



TEACHING THE TEACHERS OF  
OUR YOUNGEST CHILDREN:  
THE STATE OF EARLY CHILDHOOD  
HIGHER EDUCATION IN NEW YORK, 2015

DECEMBER 2015

By the Center for the Study of Child Care Employment,  
with Child Trends



CENTER FOR THE STUDY OF CHILD CARE EMPLOYMENT  
UNIVERSITY OF CALIFORNIA, BERKELEY

© 2015 Center for the Study of Child Care Employment  
All rights reserved.

Center for the Study of Child Care Employment  
Institute for Research on Labor and Employment  
University of California, Berkeley  
2521 Channing Way #5555  
Berkeley, CA 94720  
(510) 643-8293  
[www.irle.berkeley.edu/cscce](http://www.irle.berkeley.edu/cscce)

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

Suggested Citation:

Center for the Study of Child Care Employment, with Child Trends (2015). *Teaching the Teachers of Our Youngest Children: The State of Early Childhood Higher Education in New York, 2015*. Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley.

*Teaching the Teachers of our Youngest Children: The State of Early Childhood Higher Education in New York* was made possible through the generous support of the Heising-Simons Foundation.

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

Editor: Dan Bellm

**Teaching the Teachers of Our Youngest Children:  
The State of Early Childhood Higher Education in New York, 2015**

By the Center for the Study of Child Care Employment,  
with Child Trends

***TABLE OF CONTENTS***

---

Introduction.....	4
Part 1. Early Childhood Higher Education Today.....	8
Finding One: Program Offerings.....	8
Finding Two: Field-Based Learning Experiences.....	15
Finding Three: Portrait of Faculty.....	18
Finding Four: Supporting Student Success.....	23
Finding Five: Program Challenges.....	25
Part 2. Early Childhood Higher Education, an Evolving Landscape .....	27
Finding Six: Family Engagement.....	27
Finding Seven: Early Mathematics.....	31
Discussion and Recommendations.....	36
Concluding Thoughts.....	41
References.....	42

## LIST OF TABLES AND FIGURES

---

**Table 1:** List of Domains and Topics of Course Content Included in the New York Early Childhood Higher Education Inventory

**Figure 1:** Primary Goals of New York Early Childhood Higher Education Degree Programs, by Program

**Figure 2:** Development of Dual Language Learners Children’s Literacy Skills: Age-Group Focus of Programs Participating in the New York Early Childhood Higher Education Inventory, Selected Topics

**Figure 3:** Field Experiences Required in New York Early Childhood Higher Education Degree Programs

**Table 2.** Number and Mean Hours of Practica Required by Programs Participating in the New York Early Childhood Higher Education Inventory

**Figure 4:** Race/Ethnicity of Faculty Participating in the New York Early Childhood Higher Education Inventory, by Degree Program

**Figure 5:** Age of Faculty Participating in the New York Early Childhood Higher Education Inventory, by Degree Program

**Figure 6:** Importance of Inclusion of Domains in Teacher Preparation Programs: Percentage of Faculty Reporting “Very Important” for Infants and Toddlers, by Degree Program

**Table 3.** List of Family Engagement Topics Included in the New York Early Childhood Higher Education Inventory

**Table 4.** List of Early Mathematics Topics Required in Programs Participating in the New York Early Childhood Higher Education Inventory, by Degree Program

**Figure 7.** Supporting English Learners in Developing Mathematical Knowledge as They Concurrently Acquire English: Knowledge and Skill, as Reported by Faculty Participating in the New York Early Childhood Higher Education Inventory, by Age Group and Degree Program

## INTRODUCTION

---

Today the importance of early care and education (ECE) to children’s lifelong learning and to our nation’s economic well-being is recognized up to the highest levels of government, and in businesses, schools, and living rooms across the country. This understanding represents a dramatic shift from earlier decades, and carries with it heightened expectations for what teachers of young children should know and be able to do (Whitebook, Phillips, & Howes, 2014), in light of mounting evidence about inadequate and unequal educational quality, particularly for children of color and those living in low-income families (Yoshikawa et al., 2013; Hernandez, 2011; Karoly, 2009).

In 2015, the Institute of Medicine and the National Research Council of the National Academy of Sciences issued several recommendations to strengthen professional preparation standards for early childhood practitioners and the institutions responsible for their preparation and ongoing learning. *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation* (Institute of Medicine [IOM] & National Research Council [NRC], 2015) includes among its recommendations: 1) transitioning to a minimum requirement of a bachelor’s degree, with specialized knowledge and competencies, for all lead teachers working with children from birth to age eight; and 2) the development and enhancement of interdisciplinary higher education programs for early care and education professionals, including practice-based and supervised learning opportunities.<sup>i</sup>

In recent years, New York, like many states, has committed public and private resources toward multiple efforts to improve educational services and to ensure that teacher education degree and certification programs can better prepare their graduates to meet the complex needs of young children of all ages (Swartz & Johnson, 2010; Ray, Bowman, & Robbins, 2006; Hyson, Horm, & Winton, 2012). Yet there remains significant variation in the type and level of education that early childhood practitioners attain across different settings (Ochshorn, Garcia, & Cleary, 2007). In light of the Institute of Medicine/National Research Council’s recommendations for strengthened standards, and the workforce needs of the state, now seemed the appropriate time to reexamine the status of early childhood higher education offerings in New York, in order to allow policy makers, institutions of higher education, and other stakeholders to assess the capacity of the state’s higher education system and inform policy, practice, and investment.

The New York Early Childhood Advisory Council (ECAC) with its partner members, New York Early Childhood Professional Development Institute and the New York State Association

---

<sup>i</sup> Adapted from “Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation,” by the Institute of Medicine and National Research Council, copyright 2015 by the National Academy of Sciences.

for the Education of Young Children engaged the Center for the Study of Child Care Employment (CSCCE) to conduct this assessment, by implementing the *Early Childhood Higher Education Inventory* (Kipnis, Ryan, Austin, Whitebook, & Sakai, 2012a). 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, master’s, and doctoral levels, and to provide a portrait of early childhood faculty members.<sup>ii</sup> (See **Box 1** for a description of Inventory Methodology.)

### *The Early Childhood Higher Education Landscape in New York*

A network of 27 community colleges and 64 public and private colleges and universities offers a complex array of early childhood degree programs, serving prospective and current early childhood practitioners across the state.<sup>iii</sup> Twenty-seven public community colleges and one public college/university offer 44 early childhood associate degree programs. Sixty-four colleges and universities offer 58 bachelor’s degree programs, 141 master’s degree programs, and four doctoral degree programs in early childhood.

In the current study, almost three-quarters of associate and master’s degree programs reported serving a mix of pre-service students and those already working in the early childhood field. Nearly one-half of bachelor’s degree programs reported exclusively targeting pre-service students. Less than 10 percent of all degree programs reported exclusively serving adults already working in the field.

The Inventory findings are presented in two sections. The first section, *Early Childhood Higher Education Today*, examines the extent to which New York ECE higher education programs:

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

The second section of this report, *Early Childhood Higher Education, An Evolving Landscape*, examines how these institutions of higher education are adapting to emerging knowledge about children’s learning and development. Specifically, the report explores the

---

<sup>ii</sup> New York is one of seven states (along with California, Indiana, Nebraska, New Hampshire, New Jersey, and Rhode Island) that have participated in the Inventory.

<sup>iii</sup> Based on information provided by programs that participated in the Inventory, it is estimated that during the 2013-2014 academic year, 3,510 students were registered in community college programs, 1,364 students were registered in bachelor’s degree programs, and 2,268 students were registered in master’s degree programs. During this same time period, colleges and universities that participated in the Inventory estimated that they conferred 658 associate degrees, 531 bachelor’s, and 1,315 master’s degrees.

extent to which New York ECE higher education programs have incorporated recent findings related to the importance of:

- promoting early mathematical understanding; and
- engaging families to support young children’s optimal development, learning, and school success.

### **Box 1. Study Design**

During the 2014-15 academic year, researchers from CSCCE implemented the Early Childhood Higher Education Inventory, which consists of three modules: a mapping of the population of higher education programs within the state; an online program survey completed by degree program leaders (e.g., dean, chair or coordinator); and an online faculty survey completed by individual faculty members. The program findings reported here are drawn from a final sample of 27 associate, 29 bachelor’s, and 58 master’s degree programs.<sup>iv</sup>

The faculty findings are drawn from a final sample of 74 community college faculty members, and 194 bachelor’s and graduate degree faculty members.

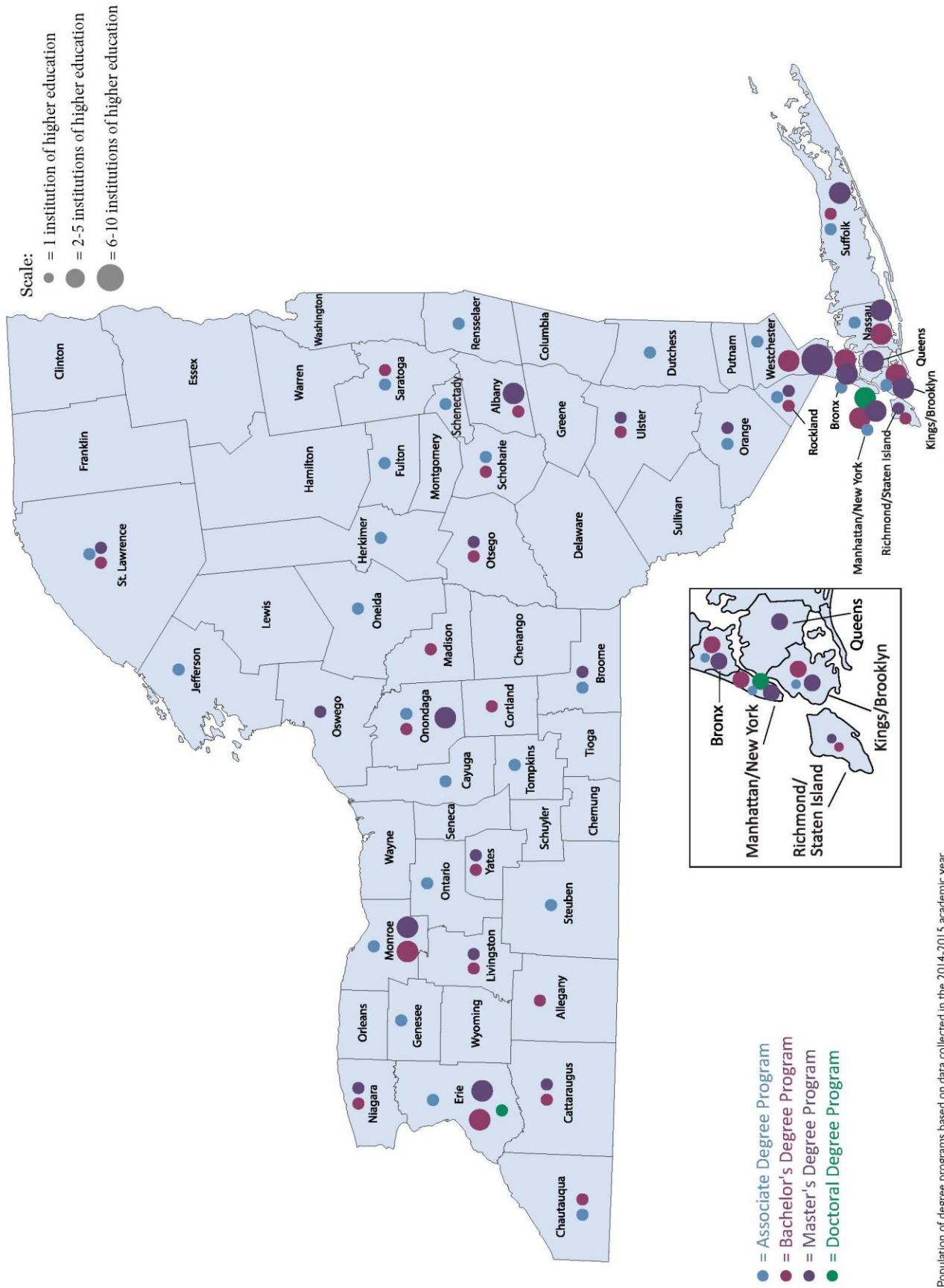
See the Technical Report for a detailed description of the methods of this study, including the sampling frame and selection, field procedures, response rate, and survey questions, along with more detailed findings from the Inventory.



