

Preparing the Teachers of Our Youngest Children

The State of Early Childhood Higher Education in Indiana Revisited

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Introduction

Nearly a decade ago, the Institute of Medicine and the National Research Council of the National Academies of Sciences, Engineering, and Medicine asserted that early educators require knowledge and skills just as complex as those required to teach older children. To ensure early educators are adequately prepared for this work, these experts offered several recommendations, among them: 1) transition to a minimum requirement of a bachelor's degree with specialized knowledge and competencies for all lead teachers working with children from birth to age eight, while also strengthening competency-based qualifications for all early educators; and 2) development and enhancement of interdisciplinary higher education programs for early childhood education professionals, including practice-based and supervised learning opportunities (Institute of Medicine & National Research Council [IOM & NRC], 2015). However, there has not been significant movement to advance state or national policies to align minimum education requirements for early educators with these recommendations, nor has there been widespread progress in higher education systems within states to ensure the availability and accessibility of high-quality interdisciplinary degree programs tasked with preparing early educators.

As noted in the most recent edition of the *Early Childhood Workforce Index* (McLean et al., 2021), progress toward an equitable, efficient, and effective early care and education (ECE) system requires advancing preparation, workplace supports, and compensation for the workforce, simultaneously. Adequate preparation for teachers, workplace supports that allow for ongoing reflection and development, and appropriate compensation are all variables that are necessary to attract and retain a skilled workforce. Making progress in each of these three areas additionally requires building solid foundations for these policies by securing sufficient financial resources and collecting high-quality, comprehensive workforce data.

Stakeholders and advocates in Indiana are committed to advancing strategies that improve ECE services, including workforce preparation and development, to ensure that early educators can meet the complex needs of young children. Critical to these efforts is the establishment of a well-coordinated, comprehensive professional preparation and development system that can train and support a diverse generation of pre-service educators, while also strengthening the skills of the existing ECE workforce. Given the recommendations highlighted by the Institute of Medicine and the National Research Council, institutes of higher education are crucial to preparing educators and thus improving developmental and learning outcomes for the state's young children.

The *Early Childhood Higher Education Inventory II* (Center for the Study of Child Care Employment [CSCCE], 2016) is a tool designed to collect data that can inform ECE workforce preparation and development. The *Inventory* is 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.¹ The *Inventory* describes early childhood degree programs (birth to grade 3) offered in a 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). Since its creation, the *Inventory* has been adapted over time to explore the impacts of current events (e.g., the COVID-19 pandemic) and investigate the attention given to emerging topics of interest and importance in the field of early care and education (e.g., dual language learners, trauma and adverse childhood experiences).

The Center for the Study of Child Care Employment (CSCCE) first conducted an *Inventory* of Indiana's early childhood higher education programs in 2015 (Kipnis et al., 2015). The Indiana Association for the Education of Young Children (INAEYC) contracted CSCCE to complete a second *Inventory* in Indiana during the 2023 summer semester. While samples differed somewhat between the two time points, the two *Inventories* offer an opportunity to consider what has remained the same or similar in degree programs, what has changed, and what might be contributing to these findings. The data collected through both *Inventories* allow stakeholders to identify gaps and opportunities in the available program offerings and to assess the capacity of the state's higher education system over time. This report summarizes major findings collected through the program module of the *Early Childhood Higher Education Inventory II* (CSCCE, 2016) and provides recommendations for policy changes that could lead to a more equitable teacher preparation system throughout the state.

¹ Indiana is one of 16 states (along with Arkansas, California, Florida, Maryland, Mississippi, Nebraska, New Hampshire, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Tennessee, and Washington) in which the *Inventory* has been completed at the time of publication of this report. It is the only state to complete a second *Inventory* and compare the higher education landscape and changes made in the interim.

Box 1. Study Design

During the summer of 2023, researchers from CSCCE implemented a mixed-methods study that employed the *Early Childhood Higher Education Inventory II*.

The *Inventory* 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, coordinator); and an online faculty survey completed by individual faculty members. The program findings reported here are drawn from a final sample of 12 associate and 16 bachelor's degree programs. The faculty module was conducted after the program module, but due to a low response rate, those findings are not included in this report.

Findings are drawn from 2023 study data with some references to the 2015 report in the text. All figures included in this report show 2023 data only.

The Early Childhood Higher Education Landscape in Indiana

The state of Indiana has 17 technical colleges (or Ivy Techs, part of the Ivy Tech Community College system), 17 public universities, and 20 private colleges and universities that offer an array of early childhood (birth to grade 3) degree programs. In all, the 54 schools identified as hosting early childhood education or related degree programs offer 23 associate degree programs, 47 bachelor's degree programs, three master's degree programs, and six doctoral degree programs (see Appendix A for a complete list).

Program offerings have shifted since the 2015 *Inventory*. Our 2015 sample included 31 schools offering a total of 82 degrees in areas of early childhood education, while our 2023 sample included 54 schools, offering a total of 79 degrees. Given the noted increase in the number of schools offering degrees, we would also expect to see a corresponding increase in the number of early childhood degrees. In 2015, a total of 69 undergraduate degrees were offered, 35 of which were associate degrees. In 2023, the number of undergraduate degrees offered increased to 70, however only 23 were associate degrees.

What appears to be a reduction in the number of early childhood degrees conferred by associate degree-granting Ivy Techs may actually be related to the Transfer Single Articulation Pathway (TSAP) created by the Commission of Higher Education in May 2015, shortly after the first *Inventory* was completed (Indiana Commission for Higher Education, 2015). The TSAP was developed to provide students in high-demand degree programs with

a more seamless transition from associate degree-granting to bachelor's degree-granting programs at public institutes of higher education in Indiana. The TSAP is a competency-based path separate from the terminal associate of arts (AA) or associate of applied science (AAS) degree pathways. In order to create equivalency across associate degree programs, the coursework for early childhood degrees is aligned across institutes,² as a part of creating these single articulation pathways.

There was an increase in the number of bachelor's degree programs offered from 34 programs in 2015 to 47 programs in 2023. This increase may be related to the number of schools in our sample increasing, rather than a growing number of degree programs. Many of the schools that were in both our 2015 and 2023 sample saw a decrease in the number of programs offered at both the graduate and undergraduate levels. For example, in 2015, we reported that Ball State University offered 11 degree programs: this number decreased to seven in 2023, with one fewer graduate degree program and two fewer bachelor's degree programs. As another example, Indiana State offered six programs in 2015, which decreased to three programs in 2023, due to the elimination of one graduate degree program and two undergraduate degree programs.

According to the Indiana Commission of Higher Education, while the number of master's degrees in education conferred by Indiana public institutes of higher education has increased, the number of bachelor's in education conferred has dropped. While the commission reported an increase in the number of master's degrees conferred, there were notably fewer graduate degree programs focused on early childhood education in our 2023 sample.

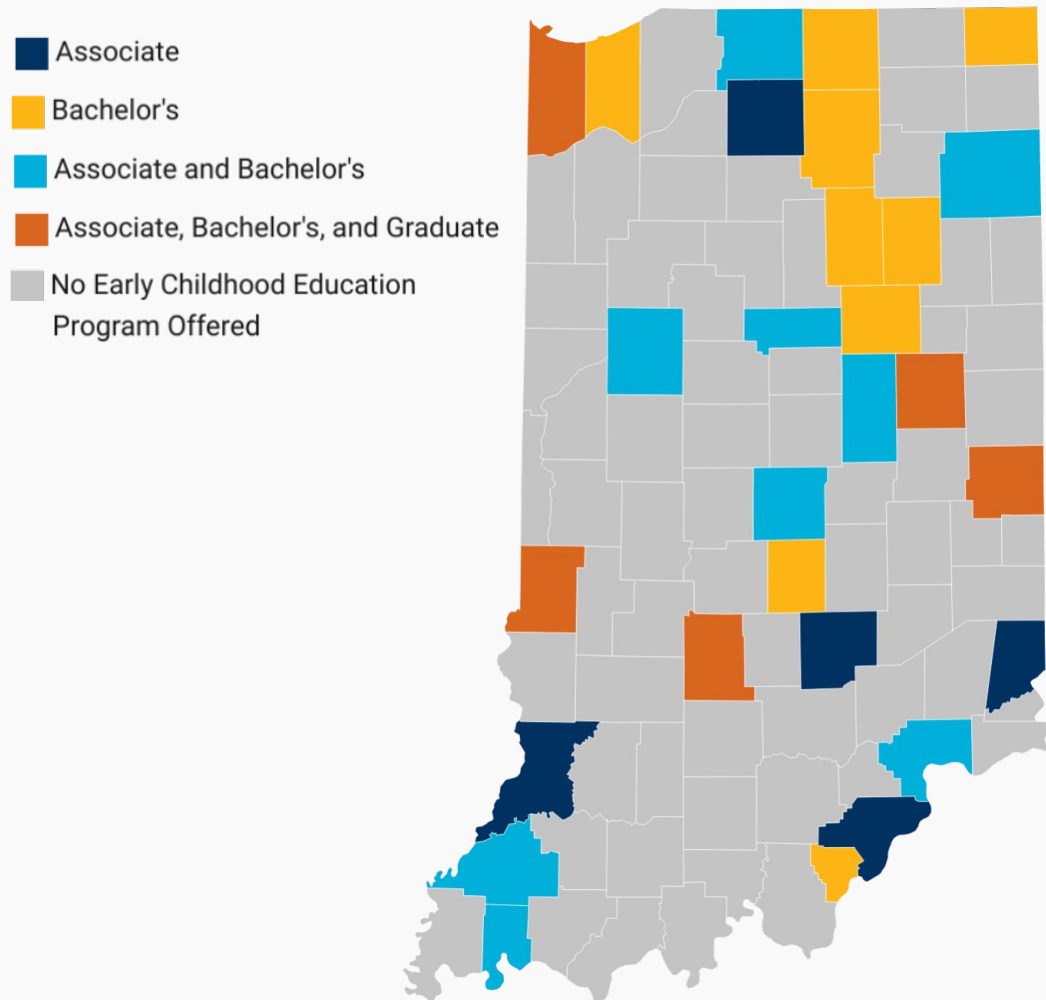
² Thus, in terms of course offerings and degree structure, there should not be much variation across associate degree programs in the 2023 data.

Transition to Teaching

Indiana offers Transition to Teaching (T2T) as a pathway for those who already hold a bachelor's degree to complete an accelerated T2T preparation program while working at an Indiana school corporation (Indiana Department of Education, 2023). T2T permits are valid for three years and include early childhood (preschool to grade 3), elementary, secondary, and pre-kindergarten through grade 12 tracks. Approved universities can offer T2T as a post-baccalaureate or graduate degree option. This particular track was not included in the *Inventory*, but it is important to note as a potential pathway for individuals continuing their education.

Early childhood degree programs are relatively evenly distributed throughout Indiana. Degree programs are concentrated primarily in urban areas of the state or in counties that border out-of-state urban areas such as Louisville, Kentucky, and Chicago, Illinois (see Figure 1 for the distribution of degree programs by county).

FIGURE 1. EARLY CHILDHOOD DEGREE PROGRAMS IN INDIANA



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

The state's teacher licensure system, operated by Rules for Educator Preparation and Accountability (REPA), closely aligns with teacher preparation programs, however the Early Childhood Education license issued is only required for educators working in public-school programs (Indiana Department of Education, 2014). Requirements for those teaching in child care centers, child care ministries, and publicly funded universal preschool (On My Way Pre-K) programs or as home-based family child care providers (child care homes) require a minimum of a Child Development Associate (CDA) Credential (see Table 1).

Nationally, early educators possess higher levels of education and training than required (Whitebook et al., 2018). Given the variety of state and local initiatives to encourage participation in college-level education in Indiana, it is likely that many early childhood

educators throughout the state mirror this national trend. For example, Indiana Paths to QUALITY, the statewide quality rating and improvement system (QRIS), requires higher levels of staff education to achieve higher ratings, and the Transition to Teaching initiative requires a bachelor's to participate. However, minimum licensing requirements, coupled with a lack of economic incentive to complete further education might contribute to a lack of ECE workforce engagement in higher education. According to the *Early Childhood Workforce Index*, Indiana educators with a bachelor's degree are paid 35 percent less than their colleagues in the K-8 system (McLean et al., 2021).

TABLE 1. INDIANA MINIMUM EDUCATION REQUIREMENTS FOR SELECT ROLES

Type of Program	Job Role	Minimum Education Requirements
Child Care Homes	Primary Provider	Child Development Associate Credential (within 3 years)
Child Care Centers	Lead Teacher	Child Development Associate Credential
	Director	Associate degree in early childhood education
Child Care Ministries	Teacher	Exempt
On My Way Pre-K	Teacher	Child Development Associate Credential 12 hours of continuing education approved by the Office of Early Childhood and Out of School Learning
Public-School Preschool	Teacher	Early Childhood Education P-3 License

Source: Indiana Code 12-17.2 regulations for child care (2023a, 2023b, 2023c) and Indiana Child Care and Development Fund (CCDF) provider eligibility standards (Child Welfare Services, 2023).

"Nearly 100 percent of the early childhood centers in the state of Indiana do not require a bachelor's degree to work, which does [not] incentivize individuals to get a bachelor's degree in early childhood education, specifically."

— Bachelor's Degree Program Director

The *Inventory* findings are presented in two sections. The first section, “Early Childhood Higher Education, Mapping the Scene,” examines the historical context and recent policy changes that have shaped degree and program offerings since the first *Inventory* in 2015. This section then explores the extent to which Indiana's early childhood degree programs:

- Offer the knowledge, skills, and experiences associated with effective teaching practice and program leadership;
- Incorporate emergent research into curriculum;
- Utilize student teaching and practica; and
- Have been adapted to changes in teacher certification.

The second section of this report, "Early Childhood Higher Education Program Commitments," explores how institutes of higher education and degree programs support students. An examination of challenges that programs and faculty face, along with innovations in the field, concludes this section.

TABLE 2. RESPONSE RATE FOR THE PROGRAM MODULE OF THE 2023 INDIANA INVENTORY

Program Type	Number of Program Modules Administered*	Number of Program Responses**	Program Response Rate (Percentage)
Associate Degree	23	12	52%
Bachelor's Degree	45	16	36%
Total	68	28	41%

*The total number of program modules administered and completed is adjusted for email bounces and reflects the eligible sample determined through sample analysis.

**Ns may vary across measures as respondents were allowed to skip survey items or select a “don’t know” option.

Part 1: Early Childhood Higher Education, Mapping the Scene

This section of the report examines the structure of degree programs, including program goals, the format in which courses are offered, and standards incorporated into programs. It then examines current course offerings and required field-based learning experiences. When possible, we compare changes since the first Inventory was completed in Indiana eight years ago.

Findings: Program Offerings

Most Indiana early childhood degree programs identified their primary goal as teacher preparation across early childhood and elementary school settings or as preparation for multiple roles in many types of settings. All degree programs incorporate at least one set of early childhood learning standards. While these programs offer a range of topics related to child development, bachelor's degree programs varied in the age-group focus, and associate degree programs required a focus on all age groups across learning topics.

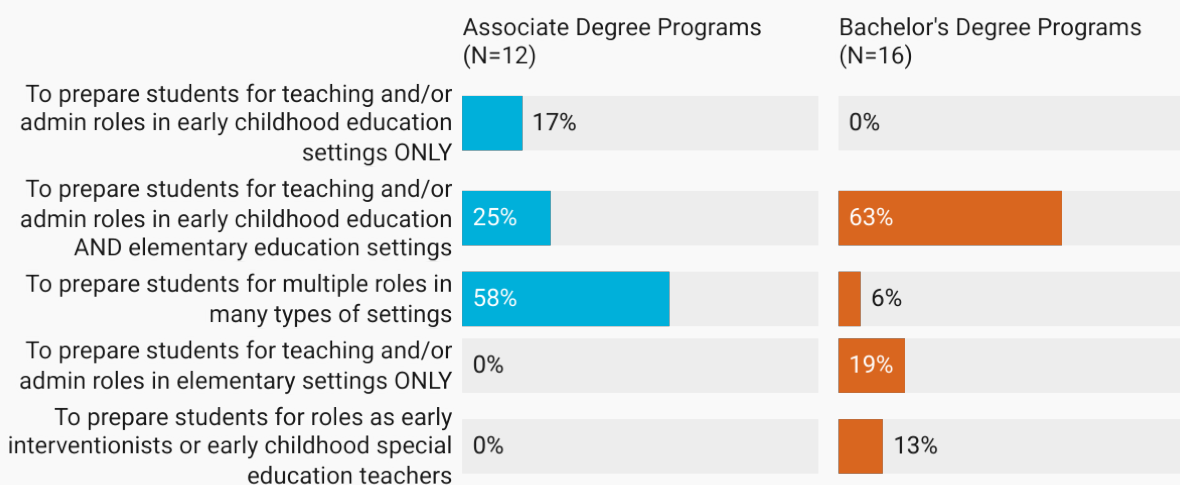
Program Goals

Reflecting the inconsistent qualifications required of early educators throughout the United States, there is a default acceptance of “early childhood-related” degree programs for preparing early educators (Whitebook et al., 2012). This approach results in wide national variation of program goals and content, though graduates of all programs are held to the same expectations for knowledge and skill development (CSCCE et al, 2020). Given this variation, along with the multiple career pathways and roles present in the early care and education field, it is essential to understand if and how institutes of higher education are able to cope with this variation and meet the needs of those in the field.

Similar to our findings from 2015, far more associate degree programs than bachelor's degree programs have the primary goal of preparing students for work in multiple roles in many education settings in 2023 (58 and 6 percent, respectively; see Figure 2). In 2023, nearly two thirds (63 percent) of bachelor's degree program directors indicated the primary goal was to prepare students for teaching and/or administrative roles in early childhood and elementary education settings, which is an increase since 2015 when one third (33 percent) of bachelor's degree program directors reported this goal.

Only a few program directors reported that the primary goal of their program was to prepare early interventionists or early special education teachers (no associate degree programs and only 13 percent of bachelor's degree programs). Furthermore, *none* of the program directors indicated that the primary goal of their program was to train researchers or future faculty. While there are likely institutes and programs throughout the state that do focus on these career paths and may offer concentrations in these areas, this finding raises concern that early educators may not be receiving enough training in early intervention or being counseled to consider long-term career goals in the field besides teaching children in the classroom.

FIGURE 2. PRIMARY GOAL OF INDIANA EARLY CHILDHOOD AND RELATED HIGHER EDUCATION DEGREE PROGRAMS, BY DEGREE LEVEL



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

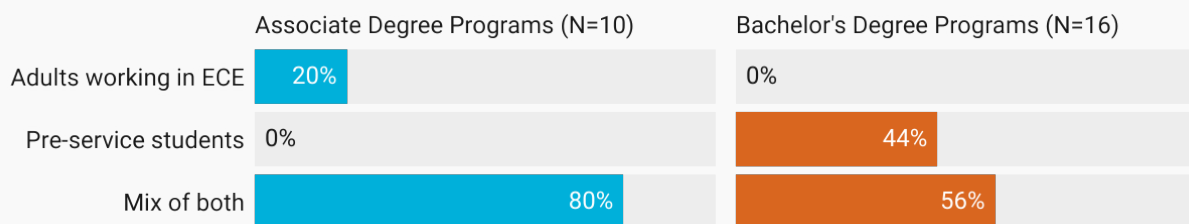
Target Student Population

The majority of associate degree programs and bachelor's degree programs target both incumbent and pre-service early educators (80 percent and 56 percent, respectively; Figure 3). In 2023, 20 percent of associate degree programs reported serving only adults who already work in ECE settings, while none reported serving only pre-service students. In 2015, *none* of the programs indicated serving only incumbent early educators, but 14 percent served only pre-service students.

