-based research on the importance and value of building respectful and trusting relationships with families
Considering family structure when working with children and families
Working with families of children with special needs
Working with families exposed to trauma
Working with families to help them enhance their children's learning at home
Techniques for engaging families in classroom, program, and/or school activities
Strategies to effectively communicate with families
Techniques for gathering and using knowledge about children's families in curriculum planning

Figure 13: Working With Families to Enhance Children's Learning at Home: Required Age-Group Focus of Programs Participating in the Washington Inventory, by Degree Level

Chart data:
- Birth to 2 years: Associate Degree 50%, Bachelor's Degree 50%
- 3 and/or 4 years (pre-K): Associate Degree 50%, Bachelor's Degree 67%
- K to grade 3 or higher: Associate Degree 44%, Bachelor's Degree 42%
- No age-group focus: Associate Degree 50%, Bachelor's Degree 25%

■ Associate Degree (N=16) ■ Bachelor's Degree (N=12)

Faculty Attitudes About the Importance of Family Engagement in Degree Programs

The importance of understanding and implementing integrated strategies to engage families to support children's development and learning was considered "very important" by 87 percent or more of all faculty members across all age groups (see **Box 3** for how this assessment was conducted). In general, faculty teaching in bachelor's degree programs were slightly less likely to rate this area as "very important," compared to faculty teaching in associate degree or graduate degree programs. Faculty members rated the inclusion of family engagement content in higher education programs as relatively important and about on par with working with families from various backgrounds. Faculty members were more likely to rate the inclusion of family engagement content as "very important" than content for early mathematics, with the exception of preparing teachers working with children in kindergarten through grade 3 or higher. Faculty members were less likely to consider the inclusion of family engagement content "very important" than they were to consider content on socioemotional development "very important" for those preparing teachers to work with young learners.

Teaching Capacity and Experience Teaching Coursework on Family Engagement

In addition to noting the importance of family engagement, faculty members across degree levels reported feeling capable of teaching content related to engaging with families. Almost all faculty members (90-100 percent across degree levels) noted that they felt capable of preparing teachers to "integrate families in partnerships to support children's learning."

When asked about their current and recent experience teaching courses related to family engagement, the vast majority of faculty members across degree levels (86 percent or more) reported that they had taught coursework related to "partnering with families to enhance children's learning in school and at home" during the past two years. Most often, faculty reported teaching this content embedded within a broader course, rather than as a separate course.

Faculty Participation and Interest in Professional Development on Family Engagement

At least 86 percent of faculty members across degree levels reported having participated in professional development related to family engagement in the past two years. The topics most commonly covered were "evidence-based research on the importance and value of building respectful and trusting relationships with families" and "working with families exposed to trauma."

Using a Likert scale of 1 to 5, with 1 being "not at all interested" and 5 being "very interested," faculty members were asked to rate their interest levels in eight topics related to family engagement. Interest varied for all topics across all degree levels, with faculty members overwhelmingly most interested in "working with families exposed to trauma." One-half of faculty members teaching in associate degree and bachelor's degree programs noted they were "very interested" in this topic (50 percent and 51 percent, respectively), and more than one-third (36 percent) of faculty members teaching in graduate degree programs did, as well. Faculty also desired professional development related to "working with families to enhance their children's learning at home" and "techniques for engaging families in classroom, program, and/or school activities." In general, more than one-third of faculty members across degree levels noted that they were "very interested" in topics related to engaging with families.

Faculty were least likely to rate the inclusion of early mathematics "very important," compared to other content areas for teachers working with infants, toddlers, and preschool-age children. Nevertheless, multiple topics of early mathematics content are embedded in required course content, with variation among degree levels by topic and age-group focus. Most faculty members reported that they consider themselves prepared to teach early math content. Interest in ongoing math-related professional development varies by degree level and topic area.

What we asked about early mathematics:

Program leads were asked to identify early math-related course content topics that were required for the degree.

We asked faculty members about:

1. Attitudes/beliefs about the importance of including early mathematics;
2. Capacity to teach students about specific math-related topics;
3. Experience with teaching specific early math course content in the past two years; and
4. Participation and interest in professional development focused on topics related to early mathematics.

The early mathematics domain addresses key areas of children's cognitive development and important foundational knowledge and intellectual skills associated with school success. The link between school success and math competency in young children has been documented in recent research, yet there is concern that teachers of our youngest children are not adequately prepared by institutions of higher education to assess or facilitate children's mathematical understanding and skills (Ryan, Whitebook, & Cassidy, 2014).

Required Early Mathematics Topics in Degree Programs

Program leads were asked about required course content and age-group focus related to 11 topics of early mathematics (see **Table 5**). All 11 early math topics were required by 80 percent or more of bachelor's degree programs. In contrast, only seven early math topics were required by 80 percent or more of associate degree programs. When an age-group focus was required, both associate and bachelor's degree programs were more likely to require a focus on preschool-age children than on infants and toddlers or school-age children; however, associate degree programs were nearly as likely to require this content for infants and toddlers as they were for preschool-age children. The percentage of bachelor's degree programs requiring a focus on infants and toddlers was especially low: less than one-third of bachelor's degree programs required an age-group focus on infants and toddlers for any topic.

