Early Childhood Teacher Preparation Programs in the United States



National Report

National Prekindergarten Center FPG Child Development Institute The University of North Carolina at Chapel Hill

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OVERVIEW OF THE STUDY

In 1999, the National Center for Early Development & Learning (NCEDL) conducted a groundbreaking study of early childhood teacher preparation programs that prepare individuals to work with children from birth to age 4. That study provided the first nationally representative data on the goals, capacity, supports and challenges of early childhood teacher preparation programs (Early & Winton, 2001).

Times have changed since 1999. First, federal legislation like *No Child Left Behind* (NCLB) has emphasized the importance of education for all children—Black and White, poor and rich, Englishspeaking and Spanish-speaking for instance. With the burgeoning research on the importance of high quality early experiences for children's later school success (Peisner-Feinberg, et al., 2001; NICHD ECCRN, 2005), the federal government also passed *Good Start, Grow Smart* as an early childhood companion to NCLB. Both sets of legislation emph asize quality and have focused national attention on the importance of "highly qualified" teachers in children's educational success.

Second, in part due to these federal initiatives, the number of state-funded prekindergarten programs has grown. In 2004-05, 38 states funded prekindergarten, collectively serving about 800,000 children (Barnett, Hustedt, Robin, & Schulman, 2005). State and federal funding for prekindergarten in 2004-05 was estimated at about \$2.8 billion. States, in implementing prekindergarten programs and fulfilling the legislative requirements, have struggled with defining and recruiting "highly qualified" teachers.

With all that has happened in the field of early childhood education since 1999, it is important to monitor the status of the programs that prepare early childhood teachers. Has the federal legislation, for example, had an impact on programs preparing teachers to work with children prior to

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kindergarten? What is the capacity to produce the "highly qualified" teachers of young children as required in legislation?

PURPOSES OF THE STUDY AND THIS REPORT

In 2004, the National Prekindergarten Center (NPC) conducted a national survey of early childhood teacher preparation programs at 2- and 4-year colleges and universities. The overall goal of the study was to update and extend the 1999 NCEDL study (Early & Winton, 2001). The specific purposes of this study were as follows:

Early childhood teacher preparation programs prepare individuals to work with children any ages from birth through age 4.

- Provide the field with accurate current information about the number of programs offering early childhood degrees, the characteristics of faculty in those programs, and the kinds of coursework and practica experiences provided to students. Extending the 1999 NCEDL work, the NPC study also included data on programs offering early childhood graduate degrees to better understand the field's capacity for future leaders.
- Describe the challenges that faculty members face in meeting the professional development needs of the early childhood workforce.
- Provide information at the state as well as national level, to the extent that the response rate and data allowed.

The purpose of this report is to provide basic descriptive information about early childhood teacher preparation programs that prepare individuals to work with children younger than age 5. This report focuses primarily on programs offering the CDA or other certification, Associate's degrees, Bachelor's degrees, and Master's degrees. It provides only limited information about Doctoral degree programs because the survey included fewer and different questions than for the other types of programs.

METHODOLOGY

We sought to include in this study all degree-granting Institutes of Higher Education (IHE) that offered a certificate or degree to prepare individuals to work with children ages birth through 4. To do this, we first created a list of possible participating institutions from the Integrated Postsecondary Education Data System (IPEDS), which is the National Center for Education Statistics (NCES) annual data collection from all IHEs in the United States and territories. IPEDS is a single, comprehensive system that collects institution-level data in such areas as enrollments, program graduation, faculty, staff, and finances from all institutions and educational organizations whose primary purpose is to provide postsecondary education. From this comprehensive list of all IHEs in the United States and its territories, we selected those that reported offering one or more programs that might prepare students to work with young children. Typical program names include Early Childhood Education, Child Care, Child & Family Studies, and Home Economics. This led to the identification of 1,336 institutions. This list was supplemented with information from various early childhood professional organizations, yielding an additional 245 IHEs housing early childhood programs.

If a satellite site or an extended campus were on one of the lists from various professional organizations, the satellite site was included only if it was listed in IPEDS; otherwise, only the main campus was included. For institutions that had two programs in different departments preparing individuals to work with children younger than five, respondents were asked to determine which program was larger; we included only the larger program in the study.