In 2023, 44 percent of bachelor's degree programs responded that they serve only pre-service students, and none of the programs served only incumbent early educators.

In 2015, bachelor's degree programs predominantly served pre-service students (60 percent), with one third (30 percent) of bachelor's degree programs serving a mix of both pre-service students and adults working in ECE settings. This shift might indicate that both associate and bachelor's degree programs recognize a change in the backgrounds of students seeking early childhood degrees. Given Indiana's minimum early educator licensing standards, educators could be following nontraditional routes in higher education, continuing and/or furthering their education while working in the field.

FIGURE 3. PRIMARY STUDENT POPULATION, BY DEGREE LEVEL



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

Early Childhood Learning Standards

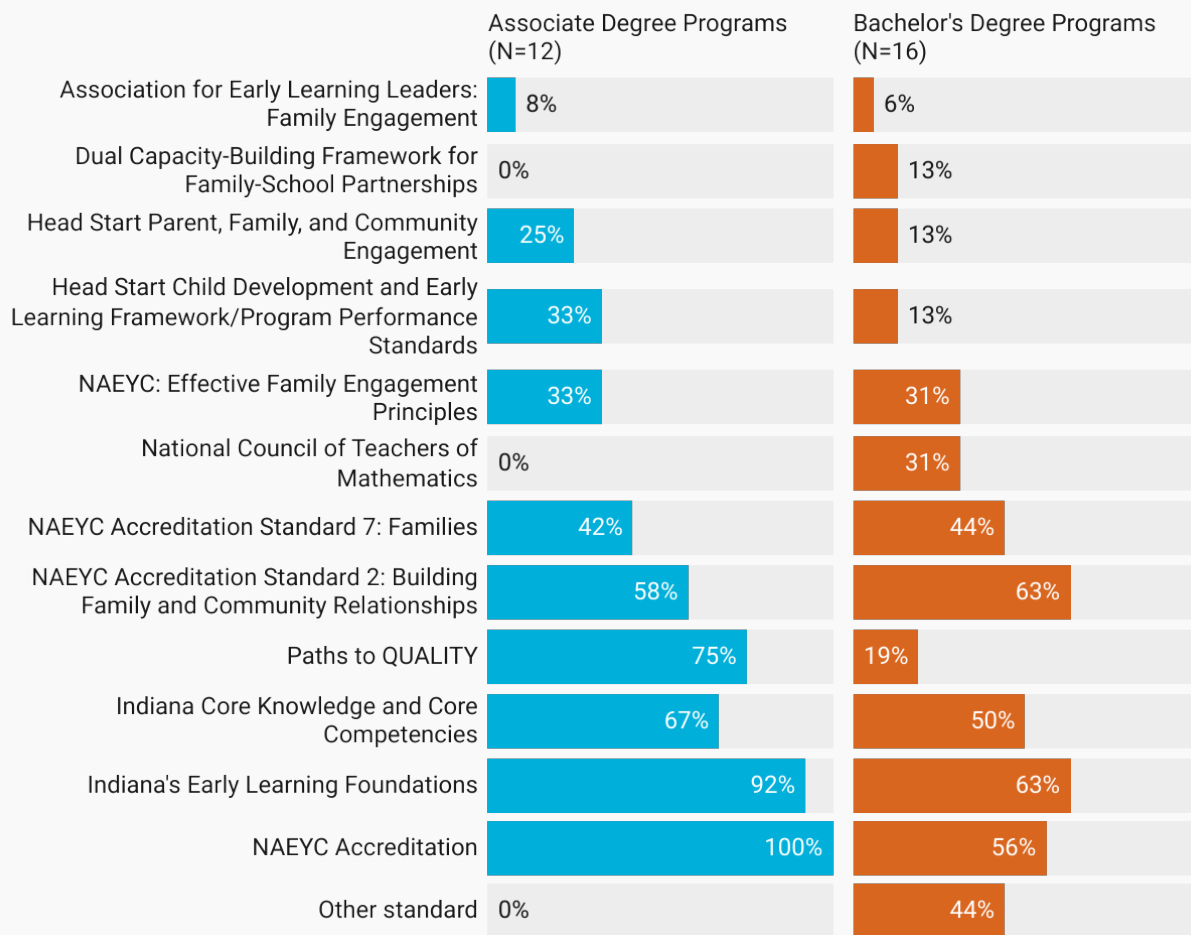
ECE settings and administrators utilize early learning standards for a variety of reasons. For example, educators might use early learning standards to organize their practice with children, while state administrators use them to monitor and assess the licensing criteria of a care setting or a child care program's state quality rating. There are many different state and nationally recognized early learning standards. Early childhood degree programs often incorporate one or more collections of these standards into their coursework to support the preparation of students for work in the field.

Program directors were asked whether their early childhood higher education program incorporated any of the following 12 state or national standards in the course content (see Figure 4 for the list of standards). Every program director who responded to our survey indicated that coursework in their degree program incorporated at least one set of state or national standards.

The standards most commonly integrated into course content were the National Association for the Education of Young Children (NAEYC) Accreditation (100 percent of associate degree programs and 56 percent of bachelor's degree programs) and Indiana's Early Learning Foundations (92 percent of associate degree programs and 63 percent of bachelor's degree programs). It should be noted that the early childhood education TSAP

competencies are aligned with the NAEYC Accreditation standards, thus 100-percent alignment is expected. Since 2015, associate degree programs appeared to increase the integration of Paths to QUALITY standards into their programs (44 percent in 2015 and 75 percent in 2023). A similar percentage of programs incorporated Indiana Core Knowledge and Core Competencies in both 2015 and 2023 (for associate degree programs, 63 percent in 2015 and 67 percent in 2023; for bachelor's degree programs, 53 percent in 2015 and 50 percent in 2023).

FIGURE 4. COMPETENCIES AND/OR STANDARDS INTEGRATED INTO PROGRAM, BY DEGREE LEVEL



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

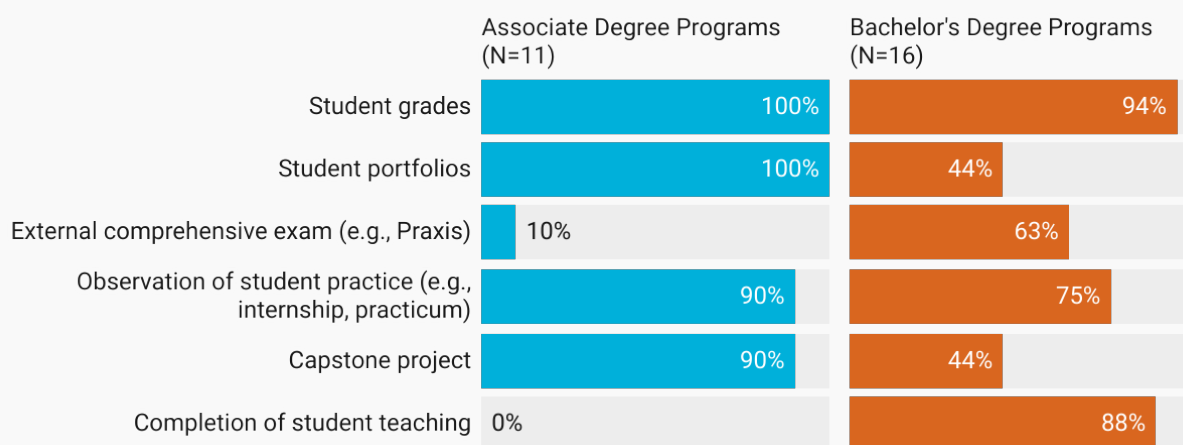
Of note, more associate degree program directors reported incorporating Indiana state standards (Paths to QUALITY, Indiana Core Knowledge and Core Competencies, and Indiana’s Early Learning Foundations) into their coursework than bachelor’s degree program directors. Furthermore, a slightly higher percentage of associate degree program directors reported that their coursework incorporated Head Start standards (Head Start Parent, Family, and Community Engagement; Head Start Child Development and Early Learning Framework/Program Performance Standards). At least one bachelor’s degree program director reported utilizing each of the standards included in the response set, and only bachelor’s degree program directors reported incorporating the Dual Capacity-Building Framework for Family-School Partnerships, the National Council of Teachers of Mathematics, or some other set of standards outside the scope of this list.

While these findings point to variation between the two degree program types, both degree levels incorporate standards that emphasize family and community relationships. Thus, the degree programs in Indiana appear to be preparing the ECE field by incorporating a variety of state and national standards and competencies into their programs.

Required Student Assessment

To demonstrate students' mastery of program content, different types of student assessments are required for degree completion. All associate degree programs in our sample required student grades and portfolios for degree completion, and a vast majority of these programs also required observation of student practice and/or a capstone project (90 percent for both; Figure 5). Among bachelor’s degree programs, student grades and completion of student teaching were the most common types of student assessments required for degree completion (94 percent and 88 percent, respectively). See page 25 for further discussion of field-based learning experiences.

FIGURE 5. REQUIRED STUDENT ASSESSMENTS, BY DEGREE LEVEL



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

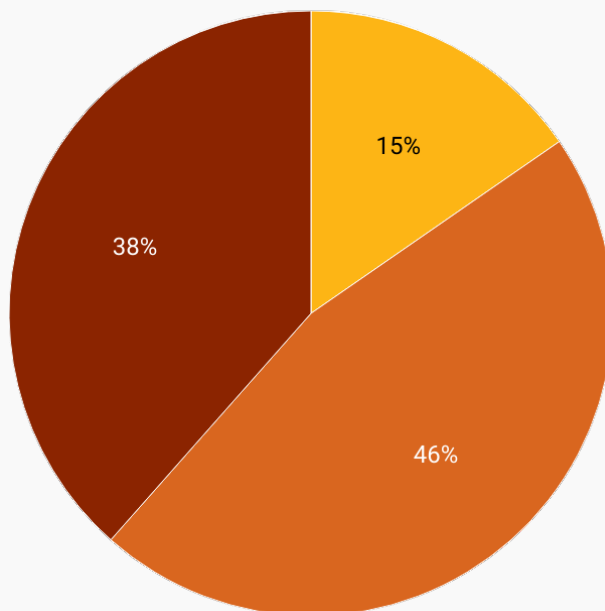
Degree to Licensure

Indiana has three main teaching licenses required for teaching in public preschool programs and elementary schools: Early Childhood Education (P-3), Elementary Generalist (K-6), and Exceptional Needs (multiple grade levels for intervention). We asked bachelor's degree program directors whether the degree their program offered leads to a license for preschool and/or elementary by the State of Indiana.

Nearly one half (46 percent) of program directors responded that their degree leads to an elementary license, and more than one third (38 percent) of program directors responded that the degree leads to both preschool and elementary school licenses (Figure 6). In their open-ended responses, bachelor's degree program directors cited low earnings for early educators as a deterrent for individuals to enter the ECE field. The overlapping age groups covered in these licenses, the fact that they are only required for a modicum of ECE positions in Indiana, and the financial disincentives of the field appear to contribute to a greater percentage of bachelor's degree programs focusing on elementary content as opposed to early childhood content, thus potentially impacting which license students pursue after graduation.

FIGURE 6. TEACHING LICENSE TRACK OF BACHELOR'S DEGREE PROGRAMS

■ Preschool license only ■ Elementary license only ■ Both a preschool and an elementary license



N=13

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

Findings: Course Content

This section of the report presents course content findings related to child development and learning, engaging with diverse children, and administration and leadership. For a complete overview of course content data, see Appendix B.

There is broad consensus that early childhood 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).

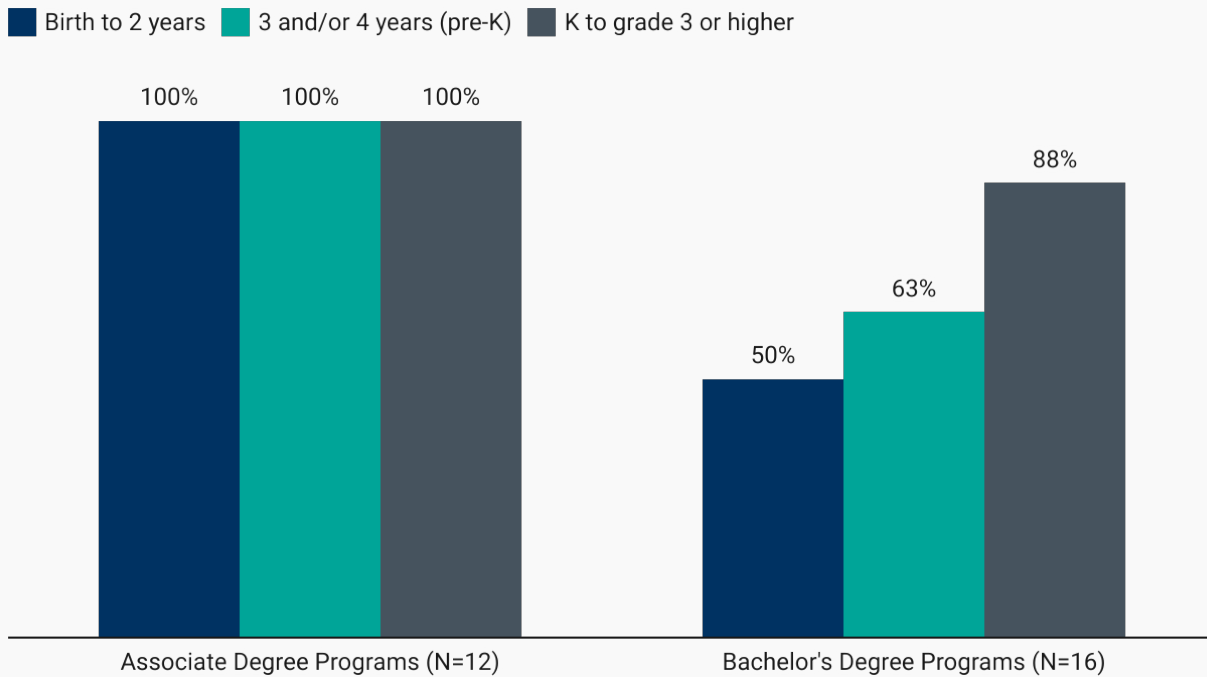
Depending on the ages of the children they serve and the setting in which they work, teachers of young children are often perceived as requiring different levels of skill and knowledge and are expected to meet significantly more or less rigorous qualifications.

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).

Indiana is home to more than 489,000 children under the age of six; 65 percent of these young children have all available parents in the labor force and thus potentially need care outside the home (Annie E. Casey Foundation, 2023a; 2022a). Course content preparing educators to work with children across the birth-to-eight age span is critical for supporting this large portion of children accessing ECE services.

The *Inventory* intentionally examines differences among programs' preparation of students to work with children of different ages. Degree programs in Indiana consistently place a strong focus on preparing educators to work with preschool- or elementary-age children, as evidenced by degree program titles: early childhood education compared to elementary education. While both degree programs prepare educators for overlapping age spans (both often cover kindergarten through grade 3 or age eight), they typically prioritize different ages on that spectrum. For example, on coursework focused on the development of early literacy skills, associate degree programs examine literacy development across the entire birth-to-grade-3 spectrum, while bachelor's degree programs focus on literacy development in elementary-age children more than preschool-age children and greater still than infants and toddlers (see Figure 7 for an example).

FIGURE 7. DEVELOPMENT OF CHILDREN'S EARLY LITERACY SKILLS, BY AGE GROUP AND DEGREE LEVEL



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

Throughout this section, the shift of bachelor's degree programs from early childhood education to elementary education is noticeable in the age groups that the course content emphasizes and requires for fieldwork.

Child Development and Learning

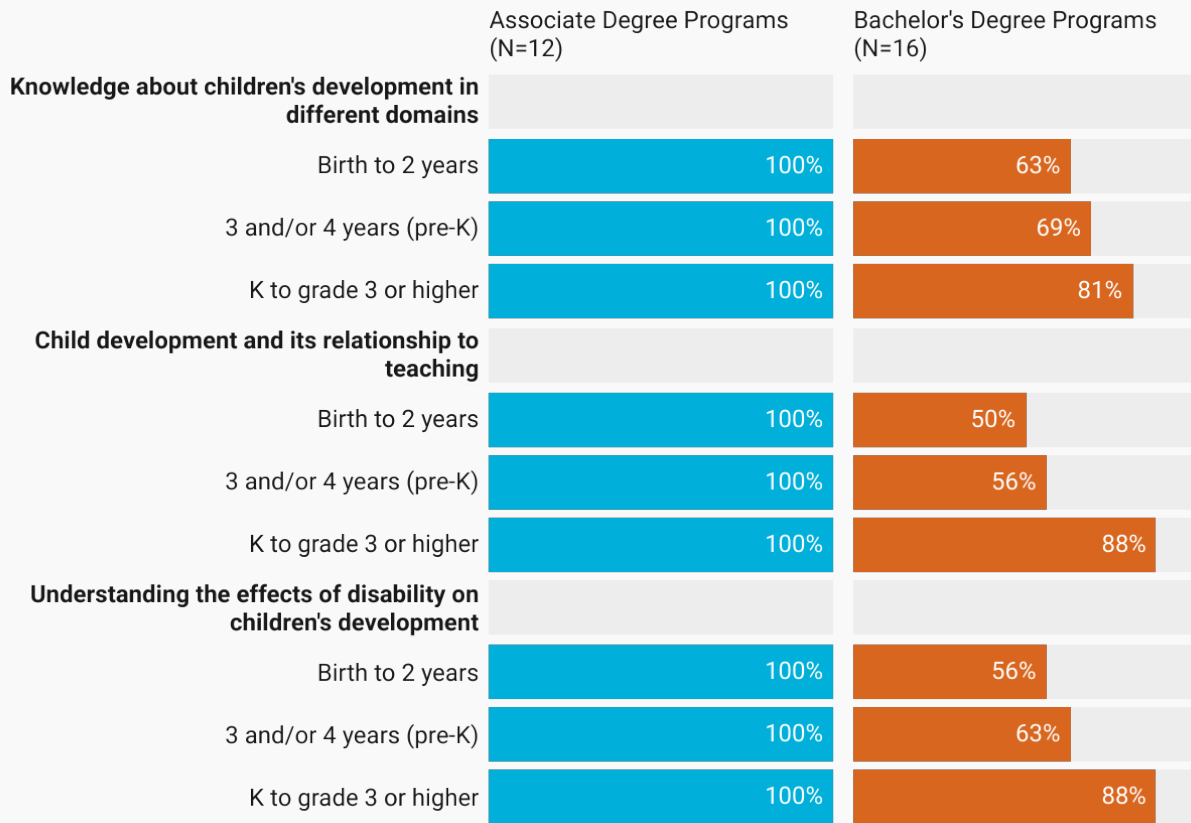
What we asked about child development and learning:

Respondents were asked to indicate whether specific topics were required and also whether students were required to cover material focused on specific age groups or grade levels for each topic. Specifically, program directors were asked about:

- Domains of development;
- Effects of culture, gender, race, and class on development;
- Effects of disability on development;
- Development of children's early literacy skills;
- Child development theory and its relation to teaching; and
- Development of children's mathematical and scientific understanding.