Table 5. List of Early Mathematics Topics Included in the Washington Inventory

Topic
Teaching children number sense
Teaching children operations and algebraic thinking
Teaching children measurement skills
Teaching children geometry skills
Teaching children mathematical reasoning/practices
Building on children's natural interest and using everyday activities as natural vehicles for developing children's mathematical knowledge
Encouraging children's inquiry and exploration to foster problem solving and mathematical reasoning
Introducing explicit mathematical concepts through planned experiences
Creating a mathematically rich environment
Developing children's mathematical vocabulary
Assessing children's mathematical development to inform and individualize instruction

Faculty Attitudes About the Importance of Early Mathematics in Teacher Preparation Degree Programs

Faculty members at all degree levels were less likely to consider it "very important" to include the early mathematics domain than other domains in teacher preparation programs for practitioners working with infants, toddlers, and preschoolers. Only 33 percent of faculty members teaching in bachelor's degree programs, 27 percent of faculty members teaching in graduate degree programs, and 21 percent of faculty members teaching in associate degree programs considered it "very important" to include the mathematics domain in teacher preparation programs for teachers of infants and toddlers. In contrast, 93 percent or more of faculty members across degree levels considered it "very important" to include socioemotional development for teachers working with children under age three.

Faculty members at all degree levels were more likely to consider it "very important" to include the early mathematics domain for practitioners working with older children, particularly school-age children. Nearly two-thirds of faculty members across degree levels considered the inclusion of early math "very important" for those teaching preschool-age children. Between 90 percent and 100 percent of faculty members across degree levels considered the inclusion of early math "very important" for those teaching school-age children, although even more faculty members rated socioemotional development and literacy development as "very important" topics for teacher preparation at this age level.

Teaching Capacity and Experience Teaching Coursework on Early Mathematics Topics

In addition to the broad question regarding capability of preparing teachers to scaffold children's mathematical development, the *Inventory* also asked more specific questions related to faculty capacity to teach early math-related content. For each of the 11 specific math topics (see **Table 5**), 70 percent or more of faculty members across all degree levels reported being capable of preparing teachers to work with preschool-age children. Fewer faculty members reported being capable of teaching the topics to practitioners working with infants and toddlers or the elementary grades (see **Figure 14** for an example). In general, faculty members teaching in bachelor's degree programs were more likely than faculty members teaching in associate or graduate degree programs to report being knowledgeable about the topic, but not prepared to teach others.

Figure 14: Scaffolding Children's Mathematical Development: Capacity to Prepare Teachers to Work With Children of Various Ages, as Reported by Faculty Members Participating in the Washington Inventory, by Degree Level
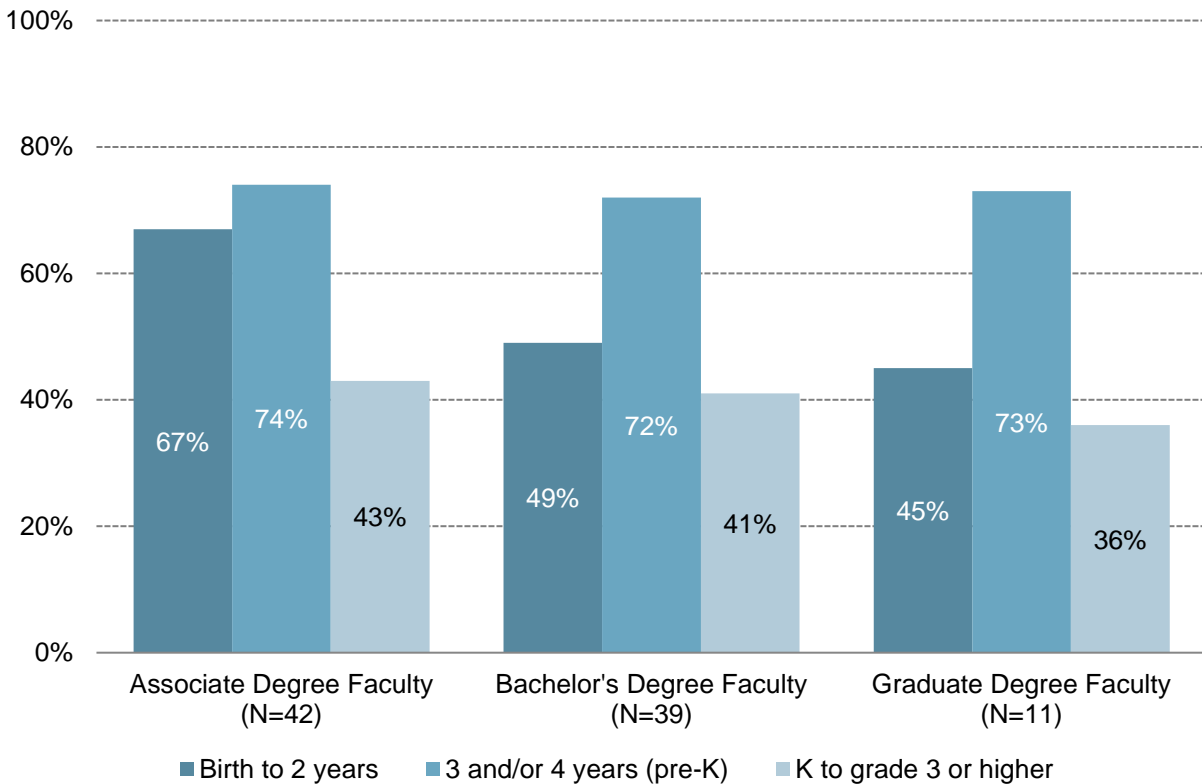
Faculty members were asked whether they had taught "development of mathematical understanding" in the past two years and, if so, whether it was taught as a separate course or embedded within a broader course. Eighty percent of faculty members teaching in associate degree programs reported teaching

"development of mathematical understanding" in the past two years, while 67 percent of faculty members teaching in bachelor's and graduate degree programs reported teaching this topic. Mathematical understanding was more likely to be taught within a broader course than as a separate course.