The final list of possible participants contained 1,581 IHEs and included all types of postsecondary institutions including public and private institutions, 2- and 4-year institutions, community colleges,

technical institutes, Tribal colleges, and Historically Black Colleges and Universities (HBCU)¹. We invited representatives from all 1,581 institutions to participate in this study.

Selection of chair or director

For each IHE, the early childhood department chair, program director or coordinator was interviewed. We identified the appropriate individual by searching institution websites, verifying contacts with various state-level organizations and individual departments, or directly with the contact person. In cases where the early childhood program was housed within a larger school or department (e.g. School of Education), the lead person in the early childhood program was interviewed, not the chair or director of the larger school or department. In some cases where there were different lead persons for the graduate and undergraduate programs, the lead person for the undergraduate program was the primary contact, while the lead person for the graduate program answered only questions pertinent to the graduate program. Thus, all interviewees were very knowledgeable about the requirements and experiences of the early childhood students.

Questionnaire design

Because the primary purpose of this study was to replicate the 1999 NCEDL national study (Early & Winton, 2001), much of the questionnaire's content was drawn from the 1999 questionnaire. Additions and revisions to the questionnaire were made primarily to reflect new areas of interest such as graduate programs and the increased emphasis on literacy and math at the early childhood level. The questionnaire is available at http://www.fpg.unc.edu/~npc.

¹ HBCUs are IHEs that were established prior to 1964 with the principal mission of educating Black Americans

Data collection

A packet of information about the survey was mailed to the 1,581 possible participants between January 2004 and April 2004. The packet included: 1) a cover letter explaining the purpose of the survey, asking for their help, notifying them when interviews would begin, and directing them to a web page to see the questionnaire in advance, 2) a page that could be faxed to us to indicate convenient times for the call, 3) a sheet to be used during the interview that displayed the response scales, and 4) a copy of Frank Porter Graham Child Development Institute's (FPG) national magazine, *Early Developments*, as a gesture of appreciation for their time and effort.

Approximately a month after the first batch of packets was mailed, trained interviewers telephoned each possible participant. Between February and September 2004, interviews were conducted using a computer-aided telephone interviewing (CATI) system, ensuring little error in data collection or entry. In rare instances when the interview could not be completed by phone, respondents were asked to complete and return a written survey.

Response rate and final participant characteristics

The initial list included 1,581 IHEs. Of those, 232 programs (15%) were deemed ineligible primarily because they did not have an early childhood program or were a non-degree granting institution. Of the remaining 1,349 IHEs, 96 programs (6%) were excluded because we could not determine whether they had an early childhood program. Representatives from another 74 IHEs (5%) refused to participate. Thus, data were collected from a final group of 1,179 institutions, yielding a response rate of 87% of the 1,349 IHEs. The 1,179 participating IHEs were located in all 50 states plus Washington DC, Puerto Rico, Micronesia, Northern Marianas, America Samoa, and Guam. Of the 1,179 IHEs, data were collected from 1,142 programs using the CATI system and 37 programs

through self-administered surveys when respondents were unable complete the interview by phone due to scheduling conflicts.

FINDINGS: PROGRAM CHARACTERISTICS

According to IPEDS of 2002, in the United States and its territories, 4,539 IHEs were degreegranting institutions that offer an Associate's, Bachelor's, Master's, and/or Doctorate in any discipline. We estimate that 1,349 IHEs, representing 30% of all IHEs, offer an early childhood teacher preparation degree of some type.

Of the 1,179 IHEs that participated in the study, 56% (n=657) were 2-year institutions and 44% (n=522) were 4-year institutions. Seventy-nine percent (n=931) were public institutions while the rest were private. Almost all 2-year institutions with early childhood programs were public (see Table 1). There was a fairly even split between public and private among 4-year institutions with early childhood programs. Very few of the IHES with early childhood programs were HBCUs.