---

<sup>iv</sup> There are two programs in New York specifically identified as offering doctoral degrees in early childhood education. As data for these two programs cannot be dis-identified, data collected from the programs are not included in this report.

# Distribution of New York Institutions of Higher Education Offering Early Childhood Degree Programs<sup>1</sup>



<sup>1</sup>Population of degree programs based on data collected in the 2014-2015 academic year.



## PART 1: EARLY CHILDHOOD HIGHER EDUCATION TODAY

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

### FINDING ONE: PROGRAM OFFERINGS Goals, Course Content, and Age-Group Focus

*New York early childhood degree programs report differing goals for preparing students. More than one-half of associate degree programs identify*

*their primary goal as preparing students for multiple roles involving working with young children in a variety of settings, while nearly three-quarters of bachelor degree programs and nearly one-half of master's degree programs identify their primary goal as preparing students for teaching and/or administrative roles in early childhood or early childhood/elementary settings. Degree programs offer a range of topics related to child development and approaches to teaching, but the topics and coursework vary by degree program and age-group focus, with required course content focused less on infants and toddlers than on older children. Fewer programs offer an in-depth focus on topics related to leadership and administration.*



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

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

1. to prepare students for teaching and/or administrative roles ONLY for children birth to five – before they enter kindergarten;
2. to prepare students for teaching and/or administrative roles in early childhood or early childhood/elementary settings – defined as birth to Grade 2 or birth to Grade 6;
3. to prepare students for the roles of early interventionists or early childhood special educators;
4. to prepare students for multiple roles involving young children, working in many types of settings; or
5. to prepare students for a career as a researcher or a college-level faculty member.

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

1. child development and learning;
2. teaching, comprising three primary content areas:
  - teaching diverse child populations;
  - teaching and curriculum; and



- teaching skills in early childhood settings; and
- 3. administration and leadership, comprising two primary areas:
  - supervision and operations; and
  - organizations and systems.

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

### ***Program Goals***

In New York, education requirements for those who teach in or administer early care and education programs (birth to five) vary primarily by setting. Requirements for teachers in the state’s Universal Pre-Kindergarten (UPK) program in public schools include the Early Childhood Birth to Grade 2 certification, which is based on an approved early childhood bachelor’s degree or an approved graduate-level teacher education program.<sup>v</sup> UPK educators who teach in community-based organizations, contracted by a school district to provide UPK services, must also hold this certification, or have a written plan to obtain it within three years of employment or by June 30, 2017, whichever is later. Certification is also required for educational directors and teachers serving preschool-age children in New York City’s licensed child care centers (with some alternative certifications).

Other sectors of the early care and education field are not required to have a bachelor’s degree or certification, although staff requirements intersect with the higher education system. These include teachers serving children from birth to five in child care centers outside of New York City, as well as infant and toddler teachers in the City. These teachers are required to have either: an associate degree in early childhood, child development, or a related field; a Child Development Associate (CDA) credential; or nine college credits in early childhood, child development, or a related field, with a plan leading to a CDA credential. For family child care home providers, there are no educational requirements at the college level.

It is likely, however, that many early childhood teaching staff in New York mirror their counterparts nationally, who possess higher levels of education and training than may be required (National Survey of Early Care and Education Project Team [NSECE], 2013).

<sup>v</sup> To be eligible for ECE Certification, established in 2004, students are required to have a bachelor’s degree from a New York State Registered Program – Early Childhood Education (Birth to Grade 2), defined as “an education program that has been approved in advance by the New York State Education Department as containing the studies required for certification as a New York State educator.” If students already have a bachelor’s degree in a subject outside of education or teacher preparation, they are required to complete a graduate-level approved teacher education program. These certifications allow teachers to work in Pre-Kindergarten through Grade 2 classrooms in the public schools.

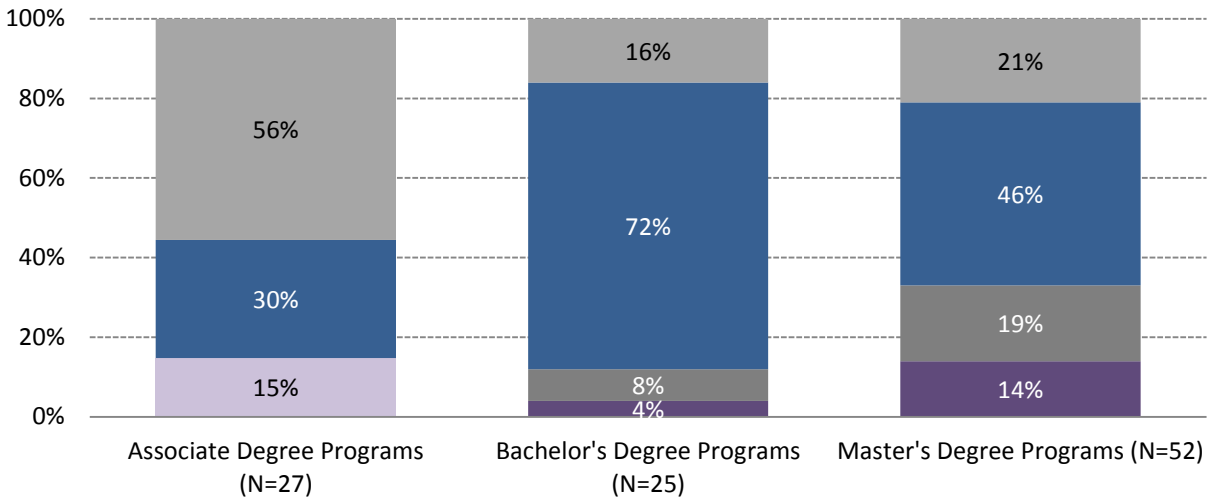
Additionally, initiatives such as the Quality Rating and Improvement System (QRIS), known as QUALITYstarsNY, include standards focused on supporting teaching staff's increased attainment of higher education, and funding to support tuition assistance, mentoring, and coaching. Despite these efforts, however, there remains variability within and across degree levels, regarding what constitutes an appropriate course of study for teachers of New York's youngest children.

At the associate degree level, about two-fifths of programs identified teacher and administrator preparation as their primary goal. About two-fifths of associate, about three-quarters of bachelor's, and less than one-half of master's degree programs identified preparing teachers and administrators as their primary goal. Associate degree programs (56 percent) were more likely than bachelor's degree programs (16 percent) and master's degree programs (21 percent) to report that their primary goal was to "prepare students to work in multiple roles involving young children working in many types of settings." (See **Figure 1.**) It is important to recognize that even if programs reported a primary goal other than teacher or administrator preparation, they may still be preparing students for teaching and administrative roles.

Table 1. List of Domains and Topics of Course Content Included in the New York Early Childhood Higher Education Inventory

Domain	Topics
Child Development and Learning	Domains of development
	Effects of culture, gender, class, and race on development
	Effects of disability on development
	Development of children’s understanding and skills
	Development of children’s literacy skills
	Development of dual language learners
Teaching	<i>Child development theory and its relationship to teaching</i>
	<i>Teaching diverse child populations:</i> children who are living in poverty, are dual language learners, have special needs, and/or exhibit challenging behaviors, and children from diverse ethnic and cultural backgrounds
	<i>Teaching and curriculum:</i> using integrated curriculum and play in teaching, supporting social and physical development, and teaching art, literacy, science, and social studies
Leadership and Administration	<i>Teaching skills in early childhood settings:</i> using observation, assessment and documentation to inform teaching and learning, different teaching techniques, and classroom management
	<i>Supervision:</i> Building relationships with other teachers and/or early childhood professionals, guiding practitioners in implementing curriculum and appropriate teaching strategies, adult supervision, adult learning styles, and assessment and documentation to inform teaching and learning
	<i>Program operations:</i> Assessment and documentation to inform program quality, program planning, development and operations (e.g., child enrollment, daily operations), using technology to maintain records and enhance program operations, managing and maintaining facilities, human resources/personnel policies, fiscal procedures and management, grant management and proposal writing, and organizational development and change
	<i>Policy and advocacy:</i> The early childhood system and public policy, effective advocacy, and policy analysis and development

**Figure 1. Primary Goal of New York's Early Childhood Higher Education Degree Programs, by Program**



- To prepare students for multiple roles involving young children, working in many types of settings
- To prepare students for teaching and/or administrative roles in early childhood (birth to grade 2) or early childhood/elementary settings (birth to grade 6)
- To prepare students for teaching and/or administrative roles - only in early childhood education settings for children birth to five
- To prepare students for the roles of early interventionists or early childhood special educators
- Other

### Course Content

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

### **Child Development and Learning**

Almost all degree programs at all levels reported requiring the course content topics related to the domains of child development and learning, with two exceptions. Approximately one-third of associate and about one-quarter of bachelor's degree programs did not require the topic "development of dual language learners." About one-quarter of master's degree

programs reported they did not require the topic “development of children’s scientific understanding.”

### **Teaching**

Similar to the child development and learning domain, 80 percent or more of all degree programs, across levels, required course content topics in each of the three dimensions of the teaching domain, with three exceptions. Associate and bachelor’s degree programs were less likely to require “teaching children who are dual language learners.” Topics required less often by master’s degree programs were “teaching art to children,” and “supporting and extending children’s physical skills.”

### **Administration and Leadership**

Course content was not consistently offered to prepare practitioners for early childhood supervisory, administrative, or other leadership roles. Overall, a smaller percentage of degree programs across all types reported offering coursework related to this domain than any others. Only four of the 15 topics examined in the Inventory—“assessment and documentation to inform teaching and learning,” “assessment and documentation to inform program quality,” “building relationships with other teachers and/or early childhood professionals,” and “guiding practitioners in implementing curriculum and appropriate teaching strategies”—were offered by more than one-half of all programs, across degree levels. Program leaders were also asked if the degree program offered coursework that could be applied to the New York State Children’s Program Administrator Credential.<sup>vi</sup> Most programs across degree levels reported that this coursework was not offered (71 percent of bachelor’s degree and 83 percent of master’s degree programs).