Faculty Participation and Interest in Professional Development on Early Mathematics

Faculty members were asked if they had participated in professional development opportunities focused on early math development in the past three years (see **Table 6**). Although nearly all faculty members across degree levels reported participating in some type of professional development, almost one-half (46 percent) of all faculty members participating in the *Inventory* had not participated in professional development related to any of the early mathematics topics listed. The topics in which faculty members were most likely to have participated were "teaching practitioners to implement instructional strategies that support mathematical understanding in children ages three and four" and "strategies to help practitioners who struggle with mathematics build confidence," reported by 18-40 percent of faculty across degree levels.

Using a Likert scale of 1 to 5, with 1 being "not at all interested" and 5 being "very interested," faculty members were asked to rate their interest levels in five topics related to early mathematics. The topic in which the highest percentage of all faculty members (45 percent) reported being "very interested" was "strategies to help practitioners who struggle with mathematics build confidence in their ability to facilitate children's mathematical understanding and skill." Otherwise, faculty interest varied by topic and degree level, with faculty members teaching in graduate degree programs being more likely to report being "very interested" in math topics than faculty members teaching in associate and bachelor's degree programs.

Table 6. List of Early Mathematics Professional Development Topics Included in the Washington Inventory

Topic
Teaching practitioners to implement instructional strategies that support mathematical understanding in children from birth through age 2
Teaching practitioners to implement instructional strategies that support mathematical understanding in children ages 3 and 4
Teaching practitioners to implement instructional strategies that support mathematical understanding in children in kindergarten through grade 3 and higher
Teaching practitioners how to effectively use assessment to inform and individualize their mathematical instruction
Strategies to help practitioners who struggle with mathematics build confidence in their ability to facilitate children's mathematical understanding and skill

Faculty members consider the inclusion of teaching young dual language learners to be very important in the preparation of teachers. Multiple topics that focus on dual language learners are embedded in required course content, yet variation exists among degree levels by topic and age-group focus, with bachelor's degree programs far more likely to require this content. While most faculty members consider themselves prepared to teach topics related to dual language learners, interest in ongoing dual language learner-related professional development varies by degree level and topic area.

What we asked about dual language learners:

Program leads were asked to identify course content topics related to teaching dual language learners and diverse families[15] that were required for the degree.

We asked faculty members about:

1. Attitudes/beliefs about the importance of including support for the cognitive and social development of young dual language learners and working with families of various ethnic, racial, and cultural backgrounds;
2. Capacity to teach students about specific topics related to dual language learners and diverse families; and
3. Participation and interest in professional development focused on topics related to dual language learners.

The dual language learning domain focuses on the knowledge and skills early educators need in order to support the development of young dual language learners.[16] Young dual language learners (DLLs) are a rapidly growing population in the United States. Most early educators will work with young dual language learners at some point during their careers and need to understand effective teaching practices that support English language acquisition and the development of children's home language (National Academies of Sciences, Engineering, and Medicine [NASEM], 2017). Despite the crucial role of early educators for this population and the growing recognition of the benefits of bilingualism, there is concern that many early educators are not adequately prepared to support dual language learners' development and learning critical to later success in school. The rapidly growing DLL student population in Washington provides an even more urgent need to examine the content and experiences that early educators receive to prepare them to work with this population.

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[15] The topics included in the *Inventory* were adapted from recommended teacher competencies developed by experts in the field of dual language learning in early childhood education (Espinosa & Calderon, 2015; Lopez, Zepeda, & Medina, 2012).

[16] Dual language learners are children who are learning two (or more) languages simultaneously: their home language(s) and English.

Required Dual Language Learner Topics in Degree Programs

Program leads were asked about required course content and age-group focus related to 10 topics related to dual language learners (see **Table 7** for a list of topics). All 10 dual language learner (DLL) topics were required by 75 percent or more of bachelor's degree programs. In contrast, only four DLL topics were required by 75 percent or more of associate degree programs. The *Inventory* also asked whether content related to dual language learners was required for specific age groups. For associate degree programs, topics were equally likely to be required for infants and toddlers and preschool-age children; however, for bachelor's degree programs, the most commonly reported age-group focus was preschool-age children. For example, only one-quarter (25 percent) of bachelor's degree programs required content on strategies to support the literacy development of young dual language learners (see **Figure 15**).