The associate and bachelor's degree program directors who responded to the *Inventory* reported that their programs require all six of the course content topics related to child development and learning. Associate degree programs required each of these topic areas to include material for children in all three age groups, while content focused on infants, toddlers, and preschool-age children was less likely to be required across topics in bachelor's degree programs (see Figure 8).

FIGURE 8. SELECT CHILD DEVELOPMENT AND LEARNING TOPICS, BY AGE GROUP AND DEGREE LEVEL



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

Engaging With Diverse Children

What we asked about how degree programs are preparing students to engage with diverse children:

Degree program directors were asked to what extent certain topics relating to supporting diverse learners were covered and for which age ranges. Specifically, they were asked how students were prepared to teach:

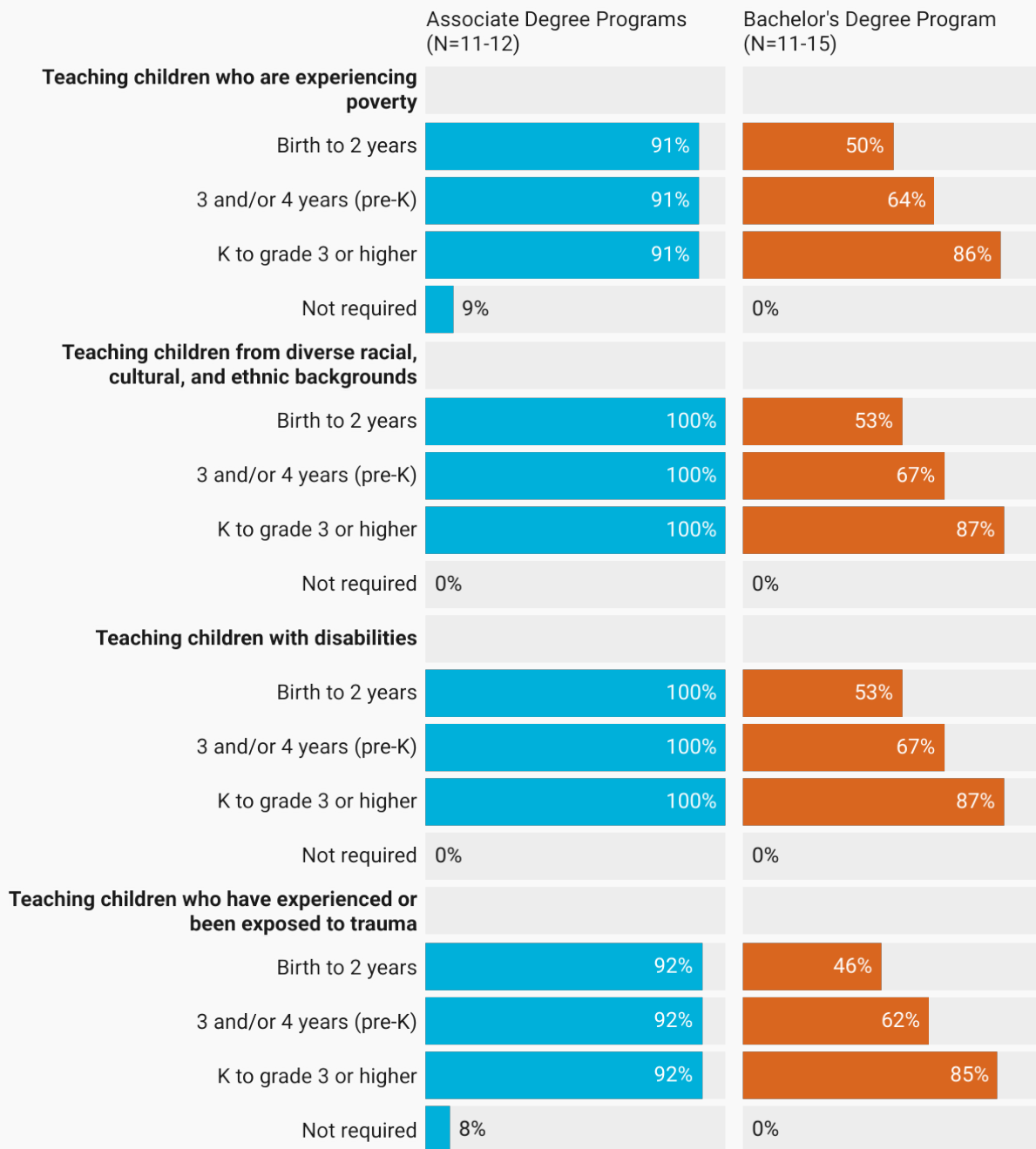
- Children who are experiencing poverty;
- Children from diverse racial, cultural, and ethnic backgrounds;
- Children with disabilities;
- Children who exhibit challenging behaviors;
- Children who are experiencing housing insecurity or instability; and/or
- Children who have experienced or been exposed to trauma.

Additionally, respondents were asked to what extent topics related to dual language learners were covered.

Educators need to be prepared to work with children and families with a variety of needs and experiences. In Indiana, nearly one half of children under age five identify as people of color: 12-percent Latine; 12-percent Black; 3-percent Asian; and 5-percent multiracial (Annie E. Casey Foundation, 2023b). Furthermore, 11 percent of children 18 years old or younger identify as immigrants or live with at least one parent who immigrated to the United States (Annie E. Casey Foundation, 2022b). Nearly one in five children birth to age five (18 percent) live in homes with incomes below the federal poverty level (Annie E. Casey Foundation, 2022c), and 22 percent of children under the age of 18 live in homes that rely on public assistance such as SNAP/food stamps or supplemental security income (Annie E. Casey Foundation, 2022d).

The associate and bachelor's degree programs surveyed in the *Inventory* required content to support student engagement with diverse children and families. Most of these programs required students to take coursework on "teaching children from diverse racial, cultural, and ethnic backgrounds" and "teaching children with disabilities" (see Figure 9). However, fewer bachelor's degree program directors reported requiring this content for children birth through age two.

FIGURE 9. REQUIRED DIVERSE CHILD POPULATION TOPICS, BY AGE GROUP AND DEGREE LEVEL

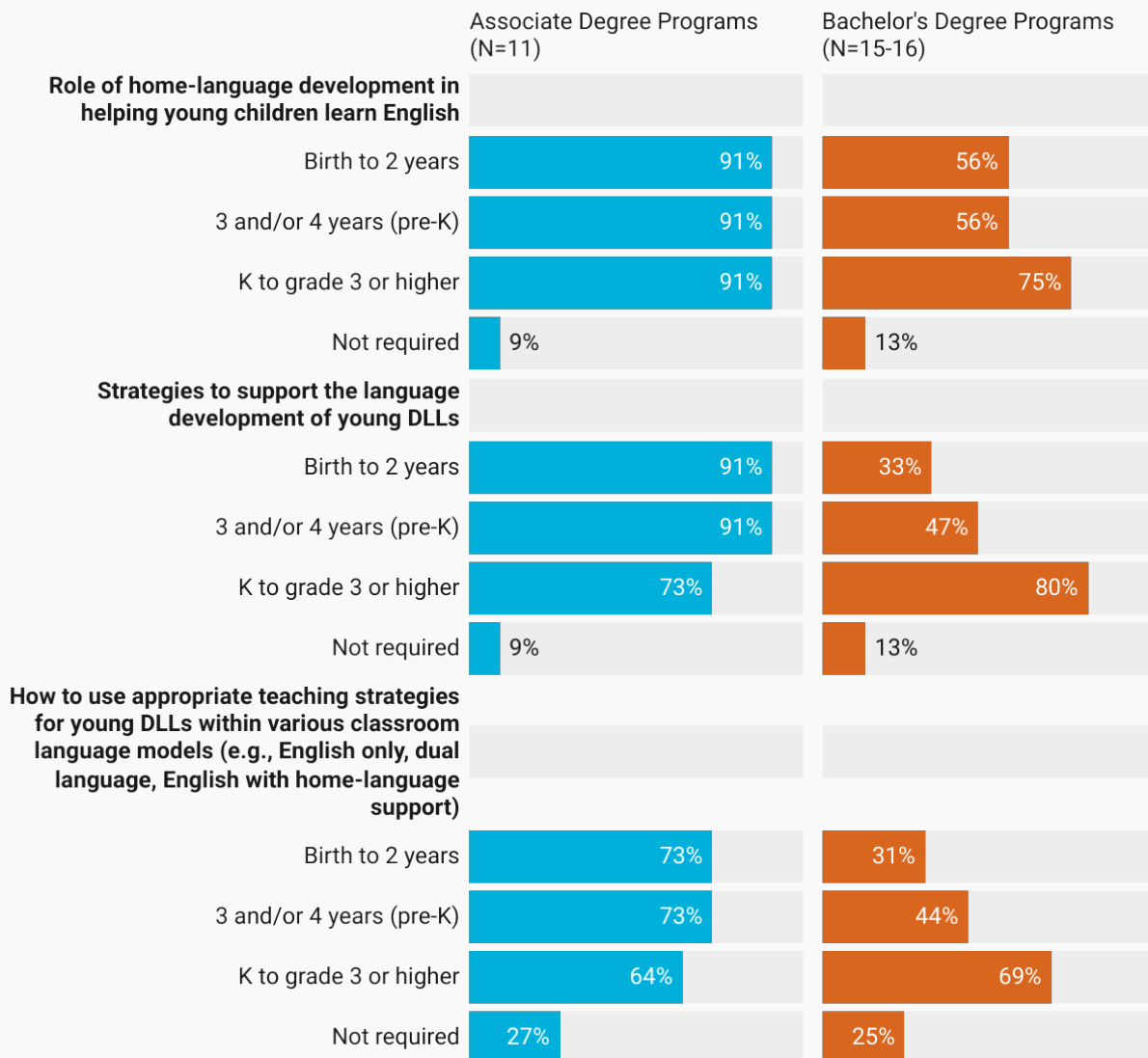


Source: Center for the Study of Child Care Employment, University of California, Berkeley

Supporting Dual Language Learners

Degree programs were slightly less likely to require content knowledge relating to dual language learners (DLLs). Nearly one quarter of associate and bachelor's degree programs *did not* require any coursework on "how to use appropriate teaching strategies for young DLLs within various classroom models" (27 percent and 25 percent, respectively). One sixth (16 percent) of children birth to age five in Indiana are dual language learners who speak at least one language other than (or in addition to) English at home (Giang & Park, 2022).

FIGURE 10. SELECT REQUIRED DUAL LANGUAGE LEARNER (DLL) TOPICS, BY AGE GROUP AND DEGREE LEVEL

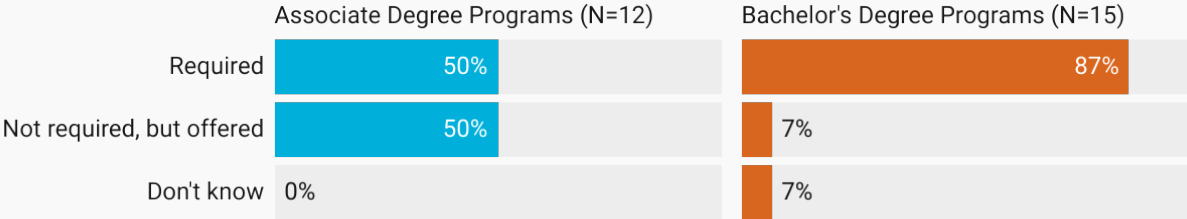


Source: Center for the Study of Child Care Employment, University of California, Berkeley

In addition to developing knowledge of and practices for working with diverse children and families, it is important that early childhood students also reflect on their own biases and practices. Personal beliefs can impact educators' pedagogy, and therefore, it is critical for educators to understand their personal biases, as well as how those beliefs shape their teaching and views of children and families (Dunn-Kenney, 2010).

We asked whether programs offer content related to developing self-awareness of racial and cultural bias and discriminatory practices, and to examining the effects of teachers' own beliefs and attitudes. Overall, a larger percentage of bachelor's degree programs than associate degree programs require such content (87 percent, compared to 50 percent; Figure 11). About one half of associate degree programs offer this content but do not require it for program completion.

FIGURE 11. CONTENT RELATED TO RACIAL AND CULTURAL BIAS, BY DEGREE LEVEL



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

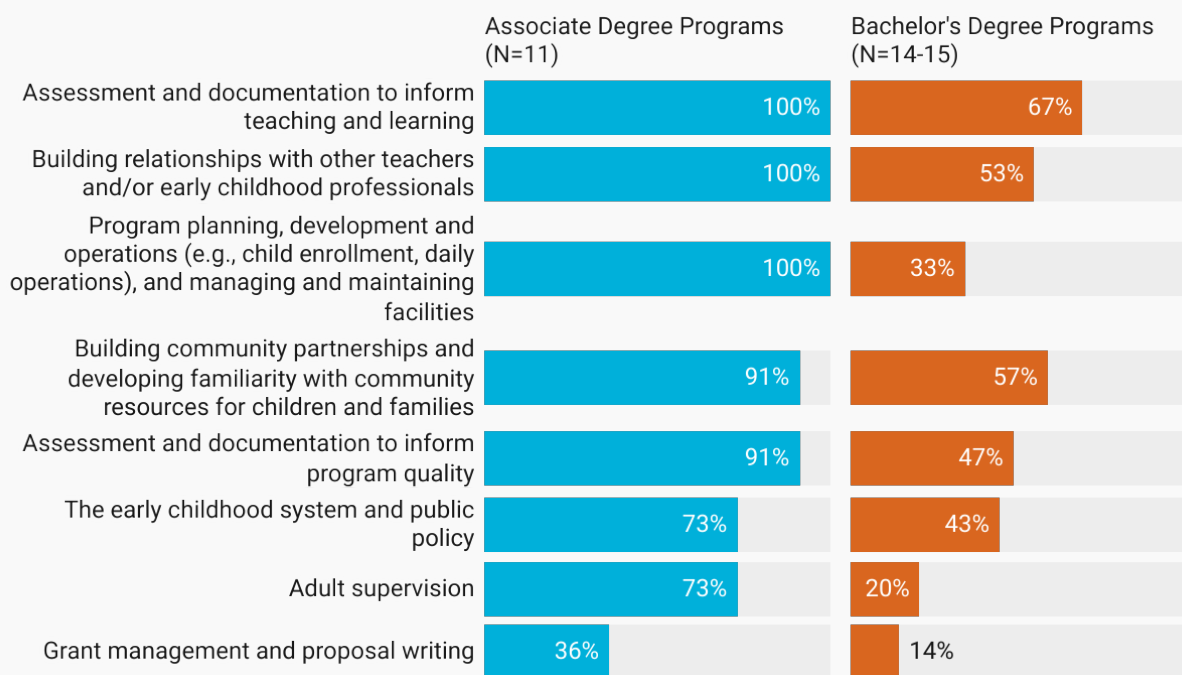
Leadership and Administration

What we asked about leadership and administration:

For the leadership and administration domain, respondents were asked to identify the content offered to students in two areas: 1) Supervision and Operations and 2) Organization and Systems. Content includes strategies to support adult learning, organizational development and change, and ECE systems and public policy (the full list of contents is available in Appendix C).

Few degree programs offer course content that prepares students for administrative or leadership roles. One third (33 percent) of bachelor's degree programs reported that they *did not* offer any of the Supervision and Operations topics, and 43 percent *did not* offer any of the Organization and Systems topics. A greater number of associate degree programs reported offering leadership-related coursework, with most Ivy Techs offering a certificate in Early Childhood Administration.

FIGURE 12. SELECT ADMINISTRATION AND LEADERSHIP COURSES, BY DEGREE LEVEL



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

Findings: Field-Based Learning Experiences

All degree programs require students to participate in a practicum experience. However, only bachelor's degree programs require student teaching. There is little consistency in the duration, frequency, and age-group focus of these field experiences.

What we asked about field-based learning experiences:

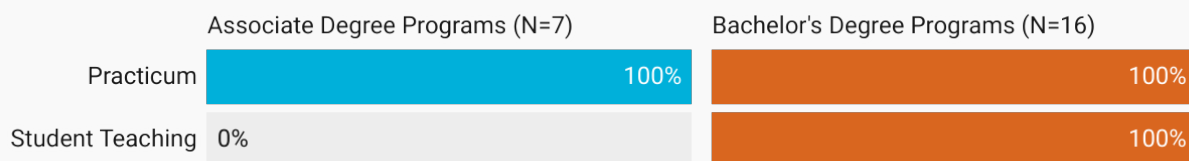
Program leads were asked about two distinct types of field experiences: student teaching and practica. We define student teaching as full-time immersion in a classroom, with increasing responsibility for curriculum planning and teaching and supervision by a faculty member and/or cooperating teacher and/or mentor. We define a practicum as an experience, associated with a course, that is short in duration and often focused on a particular skill or population, with supervision by a faculty member and/or cooperating teacher and/or mentor. For each type of learning experience, survey respondents were asked to indicate whether the field experience was required in order to attain the degree.

There is widespread agreement that field-based learning experiences are critically important to teachers developing new teaching skills or improving existing ones (IOM & NRC, 2015; National Council for Accreditation of Teacher Education, 2010; Whitebook et al., 2012). In the K-12 community, this recognition has led to efforts aimed at increasing the length of student teaching, introducing it earlier into a program of study, and strengthening student supervision during field experiences (CSCCE, 2017; Whitebook et al., 2012). In the field of early childhood education, however, there is no widely implemented standard of field experience, such as student teaching (Whitebook, 2014; CSCCE et al, 2020).

We asked degree program directors whether they require students to participate in field-based experiences and what those experiences looked like. Regardless of degree type, all programs require students to complete a practicum (Figure 13).³ While all bachelor's degree programs required student teaching, none of the associate degree programs had student teaching as a requirement (see the inset on page 27 for highlights of student teaching in bachelor's program).

³ Because practica were the primary strategy for field experiences required by degree programs, they are the focus of this section of the report.

FIGURE 13. FIELD-BASED TEACHING EXPERIENCE REQUIREMENTS, BY DEGREE LEVEL



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

The total number of practica and total number of practicum hours varied across degree types (Table 3). Associate degree programs required one or two practicum courses, while the majority of bachelor's degree programs (64 percent) required four or more. Associate degree programs in our sample reported that 144 hours were required to complete the practicum courses, while required hours ranged from 20 to 500 hours among bachelor's degree programs.