### **Age-Group Focus**

Depending on the ages of children they serve and the settings 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). The Institute of Medicine and the National Research Council conclude that this variability is both inconsistent with the science

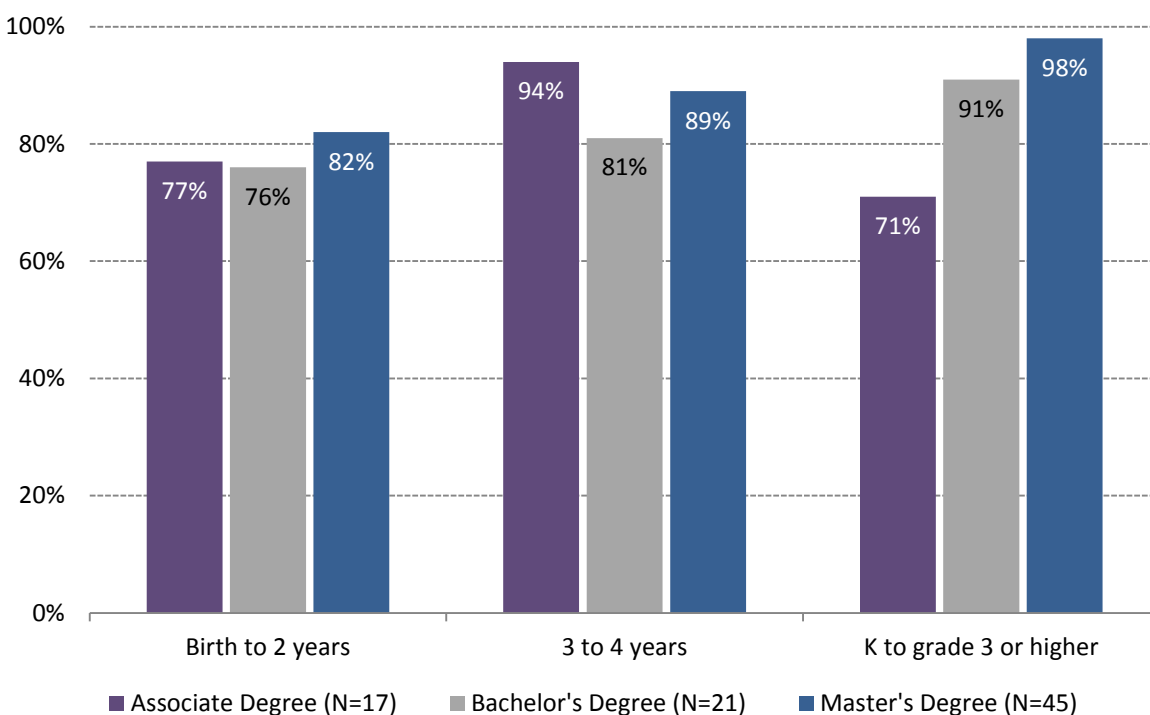
---

<sup>vi</sup> The New York State Children’s Administrator Credential, though not required, is designed to be recognized as a standard by which to measure program management, and leadership abilities of early childhood and school-age program administrators. The term “administrators” is inclusive representing a variety of titles used in early childhood and school age programs to describe the role of director, site supervisor, executive director, or administrators (New York State Association for the Education of Young Children, 2016).

of early development and learning, and unlikely to produce consistently effective preparation of teachers and administrators for early learning programs serving children from birth to age eight (IOM & NRC, 2015).

Thus, creating an integrated birth-to-age-eight early care and education system, inclusive of the institutions preparing the ECE workforce, has emerged as a major goal, as well as a metric by which to measure progress toward it. The Inventory intentionally sought to compare differences among programs along the age continuum. When child development and learning and teaching and curriculum topics were required, degree programs varied by topic and age-group focus. Associate degree programs were consistently less likely to require topics focused on school-age children. Bachelor’s degree programs were less likely to focus on “understanding the effect of disability on child development” for children under five years old. All degree programs were less likely to report focusing coursework on the “development of dual language learners” and “development of scientific understanding” for children age two or younger (See **Figure 2.**)

**Figure 2: Development of Dual Language Learners: Age-Group Focus of Programs Participating in the New York Early Childhood Higher Education Inventory, Selected Topics**



**FINDING TWO: FIELD-BASED LEARNING EXPERIENCES**  
Requirements and Age-Group Focus

*Students earning a bachelor's degree or master's degree in early childhood are typically required to complete a student teaching experience, and to participate in*

*additional practica. In contrast, the majority of students completing an associate degree in early childhood participate only in practica. Student teaching experiences primarily occur at the end of the course of study in degree programs at all levels. When age groups are required for field experiences, degree programs are more likely to require a focus on preschoolers and school-age children than on infants and toddlers.*



**What we asked about field-based experiences:**

Program leaders were asked about two distinct types of field experiences: student teaching and practica. For each, respondents were asked to indicate whether field-based experience was required in order to attain the degree, and if it was, they were asked a series of questions about it, including: 1) timing and duration; 2) age-group focus; and 3) differences in field experience structures for pre-service and experienced teachers.

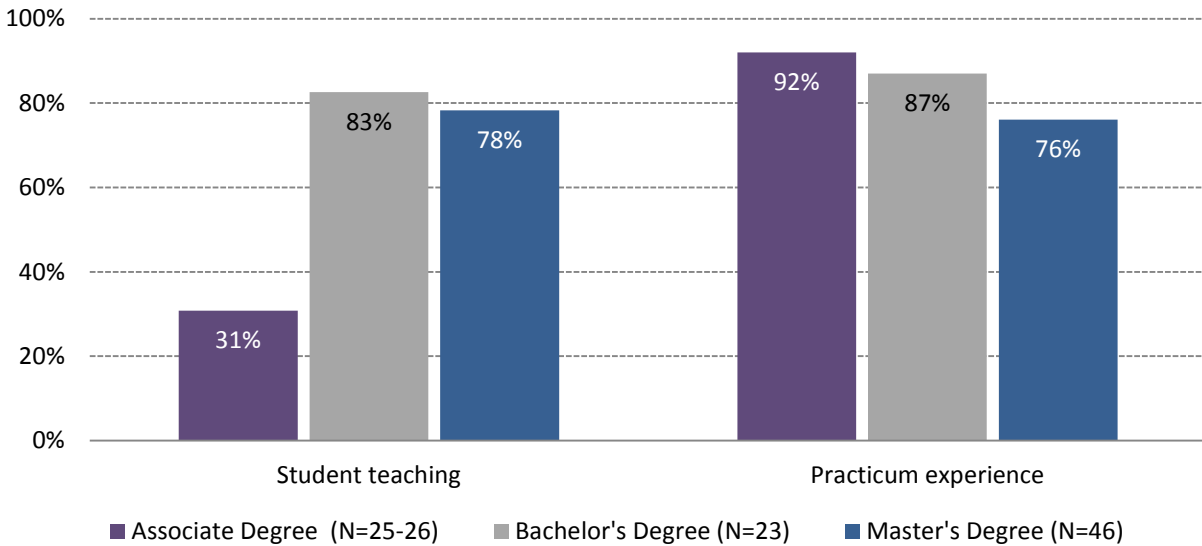
There is widespread agreement that field-based learning experiences for teachers working with children of all ages are critically important for developing new teaching skills or improving upon existing ones (IOM & NRC, 2015; Whitebook et al., 2012; National Council for Accreditation of Teacher Education,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

**Required Field-Based Experiences**

Reflecting alignment with state program standards for New York teacher preparation programs, most bachelor's (83 percent) and master's degree programs (78 percent) required a student teaching experience, and most bachelor's (87 percent) and master's degree programs (76 percent) also required at least one practicum. In contrast, one-third of associate degree programs required student teaching, while nearly all (92 percent) required at least one practicum. (See **Figure 3.**)



**Figure 3: Field Experiences Required in New York Early Childhood Higher Education Degree Programs**



### Number, Duration, and Timing of Practicum Experiences

The total number of practica and hours that students were engaged in a practicum is difficult to assess, as the number of on-site hours typically required to complete a practicum course ranged from a minimum of two to as many as 300 hours per practicum.<sup>vii</sup> (See **Table 2.**)

<sup>vii</sup> Because practica were the primary strategy for field-based experiences required across all degree programs, they are the focus of this section of the report. For details related to the number, duration, and timing of student teaching requirements, see the Technical Report.

**Table 2. Number and Mean Hours of Practica Required by Programs Participating in the New York Early Childhood Higher Education Inventory**

<b>Program Type</b>	<b>One practicum required</b>	<b>Two practica required</b>	<b>Three practica required</b>	<b>Four or more practica required</b>	<b>Mean number of hours typically required for completing a practicum course</b>
<b>Associate Degree (n=23)</b>	35%	35%	17%	13%	99
<b>Bachelor's Degree (n=19)</b>	16%	21%	42%	21%	99
<b>Master's Degree (n=32)</b>	19%	44%	19%	18%	60

The first practicum experience occurred at different times for students at different degree levels. Master's degree programs (65 percent) were more likely than bachelor's (26 percent) or associate (27 percent) degree programs to require that the first practicum occur at the beginning of the course of study. Practicum experiences for early childhood students were relatively unlikely to reflect students' status as either novice or experienced teachers. Less than one-third of degree programs at all levels reported structuring practicum experiences differently for novice and experienced teachers.

### **Age-Group Focus**

Less than one-quarter (22 percent) of all associate degree programs required practicum experience to include a focus on children from kindergarten through second grade. Most bachelor's degree programs required practicum experience to focus on preschool-age children (70 percent) and children in early elementary grades (75 percent); fewer (30 percent) required a focus on infants and toddlers. Approximately one-half master's degree programs (49 percent) that required a practicum required a focus on preschool-age children; 42 percent required a focus on infants and toddlers, and 77 percent required a focus on children in the elementary grades.

**FINDING THREE: PORTRAIT OF FACULTY**  
Employment Status, Demographics,  
Professional Background, and Professional  
Development Needs

*New York early childhood degree programs are staffed by a mixture of full-time and adjunct and/or part-time faculty. Faculty members are primarily women, White/Caucasian, and monolingual English speaking. Across degree levels, one-quarter to more than 45 percent of faculty report being 60 years or older. Most faculty members report having had academic preparation specific to early childhood, and over one-half of associate, bachelor's, and master's degree faculty report having worked in an array of ECE professional roles in the past decade. Most faculty, however, have not had recent experience teaching children, particularly infants and toddlers. New York early childhood degree program faculty members are particularly interested in professional development related to working with children who are dual language learners and utilizing technology in teaching.*



**What we asked about faculty members:**

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

Individual faculty members were asked to identify:

1. their demographic characteristics, including: a) age; b) race/ethnicity; and c) linguistic capacity;
2. their academic background;
3. the primary focus of their teaching and expertise related to children across the birth-to-age-eight spectrum;
4. professional experiences in addition to college-level teaching in the previous ten years; and
5. professional development in which they had participated, and topics in which they would find it helpful to gain additional knowledge and training.