Table 7. List of Topics Related to Teaching Young Dual Language Learners (DLLs) Included in the Washington Inventory

Topic
Importance and benefits of bilingualism for young children's development
Role of home-language development in helping young children learn English
Strategies to support the cognitive development of young DLLs
Strategies to support the language development of young DLLs
Strategies to support the literacy development of young DLLs
Strategies to support the development of mathematical knowledge and understanding of young DLLs
Strategies to support the socioemotional development of young DLLs
How to use appropriate teaching strategies for young DLLs within various classroom language models
How to use observation, assessment, and documentation to inform strategies for teaching young DLLs
Strategies for engaging families from linguistically diverse backgrounds

Figure 15: Strategies to Support the Literacy Development of Young Dual Language Learners (DLLs): Required Age-Group Focus of Programs Participating in the Washington Inventory, by Degree Level

Associate Degree (N=15)   Bachelor's Degree (N=12)
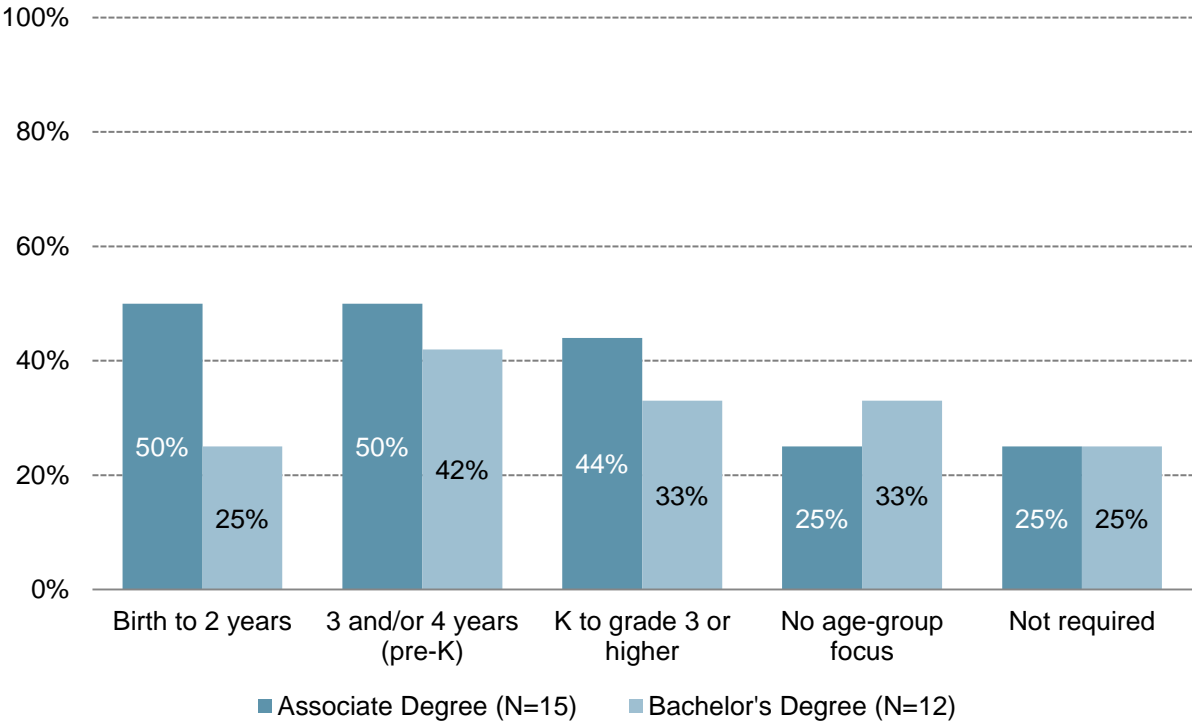
Faculty Attitudes About the Importance of Teaching Young Dual Language Learners in Teacher Preparation Degree Programs

The importance of understanding and implementing strategies to support dual language learners was considered "very important" by 71 percent or more of faculty members across degree program levels (see **Box 3** in the previous section for how this assessment was conducted). This finding is noteworthy considering the relative dearth of coursework that programs reported offering related to working with DLLs. Despite the large percentage of faculty members who said this topic was "very important" to include in early childhood degree programs, faculty members were still less likely to consider it as important as the domain of socioemotional development. Faculty members teaching in associate degree programs were less likely to consider the inclusion of teaching dual language learners "very important" than faculty members teaching in bachelor's degree or graduate degree programs.

Teaching Capacity Related to Dual Language Learning

While the majority of faculty members across degree levels noted the importance of supporting dual language learners, faculty members felt the least prepared to teach this topic, compared to all the other topics asked about in the *Inventory* (see **Figure 16**). However, more than three-quarters of faculty members teaching at all degree levels noted that they felt capable of preparing teachers to "support the cognitive and social development of young dual language learners."

Figure 16: Capacity to Prepare Teachers to Support and Promote Children's Development, as Reported by Faculty Members Participating in the Washington Inventory, by Degree Level

Supporting children's socioemotional development and skills
- 98%
- 97%
- 100%

Scaffolding children's literacy development and promoting their oral and written skills
- 95%
- 87%
- 91%

Scaffolding children's mathematical development and promoting their ability to solve problems
- 88%
- 82%
- 82%

Supporting the cognitive and social development of young dual language learners
- 76%
- 77%
- 82%

0%   20%   40%   60%   80%   100%

■ Associate Degree Faculty (N=42)