TABLE 3. NUMBER AND MEAN HOURS OF PRACTICA REQUIRED BY PROGRAMS PARTICIPATING IN THE 2023 INDIANA INVENTORY

	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 Programs (N=9)	5 (56%)	4 (44%)	0 (0%)	0 (0%)	144
Bachelor's Degree Programs (N=14)	3 (21%)	1 (7%)	1 (7%)	9 (64%)	135
All Degree Programs (N=23)	8 (35%)	5 (22%)	1 (4%)	9 (39%)	139

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

More than one half (56 percent) of associate degree programs indicated that the practica occurred at the end of the course of study, while 44 percent of bachelor's degree programs reported practica being required at the beginning and 50 percent during the middle. All degrees require field experience for early childhood students to gain some formulation of first-hand knowledge and experience, while the bachelor's degree field experiences build students' knowledge and practical experience incrementally before culminating in a fully immersive teaching experience.

Student Teaching in Bachelor's Degree Programs

All bachelor's degree programs participating in the *Inventory* reported requiring students to participate in a student teaching experience. Student teaching occurred at the end of the course for all bachelor's programs in our sample, but the required duration varied widely across programs, ranging from 4 to 16 weeks. In most cases, field supervisors or mentor teachers supervised the students during the clinical experience (92 percent and 86 percent, respectively). About one half of bachelor's degree programs responded that student teaching experience may be fulfilled through participation in an apprenticeship, on-the-job training, or a residency program. In terms of age-group focus, student teaching experiences had greater emphasis on working with children in elementary school, rather than infants/toddlers or preschool-age children, consistent with patterns in bachelor's degree practicum courses. Key practices required during student teaching included utilization of assessments and supporting various academic, social, and emotional skills.

Required Elements of Practicum Experiences

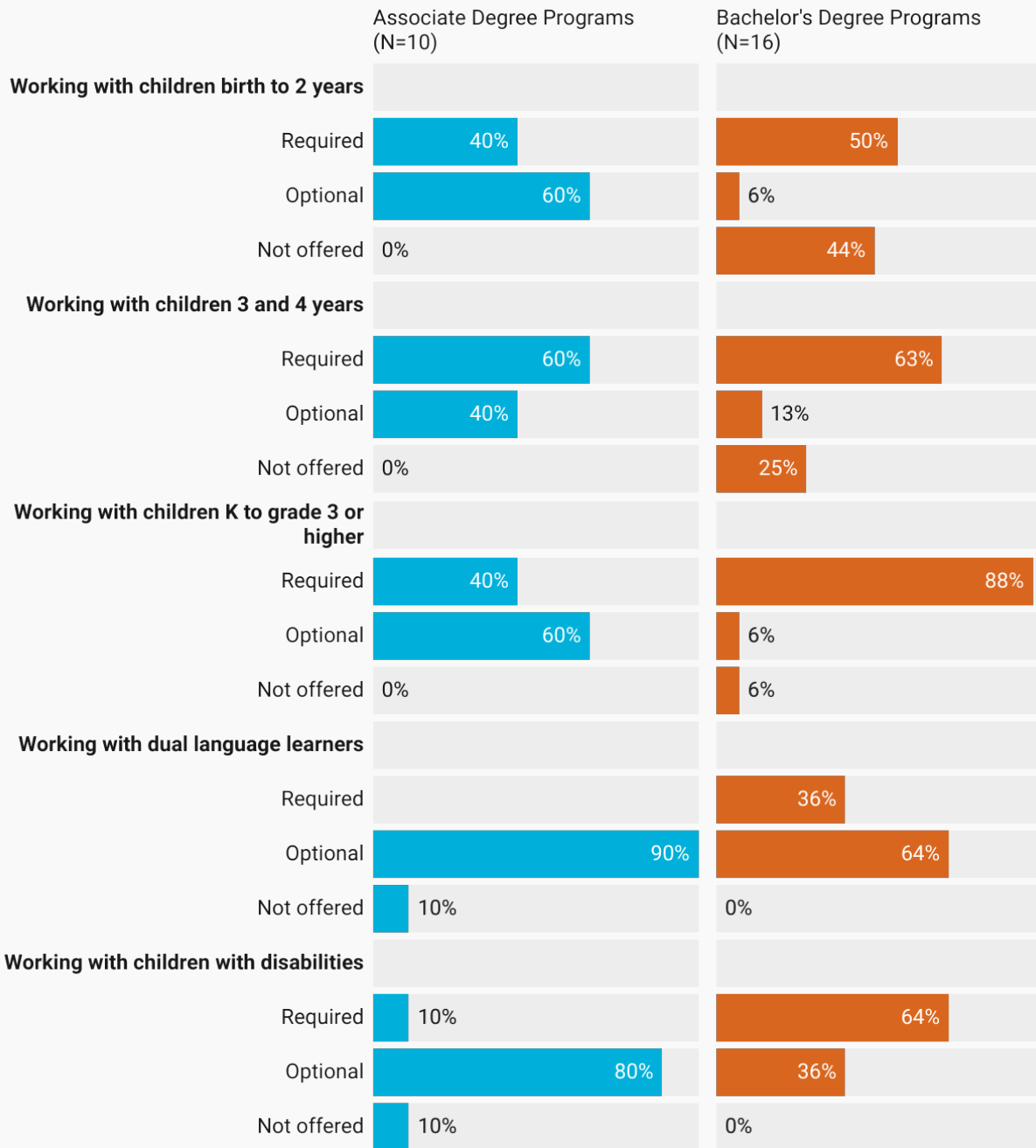
We examined the elements required in the practica, such as experiences with different age groups of children, experiences with children who speak multiple languages, and experiences utilizing different teaching techniques and skills. A higher percentage of bachelor's degree program directors reported requiring practica with certain age groups than associate degree programs (see Figure 14). Continuing the emphasis on elementary teaching experience, 88 percent of bachelor's degree programs required working with kindergarten through grade 3. Associate degree programs share the emphasis on age-specific experience: 40 percent require practicum experience with infants and/or toddlers, but for the remaining 60 percent the children's age was incidental. Forty-four percent of

bachelor's degree program directors indicated that they *did not* offer practica with the infant/toddler age group at all.

This finding represents a shift in age-group requirements for the bachelor's degree program practica from preschool to elementary. In 2015, 85 percent of bachelor's degree programs required practicum experiences with preschool-age children, and 61 percent required kindergarten to grade 3. The age group focus of associate degree programs also shifted since 2015, but towards practicum experiences with younger children. In 2015, only 36 percent of associate degree programs required practicum experiences with preschool-age children, while 60 percent required experience with this age group in 2023.

In 2023, a greater percentage of bachelor's degree programs required practicum experiences with dual language learners and with children with disabilities, compared to associate degree programs (36 percent, compared to 0 percent; 64 percent, compared to 10 percent, respectively). Associate programs might be preparing students to work with these groups of children in other ways, but they do not appear to be preparing students with hands-on experience.

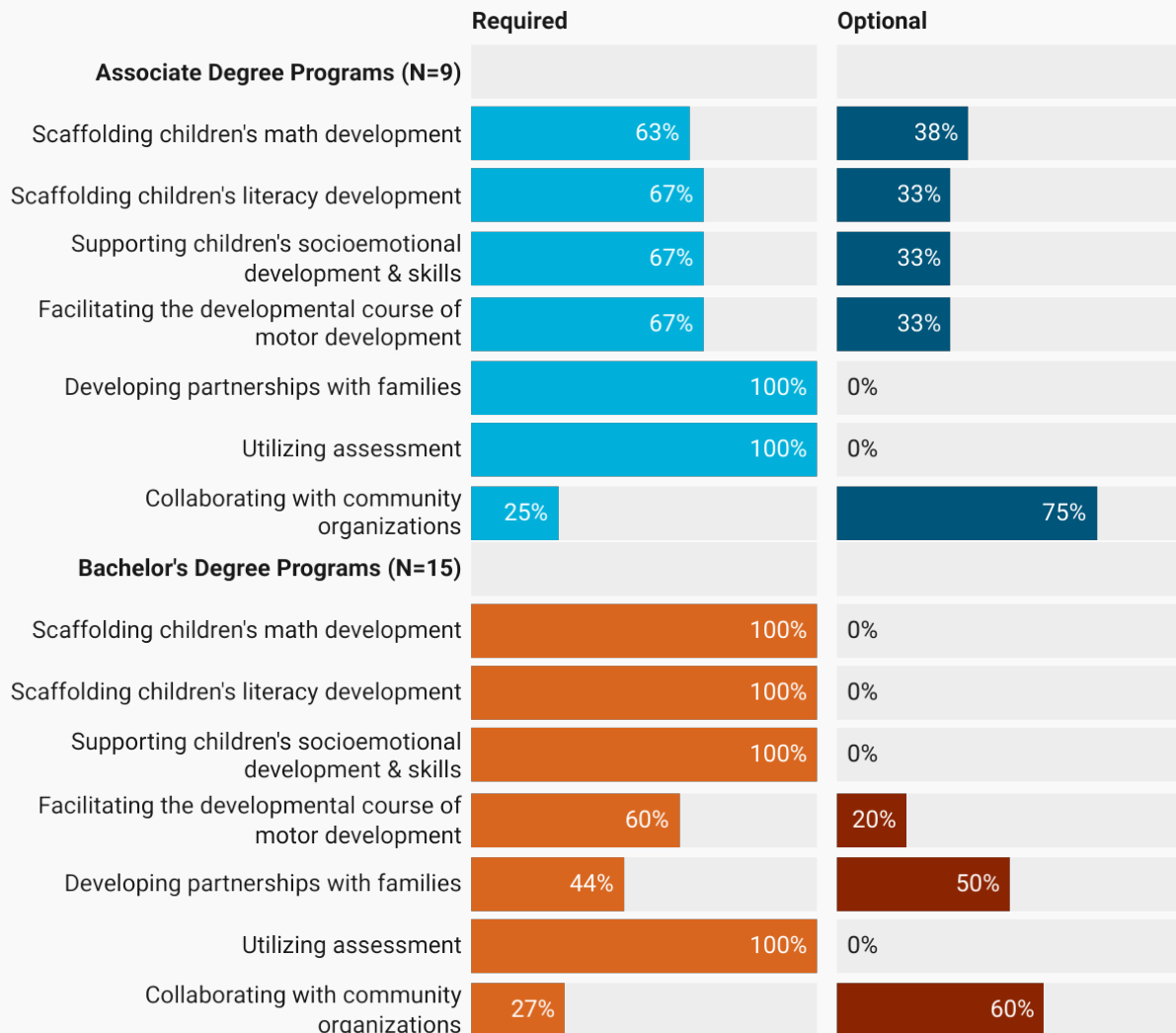
FIGURE 14. REQUIRED AGE-GROUP FOCUS IN PRACTICUM EXPERIENCES, BY DEGREE LEVEL



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

In addition to offering opportunities to gain teaching experience with different groups of children, practica experiences also provide the opportunity for early education students to apply different teaching skills and practices, such as implementing assessments, working with families, and scaffolding children’s learning. Figure 15 shows different types of practices that degree programs require for students in practicum courses in 2023. All degree programs reported the utilization of assessments in their practicum courses. Furthermore, while 100 percent of bachelor’s degree practica required students to practice scaffolding in different areas of learning, including math and literacy development and social and emotional skills, only 63 to 67 percent of associate degree programs had similar requirements. However, all associate degree programs required practicum experience engaging and developing partnerships with families, compared to only 44 percent of the bachelor’s degree programs.

FIGURE 15. SELECT PRACTICES REQUIRED FOR STUDENTS IN THEIR PRACTICUM EXPERIENCES, BY DEGREE LEVEL



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

Part 2: Early Childhood Higher Education Program Commitments

This section examines how degree programs are prepared to support students' navigation of collegial systems. Specifically, it explores the extent to which institutes of higher education are equipped to support students with degree completion or articulation as well as institutional challenges.

What we asked about support services offered to students:

Program leads were asked to what extent various supports are available to students, including financial support, academic tutoring, cohort models, and alternative class schedules. We then asked about articulation agreements and whether certain items count for credit towards degree completion, such as certificates, work experience, and career and technical education credits.

Findings: Supporting Students

Indiana early childhood degree programs offer multiple types of support services specifically tailored to help early childhood students access resources and strengthen their academic skills. In comparison to the bachelor's degree programs surveyed, a greater percentage of associate degree programs reported offering an array of supports to students, including financial assistance, academic tutoring in math, and alternative class schedules. Across both bachelor's and associate degrees, few programs reported providing academic support for students who are English-language learners. Most degree programs reported having an articulation agreement with at least one other college or university and few to no issues with articulation.

Higher education students who already work in ECE settings are often classified as nontraditional students due to their multiple roles and responsibilities. In addition to working, they are frequently older, may be among the first in their families to attend college, might identify as a member of an underrepresented linguistic, racial, and/or ethnic group, and may also be parents of young children (Sakai et al., 2014). In addition, an increasing number of early childhood students are entering the higher education system through associate degree-granting institutes of higher education, with the intent to transfer

to bachelor's degree-granting colleges or universities. These circumstances make supporting students' educational progress from an associate to a bachelor's degree program important (T.E.A.C.H. Early Childhood® National Center, 2015). As states and locales seek to align with the recommendations offered in the *Transforming the Workforce* report and strive to support the variety of students entering the field, it is critical that higher education attend to student services infrastructure that supports student success (IOM & NRC, 2015). Programs that offer support specifically designed for nontraditional 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 bachelor's degree-granting institute or completing a degree; Chu et al., 2010; Kipnis et al., 2012; Sakai et al., 2014; Whitebook et al., 2013).

"A majority of my students are full-time employees, and many are single parents. They struggle with day-to-day things like transportation, child care, financial issues, internet, time management, etc."

— *Bachelor's Degree Program Director*

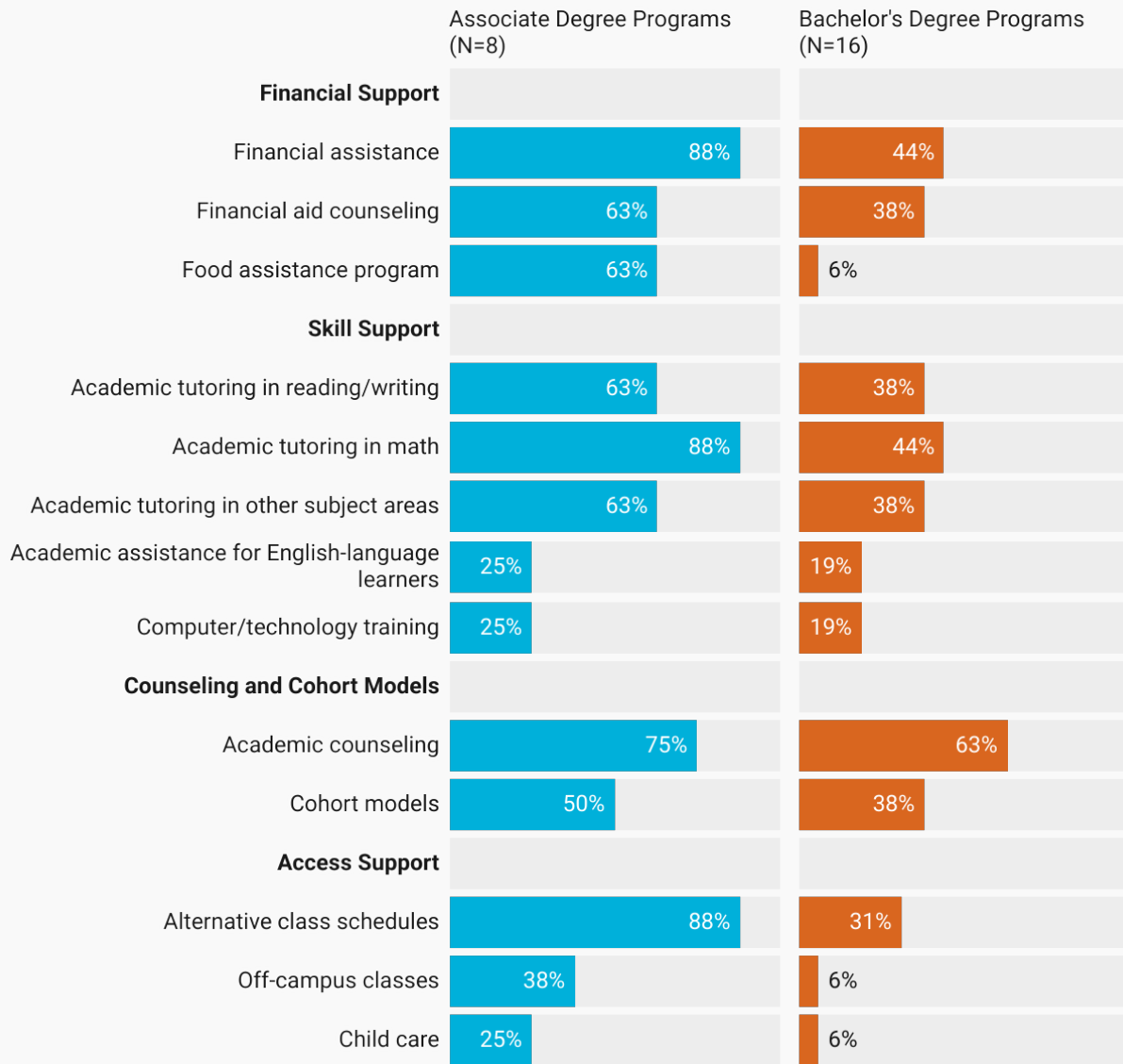
"Our students work too many hours and have too many outside responsibilities."

— *Bachelor's Degree Program Director*

Services Offered

The *Inventory* seeks to understand how early childhood degree programs in Indiana might tailor services to support their students' needs. For example, while colleges and universities typically offer academic counseling to all students, we were interested in learning whether early childhood students had access to dedicated academic counseling to help them plan a course of study that met their specific needs and those of their degree and licensure pathway. Generally, a greater percentage of associate degree programs reported offering these services than bachelor's degree programs (see Figure 16).

FIGURE 16. STUDENT SUPPORT SERVICES, BY DEGREE LEVEL



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

"Time to study and reliable internet are concerns, but low pay in the field is the biggest concern."

— Associate Degree Program Director

Financial Support

Most associate degree programs (88 percent) offered financial assistance other than federal financial aid to early childhood students. In 2015, almost all bachelor's degree programs (94 percent) indicated they offered financial assistance, while in 2023 less than one half (44 percent) of bachelor's degree programs reported offering financial assistance. Furthermore, in 2015 *all* associate degree programs offered financial aid counseling, while only 63 percent did so in 2023. Financial supports through institutes of higher education can alleviate some of the financial stress students face.

Skill Support

Overall, a greater percentage of associate degree programs reported offering academic tutoring services. Whereas a majority of associate degree programs provided academic tutoring services in math, reading/writing, and other subjects, less than one half of the bachelor's degree programs offered these services. Three quarters (75 percent) of bachelor's degree programs and one third (33 percent) of associate degree programs indicated that a contextualized math course is offered to students and can fulfill the college or university's general education math requirement. Less than one fifth (19 percent) of bachelor's degree programs and only one quarter (25 percent) of associate degree programs provided academic assistance for students who are English-language learners.