	HBCUs	Tribal	Other IHE	TOTAL
2-year private	0	4 (0.3)	12 (1.0)	16 (1.4)
2-year public	6 (0.5)	7 (0.6)	628 (53.3)	641 (54.4)
4-year private	9 (0.8)	1 (0.1)	222 (18.8)	232 (19.7)
4-year public	22 (1.9)	2 (0.2)	266 (22.6)	290 (24.6)
TOTAL	37 (3.1)	14 (1.2)	1128 (95.7)	1179 (100)

 Table 1: Type of Institution (in numbers with percentages in parentheses)

ADMINISTRATIVE HOME

For early childhood programs in 4-year institutions, 73% were administratively housed within Schools of Education. Early childhood programs in 2-year institutions were housed in a variety of departments. The most commonly reported administrative homes in 2-year institutions were Schools of Education (17%), Social or Behavioral Sciences departments (16%), Child Development or Family Studies departments (12%), health-related and Human Service departments (11%), or Arts and Sciences departments (9%).

DEGREE OFFERINGS

Overall, 59 institutions (5%) offered a Doctoral program in early childhood education, 257 (22%) offered a Master's degree, 449 (38%) offered a Bachelor's degree, 752 (64%) offered an Associate's degree, 402 (34%) offered CDA training, and 487 (41%) offered a one-year certificate program. Seventy percent (n=824) of the participating institutions (n=1179) offered more than one early childhood program.

Of the 752 IHEs offering an Associate's degree, 48% (n = 358) granted an Applied Associate's of Science (AAS) degree. Approximately 24% (n = 180) offered an Associate's of Arts (AA) degree, and 20% (n = 145) offered an Associate's of Science degree. In many states, the AA and AS are more likely than the AAS degrees to be transferable to 4-year institutions (Ignash & Townsend, 2000). Thus, students graduating with an AAS degree may find it more difficult to work toward a Bachelor's degree. Articulation policies, however, may make it easier for students with AAS degrees to transfer credit to Bachelor's degree programs (see later Accessibility section for information on articulation). As evident in Table 2, there were many different combinations of degrees offered by 2- and 4-year institutions. Most 2-year institutions typically offered a combination of 1-year certificate, CDA and Associate's degree. About 25% of the 4-year institutions offered a Bachelor's and Master's degree.

Degree/Certification Offered	2-Year n = 655	4-Year n = 517	
1-Year Certificate ^b Only	7 (1.1)	4 (0.8)	
1-Year Certificate and CDA ^c	7 (1.1)	1 (0.2)	
1-Year Certificate, CDA, and Associate's	263 (40.2)	7(1.4)	
1-Year Certificate, CDA, Associate's, and Bachelor's	1 (0.2)	3 (0.6)	
1-Year Certificate, CDA, Associate's, and Master's	1 (0.2)	3 (0.6)	
1-Year Certificate, and Associate's	176 (26.9)	4 (0.8)	
1-Year Certificate, Associate's, and Bachelor's	1 (0.2)	2 (0.4)	
CDA only	8 (1.2)	2 (0.4)	
CDA and Associate's	59 (9.0)	7 (1.4)	
CDA, Associate's and Bachelor's	0 (0)	7 (1.4)	
CDA, Associate's, Bachelor's, and Master's	1 (0.2)	6 (1.2)	
CDA and Bachelor's	0 (0)	10 (1.9)	
CDA, Bachelor's and Master's	0 (0)	8 (1.5)	
CDA, Bachelor's, Master's, and PhD	0 (0)	3 (0.6)	
Associate's only	129 (19.7)	15 (2.9)	
Associate's and Bachelor's	0 (0)	40 (7.7)	
Associate's, Bachelor's, and Master's	0 (0)	20 (3.9)	
Bachelor's only	1 (0.2)	161 (31.1)	
Bachelor's and Master's	0 (0)	129 (25.0)	
Bachelor's, Master's, and PhD	0 (0)	50 (9.7)	
Master's only	0 (0)	21 (4.1)	
Master's and PhD	0 (0)	4 (0.8)	

Table 2: Numbers of 2- and 4-Year Institutions Offering Various Combinations of Degrees^a (percentages in parentheses)

^aThis table includes degree combinations offered by at least 3 IHEs. Nine other degree combinations were offered by 10 IHEs. ^bStudents may work toward a certificate only or in conjunction with a degree. Some certificates are used to acknowledge specializations (e.g. infants and toddlers, birth to kindergarten), while others may be used to acknowledge an individual's completion of a course of study. Certificates may also be necessary for meeting state licensing requirements. ^cA Child Development Associate (CDA) is a national credential awarded by the Council for Professional Recognition (www.cdacouncil.org) to individuals who demonstrate particular competencies through their work in child care settings.