■ Bachelor's Degree Faculty (N=39)
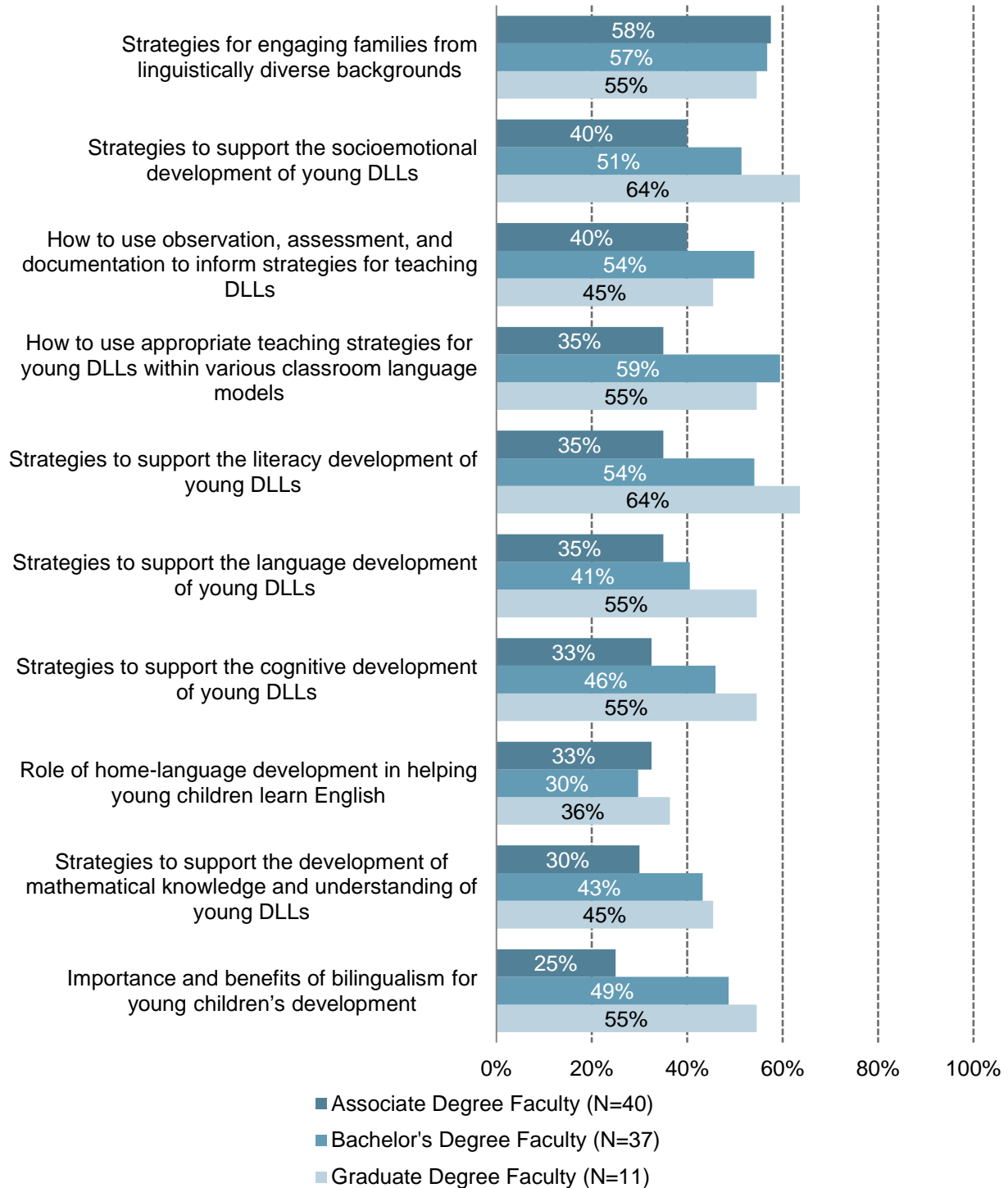
■ Graduate Degree Faculty (N=11)
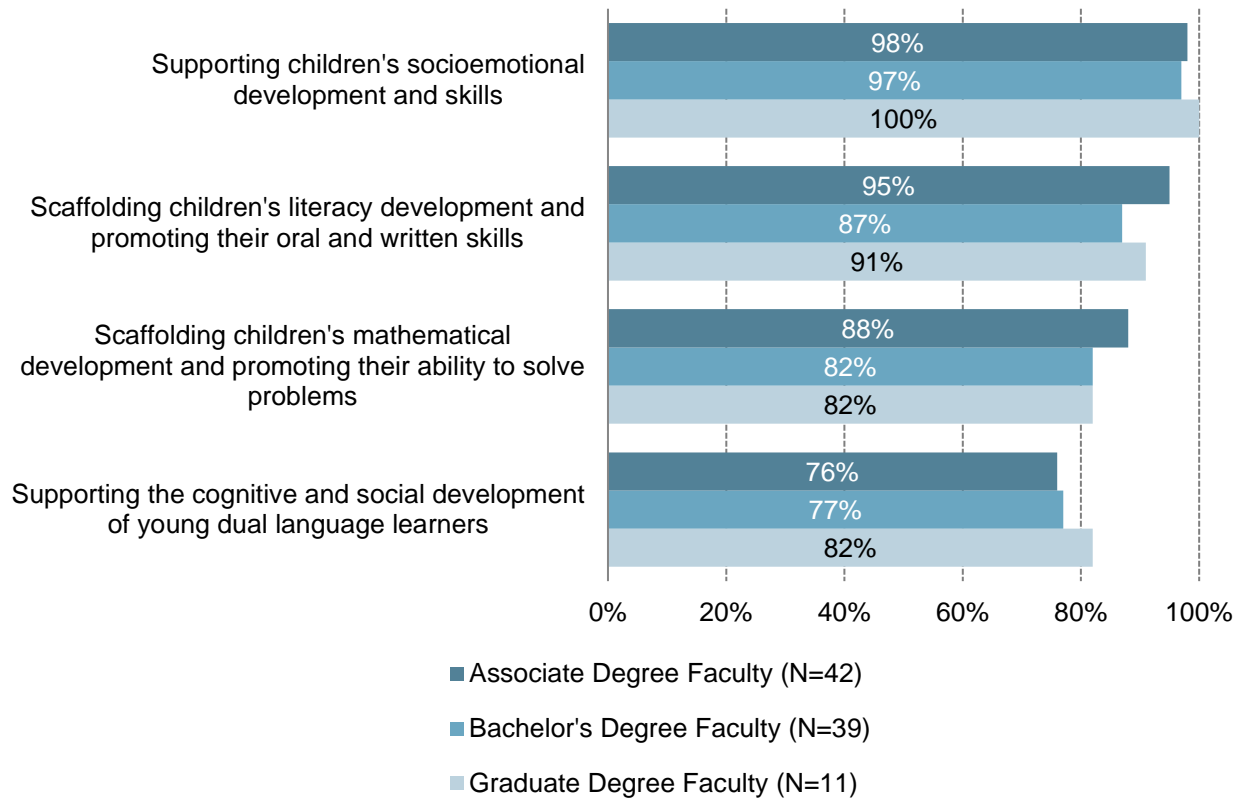
Faculty Participation and Interest in Professional Development Related to Dual Language Learners and Diverse Families