Counseling and Cohort Models

Many of the degree programs provided academic counseling (75 percent of associate degree programs and 63 percent of bachelor's degree programs). In 2023, fewer degree programs implemented cohort models: bachelor's degree programs implementing cohort models dropped from 67 percent in 2015 to 38 percent in 2023, and the use of this learning approach in associate degree programs dropped from 57 percent to 50 percent in 2023.

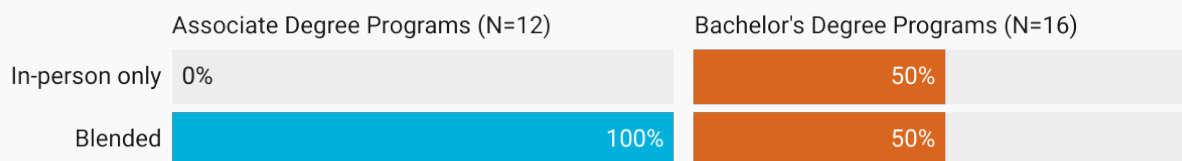
Access Support

In the 2015 version of the *Higher Education Inventory*, we did not ask degree program directors about the modality through which they delivered coursework. However, in recent years and especially since school closings during the global pandemic, institutes of higher education have increased the modalities through which they may deliver their coursework. In doing so, schools are better equipped to meet the needs of a diverse student body, maintain program enrollment numbers, and develop along with the rapidly expanding use of technology in education. Furthermore, offering courses online, in-person, and/or in a

hybrid modality can increase the number of nontraditional students and broaden the diversity of the student body.

We asked program directors to indicate the format their program typically follows (see Figure 17). All associate degree program directors indicated that their programs take a hybrid or blended approach, combining both in-person and online course offerings. One half (50 percent) of bachelor's degree program directors reported that their programs were only offered in-person, while the other half (50 percent) indicated that their programs were blended.

FIGURE 17. FORMAT OF PROGRAMS OFFERED, BY DEGREE LEVEL



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

Open-ended responses from program directors indicate the variety of ways in which programs are now offered. As the directors of two different programs commented:

"We have adjusted the times of the day when courses are offered so it is possible to complete the program as a working adult."

— Bachelor's Degree Program Director

"We offer evening, weekend, in-person, and flex online classes to meet the needs of the students."

— Bachelor's Degree Program Director

As these directors' statements reflect, the modalities their programs use are driven by the needs of the students who come to their schools as well as the students they would like to attract. As one program director stated:

"Many students do not wish to come to campus for class, but rather participate virtually."

— Associate Degree Program Director

Thus, programs in Indiana appear to be rising to meet student needs by using a variety of modalities to offer their degree programs.

Articulation

We asked program directors whether their degree program had formal or informal articulation agreements with other degree programs. Respondents were also asked about challenges students face in transferring their associate degree credits into bachelor's degree programs. The Transfer Single Articulation Pathway (TSAP) is a state-mandated articulation agreement between Indiana's public Ivy Tech Community College, an associate degree-granting system, and Valparaiso University with the state's public, bachelor's degree-granting institutions. Early childhood education is an approved TSAP major.

When asked whether their program had an articulation agreement with a bachelor's degree-granting institution, all associate degree program directors reported having a formal agreement, which is expected given the TSAP. This finding is an increase since 2015 when 71 percent of associate degree programs had an articulation agreement with a bachelor's degree-granting institution.⁴ Most bachelor's degree programs had a formal articulation agreement with an associate degree-granting institution, which remains unchanged since 2015 when program directors reported a nearly identical level of articulation agreements (75 percent in 2015 and 76 percent in 2023).

Notably, associate degree programs did not report students experiencing any challenges when transferring credits earned for their associate degree to a bachelor's degree. Bachelor's degree programs reported few challenges for students transferring from associate degree to bachelor's degree programs. This finding might highlight the

⁴ TSAP began in May of 2015, after CSCCE completed the 2015 *Indiana Higher Education Inventory*.

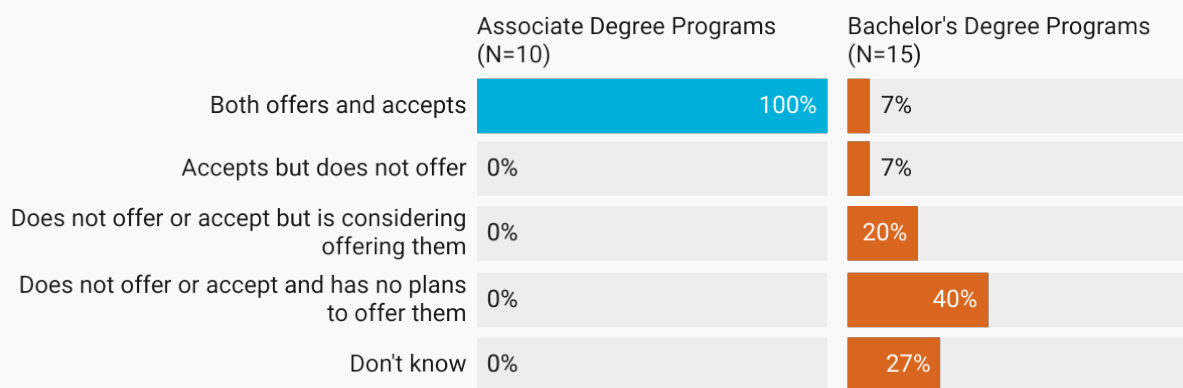
effectiveness of the TSAP program supporting students transferring to bachelor's degree-granting institutes of higher education.

Certificates/Credentials

To support matriculation and student success, some states and institutions throughout the United States 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 toward higher education degrees. If they are portable, these credentials are also verified and can be transferred from one institution to another (Austin et al., 2012).

All associate degree programs participating in the *Inventory* reported that they both offer and accept certificates and/or credentials. The Ivy Tech Community College system offers an Early Childhood Education Technical Certificate, certificates in Early Childhood Administration, Classroom Support Professional, and the Child Development Associate (CDA) Credential, albeit not at every campus. Forty percent of bachelor's degree programs reported that they *do not* offer or accept certificates or credentials (see Figure 18). Furthermore, about one quarter (27 percent) of bachelor's degree programs were unsure if they offered or accepted certificates. This finding may indicate that students can move smoothly through the technical college system but not receive full credit for completed work when transferring to bachelor's degree-granting institutions.

FIGURE 18. AVAILABILITY OF CERTIFICATES OR CREDENTIALS, BY DEGREE LEVEL

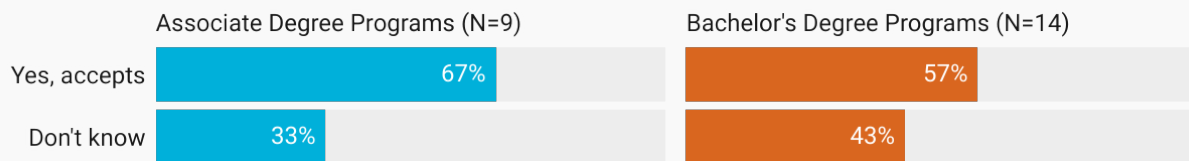


Source: Center for the Study of Child Care Employment, University of California, Berkeley

Career and Technical Education Credits

Career and Technical Education (CTE) is an alternative pathway into select vocations by combining academic and technical knowledge. Indiana's Strategic Workforce Plan includes this pathway and the State of Indiana is currently developing a CTE apprenticeship for early childhood education (Governor's Workforce Cabinet, 2020).⁵ We asked program directors if credits earned at a CTE program or a high school articulate into credits towards a degree. More than one half (57 percent) of bachelor's degree programs and two thirds (67 percent) of associate degree programs participating in the *Inventory* reported that their program accepts credits completed with a CTE program. The number of articulating credits ranged from 3 to 60. One third (33 percent) of associate degree programs and two fifths (43 percent) of bachelor's degree programs were unsure whether the program accepts CTE credits.

FIGURE 19. ACCEPTANCE OF CTE CREDITS, BY DEGREE LEVEL



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

Work Experience for Credit

We asked programs whether years of prior work experience in the ECE field or previous professional development can be counted towards degree completion. Less than one half (43 percent) of associate degree programs allowed for this practice, and less than one quarter (21 percent) of bachelor's degree programs indicated the same. Open-ended responses commonly cited that acceptance of prior work experience depended on a number of factors, including the type of work experience and when it occurred. Given that many nontraditional early childhood students often have extensive experience in the ECE field, higher education programs should further explore credit for prior work experience as a means of supporting the field and the success of their students.

⁵ An elementary education CTE track is also available and preceded the early childhood education apprenticeship. At the time of the writing of this report, Indiana's Department of Education was finalizing the contract to offer this apprenticeship.

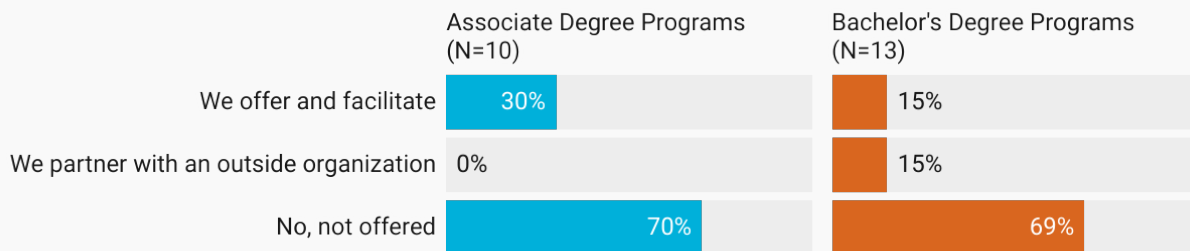
Child Development Associate

We asked associate degree program directors if their department offers coursework that can be applied to the national Child Development Associate (CDA) Credential. All associate degree programs offered this coursework. Additionally, associate degree program directors noted that national CDA credits articulate into credits toward a degree. The number of CDA credits that articulate towards an associate degree ranged from 9 to 18 credits. As the CDA is the minimum educational requirement for most early childhood teaching positions in Indiana, this finding could indicate a smoother career pathway for educators interested in pursuing higher education degrees.

Apprenticeship

Registered Apprenticeship Programs (RAPs) offer an alternative pathway towards certification and degree attainment. The combination of on-the-job training, paid work experience, and education can support individuals entering in the field as well as those looking to advance their certification. Institutes of higher education are key partners in building these programs, particularly when determining course offerings. Several programs in Indiana currently offer RAPs or partner with an organization that operates the apprenticeship program (see Figure 20). Apprenticeship is a growing approach to increasing participation in the workforce. Given Indiana's involvement with the T.E.A.C.H.® scholarship, we expect to see apprenticeship participation rates increase over time.

FIGURE 20. REGISTERED APPRENTICESHIP PROGRAMS, BY DEGREE LEVEL



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

Findings: Program Challenges

What we asked about challenges facing programs:

Program leads were asked about a number of potential challenges facing degree programs, including enrollment and faculty members' expertise in various content areas. Findings are presented at the program level and at the faculty level.

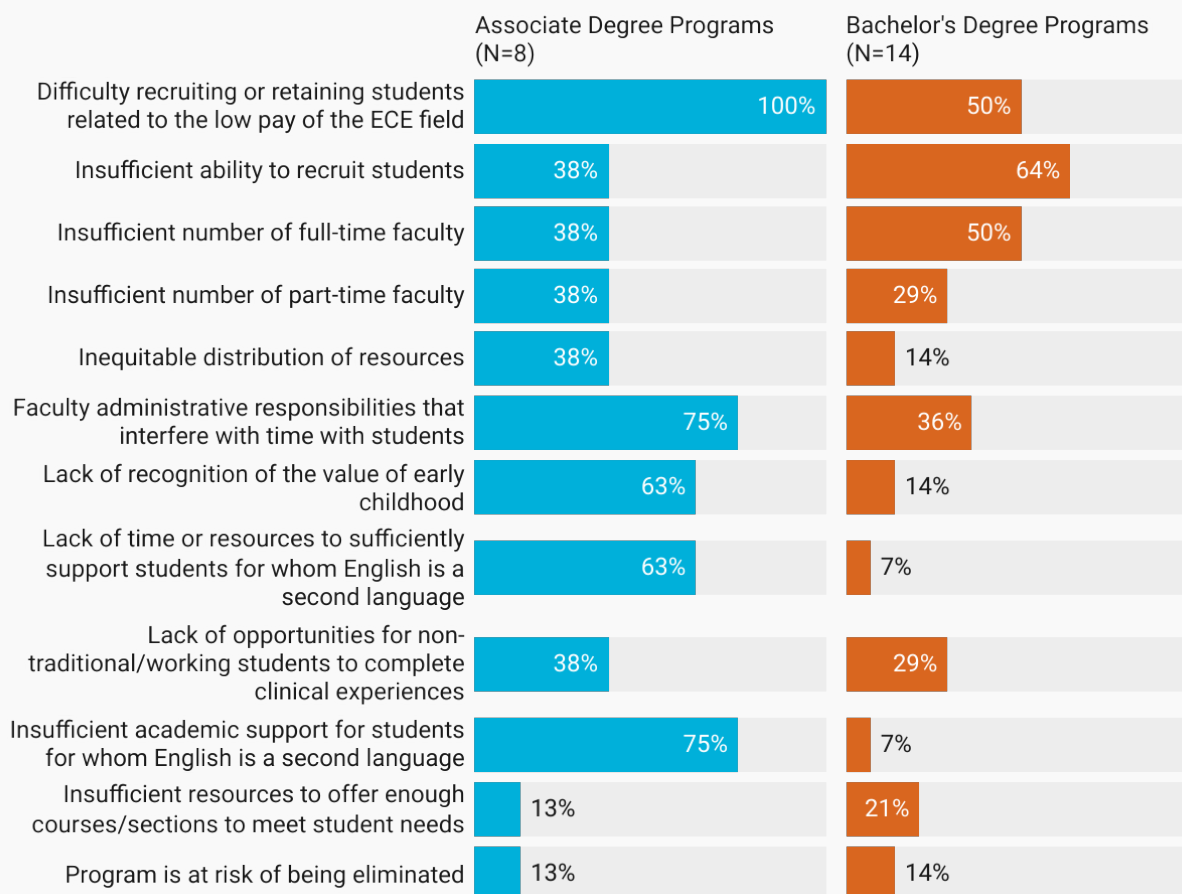
"The real challenge? Our profession has been demonized for so long that very few people want to be teachers!"

— Bachelor's Degree Program Director

Program-Related Challenges

Indiana's early childhood degree programs experience challenges largely related to recruitment. As the ECE field faces an increasing shortage of qualified teachers, difficulty recruiting students into teacher preparation programs may further contribute to this problem. All associate degree programs and one half of bachelor's degree programs reported difficulty recruiting and retaining students, especially due to the low pay of the field and other societal factors (see Figure 21).

FIGURE 21. PROGRAM-RELATED CHALLENGES, BY DEGREE LEVEL



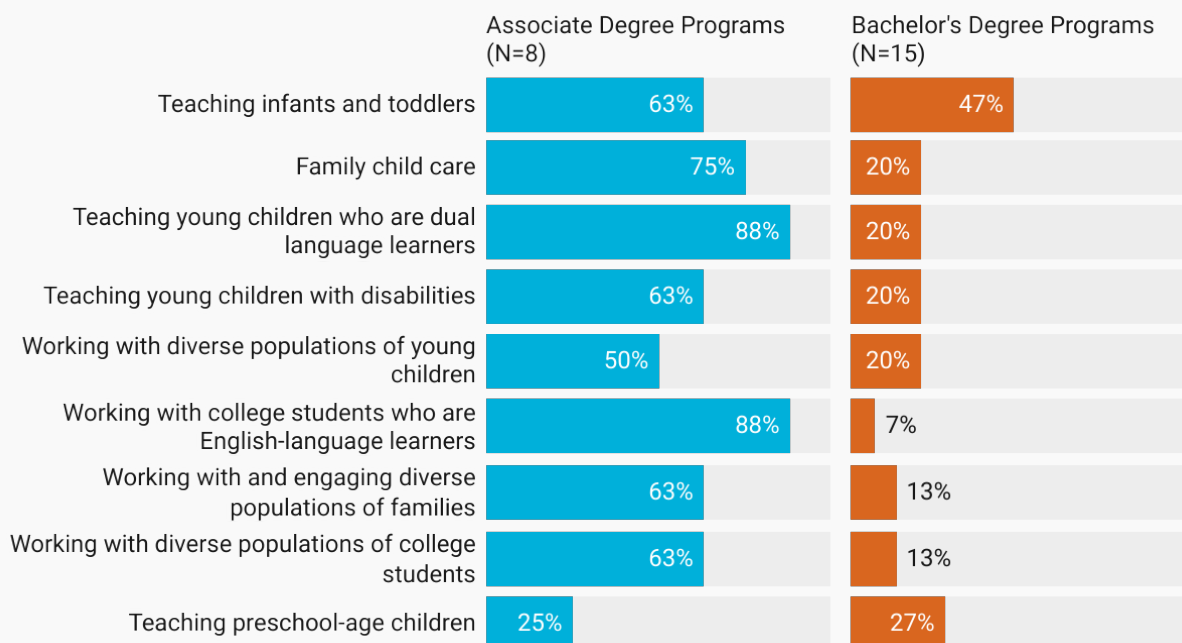
Source: Center for the Study of Child Care Employment, University of California, Berkeley

Associate degree program directors also reported challenges related to insufficient academic support for students for whom English is a second language. While associate degree programs were aware of the challenge, only one quarter (25 percent) of their programs offer counseling services to students for whom English is a second language. Thus, there is a gap between awareness and action. Furthermore, 63 percent of associate degree program directors indicated that they counsel students on how to navigate the Indiana early care and education career requirements, while only 31 percent of bachelor's degree program directors did so. Students need support to stay in and complete the degree program, along with support navigating what comes next on their career path.

Faculty-Related Challenges

In addition to the program-related challenges, program directors identified challenges related to faculty expertise and workload. A large number of associate degree programs participating in the *Inventory* have a need for greater faculty expertise in "teaching young children who are dual language learners" and "working with college students who are English-language learners" (88 percent for both topics; see Figure 22).

FIGURE 22. ADDITIONAL FACULTY EXPERTISE NEEDED TO SUPPORT PROGRAM GOALS, BY DEGREE LEVEL



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

One half of bachelor's degree program directors reported insufficient full-time faculty. Slightly more than one third (36 percent) of bachelor's degree programs and three quarters (75 percent) of associate degree programs reported the challenge of faculty administrative responsibilities interfering with their time with students. Furthermore, the vast majority of program directors reported teaching in addition to their role as program coordinator/administrator in both associate degree programs and bachelor's degree programs (92 percent and 80 percent, respectively). To provide the education and support necessary for students in early childhood degree programs, there is a need to increase the number of faculty and for faculty to have more time devoted to working directly with their students.