AGE RANGES COVERED

Program chairs or directors were asked to report the age range covered by their Doctoral, Master's, Bachelor's, and Associate's programs. As shown in Table 3, most of the degrees in early childhood teacher preparation programs covered a broad age range from birth to eight years. Close to one-fifth of the Bachelor degree's covered ages 3 to 8 years.

Age Range	Associate's programs n = 745	Bachelor's programs n = 444	Master's programs n = 251	Doctoral programs n=59
Infants/toddlers (< 3 years) only	0.3	0	0	0
Infants/toddlers and preschoolers	6.8	2.3	2.0	0
Preschoolers (ages 3 and 4) only	0.5	0	0.4	0
Preschoolers and elementary age only (3-8 years)	2.6	17.3	17.1	10.2
Preschoolers and school age (3 and older) ^a	0.5	8.1	8.0	5.1
Infants/toddlers, preschoolers, and elementary age	74.0	61.9	61.0	69.5
Infants/toddlers, preschoolers, and school age (birth and older) ^a	15.3	10.4	11.6	15.3

Table 3: Age Ranges Covered by Programs (in percentages)

^aThese categories include children older than 8 years of age as well. The upper end of the range varies. Most commonly, it was age 12 but could be as high as age 18 nationally.

COURSEWORK REQUIREMENTS

Information regarding coursework requirements was obtained for the Master's, Bachelor's Associate's, and CDA or other certification programs. Respondents rated course coverage in 19 different content areas ranging from a) none, b) one class session of one required course, c) multiple class sessions, d) entire required course, or e) entire required course plus coverage in other courses. Table 4 presents information on the percentage of programs that required at least 1 complete course in the different content areas (i.e., combining categories d and e).

At the Associate's degree level, 70% or more of the programs required at least one course in a) the education and care of preschool aged children and b) appropriate learning environments and activities. At the Bachelor's degree level, 70% or more of the programs required at least one course in a) the education and care of preschool aged children and b) emergent literacy. At the Master's degree level, 70% of the programs required at least one course in research and evaluation methods. The results also suggest that literacy was a relative emphasis across all degree programs.

Table 4: Percentage of Early Childhood Teacher Preparation Programs Requiring an EntireCourse or More in Various Content Areas

Content Area	CDA or other Certificate programs n = 591	Associate's programs n = 741	Bachelor's programs n = 438	Master's programs n = 245
Education and care of infants and toddlers	49.7	67.3	49.1	35.7
Education and care of preschool aged children	75.5	83.7	77.7	63.7
Education and care of young children with disabilities	44.6	67.9	69.0	54.7
Working with families	46.0	58.6	61.0	55.5
Working with children and families from diverse ethnic and cultural backgrounds	30.5	40.7	46.5	42.4
Working with bilingual children learning English as a second language	9.7	12.7	14.6	14.8
Assessment and/or observation of young children	48.5	58.4	64.7	63.5
Emergent literacy and literacy strategies	44.8	65.3	77.4	66.4
Numeracy and math for young children	30.1	49.0	58.7	39.1
Social and emotional development of young children	43.1	53.4	52.7	53.5
Physical health and motor development of young children	43.2	56.1	48.2	26.7
Appropriate learning environments and activities for young children	58.4	73.9	67.6	58.8
Classroom or behavioral management of young children	52.3	64.5	57.3	34.2

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Early childhood program administration	41.6	63.2	37.9	37.9
Collaborating with professionals in other disciplines	14.1	18.6	22.1	26.7
Professional knowledge (e.g. confidentiality, ethics and codes of conduct)	25.9	32.3	35.6	33.7
Adult learning and development	10.5	14.2	10.3	13.5
Leadership and advocacy	17.1	20.5	17.4	27.6
Research and evaluation methods	10.7	14.2	30.4	74.6