Faculty members were asked if they had participated in professional development opportunities focused on 10 topics related to teaching dual language learners and diverse families in the past three years. Participation rates across degree levels were low but varied by degree level[17] and topic (see **Figure 17** for list of topics). Faculty members teaching in associate degree programs were the least likely to have participated in professional development on this topic; just 62 percent of faculty members teaching in associate degree programs reported participating in any of the topics asked about in the *Inventory*. Nearly one-half of associate degree faculty (48 percent) and almost two-fifths (39 percent) of bachelor's degree faculty reported participating in professional development on the "importance and benefits of bilingualism for young children's development." Nearly one-third of faculty members at all degree levels had not participated in professional development related to any of the DLL topics listed in the *Inventory*.

Using a Likert scale of 1 to 5, with 1 being "not at all interested" and 5 being "very interested," faculty members were asked to rate their interest levels in the 10 topics related to teaching dual language learners and diverse families. Faculty interest varied by topic across all degree levels but was somewhat higher for topics on dual language learners than family engagement and early mathematics topics. Interest was somewhat higher among faculty members teaching in associate degree programs than among faculty members teaching in bachelor's and graduate degree programs. Overall, about one-third to one-half of faculty members identified being "very interested" in professional development topics related to teaching dual language learners (see **Figure 17**). Given the large proportion of faculty members who noted this area as "very important" to include in degree programs and the relatively low percentage of faculty members who reported recently participating in professional development related to young DLLs, it is noteworthy that faculty interest in additional professional development was not greater.

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[17] Due to a sample size of less than 10 for this section, data for faculty members teaching in graduate degree programs are not able to be reported here.

Figure 17: Interest in Professional Development Related to Dual Language Learners (DLLs) Reported by Faculty Members Participating in the Washington Inventory: Percentage Reporting "Very Interested," by Degree Level

Strategies for engaging families from linguistically diverse backgrounds
- 58%
- 57%
- 55%

Strategies to support the socioemotional development of young DLLs
- 40%
- 51%
- 64%

How to use observation, assessment, and documentation to inform strategies for teaching DLLs
- 40%
- 54%
- 45%

How to use appropriate teaching strategies for young DLLs within various classroom language models
- 35%
- 59%
- 55%

Strategies to support the literacy development of young DLLs
- 35%
- 54%
- 64%

Strategies to support the language development of young DLLs
- 35%
- 41%
- 55%

Strategies to support the cognitive development of young DLLs
- 33%
- 46%
- 55%

Role of home-language development in helping young children learn English
- 33%
- 30%
- 36%

Strategies to support the development of mathematical knowledge and understanding of young DLLs
- 30%
- 43%
- 45%

Importance and benefits of bilingualism for young children's development
- 25%
- 49%
- 55%

■ Associate Degree Faculty (N=40)
■ Bachelor's Degree Faculty (N=37)
■ Graduate Degree Faculty (N=11)

Center for the Study of Child Care Employment, University of California, Berkeley

Discussion and Recommendations

In this final section, we outline an approach to strengthening early childhood workforce development in Washington, with an emphasis on higher education. We identify seven discrete elements that together constitute a strategy for aligning the current system with efforts to build and retain a skilled and stable workforce. The success of this approach requires ensuring that its various components be implemented in unison, calling for a research agenda to measure progress and challenges over time, and learning more about the depth of instruction delivered in higher education programs. The efforts should be coordinated among key stakeholders in Washington (including the Washington Department of Early Learning, the Workforce Training and Education Coordinating Board, and representatives from the higher education community, including the State Board for Community and Technical Colleges and the Council of Presidents) and are predicated on identifying new resources from state, federal, and philanthropic sources.

We call upon policymakers, philanthropists, higher education faculty and administrators, advocates, teachers, and other stakeholders across the state to advance the following approach.