Discussion and Recommendations

Since CSCCE completed the first *Higher Education Inventory* in Indiana in 2015, several programs and policies have been implemented or bolstered in an effort to develop comprehensive pathways for Indiana early educators. For example, Indiana licensure requires a minimum of a CDA Credential as a first step on the ECE career path, save for public preschool programs. To acquire this qualification, Indiana has a robust system of Ivy Tech Community College campuses and Career and Technical Education centers and high schools. The second step along the path is the acquisition of further qualifications. To support this effort, Indiana implemented the Transfer Single Articulation Pathway (TSAP) in 2015. The TSAP is a competency-based course of study, designed to allow students to seamlessly transfer from one of Indiana's associate degree programs into another public college or university in Indiana to complete a bachelor's degree. Indiana is also a T.E.A.C.H.[®] state, offering financial support to the incumbent workforce to progress along this pathway. As a final step toward a career in early care and education, Indiana implemented Transition to Teaching as a means for those who hold a bachelor's degree to acquire further licensure and a post-baccalaureate degree, while working for the Indiana schools.

The 2023 data collected from associate and bachelor's degree program directors in Indiana point to the success of the pathways Indiana created. For example, the alignment of curriculum in the Ivy Techs with competency-based NAEYC standards is evident in the alignment in responses from these schools. Furthermore, all of the Ivy Techs indicated an articulation agreement with at least one bachelor's degree-granting institute. While the pathways Indiana developed are well considered and supported, there are opportunities for further growth to fully realize a transformation of the ECE workforce. To that extent, we offer the following recommendations.

1. Improve data and data systems

For this report, we reached out to all of the institutes of higher education that INAEYC identified as providing degrees related to early care and education. Our findings are grounded in the responses we received, which only came from a portion of the original list. While the schools that responded are an excellent sample of institutes of higher education in Indiana, we could learn much more with a higher response rate and/or good data from other sources (e.g., administrative data from career and technical schools). To understand the field and how to best meet its needs, it is important for policymakers and advocates to collect more and better data from the individuals in the field. For example, we encourage data collection in the following areas:

- TSAP: How many students are utilizing this early childhood degree pathway? Are there racial, ethnic, linguistic, socioeconomic, or other differences between those who engage the TSAP degree pathway and those who do not? How many students apply to, are accepted in, and transfer into early childhood degree pathways at bachelor's degree-granting colleges? How many complete a bachelor's degree? Who is completing this pathway, and who is not? What do they do after?
- Transition to Teaching: Who is applying for the Transition to Teaching early childhood degree? How many are choosing the early care and education pathway? How many students are completing the post-baccalaureate degree, who are they, and what do they do after completion, in both the short- and long-term?
- Compensation: How is compensation affecting recruitment and retention in these pathways?
- Institutes of Higher Education: All institutes of higher education should be tracking their own data to better support the growth and development of their early childhood degree programs.

Additionally, to truly understand which pathways are successful and why, it is essential to gather and understand the students' lived experiences. Understanding their experiences will offer a window into their needs, their strengths, and the challenges they face as they engage with these paths. Their experiences can offer a blueprint for building a system that better supports their success.

2. Develop a deeper understanding of how Career and Technical Education programs are preparing the workforce

To understand how Career and Technical Education is contributing to early educators' preparation in Indiana, evaluative analysis is needed to determine the impact of the program. We reached out to individuals at the state and local levels within this training sector, but were unable to conduct interviews, in part due to the finalization of the contract for Indiana's new early childhood education apprenticeship program.

Given the emphasis that the Indiana government is placing on CTE programs to reinforce the workforce in Indiana and given that CTE schools are ideal educational settings to attain the CDA required for licensure, it is essential to understand the programming that these schools offer. We recommend that INAEYC continue to reach out to the CTE administration in the state office and ask them to provide information about their early childhood degree curriculum and program design. Furthermore, INAEYC should ask the administration in the CTE office for data about the pathway in

order to better understand who is enrolling, how many applicants are completing the program, and if and how they engage in the early care and education field upon completion.

3. Align degree requirements and licensure

The Child Development Associate (CDA) Credential is a first step in many ECE career pathways. However, the reliance on this credential appears to be putting early educators in Indiana at a disadvantage. While stackable credentials are accepted and implemented across many of Indiana's institutes of higher education, only requiring the CDA appears to be creating a stratification between associate and bachelor's degree programs. Associate degree programs require their students to gain educational experiences across age groups, with a deeper emphasis on infant/toddler and preschool education, while bachelor's degree programs place a stronger emphasis on elementary educational experiences. While policies and programs, such as the TSAP, help public associate and bachelor's degree-granting programs to work together to develop a pathway for early care and education, a narrow emphasis on age groups only serves to silo early care and education away from bachelor's degree-granting institutes of higher education.

To further encourage the preparation of the ECE workforce, Indiana should consider increasing the qualifications for lead teachers to attain, at a minimum, an associate degree. Furthermore, while many bachelor's degree program directors indicated compensation as a reason for their increasing emphasis on elementary education, to truly realize a pathway for early educators, bachelor's degree programs need to integrate early childhood into their course curricula.

4. Increase content, field experiences, and faculty expertise relating to working with diverse children and students

Few degree program directors reported the primary goal of their program as supporting developmental interventionists or special education teachers. Most programs do *offer* coursework on how to support diverse populations of children, including, but not limited to, children with disabilities, children who have experienced trauma, and/or children who are dual language learners. Nonetheless, few degree programs *required* opportunities to learn and *practice* strategies to effectively support these children's learning processes, particularly children who are learning multiple languages. While they offered coursework, most degree programs did not require

practicum experiences with dual language learners, and few programs required practicum experiences with children with disabilities. Programs should seek out practicum opportunities for their students to work with a more diverse body of children so that they are well prepared for any setting they might encounter as educators.

The lack of support for this area of early childhood may be related to a lack of expertise among the faculty members. While many associate degree program faculty members had experience and/or expertise with diverse populations, the same was true for few bachelor's degree program faculty members. Given the increasing diversity of young children in Indiana and throughout the United States, higher education programs need to recruit faculty with expertise and experience with diverse populations, including but not limited to, dual language learners.

5. Provide increased access and supports for students in attaining their degrees

Many early childhood students in Indiana are nontraditional students who also hold jobs and have their attention further divided from school by a variety of other responsibilities. More than just providing access to higher education, it is imperative that institutes of higher education provide an array of services and benefits to support student success. While most degree programs reported offering blended coursework (online, in-person, or a hybrid of both), additional options (such as providing courses at night or on weekends) will allow greater access for educators completing degree programs. In particular, bachelor's degree programs need to provide support already offered by associate degree programs, such as alternative scheduling, financial assistance, and academic counseling.

We recommend implementing or expanding the following supports for early childhood students throughout the state to ensure that a diverse in-service and incoming workforce can successfully meet educational standards and requirements and attain competency:

- Alternative class schedules and locations;
- Academic counseling;
- Cohort models;
- Coordination with Registered Apprenticeship Programs; and
- Financial resources for students.

Concluding Thoughts

This report provides a portrait of Indiana's early childhood higher education landscape amid efforts to invest in, strengthen, and coordinate the development of the early care and education workforce. Since completing the 2015 *Inventory* in Indiana, several initiatives and programs have begun and more are planned to further strengthen the preparation of the ECE workforce. While some improvements were seen in degree programs, such as articulation among associate and bachelor's degree programs, more can be done to transform the preparation system to be more cohesive and supportive. Continued evaluation and investment is essential for program success. Institutes of higher education can play a lead role in elevating the preparation of a high-quality ECE workforce by supporting students in the pursuit and attainment of early childhood 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 investments to enable increased compensation (including compensation parity across educators working with different age groups and in diverse settings), and financial resources to support the implementation of expanded expectations and standards for educators. Systemwide improvement requires a continued discourse among multiple stakeholders on how states approach teacher preparation, working conditions, and compensation of the early care and education workforce. Without substantial systemic changes, we will continue to disadvantage early educators and the children and families they serve.

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Appendix A: Early Childhood Education Degree Programs in Indiana

For this report, we reached out to all of the institutes of higher education identified for us by INAEYC as providing degrees related to early childhood education at the beginning of the study in Spring 2023. The following tables contain the associate and bachelor's degree programs offered by the participating colleges and universities.

TABLE A-1. EARLY CHILDHOOD ASSOCIATE DEGREE PROGRAMS IN INDIANA

Name of Institution	Associate Degree Program(s)
Bethel University	A.A. Early Childhood Education
Ivy Tech Community College, Anderson	A.S./A.A.S. Education: Early Childhood
Ivy Tech Community College, Bloomington	A.S./A.A.S. Education: Early Childhood
Ivy Tech Community College, Columbus	A.S./A.A.S. Education: Early Childhood
Ivy Tech Community College, Indianapolis	A.S./A.A.S. Education: Early Childhood
Ivy Tech Community College, Kokomo	A.S./A.A.S. Education: Early Childhood
Ivy Tech Community College, Lafayette	A.S./A.A.S. Education: Early Childhood
Ivy Tech Community College, Lawrenceburg	A.S./A.A.S. Education: Early Childhood
Ivy Tech Community College, Madison	A.S./A.A.S. Education: Early Childhood
Ivy Tech Community College, Muncie	A.S./A.A.S. Education: Early Childhood
Ivy Tech Community College, North Central	A.S./A.A.S. Education: Early Childhood
Ivy Tech Community College, North East	A.S./A.A.S. Education: Early Childhood
Ivy Tech Community College, North West	A.S./A.A.S. Education: Early Childhood
Ivy Tech Community College, Richmond	A.S./A.A.S. Education: Early Childhood
Ivy Tech Community College, Sellersburg	A.S./A.A.S. Education: Early Childhood
Ivy Tech Community College, Shelbyville	A.S./A.A.S. Education: Early Childhood
Ivy Tech Community College, Terre Haute	A.S./A.A.S. Education: Early Childhood

TABLE A-1. EARLY CHILDHOOD ASSOCIATE DEGREE PROGRAMS IN INDIANA
(CONTINUED)

Name of Institution	Associate Degree Program(s)
Ivy Tech Community College, Wabash Valley	A.S./A.A.S. Education: Early Childhood
Marian University, Ancilla College	A.A. Education
Oakland City University	A.A. Early Childhood/Elementary Education
Vincennes University	A.S. Early Childhood Education

TABLE A-2. EARLY CHILDHOOD BACHELOR'S DEGREE PROGRAMS IN INDIANA

Name of Institution	Bachelor's Degree Program(s)
Anderson University	B.A. Elementary Education and ECE Dual Licensure
Ball State University	B.S. Early Childhood B.S. Early Childhood and Early Childhood Special Education B.A./B.S. Elementary Education B.A./B.S. Special Education: Early Childhood Special Education Focus
Bethel University	B.A. Early Childhood Education
Calumet College of St. Joseph	B.A. Elementary Education
Franklin College	B.A. Elementary Education
Goshen College	B.A. Elementary Education
Grace College	B.A. Elementary Education
Hanover College	B.A. Elementary Education
Holy Cross College	B.A. Elementary Education
Huntington University	B.A. Elementary Education
Indiana State University	B.A. Special Education (P-12)
Indiana State University, Bloomington	B.S. Early Childhood Education

TABLE A-2. EARLY CHILDHOOD BACHELOR'S DEGREE PROGRAMS IN INDIANA
(CONTINUED)

Name of Institution	Bachelor's Degree Program(s)
Indiana State University, East	B.S. Elementary Education
Indiana State University, Kokomo	B.S.Ed. Elementary Education
Indiana State University, Northwest	B.S. Elementary Education/Special Education
Indiana University-Purdue University, Indianapolis	B.S. Early Childhood Education B.S. Elementary Education
Indiana University-Purdue University, Columbus	B.S. Elementary Education
Indiana University, South Bend	B.S.Ed. Elementary Education
Indiana University, Southeast	B.S. Elementary Education
Indiana Wesleyan University	B.S. Elementary Education
Manchester University	B.A. Elementary Education: Early Childhood Generalist
Martin University	B.S. Early Childhood Education
Oakland City University	B.A. Early Childhood Education (non-licensure) B.A. Elementary Education
Purdue University, Fort Wayne	B.S.Ed. Early Childhood Education (birth-age 5) B.S.Ed. Early Childhood Education (licensure, preschool-grade 3) B.S.Ed. Elementary Education
Purdue University, Northwest	B.A. Elementary Education: Early Childhood Special Education
Purdue University, West Lafayette	B.S. Early Childhood Education and Exceptional Needs
Purdue University	B.A. Elementary Education B.S. Developmental and Family Science
Saint Mary-of-the-Woods College	B.S. Education: Preschool-Grade 3/Mild Intervention
Taylor University	B.S. Elementary Education

TABLE A-2. EARLY CHILDHOOD BACHELOR'S DEGREE PROGRAMS IN INDIANA
(CONTINUED)

Name of Institution	Bachelor's Degree Program(s)
Tine University	B.S. Elementary Education
University of Evansville	B.S. Elementary Education
University of Indianapolis	B.A. Early Childhood Education B.S. Elementary Education
University of Southern Indiana	B.A. Early Childhood Education B.A. Elementary Education
University of St. Francis	B.S.E. Elementary Education
Valparaiso University	B.A. Elementary Education

Appendix B: Course Content Requirements

FIGURE B-1. REQUIRED DIVERSE CHILD POPULATION TOPICS, BY AGE GROUP AND DEGREE LEVEL

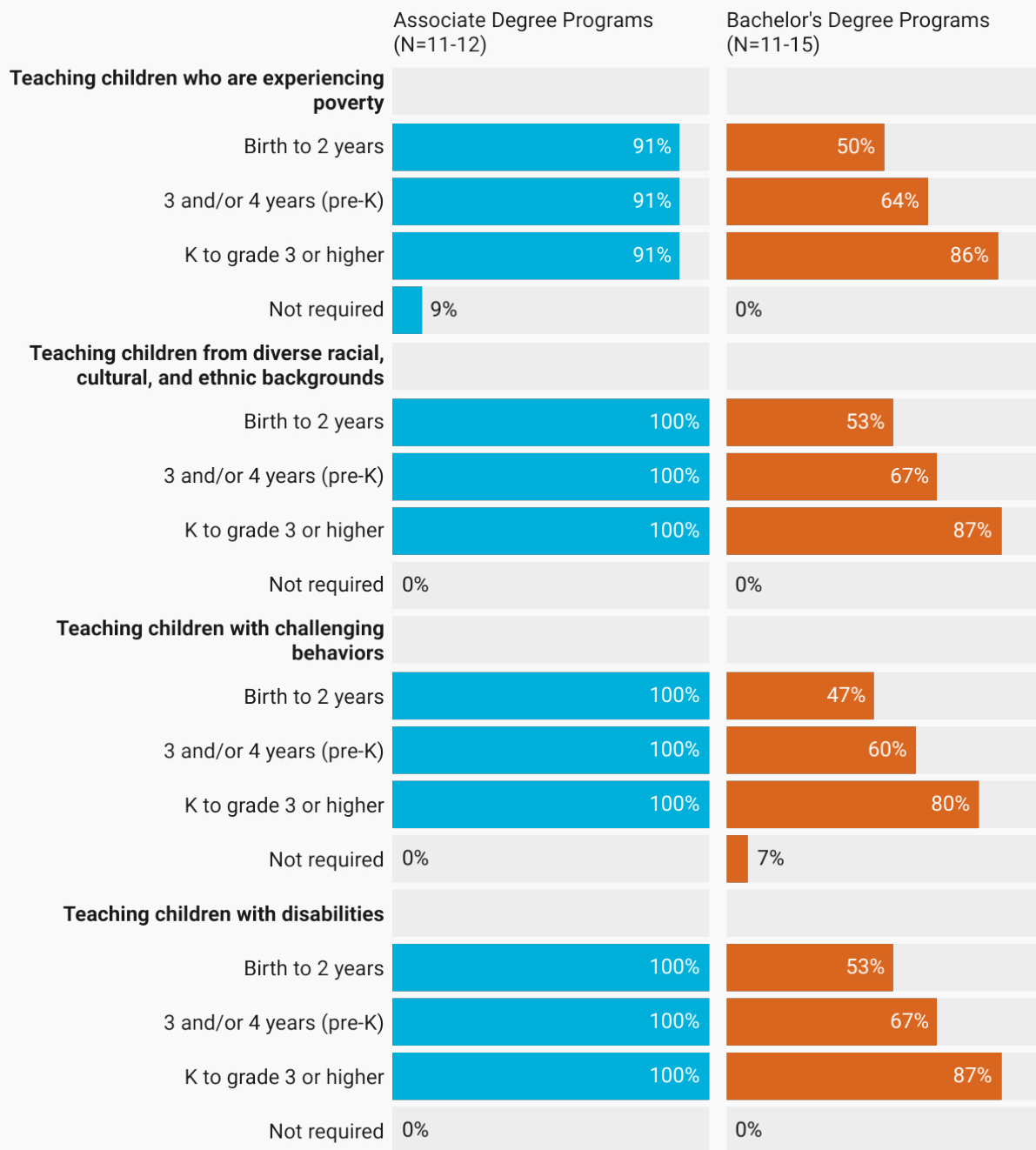
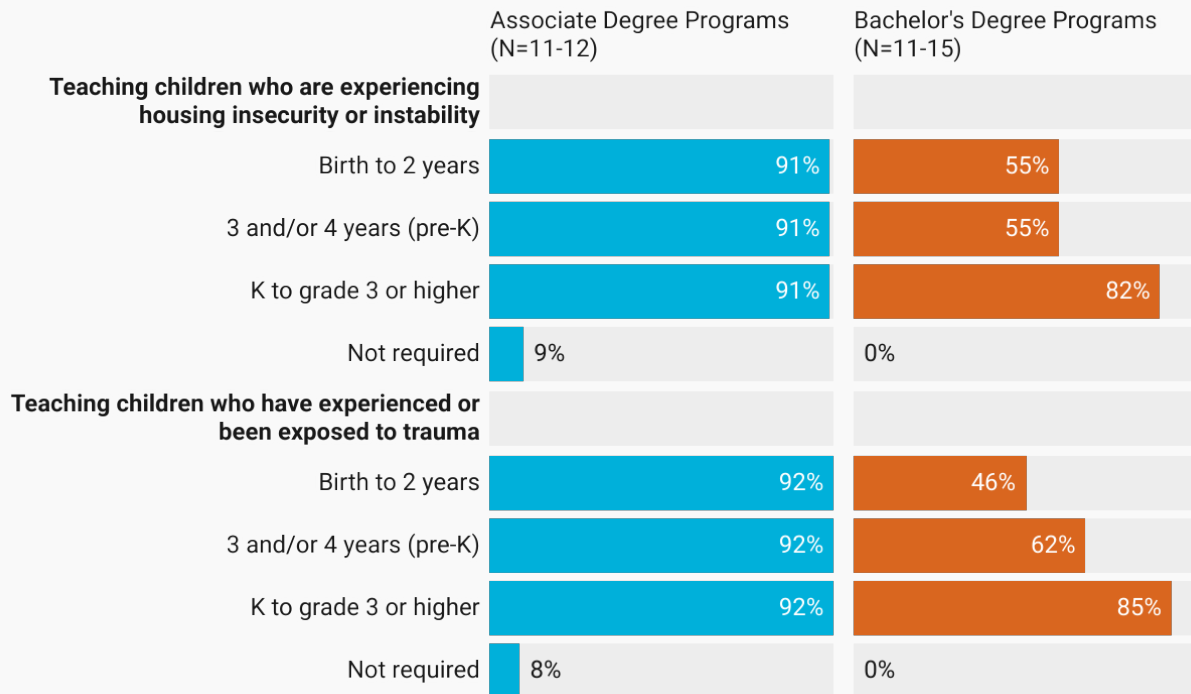