**Employment Status**

The reliance on part-time faculty is endemic throughout institutions of higher education, constituting two-thirds or more of faculty in colleges and universities nationwide (Curtis & Thornton, 2014; Center for Community College Student Engagement, 2014), and can pose multiple challenges for both faculty and students. Part-time faculty are often not as integrated as members of the department in which they teach, and not engaged in curriculum planning; further, they are typically paid to teach particular courses, and are not paid for additional

responsibilities such as student advising or program evaluation (Center for Community College Student Engagement, 2014). This can lead to full-time faculty taking on a greater share of administrative, institutional, and student advising responsibilities in addition to their teaching load (Center for Community College Student Engagement, 2014; Curtis & Thornton, 2014; Whitebook, Bellm, Lee, & Sakai, 2005; Maxwell, Lim, & Early, 2006; Early & Winton, 2001).

Although faculty members teaching in New York early childhood degree programs defy this national trend, many are employed part-time. Among those who participated in the Inventory, one-half (50 percent) of associate and more than one-third of bachelor's and master's degree faculty members reported being employed as adjunct faculty or part-time lecturers in their respective degree programs.

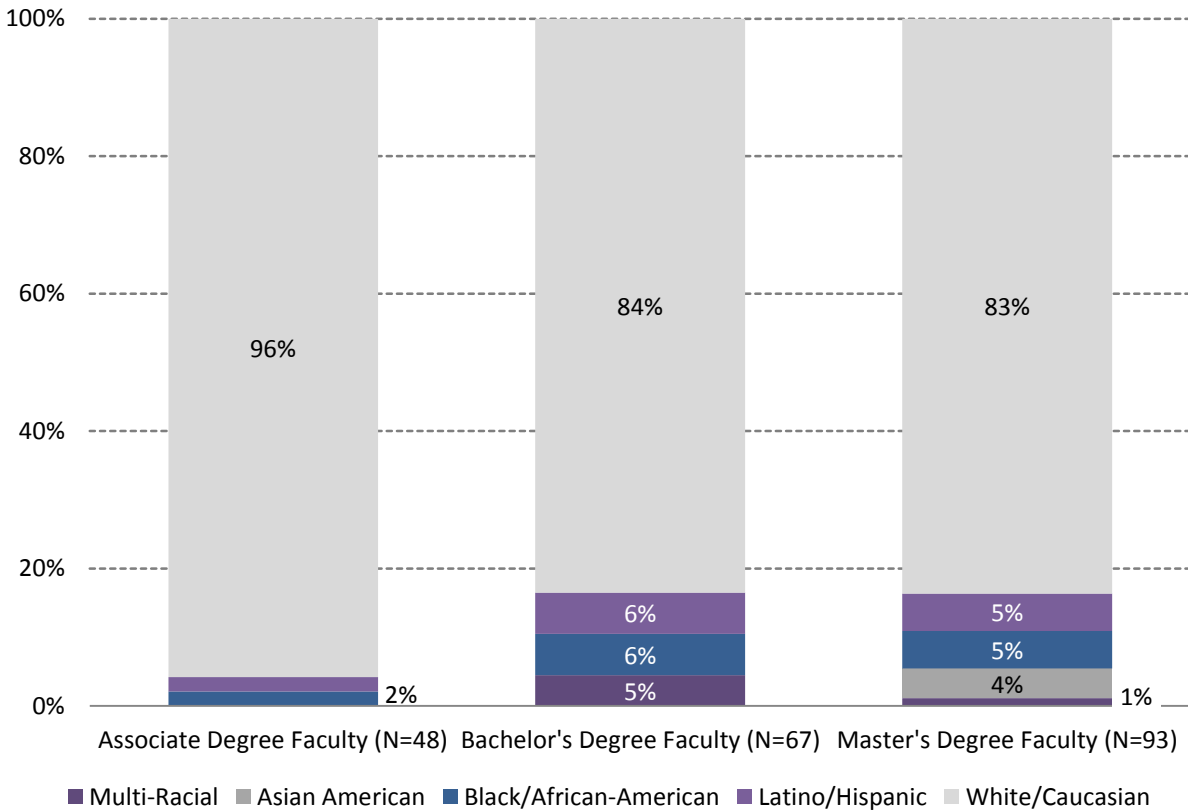
### **Demographic Characteristics**

The absence of racial and ethnic minorities among early childhood faculty, in contrast to early childhood student and child populations, is also well documented, with implications for the degree of focus on diversity in coursework and the availability of role models for students (Bornfreund, 2011; Johnson et al., 2010; Lim, Maxwell, Able-Boone, & Zimmer, 2009; Maxwell, Lim, & Early, 2006; Whitebook, Bellm, Lee, & Sakai, 2005; Ray, Bowman, & Robbins, 2006; Early & Winton, 2001). The preponderance of older faculty, many of whom are likely to retire in the coming decade, raises further concern about the adequacy of the pipeline for future faculty members (Kipnis et al., 2012a, 2012b, 2013).

#### **Racial, Ethnic, and Linguistic Diversity**

Most faculty members participating in the Inventory identified as White/Caucasian and monolingual. (See **Figure 4.**) Census data point to an increasingly diverse population in the state, with an adult population being 56.5 percent White (non-Hispanic) and a child population under the age of five being 46 percent White (non-Hispanic) and 26 percent Hispanic or Latino (The Annie E Casey Foundation, 2014). While all faculty members at all degree levels reported fluency in English, few reported fluency in another language. Approximately 90 percent of associate and master's, and 86 percent of bachelor's faculty members identified Spanish as a language they would like to know in order to communicate better with their students.

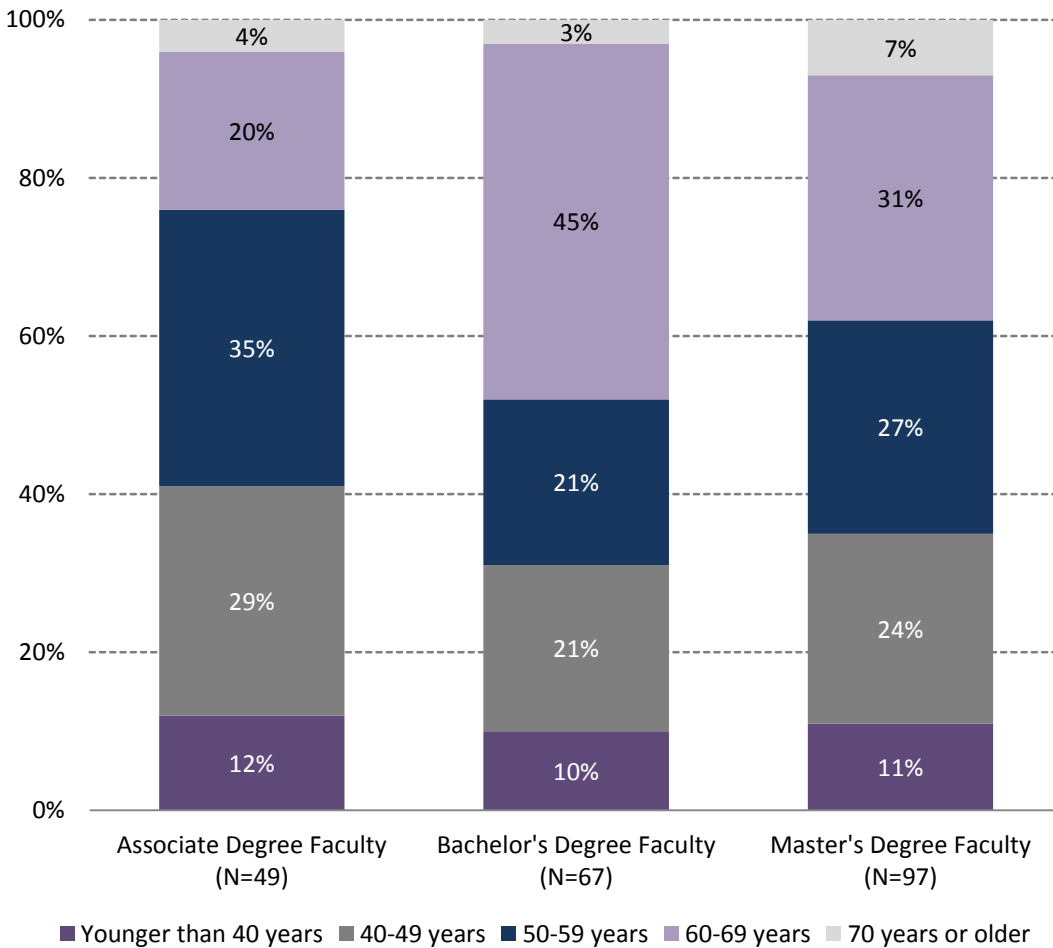
**Figure 4: Race/Ethnicity of Faculty Participating in the New York Early Childhood Higher Education Inventory, by Degree Program**



**Age**

Currently, bachelor’s degree faculty members were, on average, slightly older than their colleagues teaching in associate and master’s degree programs. The average age of associate and master’s degree faculty members was 53 years, and the average age of bachelor’s degree faculty was 55 years. Bachelor’s degree faculty were more likely to report being 60 years or older than were associate and master’s degree faculty members. (See **Figure 5**.)

**Figure 5: Age of Faculty Participating in the New York Early Childhood Higher Education Inventory, by Degree Program**



**Professional Background and Development Needs**

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

### **Academic Preparation and Teaching Focus Related to Early Childhood**

Approximately two-thirds or more of faculty members at each degree level had earned at least a bachelor's degree in early childhood education or child development. While we did not ask faculty members about the primary focus of their own early childhood degrees, faculty were asked to indicate whether the primary focus of their teaching in the degree program was "child development and learning," "curriculum and teaching methods," or "both equally," and about their expertise related to various age groups of children. Most faculty members, across degree levels, reported focusing on "curriculum and teaching methods" (either exclusively, or equally with child development and learning). Approximately three-quarters of faculty members at all degree levels reported that their teaching expertise included preschool-age children. Fewer (70 percent of associate, 57 percent of bachelor's, and 52 percent of master's degree faculty members) reported that their experience also included infants and toddlers.

### **Other Professional Experience**

More than one-half of associate (52 percent), bachelor's (52 percent), and master's (66 percent) degree faculty members reported experience within the previous ten years in other professional roles, including "classroom teacher" and "early childhood professional development provider" (e.g., coach, mentor, or trainer). The role most frequently reported by associate (44 percent), bachelor's (35 percent), and master's (48 percent) degree faculty was "early childhood professional development provider."

### **Professional Development**

The vast majority of faculty members at all degree levels reported participating in professional development during the last three years (more than 90 percent of faculty members, across degree levels). The two most frequently reported professional development opportunities, participated in by more than one-third of faculty members at all degree levels, involved content related to teaching practitioners to work with diverse groups of children and to conduct child assessments.