Examining the other end of the continuum in coursework coverage (i.e., no course coverage), the findings suggest that very few programs did not cover all 19 content areas to some extent. A few exceptions are worth noting. About 20% of CDA and Associate's programs and about 10% of Bachelor's and Master's programs did not require *any* coursework in working with bilingual children learning English as a second language. With the national increase in ethnic and linguistic diversity among young children, it may be important for all programs to require coursework in this area. Nearly 25% of Bachelor's and Master's degree programs did not require any coursework on early childhood program administration, suggesting that these programs might not be designed to prepare students to be program directors or administrators. About40% of Bachelor's and Master's degree programs also did not require coursework focused on adult learning and development.

PRACTICUM REQUIREMENTS

For the Master's, Bachelor's and Associate's programs, information was obtained about students' practicum requirements. Early childhood practicum was defined as supervised work in a care or educational setting with children, any ages from birth through 4. Practicum must include more than observation. Using this definition, practicum may be the same as field placement or student teaching. Not all programs required a practicum. Twenty-six (4%) of the programs offering Associate's degrees, 19 (4%) of the Bachelor programs, and 81 (33%) of the programs offering Master's degrees did not require a practicum. Of the programs requiring a practicum, Table 5 presents findings on the percentage requiring practica to cover particular content areas. Relative to the other content areas, working with bilingual children was least likely to be required as part of a practicum across any of the degree programs. Most programs designated only an age requirement for their practicum (e.g., infants and toddlers or preschoolers).

Table 5: Percentage of Early Childhood Teacher Preparation Programs Requiring

Content Area	Associate's	Bachelor's	Master's
	programs	programs	programs
	<i>n</i> = 716	<i>n</i> = 420	<i>n</i> = 165
Education and care of infants and toddlers	62.0	63.6	56.7
Education and care of preschool aged	89.4	97.1	90.3
children			
Education and care of young children with	41.2	60.0	68.3
disabilities			
Working with families	49.4	64.8	68.5
Working with bilingual children learning	17.3	29.6	32.7
English as a second language			

Practicum in Various Content Areas

ACCESSIBILITY

We also gathered information about the accessibility of programs to students, and the findings suggest that programs use various strategies to address accessibility issues (see Table 6). In general, 2-year institutions offered more options to improve the program's accessibility to students as compared to 4-year institutions.

Accessibility Options	Overall	2-Year	4-Year
	<i>n</i> = 1179	<i>n</i> = 657	<i>n</i> = 522
Satellite or branch campuses affiliated with their institutions	50.3	61.0	36.8
where students can take courses but still receive their degree			
or credential from their institutions			
Distance education option (e.g. web based instruction or	49.0	60.6	34.4
videoconferencing for course dissemination)			
Articulation policies affecting students wishing to go on for	-	83.1	-
a Bachelor's degree			
Awards transfer credits to students entering with CDA	47.6	53.1	40.7
credential			
Awards college credit for CDA coursework	49.2	65.0	29.2

Table 6: Accessibility of Early Childhood Teacher Preparation Programs (in percentages)

FINDINGS: FACULTY CHARACTERISTICS

Faculty members in early childhood teacher preparation programs play a crucial role in ensuring that future teachers can provide a high quality experience for young children and that they are wellprepared to face challenges such as teaching diverse learners. This section describes characteristics of faculty in early childhood teacher preparation programs.

FULL-TIME/PART-TIME FACULTY AND STUDENT-FACULTY RATIOS

As evident in Table 7, part-time faculty made up 57% of the total faculty in early childhood programs across 2- and 4-year institutions. Two-year institutions had more part-time faculty than 4-year institutions, both in terms of sheer numbers and in terms of percentage of total faculty. In addition, full-time faculty at 2-year institutions served a larger number of students than full-time faculty at 4-year institutions. It is important to note that only students enrolled in degree programs were included in the analyses of the number of students served by faculty. Faculty may also be responsible for teaching students in certificate programs, so their burden is likely even higher than what is reflected in Table 7.