FIGURE B-1. REQUIRED DIVERSE CHILD POPULATION TOPICS, BY AGE GROUP AND DEGREE LEVEL (CONTINUED)



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

FIGURE B-2. REQUIRED CONTENT AREAS RELATING TO FAMILY ENGAGEMENT, BY AGE GROUP AND DEGREE LEVEL

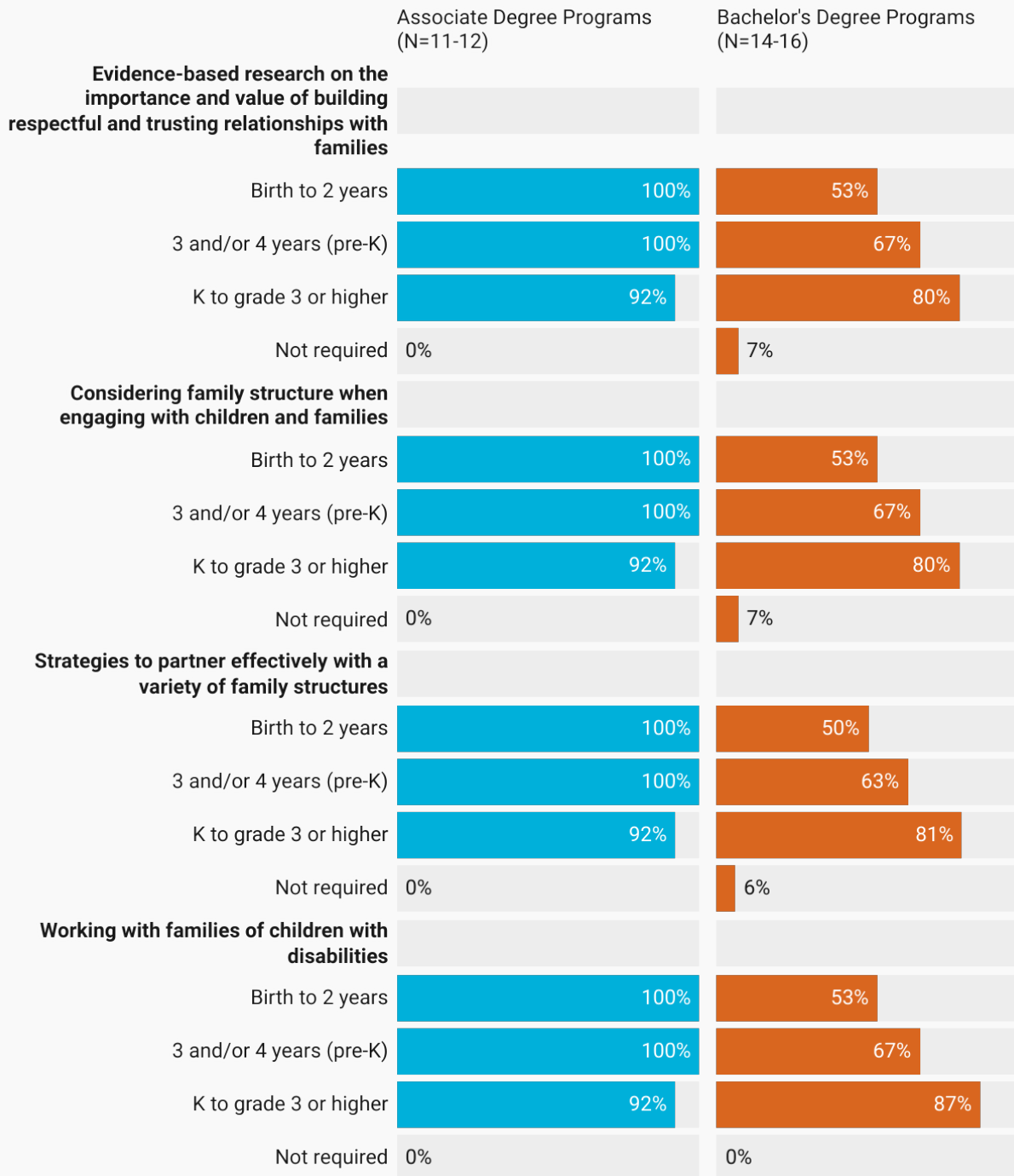


FIGURE B-2. REQUIRED CONTENT AREAS RELATING TO FAMILY ENGAGEMENT, BY AGE GROUP AND DEGREE LEVEL (CONTINUED)

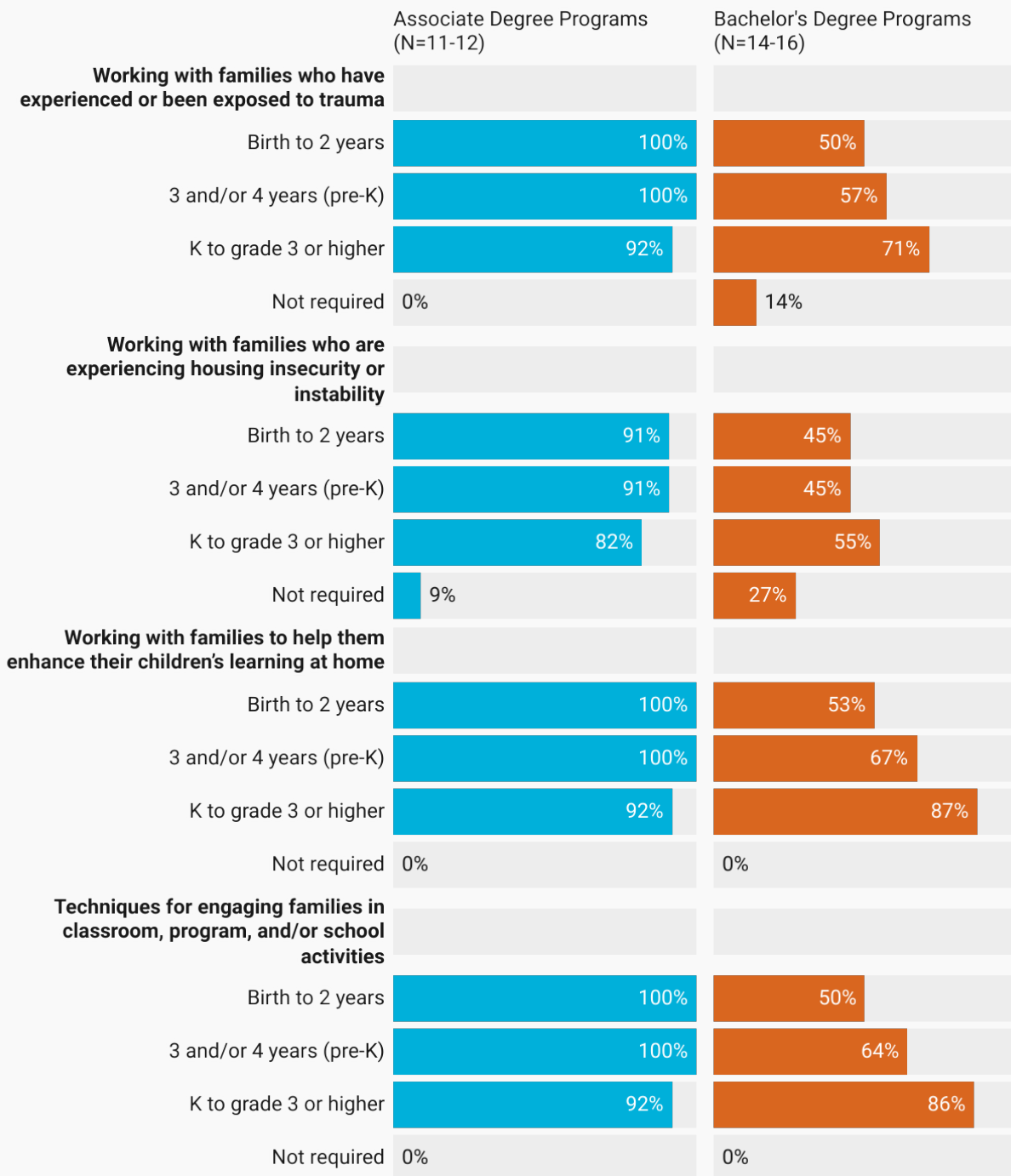
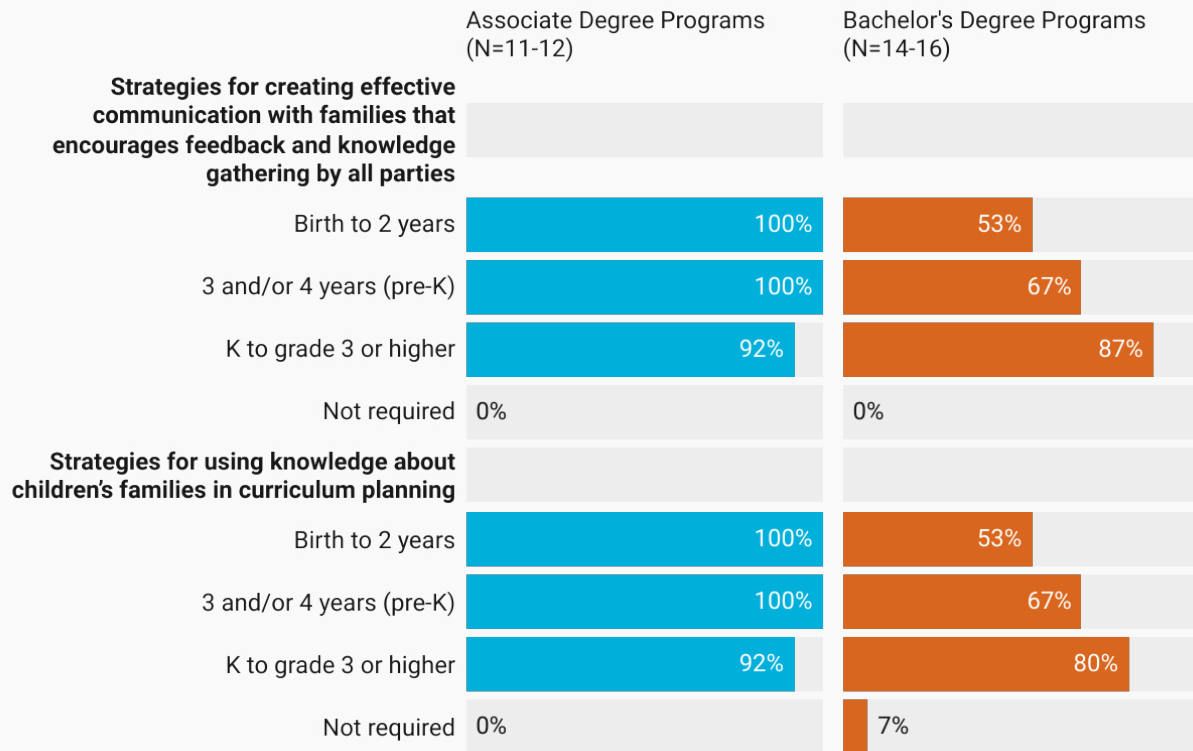


FIGURE B-2. REQUIRED CONTENT RELATING TO FAMILY ENGAGEMENT, BY AGE GROUP AND DEGREE LEVEL (CONTINUED)



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

FIGURE B-3. REQUIRED TEACHING AND CURRICULUM CONTENT, BY AGE GROUP AND DEGREE LEVEL

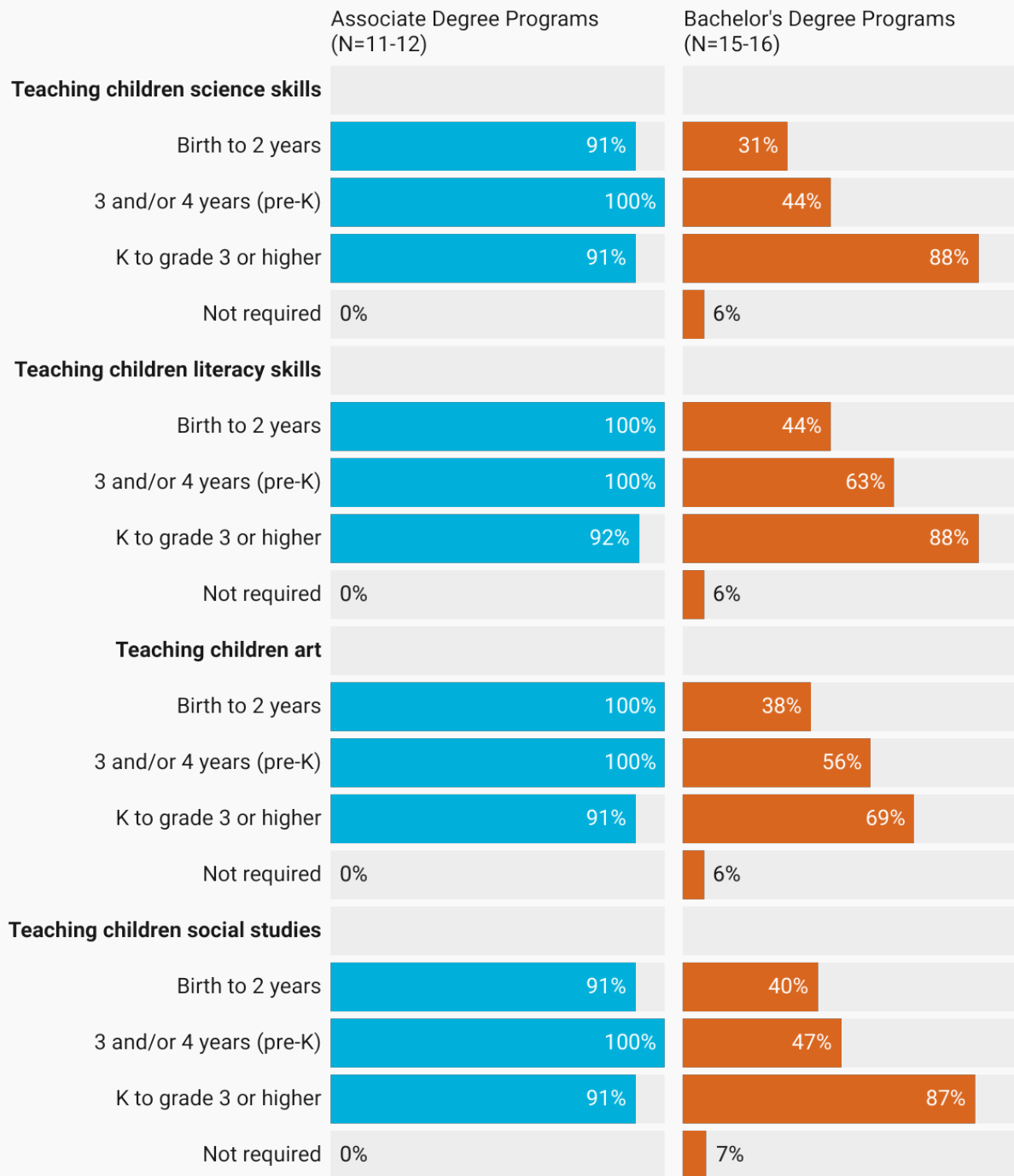


FIGURE B-3. REQUIRED TEACHING AND CURRICULUM CONTENT, BY AGE GROUP AND DEGREE LEVEL (CONTINUED)

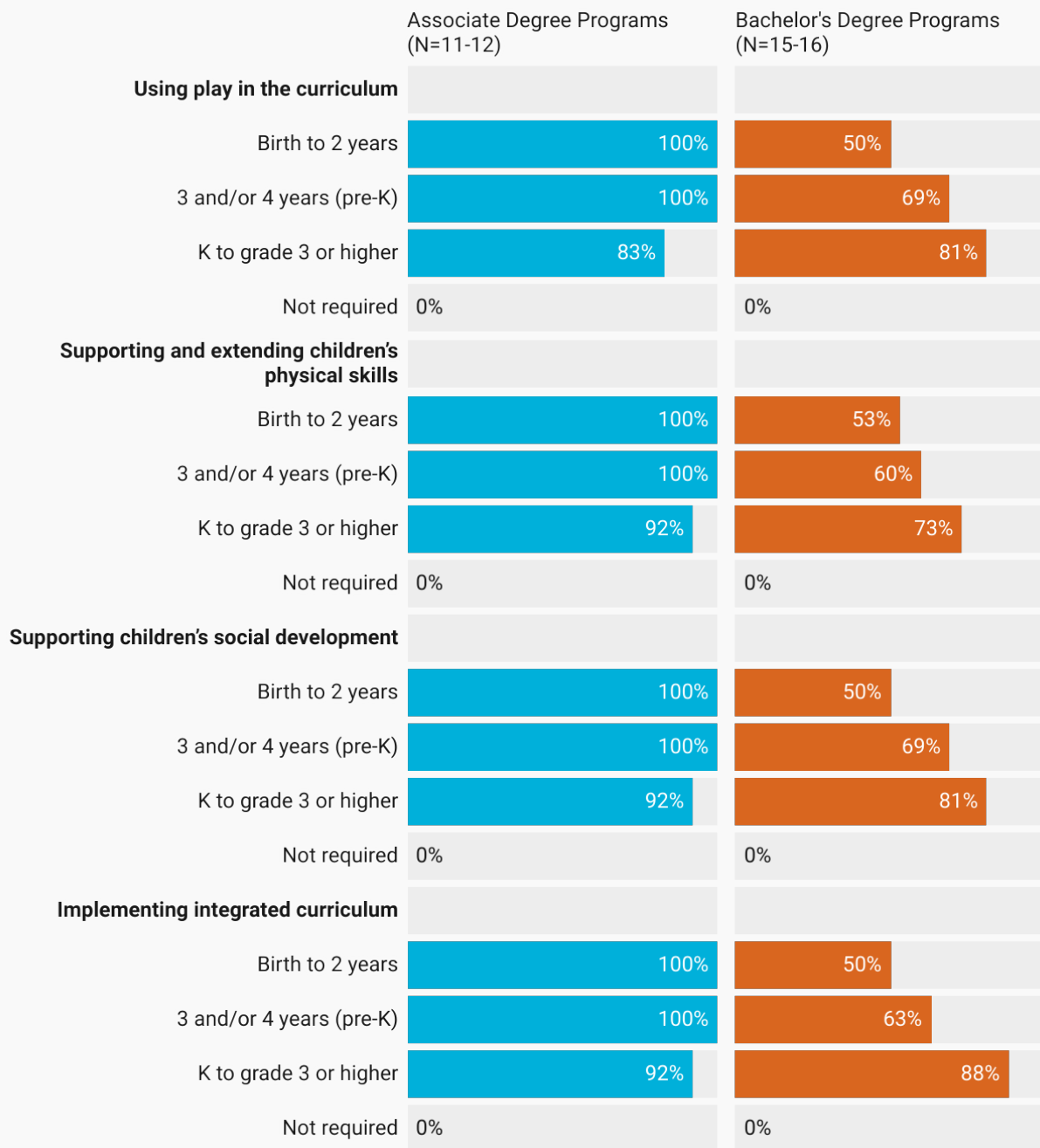
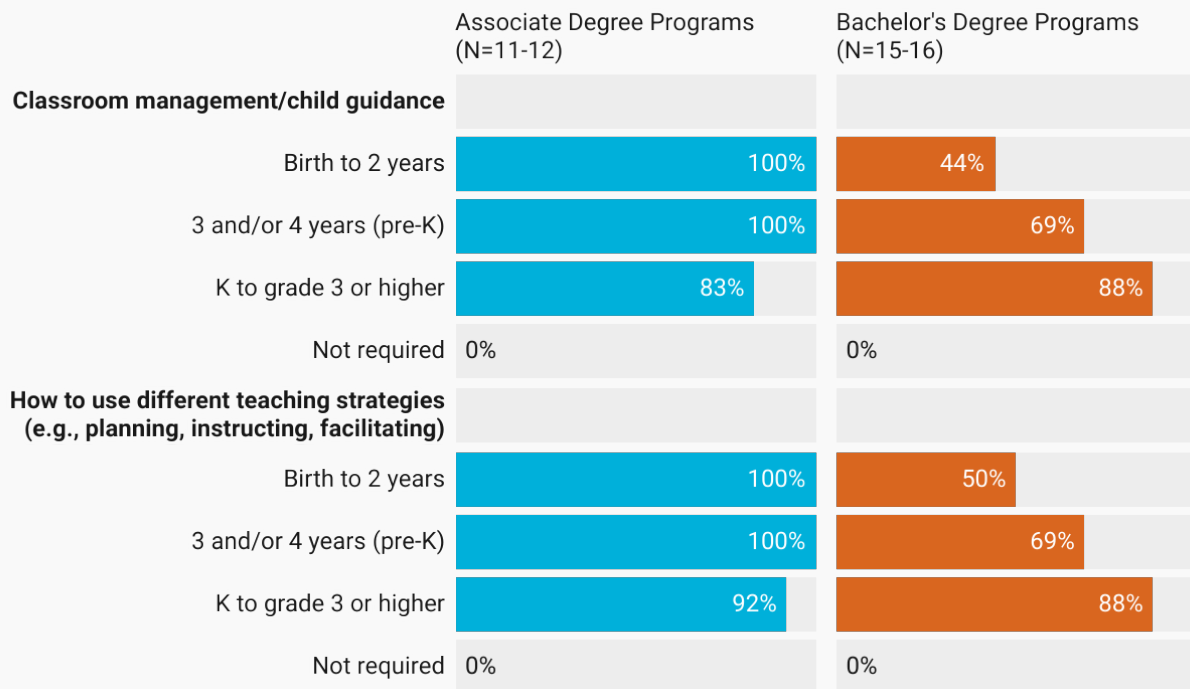