Faculty members at all degree levels indicated a number of areas in which it would be helpful to gain additional knowledge or training. The most commonly identified topics focused on teaching practitioners to work with children who are dual language learners and teaching practitioners to use technology with children.

**FINDING FOUR: SUPPORTING STUDENTS**  
Services Offered and Ongoing Challenges

*New York early childhood degree programs offer multiple types of support services designed to help students access resources and strengthen their academic skills.*

*Almost all degree programs offer financial aid and academic counseling to students. Most associate and master's degree programs offer alternative work schedules for working adults, and the majority of associate degree programs report offering classes off-campus in community-based settings. Bachelor's programs are less likely to offer flexible schedules. Primary challenges for many institutions include having sufficient resources to ensure that faculty members' administrative duties do not interfere with time spent with students, and insufficient ability to recruit students.*



**What we asked about supporting student success:**

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

1. counseling and cohort models;
2. access support; and
3. skill support.

Additionally, program leads were asked to identify student-related challenges facing their programs, and faculty members were asked to identify student-related resources needed in order to improve the degree program.

Typically, higher education students who work in early childhood settings are classified as non-traditional students, because in addition to working full-time, they are frequently older than recent high school graduates, are among the first in their families to attend college, often represent linguistic and/or ethnic minorities, and may also be parents of school-age or younger children (Sakai, Kipnis, Whitebook, & Schaack, 2014). Programs that offer support specifically designed for non-traditional early childhood students are associated with greater than average success in helping students achieve their educational goals in a timely fashion (e.g., transferring to a four-year institution or completing a degree) (Sakai et al., 2014; Whitebook, Schaack, Kipnis, Austin, & Sakai 2013; Kipnis et al., 2012a; Chu, Martinez-Griego, & Cronin, 2010).

**Services Offered**

As is customary among institutions of higher education, degree programs reported that students were offered a variety of services to help them access their education and to succeed in their educational careers. These included three general categories of service: counseling support, such as academic and financial aid counseling; access support, such as classes in



convenient locations and at convenient times (e.g., evenings, weekends); and skills support, such as academic tutoring and assistance with technology. Academic tutoring, financial aid counseling, and academic assistance for English language learners were generally reported as offered to all students. Less than one-quarter of degree programs tailored these services specifically to students in the early childhood degree program. Cohort programs, in which small groups of students move through a degree program together, were offered by 79 percent of master's, 60 percent of bachelor's, and 35 percent of associate degree programs. Most of these degree programs (42 percent of master's, 54 percent of bachelor's, and 63 percent of associate) tailored the cohort model to early childhood program students.

Associate degree programs were the most likely to report offering classes off-campus in community-based settings. Sixty percent did so, compared to 39 percent of bachelor's and 45 percent of master's degree programs. Bachelor's degree programs were less likely to offer alternative class schedules for working adults (e.g., evening or weekend classes). Thirty-nine percent offered such schedules, compared to 92 percent of associate and 86 percent of master's degree programs.

Master's degree programs were less likely to offer academic tutoring in subject areas other than reading/writing. Sixty-two percent of master's degree programs offered academic tutoring in math, compared to 100 percent of the associate and bachelor's degree programs.

### **Student-Related Challenges**

Among degree programs that reported experiencing at least one challenge, "insufficient ability to recruit students" was reported by 45 percent of associate, 71 percent of bachelor's, and 36 percent of master's degree programs. "Faculty administrative responsibilities that interfere with time with students" were also a challenge reported by 30 percent of associate, 43 percent of bachelor's, and 58 percent of master's degree programs. Among faculty members who reported that additional resources were needed in order to improve the early childhood degree program, at least one-half of faculty members at all levels identified "increased financial resources for students" as a need.

**FINDING FIVE: PROGRAM CHALLENGES**  
Faculty and Program Needs

*New York early childhood degree programs experience challenges related to time and resources to fulfill faculty responsibilities, the need for faculty members with specific*

*expertise, and the need for a more racially and ethnically diverse faculty. Early childhood faculty members are in need of resources to support their ability to participate in professional development and program planning.*



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

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

**Faculty-Related Challenges**

Two major faculty-related challenges—a lack of adequate time and resources for faculty responsibilities and professional development, and the shortage of faculty members with particular expertise and backgrounds—were identified as challenges.

**Support for Faculty**

Among faculty members who reported a need for additional resources, more than one-half across all degree levels identified needing resources for additional full-time faculty and resources for faculty professional development. Other identified needs related to staffing included funding for travel and more individual faculty planning time.

**Faculty Diversity and Expertise**

Almost one-half of bachelor's (46 percent), 41 percent of master's, and 29 percent of associate degree faculty members mentioned the need for an "increase in racial/ethnic diversity among faculty," and one-quarter of faculty members at all degree levels mentioned the need for resources to increase faculty diversity. Approximately one-quarter of master's degree faculty mentioned the need for an "increase in linguistic diversity among faculty."

Among program leaders who reported that their programs faced challenges, most identified a lack of faculty with expertise in teaching young children who are dual language learners. Other identified needs included the need for faculty with expertise in teaching infants and toddlers. Associate degree program leaders also identified a need for faculty expertise in teaching young children with special needs, and the majority of bachelor's program reported a need for additional faculty expertise in science pedagogy for young children.

### **Program-Related Challenges**

Fewer program-related than student- or faculty-related challenges were identified. Among faculty members who identified resources that were needed in order to improve the degree program, roughly one-half or more, across degree levels, identified a need for increased integration with other programs in the department/school or with other programs in the institution. About 40 percent of associate and one-third of bachelor's and master's degree program leaders identified insufficient access to quality clinical sites as a challenge.

## PART 2: EARLY CHILDHOOD HIGHER EDUCATION, AN EVOLVING LANDSCAPE

---

*This section of the report examines how institutions of higher education are adapting to emerging research related to the importance of family engagement and early mathematics to young children’s development and learning.*

### FINDING SIX: FAMILY ENGAGEMENT Faculty Attitudes, Required Offerings, and Professional Development Interests

*Faculty members consider the inclusion of family engagement to be very important in the preparation of early childhood teachers, and rank its importance on a par with the domain of socio-emotional development. Multiple topics related to family*

*engagement are embedded in all levels of degree programs. Faculty members express varied levels of interest in professional development in this topic area.*



#### **What we asked about family engagement:**

We asked faculty about:

1. attitudes/beliefs about the importance of including family engagement, relative to other domains;
2. experience with teaching specific family engagement course content in the last two years; and
3. level of interest in professional development focused on topics related to family engagement.

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

The family engagement learning domain focuses on the environment of young children’s relationships, and the knowledge and skills that early childhood educators need in order to help families support children’s development and learning. Over the last two decades, mounting evidence has demonstrated how family involvement in children’s learning at home and school contributes to school success (Dearing & Tang, 2010; Reynolds & Schlafer, 2012). As a consequence, the importance of including family engagement in teacher preparation has gained traction, particularly in light of research suggesting limited attention in teacher education programs to building student competence in this area (Nathan & Radcliffe, 1994; Shartrand, Weiss, Kreider, & Lopez, 1997; Epstein, Sanders, & Clark, 1999).

## *Faculty Attitudes about the Importance of Family Engagement in Teacher Preparation Degree Programs*

The importance of understanding and implementing integrated strategies to engage families to support children’s development and learning was considered “very important” by the vast majority of faculty across degree levels, and ranked on a par with the domain of socio-emotional development. (See **Box 2** for how this assessment was conducted.) More than 80 percent of faculty members at each degree level considered it “very important” to include family engagement, as well as socio-emotional development, in courses for teachers of all age groups of children, including infants and toddlers. Faculty ranked the inclusion of family engagement content in higher education programs as more important than literacy and mathematical development for those preparing to work with very young children. (See **Figure 6.**)

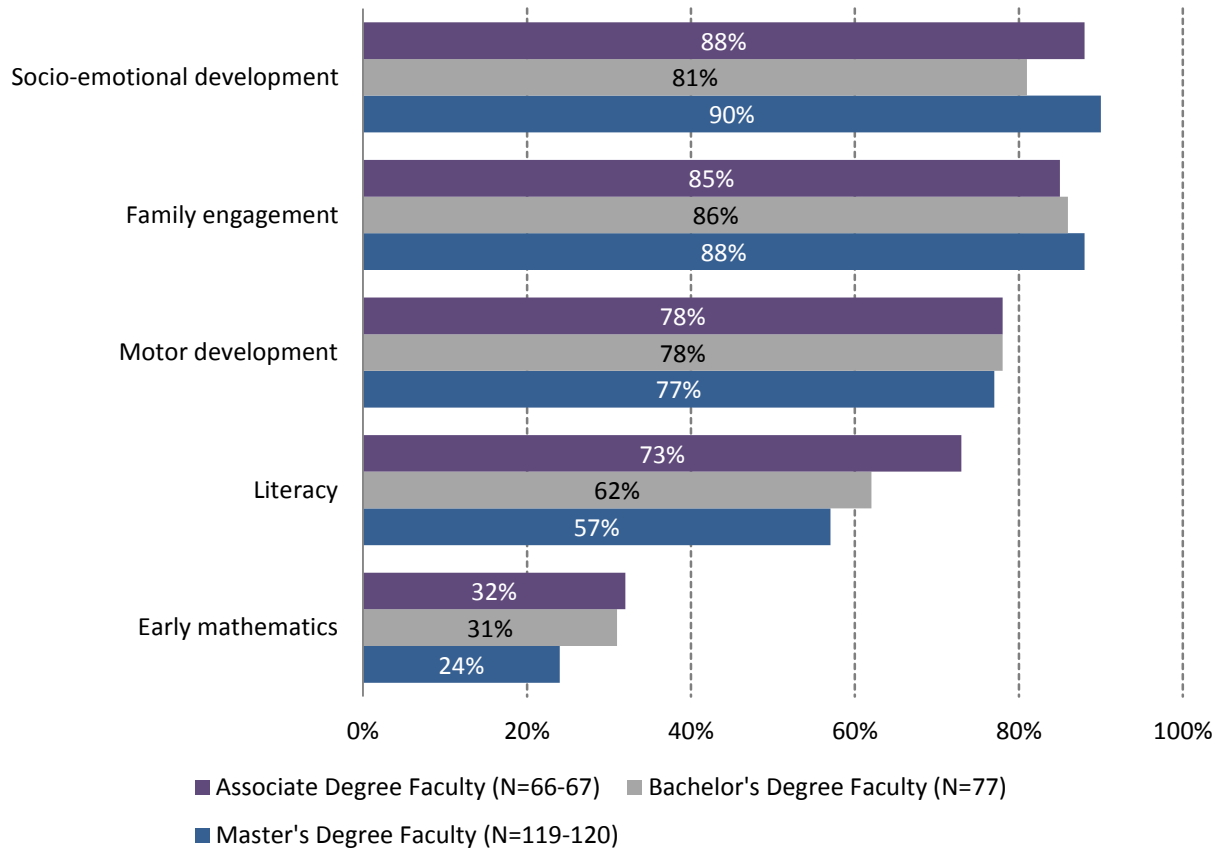


### **Box 2. Tapping Faculty Attitudes About Including Various Domains of Development and Learning in Teacher Preparation Programs**

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

- Family engagement: Understanding and implementing an integrated strategy to engage families in ongoing and reciprocal partnerships, and the relationship of such partnerships to outcomes for children.
- Early mathematics: Understanding the domains and sequence of mathematical knowledge in young children, and how to promote children’s mathematical understanding and ability to solve problems.
- Literacy: Understanding the components and sequence of literacy development in young children, and how to promote children’s skills related to oral and written language.
- Social-emotional development: Understanding socio-emotional development and its relationship to learning, and how to support children’s socio-emotional skills.
- Motor development: Understanding normal and atypical motor development in young children and its relationship to learning, and how to support the development of children’s motor skills.