Table 7: Mean Number of Full-Time/Part-Time Faculty and Mean Number of Students per
Faculty

	Overall	2-Year	4-Year
	<i>n</i> = 1156	<i>n</i> = 647	<i>n</i> = 509
Mean number of full-time faculty per program	3.5	2.2	5.2
Mean number of part-time faculty per program	5.8	6.9	4.4
Mean percentage of part-time faculty	57.0	69.3	41.5
	<i>n</i> = 1132	<i>n</i> = 568	<i>n</i> = 474
Mean number of students per faculty (full- and part-time) ^a	19.5	19.4	19.5
	<i>n</i> =1003	<i>n</i> =538	<i>n</i> = 465
Mean number of students per full-time faculty ^a	59.8	78.8	37.7

^aOnly students enrolled in degree programs (Associate's, Bachelor's, Master's or Doctorate) were included in the analyses. Faculty are also responsible for teaching students in certificate programs, so their burden is even higher than what is reflected in this table.

RACE/ETHNICITY OF FACULTY

Respondents estimated the number of faculty members in various race/ethnicity categories. Percentages for each race/ethnicity category were calculated for each IHE, and then those percentages were averaged across IHEs. We calculated the percentages this way because we were primarily interested in describing the "typical" program rather than the aggregate of the faculty population in the United States. As presented in Table 8, most faculty members in early childhood teacher preparation programs were White, non-Hispanic.

Table 8: Race/Ethnicity of Faculty in Early Childhood Teacher Preparation Programs, inPercentages (Range)

	Overall	2-Year	4-Year
Racial/ethnic composition of <u>full-time</u> faculty	<i>n</i> = 1092	<i>n</i> = 600	<i>n</i> = 492
Black, non-Hispanic	8.8 (0-100)	9.0 (0-100)	8.5 (0-100)
American Indian or Alaskan Native	1.1 (0-100)	1.2 (0-100)	0.9 (0-100)
Asian	2.8 (0-100)	2.1 (0-100)	3.7 (0-100)
Hispanic	4.0 (0-100)	4.0 (0-100)	4.0 (0-100)
White, non-Hispanic	80.7 (0-100)	82.2 (0-100)	78.7 (0-100)
Others/Multiracial	0.6 (0-100)	0.7 (0-100)	0.7 (0-50.0)
Unknown, refuse, non-resident alien	2.0 (0-100)	0.8 (0-83.3)	3.4 (0-100)
Racial/ethnic composition of <u>part-time</u> faculty	<i>n</i> = 1024	<i>n</i> = 603	<i>n</i> = 421
Black, non-Hispanic	10.3 (0-100)	10.5 (0-100)	10.0 (0-100)
American Indian or Alaskan Native	1.1 (0-100)	1.5 (0-100)	0.5 (0-33.3)
Asian	1.6 (0-100)	1.4 (0-100)	1.8 (0-100)
Hispanic	6.2 (0-100)	6.0 (0-100)	6.6 (0-100)
White, non-Hispanic	78.6 (0-100)	79.0 (0-100)	78.1 (0-100)
Others/Multiracial	0.5 (0-100)	0.4 (0-100)	0.6 (0-100)
Unknown, refuse, non-resident alien	1.8 (0-100)	1.3 (0-100)	2.4 (0-100)

QUALIFICATIONS AND WORK EXPERIENCE OF FACULTY

As with the ethnic composition of faculty, percentages for qualifications and work experience of faculty were calculated based on the average percentages across IHEs. Respondents were asked to give the total number of faculty members - including full-time, part-time, and adjunct--who fit into each of the qualification and work experience categories.

As delineated in Table 9, early childhood faculty members at 4-year institutions were more likely to have a doctorate degree as compared to faculty at 2-year institutions. Compared to faculty members at 4-year institutions, faculty members at 2-year institutions had more direct experience working with children ages birth to 4 and were more likely to have an early childhood education degree that specifically covers children ages birth to 4.