FIGURE B-3. REQUIRED TEACHING AND CURRICULUM CONTENT, BY AGE GROUP AND DEGREE LEVEL (CONTINUED)



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

FIGURE B-4. REQUIRED CHILD DEVELOPMENT AND LEARNING CONTENT, BY AGE GROUP AND DEGREE LEVEL

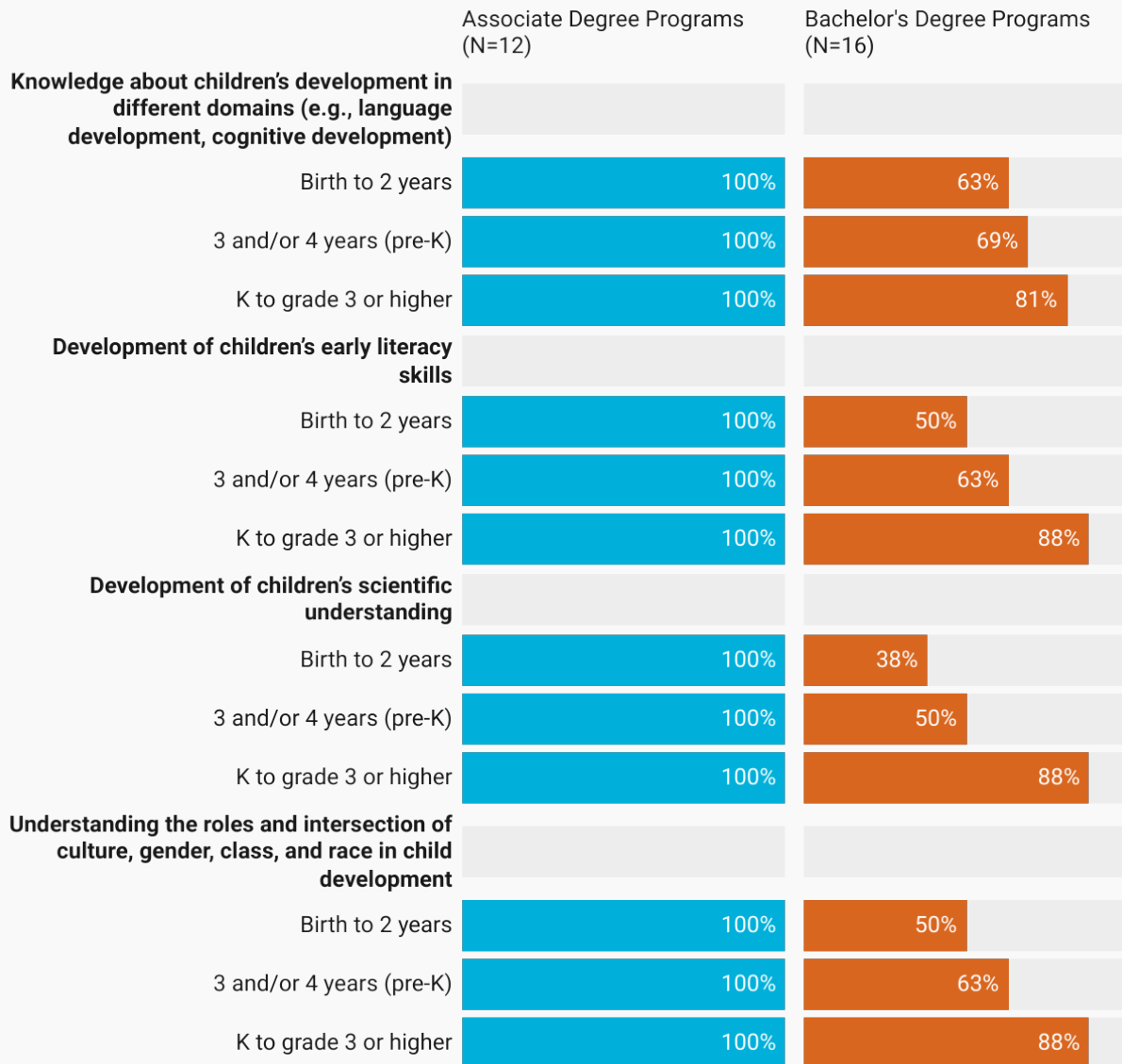
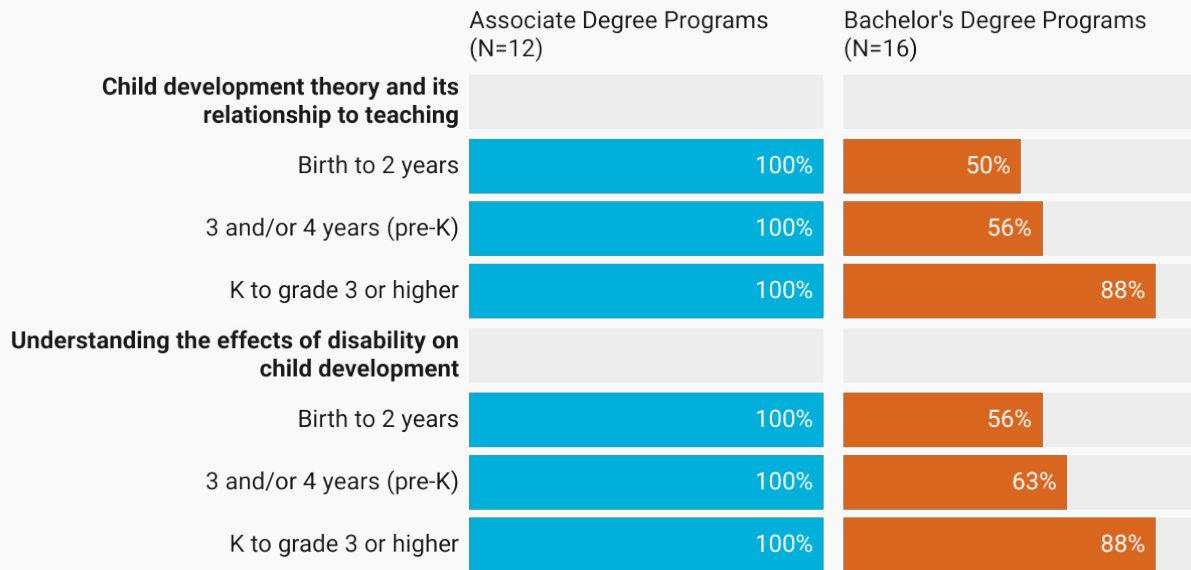
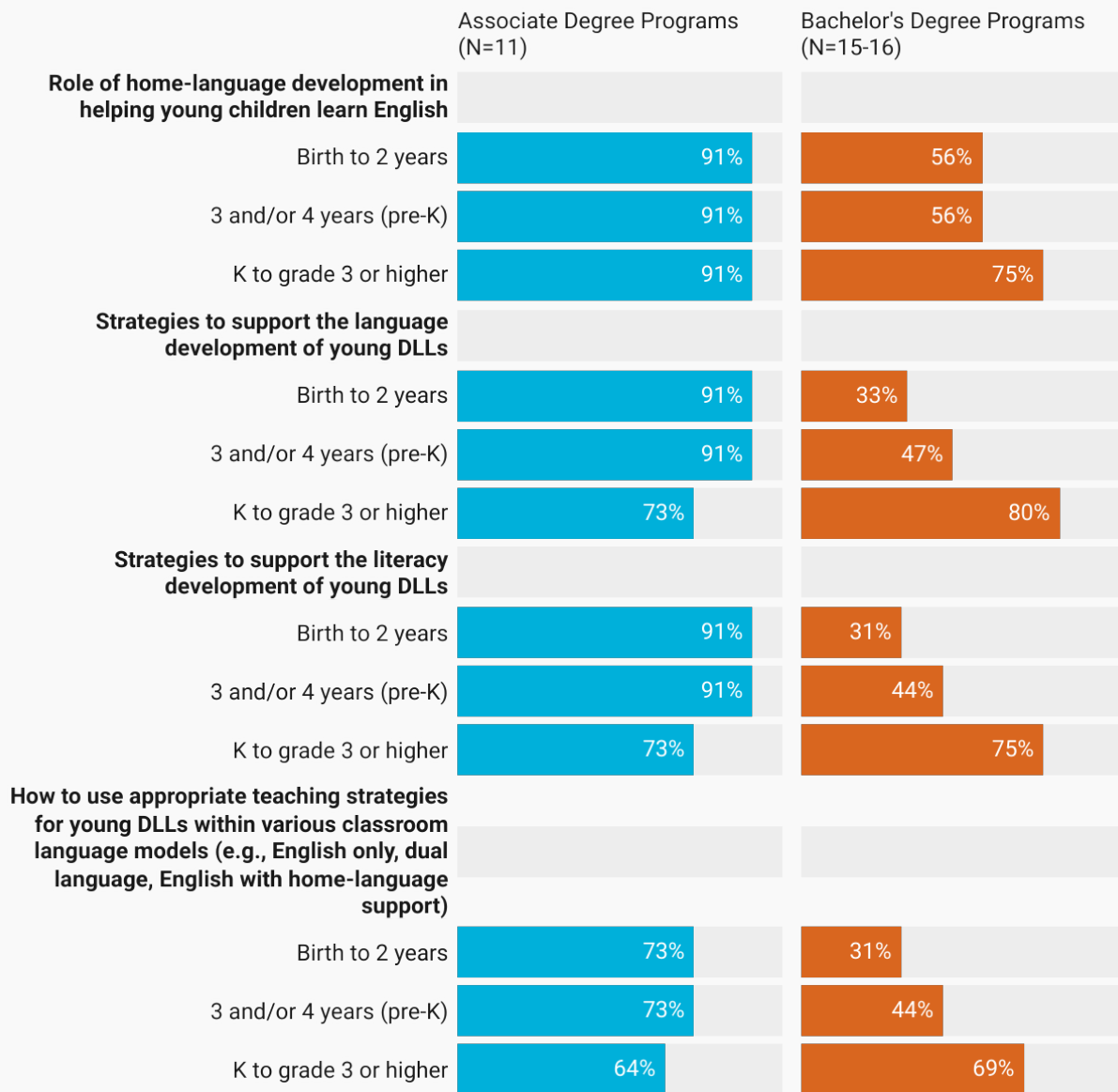


FIGURE B-4. REQUIRED CHILD DEVELOPMENT AND LEARNING CONTENT, BY AGE GROUP AND DEGREE LEVEL (CONTINUED)



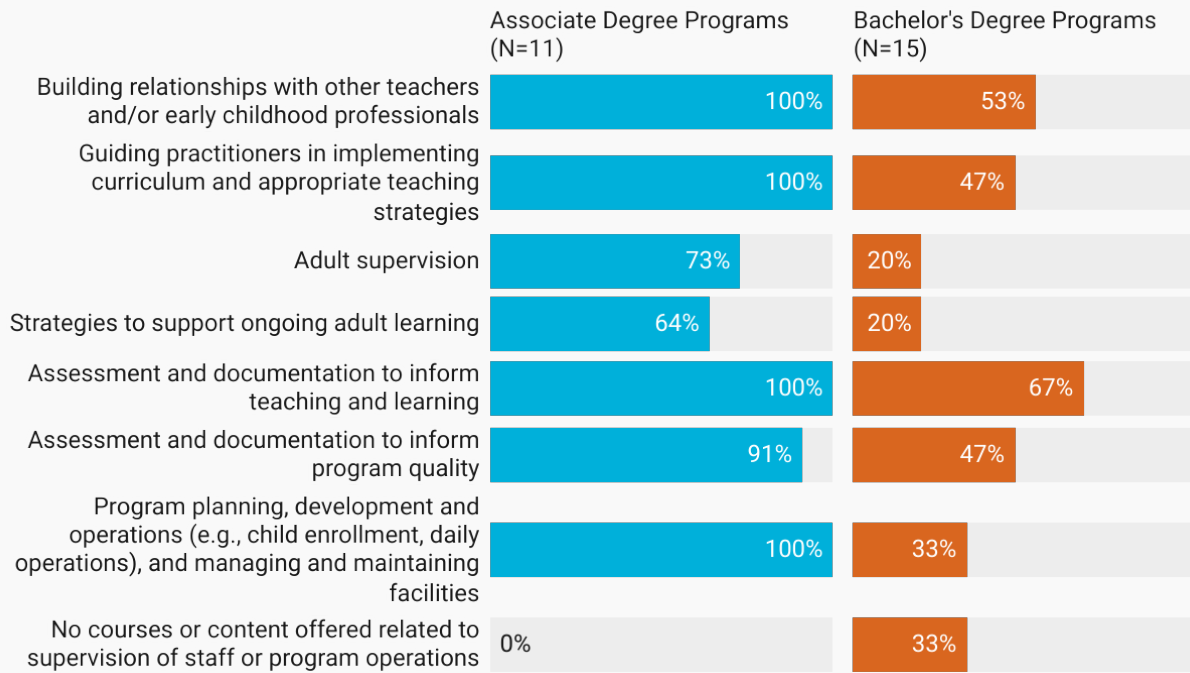
Source: Center for the Study of Child Care Employment, University of California, Berkeley

FIGURE B-5. REQUIRED CONTENT RELATED TO DUAL LANGUAGE LEARNERS (DLLs), BY AGE GROUP AND DEGREE LEVEL



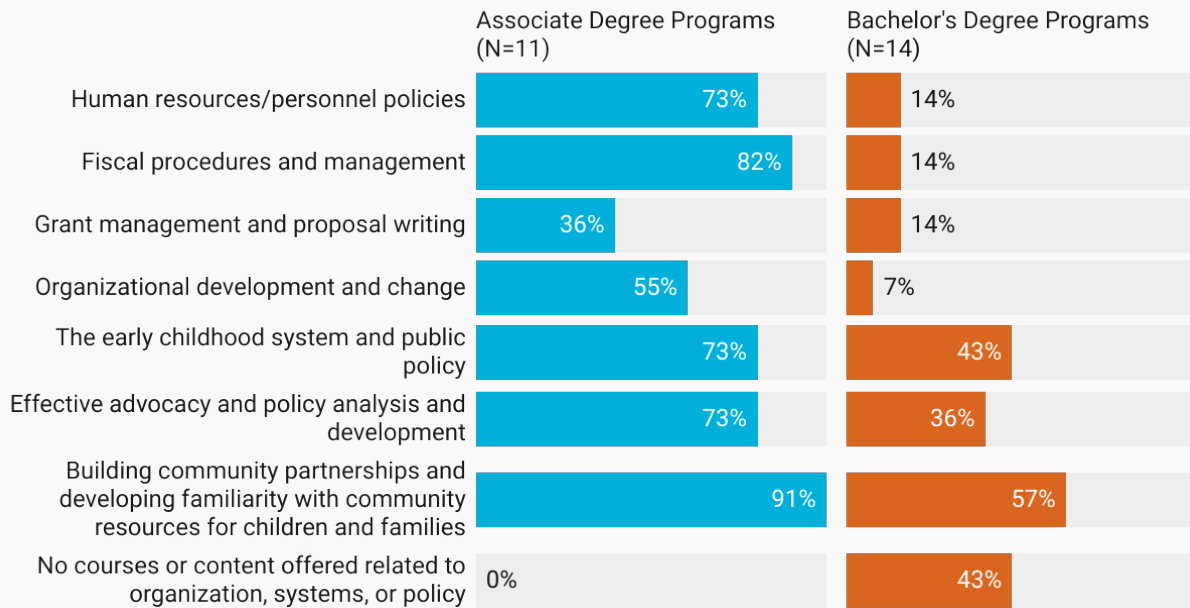
Source: Center for the Study of Child Care Employment, University of California, Berkeley

FIGURE B-6. REQUIRED SUPERVISION AND OPERATIONS CONTENT, BY AGE GROUP AND DEGREE LEVEL



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

FIGURE B-7. REQUIRED ORGANIZATION AND SYSTEMS CONTENT, BY AGE GROUP AND DEGREE LEVEL



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

Appendix C: Course Content Related to Administration and Leadership

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 adult learning
- Assessment and documentation to inform teaching and learning
- Assessment and documentation to inform program quality
- Program planning, development, and operations
- 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 care and education system and public policy
- Effective advocacy, policy analysis, and development
- Building community partnerships and developing familiarity with community resources for children and families

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Editor: Deborah Meacham

About CSCCE

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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