1. Unify expectations for early childhood workforce preparation

Findings from *Inventory* studies conducted in other states suggest that when states intentionally redesign their certification systems for early childhood educators, higher education systems adjust by making changes in required course content, age-group focus, and field-based practice, as appropriate. In Washington, standards that apply to early childhood teachers and administrators in private settings across the state vary according to program type and, in general, are minimal, while more rigorous certification standards and higher education degree requirements apply to early childhood teachers working in public preschool settings. Thus, institutions of higher education in Washington offer programs that vary widely in course content and field experiences required for student learning.

In Washington, as is true throughout the nation, uneven qualifications across the early childhood system are out of step with what we know today about early learning and development (Whitebook, McLean, & Austin, 2016). In the absence of consistent statewide certification standards that apply to early childhood teachers and administrators in all types of ECE programs, working with all age groups of children, bachelor's degree programs in Washington in particular have largely placed an emphasis on preschool-age children, which affects only limited segments of the workforce. However, with appropriate resources and supports, programs responsible for preparing early educators have the opportunity to ensure that practitioners across settings have the foundational knowledge and skills necessary to support young children's development across the birth-through-age-eight spectrum.

Clarity among degree programs as to their purpose and a revision of Washington's current system for certifying teachers, administrators, and other practitioners is required in the effort to erase the divisions in professional expectations and preparation across and within age groups on the birth-to-age-eight continuum in line with the Institute of Medicine and National Research Council recommendations and to clarify the purpose of early childhood higher education programs (IOM & NRC, 2015). To initiate this process, we recommend:

- Building on the existing MERIT professional development system to expand access to and participation in professional development opportunities throughout the state that reflect foundational knowledge for early educators across age groups and auspices aligned with the Washington State Core Competencies for Early Care and Education Professionals and the Washington State Early Learning and Development Guidelines;
- Providing clear roadmaps to identify whether the course of study in a particular degree program is intended to prepare practitioners for the demands of teaching young children and/or for leading ECE programs or whether the course of study is designed for other purposes; and
- Aligning early education degree program course requirements with state standards and competencies, such as the Washington State Core Competencies for Early Care and Education Professionals and the Washington State Early Learning and Development Guidelines.

2. Strengthen program content and equity across the age span

Many ECE stakeholders emphasize the importance of relying on research findings to guide ECE policy and practice, yet our findings suggest uneven application of such evidence across multiple domains of early learning and development for children from infancy through the early elementary grades. Infants and toddlers were most likely to be disadvantaged, with fewer Washington early childhood degree programs — particularly bachelor's degree programs — requiring the inclusion of the youngest children in the course content and field-based experiences, compared to preschool-age children. Additionally, the growing diversity of Washington's child population suggests a need to prepare teachers to work with a broad range of children, particularly those who are learning more than one language, and to ensure that all content is culturally and linguistically responsive to the children and families being served in early care and education programs.

To strengthen required content and align it with child development and teacher preparation research and to equalize required content for all children across the birth-to-age-eight continuum, we recommend that resources be provided to develop and support participation in faculty professional development to enable faculty members across degree programs and institutions to collaborate with other experts to develop and enhance program content standards related to:

- **Child Development and Pedagogy,** preparing teachers to work with children of different ages, including:
    - Infant development and learning across multiple domains; and
    - Methods of teaching and pedagogy for children of different ages;
- **Early Mathematics**, addressing:
    - Children's mathematical understanding from infancy through early elementary grades; and
    - Developmentally appropriate pedagogy for early mathematics instruction across the birth-to-age-eight age span;
- **Dual Language Learners**, emphasizing:
    - Recognition of the value and importance of supporting children's home-language development as they also learn English, with an emphasis on very young children;

- Strategies for using observation and assessment in teaching young dual language learners and strategies to support the mathematical, literacy, language, cognitive, and socioemotional development of young dual language learners; and
- An understanding of the strengths and needs of adults from diverse linguistic, racial/ethnic, and cultural backgrounds to support their entry and retention in the ECE field; and
- **Trauma**, preparing practitioners to work with children and families who have experienced trauma.

3. Strengthen the application of field-based learning experiences

Although all early childhood higher education degree programs in Washington require students to participate in at least one practicum course, there is great variation in the characteristics of those practicum experiences. With limited opportunities to work with infants/toddlers, families, dual language learners, or children with disabilities during their practica, graduates from Washington degree programs have had highly disparate field-based learning experiences.

To strengthen the application of field-based learning experiences, we recommend:

- Providing resources and support to faculty members across degree programs and institutions to develop degree program standards for the timing, frequency, and duration of field-based experiences, with opportunities focused on children from infancy through preschool;
- Developing differentiated field experiences for pre- and in-service students. For pre-service students, extend more opportunities for in-depth student teaching experiences, and for in-service students, explore and implement models that accommodate those already working in classrooms, while also providing quality experiences (e.g., the California Early Childhood Mentor Program);
- Implementing additional opportunities for student teaching experiences, in which students are engaged in classrooms for a longer period of time and are given increasing responsibility related to curriculum development, instruction, and assessment; and
- Providing field-based learning opportunities for students to engage with:
  - Infants and toddlers;
  - Children with special needs;
  - Children who are dual language learners;
  - Families; and
  - Community organizations that support children and families.