**Figure 6: Importance of Inclusion of Domains in Teacher Preparation Programs: Percentage of Faculty Reporting "Very Important" for Infants and Toddlers, by Degree Program**



**Required Family Engagement Topics in Degree Programs**

Program leaders were asked about required course content and age-group focus related to 13 topics of family engagement. Approximately 80 percent or more of degree programs, across levels, reported requiring seven of the 13 family engagement topics. Associate degree programs were less likely to require a focus on family engagement topics for teachers working with children in grades K-2 than were bachelor’s or master’s degree programs. Among all degree programs, a focus on infants and toddlers varied by topic from three-quarters to 94 percent.

**Faculty Interest in Professional Development**

Using a Likert scale of 1 to 5, with 1 being “no interest” and 5 being “very interested,” faculty were asked to rate their levels of interest in 12 topics related to family engagement.

Faculty member interests in these topics varied by degree level. Associate and master’s degree faculty expressed somewhat greater interest across all topics than did bachelor’s degree faculty members. (See **Table 3.**) Less than one-third of bachelor’s degree faculty members expressed strong interest in receiving professional development for any of the family engagement topics included.

**Table 3. List of Family Engagement Topics Included in the New York Early Childhood Higher Education Inventory**

Topic	Professional development topics in which one-quarter or more of faculty identified themselves as “very interested”		
	Associate Degree	Bachelor’s Degree	Master’s Degree
Theories of family engagement	✓		✓
Working with various family structures			✓
Working with families of various economic, cultural, ethnic, racial, and linguistic backgrounds	✓		✓
Working with families to extend children’s learning at home	✓		✓
Engaging families in classroom, program, and/or school activities	✓		✓
Teaching practitioners to work with families of children with special needs	✓	✓	✓
Negotiating conflict with families	✓		✓
Effective communication strategies with families	✓	✓	✓
Techniques for gathering knowledge about children’s families	✓	✓	✓
Using community resources to support families	✓	✓	✓
Incorporating knowledge about families in curriculum planning	✓	✓	✓
Utilizing technology to communicate and interact with families	✓	✓	✓

## FINDING SEVEN: EARLY MATHEMATICS

Faculty Attitudes, Required Offerings,  
Faculty Self-Assessment, Teaching  
Experience, and Professional Development  
Interests

*Faculty consider the inclusion of early mathematics to be less important than other domains in the preparation of teachers. Multiple topics of early mathematics content are embedded in required course content, with variation*

*among degree levels by topic and by age-group focus. Many faculty members do not consider themselves prepared to teach early math content. Interest in ongoing math-related professional development varies by degree level and topic area.*



### **What we asked about early math:**

We asked faculty about:

1. attitudes/beliefs about the importance of including early math, relative to other domains;
2. experience with teaching specific early math course content in the last two years;
3. level of interest in professional development focused on topics related to early math; and
4. capacity to teach students about specific math-related topics.

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

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

### **Faculty Attitudes about the Importance of Early Math in Teacher Preparation Degree Programs**

Faculty members at all degree levels were less likely to consider it “very important” to include the early mathematics domain than other domains in teacher preparation programs for practitioners working with children younger than school age, particularly infants and toddlers. Less than one-quarter of master’s (24 percent) and only about one-third of all faculty members across all other degree levels, considered it “very important” to include the math domain in teacher preparation programs for teachers of infants and toddlers. About 60 percent of bachelor’s and graduate and two-thirds of associate degree faculty members considered it



“very important” for teachers working with preschool-age children. In contrast, roughly 60 to 75 percent of faculty members, across degree levels, considered it “very important” to include the literacy domain for teachers of infants and toddlers, and about 80 percent or more of faculty members considered the literacy domain “very important” for teachers working with children ages three and older. At least 80 percent of faculty, across degree levels, considered the inclusion of early math “very important” for those teaching in kindergarten or higher grades, a rate closer to that for the literacy domain.

### **Required Offerings**

Program leaders were asked about required course content and age-group focus related to 13 topics of early math. (See **Table 4.**)

Eleven of the 13 early math topics were required by over 90 percent of associate and bachelor’s degree programs, with the exception of “assessing children’s mathematical development” and “supporting English learners in developing mathematical knowledge as they concurrently learn English.” All 13 topics were required by over three-quarters of master’s degree programs. Across degree levels, topics related to children’s natural interest in math and encouraging children’s problem solving skills were required for infants and toddlers by at least two-thirds of programs. Bachelor’s programs were less likely to focus on other early math topics for infants and toddlers than were associate and master’s degree programs. (See **Table 4.**) In bachelor’s degree programs, early math topics were more likely to be focused on preschoolers and older children.

Table 4. List of Early Mathematics Topics Required by Programs Participating in the New York Early Childhood Higher Education Inventory, by Degree Program

Topic	When Topic is Required, Focus on Infants and Toddlers is Required by at Least 2/3 of Degree Programs		
	Associate Degree	Bachelor's Degree	Master's Degree
Number sense for children	✓		✓
Operations and algebraic thinking for children			
Measurement skills for children			
Geometry skills for children	✓		
Children's mathematical reasoning/practices			
Building on children's natural interest in mathematics and their intuitive and informal mathematical knowledge	✓	✓	✓
Encouraging children's inquiry and exploration to foster problem solving and mathematical reasoning	✓	✓	✓
Using everyday activities as natural vehicles for developing children's mathematical knowledge	✓		✓
Introducing explicit mathematical concepts through planned experiences			
Creating a mathematically rich environment	✓		✓
Supporting English learners in developing mathematical knowledge as they concurrently acquire English			✓
Developing children's mathematical vocabulary			
Assessing children's mathematical development			

### ***Preparedness to Teach Early Math Coursework***

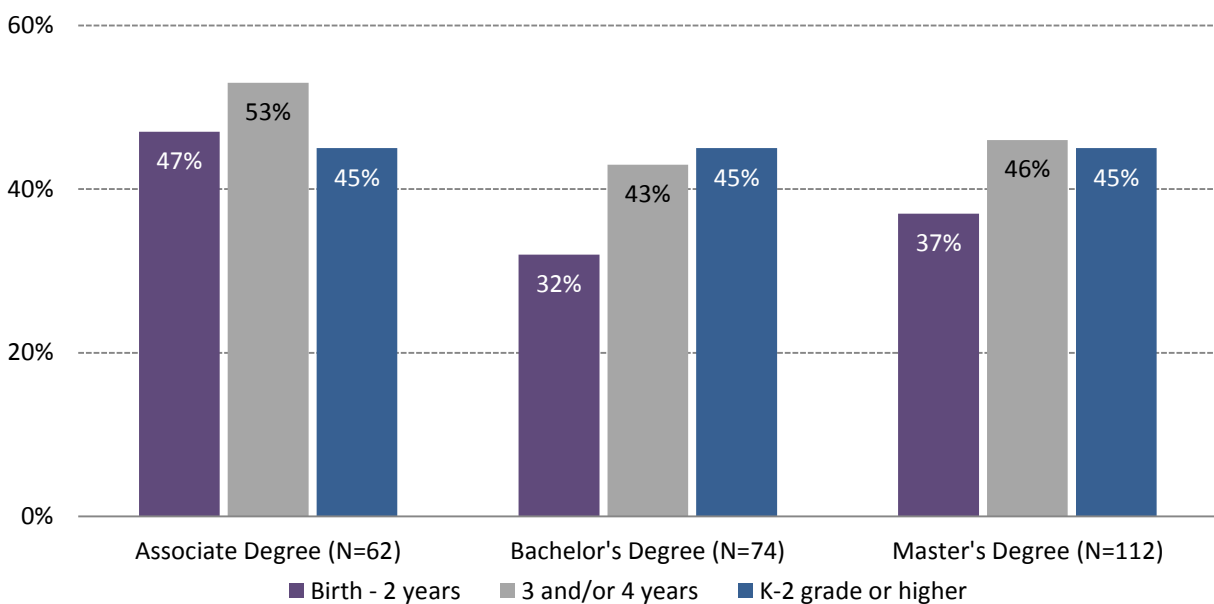
The Inventory asked faculty members to assess their capacity to prepare practitioners to promote children's mathematical understanding and to teach math skills. For each of the 13 topics (see **Table 4**), faculty members were asked to identify whether they:

1. had limited familiarity;
2. were knowledgeable but not prepared to teach others; or
3. were capable of preparing teachers working with children in each of the following age groups:
  - Birth through 2 years;
  - 3 and/or 4 years (Pre-K); and
  - Kindergarten to Grade 2.

Many faculty members did not consider themselves capable of preparing teachers to support early mathematical understanding and learning in children across age groups. Although at least one-half of faculty members across all degree levels reported being capable of preparing teachers working with preschool-age children for most of the topics, fewer reported being capable of teaching the topics for practitioners working with infants and toddlers or the elementary grades. (See **Figure 7** for an example.)

Master’s degree faculty members were less likely to report being capable of teaching the topic “operations and algebraic thinking” for preschool-age children. Faculty members across all degree levels were less likely to report being capable of teaching the topic “supporting English learners in developing mathematical knowledge as they concurrently acquire English” to any age group of children.

**Figure 7. Supporting English Learners in Developing Mathematical Knowledge as They Concurrently Acquire English: Knowledge and Skill, As Reported by Faculty Participating in New York Early Childhood Higher Education Inventory, by Age Group and Degree Pro**



## *Faculty Experience in Teaching Early Math, and Interest in Professional Development*

Faculty members were asked whether they had taught early math content related to eight topics in the past two years. Associate and bachelor's degree faculty were more likely than master's degree faculty members to report having taught math topics in the previous two years. At least 70 percent of associate degree faculty members reported teaching each of the topics, with the exception of "supporting English learners in developing mathematical knowledge as they concurrently acquire English," which was reported as being taught by about one-half (54 percent) of associate degree faculty members. Among bachelor's and master's degree faculty members, at least one-half reported teaching most of the math topics, with the exception of the topics "supporting English learners in developing mathematical knowledge as they concurrently acquire English," reported as being taught by about 40 percent of these faculty members, and "introducing explicit mathematical concepts through planned experiences," reported by less than one half (44 percent) of master's degree faculty, and "assessing children's mathematical development," reported by 43 percent of master's degree faculty members.