	Overall	2-Year	4-Year
	<i>n</i> = 1118	<i>n</i> = 632	<i>n</i> = 509
Doctorate	27.0 (0-100)	7.5 (0-100)	52.5 (0-100)
Master's	62.5 (0-100)	76.2 (0-100)	44.7 (0-100)
Bachelor's	9.1 (0-100)	13.9 (0-100)	2.8 (0-100)
Associate's or CDA	1.2 (0-100)	2.1 (0-100)	0.1 (0-21.4)
High school	0.1 (0-25.0)	0.2 (0-25.0)	0
Percent of all faculty with a degree in early childhood that specifically covers children ages birth to 4 years	54.1 (0-100)	61.0 (0-100)	45.1 (0-100)
Percent of all faculty who have had direct employment experience working with children ages birth to 4 years	75.3 (0-100)	84.4 (0-100)	63.6 (0-100)

Table 9: Faculty Qualifications and Work Experience

FINDINGS: STUDENT CHARACTERISTICS

To fully understand early childhood teacher preparation programs, it is important to gather information not only about the characteristics of those programs but also the characteristics of students in those programs. In this section of the report, we first present basic information about the estimated enrollment and number of degrees awarded in these early childhood teacher preparation programs. Next, information on student race/ethnicity and employment while enrolled in school is provided.

ENROLLMENT AND NUMBER OF DEGREES AWARDED

Data from this study suggest that over 180,000 people were enrolled in some type of early childhood degree program in 2003. A much smaller number of people—about 36,000—were expected to earn a degree that year. Student enrollment in programs offering an Associate's degree was the highest, followed by enrollment in programs offering a Bachelor's degree. The estimated number of degrees awarded in 2003, however, was very similar in both Associate's and Bachelor's degree programs. (See Table 10.)

	CDA or other cert.	Assoc.	Bach.	Master's	Doctorate	Total (Degrees only)ª
Students enrolled	41,523	114,899	58,742	10,518	613	184,772
Degrees/certificates awarded in 2003	8,347	15,994	15,727	4,477	90	36,288

Table 10: Estimated Number of Students Enrolled in Programs, and Estimated Number ofEarly Childhood Education Degrees Awarded in 2003

^a The totals exclude the CDA and other certifications because the individuals in those programs may also be enrolled in degree programs.

ESTIMATED STUDENT RACE/ETHNICITY

Respondents were asked to report the number of students in each of several race/ethnicity categories. It should be noted that these were often reported as estimates and must be interpreted cautiously. Percentages for each race/ethnicity category were calculated for each IHE, and then those percentages were averaged across IHEs. We calculated the percentages this way because we were primarily interested in describing the "typical" program rather than the aggregate of the student population in the United States. As seen in Table 11, half or more of the students in all degree programs were White, non-Hispanic. Data from this study suggest that Black, non-Hispanic students comprised between 11% and 23% of students in degree programs, and Hispanic students comprised about 10% of the student population across Associate's, Bachelor's, and Master's degree programs.

Table 11: Race/Ethnicity of Students Enrolled in Various Early Childhood Programs (in percentages)

	Associate's <i>n</i> = 663	Bachelor's <i>n</i> = 409	Master's <i>n</i> = 219	Doctoral $n = 50$
Black, non-Hispanic	23.0	15.4	14.5	10.9
	(0-100)	(0-100)	(0-100)	(0-90.0)
American Indian or Alaskan Native	4.1	1.5	2.3	1.2
	(0-100)	(0-75.0)	(0-100)	(0-25.0)
Asian or Pacific Islander	3.8	3 .0	5.7	13.0
	(0-83.3)	(0-40.0)	(0-73.3)	(0-80.0)
Hispanic	13.0	9.6	10.2	6.9
	(0-100)	(0-100)	(0-86.7)	(0-66.7)
White, non-Hispanic	54.4	68.8	65.5	63.5
	(0-100)	(0-100)	(0-100)	(0-100)
Race or ethnicity unknown	1.1	1.5	1.3	3.2
	(0-100)	(0-100)	(0-100)	(0-100)
Other/Multiracial	0.6	0.2	0.4	1.4
	(0-40.2)	(0-38.5)	(0-28.6)	(0-37.5)

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EMPLOYMENT WHILE IN SCHOOL

Respondents were asked to estimate the percentage of students who work full-time while attending school. Sixty-five percent of the Master's degree programs reported that almost all² of their students work full time while in school. Only 11% of the Bachelor's degree programs reported that almost all students work full time while in school. Comparatively, 36% of the Associate's degree programs and 49% of the CDA or other certification programs reported that almost all students work full time while in school. These data suggest that many students in early childhood teacher preparation certification and degree programs (except possibly for those in Bachelor's degree programs) work while also attending school.