4. Provide increased access and supports for students

As many early childhood higher education students in Washington are non-traditional students, a focus on easing access to higher education and providing effective supports to current students is imperative. We recommend implementing or expanding the following supports for early childhood education students across the state to ensure that a diverse current and incoming workforce can successfully meet standards and attain competency:

- Blended and non-traditional formats for degree programs;
- Alternative class schedules and locations;

- Targeted academic counseling;
- Cohort models; and
- Financial resources for students.

5. Improve and expand articulation agreements across institutions

In Washington and across the country, increasing numbers of students are entering the higher education system as community college students with the intent to transfer to a bachelor's degree program at a college or university. With a large percentage of degree programs participating in articulation agreements, Washington has a good framework for supporting students in extending their education; however, there are inconsistencies in the practice and perception of articulation agreements between community colleges and universities. We recommend:

- Increasing the number of articulation agreements between institutions that grant associate and bachelor's degrees;
- Ensuring that articulation agreements are comprehensive and that coursework is aligned across institutions so that students may realize the maximum benefit of the agreements;
- Providing dedicated personnel at community colleges for student advising to ensure that students have adequate information and guidance for seamless transfer between institutions; and
- Expanding the availability of and access to portable and stackable certificates that articulate and lead to degree completion across higher education systems.

6. Build a leadership pipeline reflective of the diversity of the state's ECE practitioner and child populations

In Washington, K-12 principals are required to have held a teaching certificate, have at least three years of teaching experience, hold a master's degree, and have completed an approved administrator program. In contrast, child care and preschool center directors in private settings are required to be registered with MERIT, have two years of experience working with young children, and have completed minimal levels of early childhood education training or coursework (e.g., a CDA, the Washington State ECE Initial Certificate). In light of these inconsistent and nominal expectations for ECE leadership positions, it is not surprising that across degree levels, program course content is not routinely offered to prepare practitioners for early childhood supervisory, administrative, or other leadership roles. It is also not surprising that so few graduate programs dedicated to early childhood education or ECE leadership were identified for this study.

To create a clearer leadership pipeline and ensure that leaders have comparable skills across age groups and settings, we recommend:

- Identifying the appropriate course of study and degree level (associate, bachelor's, graduate) for each leadership role based on the specific skills and knowledge outlined in the Washington State Core Competencies for Early Care and Education Professionals;
- Ensuring training and ongoing professional opportunities for faculty teaching coursework on supervision, administration, and leadership development in undergraduate and graduate degree programs;

- Identifying options to create leadership pathways and/or programs; and
- Ensuring an adequate number of degree programs at both the undergraduate and graduate level that offer the appropriate course content.

In addition to gaps in course content related to leadership development, the demographics of the faculty members participating in the *Inventory* indicate an aging faculty workforce that is primarily white/Caucasian and English-speaking. To increase the diversity of the early childhood higher education degree faculty, we recommend:

- Investigating strategies used in other professions (e.g., health, education, social welfare) to create faculty development programs — such as a fellowship or grant— intended to increase diversity among faculty members, particularly in key leadership positions.

7. Increase faculty supports

Early childhood degree programs report being under resourced and requiring additional support to allow faculty members to engage individually with students, support student success, and engage in program planning and improvement. In addition, early childhood associate degree programs in Washington rely heavily on part-time faculty. Faculty members also identify the need for greater opportunities to engage in their own professional growth in response to new developments in the field and changing characteristics of the populations they serve.

To decrease the reliance on part-time faculty and support faculty success, we recommend:

- Developing strategies to support an increase in the number of full-time faculty members, with sufficient release time, who can share in administrative responsibilities; and
- Identifying and implementing best practices for supporting adjunct faculty.

To facilitate improvements in program offerings and to support faculty members to engage in their own professional development, we recommend:

- Establishing an ongoing fund with well-articulated expectations for faculty members' professional development honoraria and program improvement grants; and
- Ensuring adequate resources, including funding, staffing, and dedicated time for program planning and improvement, as well as effective faculty mentoring.

Concluding Thoughts

The call for an integrated system of early learning for all young children rests upon an understanding of the critical importance of early childhood, beginning at birth and extending through the first years of elementary school. But the early childhood service system and infrastructure in the United States — of which higher education is a cornerstone — is poorly integrated, ascribing differing expectations for teacher preparation across the birth-to-age-eight continuum, and severely under-resourced, assigning different resources to teachers across settings, with virtually all members of the workforce being poorly compensated. An early care and education system that is fully prepared to support the well-being of young children *and* the adults who educate them calls for innovative solutions and coordinated efforts on multiple fronts.

This report provides a portrait of Washington's early childhood higher education landscape amid efforts to invest in, strengthen, and coordinate early childhood workforce development efforts. A strong preparation system for Washington's early childhood teachers and administrators is central to these efforts aimed at ensuring that all young children in Washington have access to high-quality early learning experiences.

Institutions of higher education can play a lead role in elevating the preparation of a high-quality workforce by aligning curriculum and field-based experiences with the standards and competencies developed by early care and education experts and by supporting students in the pursuit and attainment of higher education degrees.

However, while it is crucial that early educators receive the education and training they need, the preparation of the ECE workforce must go hand in hand with comprehensive reforms to the system, such as supportive work environments, financial investment to enable increased compensation and parity across age groups and settings, and financial resources to support the implementation of heightened expectations and standards. System-wide improvement requires a continued discourse among multiple stakeholders on how our nation prepares, supports, and rewards the ECE workforce. Without these larger systemic changes, we will continue to disadvantage early educators and the children and families they serve.

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