Using a Likert scale of 1 to 5, with 1 being "no interest" and 5 being "very interested," faculty members were asked to rate their interest levels in 14 topics related to early math. Faculty interest varied by topics across all degree levels, and was somewhat lower in early math topics than in family engagement topics among bachelor's and graduate degree faculty members, but somewhat higher among associate degree faculty. In particular, about 40 percent or more of associate degree faculty members identified being very interested in professional development topics related to mathematical understanding.

## DISCUSSION AND RECOMMENDATIONS

---

The following discussion outlines an approach to strengthening early care and education workforce development in New York, with an emphasis on higher education. We identify four discrete elements that together constitute a strategy for aligning the current system with 21<sup>st</sup>-century expectations. The success of this approach requires ensuring that its various components be implemented in unison, and that a research agenda be developed in order to measure progress and challenges over time, as well as to learn more about the depth of instruction delivered in higher education programs. This approach is predicated on identifying new resources from state, federal, and philanthropic sources, as well as reallocating a portion of existing revenues for quality improvement and workforce system development.

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

### **1. Unify expectations and pathways for early childhood workforce preparation**

Findings from Inventories conducted in other states suggest that when states intentionally redesign their certification system for early childhood educators, the higher education system adjusts by making changes in required course content, age-group focus, and field-based practice as appropriate. In the absence of well-articulated certification standards that apply to all early childhood teachers and administrators across the state, working in any type of ECE program and with any age group of children, New York institutions of higher education have largely responded to an emphasis placed on preschool-age children in public settings, which affects only a limited segment of the ECE workforce.

Erasing divisions in professional expectations and preparation across and within age groups in the birth-to-age-eight spectrum, in line with recent Institute of Medicine/National Research Council recommendations, and clarifying the purpose of early childhood higher education degree programs, will require clarity among degree programs as to their purpose, and a revision of New York's current system for certifying teachers, administrators, and other practitioners (IOM & NRC, 2015). To initiate this process:

- Align teacher and administrator certification requirements for licensed and school-based settings, in order to establish a coordinated and comprehensive approach to early childhood educator certification that reflects the knowledge, skills, and experience needed of teachers and administrators, irrespective of setting.
- Provide clear roadmaps for students enrolling in degree programs that fulfill teacher education or director requirements (e.g., UPK, New York City public pre-K, QRIS, or Early Head Start/Head Start teachers and assistant teachers), and enable students to

assess whether a given course of study meets their needs and goals for teaching young children and/or for assuming leadership roles in ECE programs.

- Provide clear information statewide about the types of skills that students will be expected to develop in each program, the age group of children they will be prepared to work with, and the professional credentials and certifications articulated within various degree programs (e.g., Child Development Associate Credential, the Infant-toddler Care and Education Credential, Birth to Grade 2 Certification, or the Program Administrator Credential). This is particularly important at the graduate degree level, where most colleges and universities offer two or more programs, often with similar titles (e.g., master of arts in education: early childhood and master of arts in education: early childhood/childhood education), which make it challenging to identify the specific purpose and career pathways associated with each degree. Policymakers and other stakeholders investing in workforce education and assessing staffing capacity would be better informed by a greater differentiation among degree offerings, allowing for clearer choices about the types of preparation programs available to future and current ECE practitioners.

## **2. Strengthen program content and equity across the age span**

Many ECE stakeholders emphasize the importance of relying on evidence to guide ECE policy and practice, yet our findings suggest an uneven application of evidence across multiple domains of early learning and development for children from infancy through the early elementary grades. Infants and toddlers were most likely to be disadvantaged, with fewer New York early childhood degree programs requiring the inclusion of these youngest children in course content and field-based experiences, as compared to preschool-age children. Additionally, the increasing diversity of New York's population suggests a need to prepare teachers to work with a diverse range of children, including, but not limited to, Hispanic/Latino children.

To better align required content with research on child development and teacher preparation, and increase the inclusion of infant and toddler content to equalize required content for all children across the birth-to-age-eight spectrum:

- Engage faculty groups representing different degree levels and types of institutions, as well as other experts, to develop program content standards and/or faculty professional development, beginning in the following areas:
  - infant and toddler development and learning across multiple domains;
  - methods of teaching and pedagogy for children of different ages;
  - working with children with special needs; and

- working with children and adults from diverse linguistic, racial/ethnic, and economic backgrounds.

To strengthen the inclusion of early mathematics in early childhood degree programs:

- Work with early math experts and faculty members to build faculty professional development, and subsequently, degree program content, focused on children’s mathematical understanding from infancy through early elementary grades, with special attention to supporting children who are dual language learners in developing mathematical knowledge as they concurrently learn English.

To strengthen the application of field-based learning experiences:

- Engage faculty groups representing different degree levels and types of institutions to develop degree program standards for the timing, frequency, and duration of field-based experiences, with opportunities focused on children from infancy through Grade 2, and that differentiate experiences for pre-service and in-service students.

### **3. Build a leadership pipeline**

In New York, public school principals are required to have teaching experience and to develop their leadership skills by earning an administrative certificate. In UPK settings, on-site ECE program administrators are required to hold an early childhood teaching certificate; directors in state-licensed child care programs are required to hold a bachelor’s degree with some ECE credits and prior supervisory experience; and qualifications for directors or administrators in other settings across the state vary, and may require no education or training specific to administration or leadership, with fewer requirements overall for those who administer infant and toddler programs. New York grants the Children’s Program Administrator Credential (CPAC), but the credential is not required of ECE program administrators, and few degree programs offer the required course content for the CPAC.

Mentors and coaches in grades K-12 are typically drawn from the teaching ranks, and receive specific training (Isner et al., 2011), but there are no widely applied qualifications for mentors and coaches working with teachers of younger children. The overall lack of attention to preparation for administrative and pedagogical leadership is of concern, particularly given the complexity involved in teaching young children and administering early care and education programs. In light of these inconsistent and ill-defined expectations for ECE leadership positions, it is not surprising that across degree levels, course content was not routinely offered to prepare practitioners for early childhood supervisory, administrative, or other leadership roles.

To create a better-defined leadership pipeline:

- Engage early childhood degree programs in discussions of strategies and needed resources to align and/or develop course content with the Children’s Program Administrator Credential to ensure that early childhood students have access to administrator preparation.
- Identify the specific skills and knowledge needed for other common leadership roles in ECE (teacher leaders, coaches, program/quality improvement managers, and teacher educators).
- Identify the appropriate degree level (lower-division, upper-division, graduate) for each leadership role, based on the specific skills and knowledge identified above, and establish a process to develop course content aligned with the “professionalism and leadership” and the “administration and management” competencies of New York state’s core knowledge and competencies for early educators (New York City Early Childhood Professional Development Institute, 2012), and to develop additional competencies as necessary.
- Identify options to create leadership tracks and/or programs, particularly at the graduate degree level, including leadership and administration in infant and toddler programs. This effort should explore options to draw upon existing resources, such as joining administrative and infant and toddler educator competencies, to establish a leadership pathway for leaders of infant and toddler programs.
- Investigate strategies used in a variety of disciplines (e.g., health profession/nursing) to establish pipeline programs within the educational system to improve opportunities for minorities to attain leadership roles in the early childhood field.

#### **4. Prepare an incoming generation of faculty**

Despite a multitude of master’s degree programs that can serve as a pipeline for preparing new associate degree faculty, there is a dearth of doctoral programs in the state, and thus a limited pipeline for preparing teacher educators at the bachelor’s and graduate degree levels. The lack of pathways for preparing faculty is troubling in light of the demographics of the current faculty workforce, in which many are approaching retirement age, and in which there is a need to ensure greater ethnic, racial, and linguistic diversity.

To prepare an incoming generation of faculty, and to increase the diversity of ECE faculty:

- Investigate strategies used in a variety of disciplines (e.g., health, education, and social welfare) to develop a minority faculty development program, such as fellowship opportunities, to increase minority representation among faculty, and develop a plan tailored to the ECE field in New York.



- Establish and fund an in-service academy, with well-articulated expectations for individual faculty professional development and for program improvements (e.g., mentoring initiatives, expanding the faculty knowledge base related to infants and toddlers, and other content areas identified as needed).

### **5. Increase faculty support**

Early childhood degree programs report being under-resourced, and require additional support to allow faculty members to engage individually with students, to support student success, and to engage in program assessment, planning, and modification. Faculty also express the need for greater opportunities to engage in their own professional growth, in response to new developments in the field and the changing characteristics of the populations they serve.

To facilitate opportunities for faculty members to spend more individual time advising students, and to support faculty success:

- Develop strategies to support an increase in the number of full-time faculty, with sufficient release time, who can share in administrative and student advising responsibilities; and
- Provide resources and opportunities for faculty to engage in the early childhood community they serve (e.g., visiting early childhood programs, participating in workforce development forums) in order to better understand the current context in which their students are expected to teach, and to lend their expertise to improvement/policy efforts.
- Identify and implement best practices for supporting adjunct faculty.

To facilitate improvements in program offerings, and to enable degree programs to engage in revamping or restructuring:

- Establish an ongoing fund, with well-articulated expectations for professional development honoraria for individual faculty members and improvement grants for programs; and
- Ensure that faculty have access to relevant professional development and field based-learning experiences for themselves, particularly in the topic areas of teaching practitioners to work with children who are dual language learners, and teaching practitioners to use technology with children. An assessment of faculty members' professional development needs should be conducted regularly in order to identify changing needs.

To measure progress on increasing support for faculty to engage in professional development, and on building a more diverse teacher educator workforce:

- Strengthen data collection and coordination efforts on early care and education, the ECE teaching workforce, and professional development efforts, in order to ensure

- that data systems are coordinated to provide comprehensive, up-to-date information about both the ECE workforce and the professionals and systems that are meant to support them; and
- Use Aspire, the New York early childhood registry, as a model for capturing ongoing data about early childhood higher education faculty.<sup>viii</sup>

### *Concluding Thoughts*

---

Calls for an integrated system of early learning for all young children rest upon an understanding of the critical importance of the early years, beginning at birth and extending through the first years of elementary school. But the early childhood service system and infrastructure, of which higher education is a cornerstone, is poorly integrated, ascribing differing expectations for teacher preparation across this age spectrum, and assigning different resources to teachers across settings.

This report provides a portrait of New York’s early childhood higher education landscape amidst efforts to invest in, strengthen, and coordinate early care and workforce development efforts. A strong preparation system for New York’s early childhood teachers and administrators is central to these efforts, aimed at ensuring that all young children in New York have access to effective early learning experiences.

At the same time, degree program leaders and faculty members also report challenges related to recruiting students, as well as insufficient financial resources for supporting students. These challenges may reflect the sobering reality that ECE majors currently face the lowest lifetime earnings among all college graduates, which suggests that delivering on the promise of high-quality learning will also require identifying and mobilizing sustainable, dedicated sources of funding to upgrade the compensation of early childhood educators throughout New York.

---

<sup>viii</sup> The Aspire Registry is a component of New York Works for Children. Teachers, directors, family child care providers, and trainers can use the online system to help them keep track of their employment history, education, ongoing professional development, and contributions to the field.

## REFERENCES

---

- Bornfreund, L.A. (2011). *Getting in sync: Revamping licensing and preparation for teachers in pre-k, kindergarten, and the early grades*. Washington, DC: New America. Retrieved from <http://www.newamerica.net/sites/newamerica.net/files/policydocs/Getting%20in%20Sync-%20Revamping%20Licensing%20and%20Preparation%20for%20Teachers%20in%20Pre-K%20Kindergarten%20and%20the%20Early%20Grades.pdf>
- Center for Community College Student Engagement (2014). *Contingent commitments: Bringing part-time faculty into focus (A special report from the Center for Community College Student Engagement)*. Austin, TX: The University of Texas at Austin, Program in Higher Education Leadership. Retrieved from [http://www.ccsse.org/docs/PTF\\_Special\\_Report.pdf](http://www.ccsse.org/docs/PTF_Special_Report.pdf).
- Chu, M., Martinez-Griego, B., & Cronin, S. (2010). A Head Start/college partnership: Using a culturally and linguistically responsive approach to help working teachers earn degrees. *Young Children*, 65(4).
- Cochran-Smith, M., & Zeichner, K. M. (Eds.). (2005). *Studying teacher education: The report of the AERA panel on research and teacher education*. Mahwah, NJ: Lawrence Erlbaum.
- Curtis, J.W., & Thornton, S. (2014). *Losing focus: The annual report on the economic status of the profession, 2013-14*. Washington, DC: American Association of University Professors. Retrieved from [aaup.org/file/zreport.pdf](http://www.aaup.org/file/zreport.pdf).
- Dearing, E. & Tang, S., (2010). The home learning environment and achievement during childhood. In Christenson, S.L., & Reschly, A.L. (Eds.), *Handbook of school-family partnerships* (pp. 131-157). New York, NY: Routledge.
- Early, D., & Winton, P. (2001). Preparing the workforce: Early childhood teacher preparation at 2- and 4-year institutes of higher education. *Early Childhood Research Quarterly* 16:285-306.
- Epstein, J.L., Sanders, M.G., & Clark, L.A. (1999). *Preparing educators for school-family-community partnerships: Results of a national survey of colleges and universities*. Baltimore, MD: Center on School, Family, and Community Partnerships, John Hopkins University. Retrieved from: <http://www.csos.jhu.edu/crespar/techreports/report34.pdf>
- Hernandez, D.J. (2011). *Double jeopardy: How third grade reading skills and poverty influence high school graduation*. Albany, NY: Annie E. Casey Foundation. Retrieved from <http://fcd-us.org/sites/default/files/DoubleJeopardyReport.pdf>
- Hyson, M., Horn, D.M., Winton, P.J. (2012). Higher education for early childhood educators and outcomes for young children: Pathways toward greater effectiveness. In Pianta, R. (Ed.), *Handbook of early childhood education* (pp. 553-583). New York, NY: The Guilford Press.
- Institute of Medicine and National Research Council (2015). *Transforming the workforce for children birth through age 8: A unifying foundation*. Washington, DC: The National Academies Press. Retrieved from <http://www.nap.edu/catalog/19401/transforming-the-workforce-for-children-birth-through-age-8-a>
- Isner, T., Tout, K., Zaslow, M., Soli, M., Quinn, K., Rothenburg, L., & Burkhauser, M. (2011). *Coaching in early care and education programs and quality rating and improvement systems (QRIS): Identifying promising features*. Washington, DC.
- Johnson, J.E., Fiene, R., McKinnon, K., & Bahu, S. (2010). *Policy brief: Pennsylvania State University study of early childhood teacher education*. University Park, PA: Pennsylvania State University.

- Karoly, L.A. (2009). *Preschool adequacy and efficiency in California: Issues, policy options, and recommendations*. Santa Monica, CA: RAND Corporation. Retrieved from [http://www.rand.org/content/dam/rand/pubs/monographs/2009/RAND\\_MG889.pdf](http://www.rand.org/content/dam/rand/pubs/monographs/2009/RAND_MG889.pdf)
- Kipnis, F., Whitebook, M., Almaraz, M., Sakai, L., & Austin, L. J. E. (2012a). *Learning together: A study of six B.A. completion cohort programs in early care and education. Year 4*. Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley.
- Kipnis, F., Ryan, S., Austin, L. J.E., Whitebook, M., & Sakai, L. (2012b). *Early Childhood Higher Education Inventory*. Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley.
- Lim, C., Maxwell, K. L., Able-Boone, H., & Zimmer, C. R. (2009). Cultural and linguistic diversity in early childhood teacher preparation: The impact of contextual characteristics on coursework and practica. *Early Childhood Research Quarterly*, 24(1), 64-76.
- Maxwell, K. L., Lim, C-I., & Early, D. M. (2006). *Early childhood teacher preparation programs in the United States: National report*. Chapel Hill, NC: The University of North Carolina, FPG Child Development Institute.
- Nathan, J., & Radcliffe, B. (1994). *It's apparent: We can and should have more parent/educator partnerships*. Minneapolis, MN: University of Minnesota, Humphrey Institute of Public Affairs, Center for School Change. Retrieved from [http://centerforschoolchange.org/wp-content/uploads/2012/07/Its-Apparent-We-Can-and-Should-Have-More-Parent Educator-Partnerships.pdf](http://centerforschoolchange.org/wp-content/uploads/2012/07/Its-Apparent-We-Can-and-Should-Have-More-Parent-Educator-Partnerships.pdf)
- National Council for Accreditation of Teacher Education (2010a). *The road less traveled: How the developmental sciences can prepare educators to improve student achievement: Policy recommendations*. Washington, DC: National Council for Accreditation of Teacher Education.
- National Council for Accreditation of Teacher Education (2010b). *Transforming teacher education through clinical practice: A national strategy to prepare effective teachers*. Washington, DC: National Council for Accreditation of Teacher Education.
- National Survey of Early Care and Education Project Team (2013). *Number and characteristics of early care and education (ECE) teachers and caregivers: Initial findings from the National Survey of Early Care and Education (NSECE)*. OPRE Report #2013-38, Washington DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- New York City Early Childhood Professional Development Institute (2012). *Core Body of Knowledge: New York State's Core Competencies for Early Childhood Educators*. Brooklyn, NY: New York City Early Childhood Professional Development Institute.
- New York State Association for the Education of Young Children (2016). *Children's Program Administrator Credential*. Retrieved from <http://nysaeyc.org/childrens-program-administrator-credential/>
- Ochshorn, S., Garcia, M., Cleary, S. M. (2007). *A profile of early childhood educators in New York City's community- and school-based center*. New York, NY: NYC Early Childhood Professional Development Institute.
- Ray, A., Bowman, B., & Robbins, J. (2006). *Preparing early childhood teachers to successfully educate all children: The contribution of four-year undergraduate teacher preparation programs*. New York, NY: Foundation for Child Development, and Chicago, IL: Erikson Institute.
- Reynolds, A.J., & Shlafer, R.J. (2010). Parent involvement in early education. In Christenson, S.L., & Reschly, A.L. (Eds.), *Handbook of school-family partnerships* (pp. 131-157). New York, NY: Routledge.
- Ryan, S., Whitebook, M., & Cassidy, D. (2014). *Strengthening the math-related teaching practices of the early care and education workforce: Insights from experts*. Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley. Retrieved from <http://www.irle.berkeley.edu/cscce/wp-content/uploads/2015/02/Math-Expert-Paper-Report.pdf>
- Sakai, L., Kipnis, F., Whitebook M., & Schaack, D. (2014). *Yes they can: Supporting bachelor degree attainment for early childhood practitioners*. Early Childhood Research and Practice.

- Shartrand, A. M., Weiss, H. B., Kreider, H. M., & Lopez, M. E. (1997). *New skills for new schools: Preparing teachers in family involvement*. Cambridge, MA: Harvard Family Research Project. Retrieved from: <http://www.hfrp.org/publications-resources/browse-our-publications/new-skills-for-new-schools-preparing-teachers-in-family-involvement>
- Swartz, S. E., & Johnson, J. E. (2010). *Review of recent research on early childhood teacher education programs*. New York, NY: Foundation for Child Development.
- The Annie E. Casey Foundation (2014). *Kids Count Data Center*. The Annie E. Casey Foundation. Retrieved from <http://datacenter.kidscount.org/data/tables/8446-child-population-by-race-and-age-group?loc=34&loc=2#detailed/2/34/false/869/68,69,67,12,70,66,71,13|62/17077,17078>.
- U.S. Census Bureau. *New York QuickFacts*. Retrieved from <http://www.census.gov/quickfacts/table/PST045214/00,36>
- Whitebook, M. (2014). *Building a skilled teacher workforce: Shared and divergent challenges in early care and education and in grades K-12*. Seattle, WA: The Bill and Melinda Gates Foundation.
- Whitebook, M., Austin, L. J. E., Ryan, S., Kipnis, F., Almaraz, M., & Sakai, L. (2012). *By default or by design? Variations in higher education programs for early care and teachers and their implications for research methodology, policy, and practice*. Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley. Retrieved from [http://www.irle.berkeley.edu/cscce/wp-content/uploads/2012/01/ByDefaultOrByDesign\\_FullReport\\_2012.pdf](http://www.irle.berkeley.edu/cscce/wp-content/uploads/2012/01/ByDefaultOrByDesign_FullReport_2012.pdf)
- Whitebook, M., Bellm, D., Lee, Y., & Sakai, L. (2005). *Time to revamp and expand: Early childhood teacher preparation programs in California's institutions of higher education*. Berkeley, CA: Center for the Study of Child Care Employment.
- Whitebook, M., Phillips, D., & Howes, C. (2014). *Worthy work, STILL unlivable wages: The early childhood workforce 25 years after the National Child Care Staffing Study*. Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley. Retrieved from <http://www.irle.berkeley.edu/cscce/wp-content/uploads/2014/11/ReportFINAL.pdf>
- Whitebook, M., & Ryan, S. (2011). *Degrees in context: Asking the right questions about preparing skilled and effective teachers of young children*. New Brunswick, NJ: National Institute for Early Education Research, and Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley. Retrieved from [http://www.irle.berkeley.edu/cscce/wp-content/uploads/2011/04/DegreesinContext\\_2011.pdf](http://www.irle.berkeley.edu/cscce/wp-content/uploads/2011/04/DegreesinContext_2011.pdf)
- Whitebook, M., Schaak, D., Kipnis F., Austin, L. & Sakai L. (2013). *From aspiration to attainment: Practices that support educational success, Los Angeles Universal Preschool's Child Development Workforce Initiative*. Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley.
- Yoshikawa, H., Weiland, C., Brooks-Gunn, J., Burchinal, M. R., Espinosa, L. M., Gormley, W. T., Ludwig, J., Magnuson, K. A., Phillips, D., & Zaslow, M. J. (2013). *Investing in our future: The evidence base on preschool education*. Washington, DC: Society for Research in Child Development, and New York, NY: Foundation for Child Development.



Special thanks to:

The programs leads and faculty members who gave generously of their time to participate in the Early Childhood Higher Education Inventory.