FINDINGS: CHALLENGES FACED BY EARLY CHILDHOOD TEACHER PREPARATION PROGRAMS

One of the purposes of this study was to document the challenges faced by early childhood teacher preparation programs. We asked chairs and directors of programs to rate 14 possible challenges on a 5-point Likert scale, ranging from 1 = not a challenge to 3 = somewhat of a challenge to 5 = a large challenge. Four types of challenges were addressed: 1) student-related, 2) faculty-related, 3) institution-related, and 4) community-related. Table 12 presents the mean responses for each challenge, with higher scores indicating larger challenges. As seen in the table, 2-year institutions faced more student-related challenges compared to 4-year institutions. For programs in 2-year institutions, two of the largest challenges were students' competing work or family related responsibilities and attracting and keeping students due to the poor working conditions in the field

² For purposes of this report "almost all" refers to 75% or more.

of early childhood. For programs in 4-year institutions, two of the largest challenges were attracting

and retaining faculty who were ethnically and linguistically diverse.

Table 12: Mean Challenges Facing Early Childhood Teacher Preparation Programs asReported by Chairs/Directors

Challenges Facing Early Childhood Teacher Preparation	Overall	2-Year	4-Year
Programs	(<i>n</i> = 1088)	(<i>n</i> = 629)	(<i>n</i> = 459)
Student-related			
students' competing work or family related responsibilities	3.8	4.2	3.4
lack of student motivation	2.1	2.3	1.9
students' lack of academic preparation or skill	3.0	3.5	2.5
lack of financial support or scholarships	3.1	3.1	3.2
Faculty-related			
lack of faculty in your department with expertise in early childhood education	1.9	1.6	2.2
lack of full-time faculty in your department	2.9	3.0	2.9
poor faculty working conditions and wages	2.3	2.3	2.4
difficulty attracting and retaining ethnically diverse faculty	3.4	3.2	3.7
difficulty attracting and retaining linguistically diverse faculty	3.4	3.3	3.5
Institution-related			
problems with transfer of credits and articulation	2.7	3.0	2.3
lack of support from your college/university for early childhood teacher preparation	2.2	2.2	2.2
inability to serve the number of students who want to enroll	2.0	2.0	2.1
Community-related			
lack of quality early childhood practicum sites (any ages 0-4)	3.0	3.1	2.9
attracting and keeping students due to poor working conditions and wages in the field of early childhood	3.7	3.9	3.4

Note. 1 = not a challenge, 3 = somewhat of a challenge, 5 = a large challenge.

DISCUSSION

This paper presented information on early childhood teacher preparation programs in 2- and 4-year IHEs across the United States. These early childhood teacher preparation programs prepare individuals to work with children between birth and age 4. Four major issues drawn from the findings are highlighted in this section.

MEETING THE NEED

No Child Left Behind and its related *Good Start, Grow Smart* legislation have emphasized quality education and focused national attention on the importance of "highly qualified" teachers in children's educational success. Who is a "highly qualified" teacher for young children? The influential *Eager to Learn* report from the National Research Council (2001) recommended that every young child have a teacher with a Bachelor's degree in early care and education. State prekindergarten policies also suggest that highly qualified means having a Bachelor's degree. A 2002-03 survey reported that 23 of 44 states (52%) with prekindergarten programs required teachers to have a Bachelor's degree (Barnett, Hustedt, Robin, & Schulman, 2004).

Let's consider the issue of need vs. demand for highly qualified teachers in the example of universal, voluntary prekindergarten for 4-year-olds in the United States. Assuming that a) a universal, voluntary prekindergarten program was offered to all 4-year-olds in the U.S. and b) teachers were required to have a Bachelor's degree in early childhood education, Maxwell and Clifford (2006) estimate that about 150,000 additional teachers would be needed to meet the need. Estimates from this study suggest that nearly 16,000 individuals in the U.S. received a Bachelor's degree in early childhood education in 2003. If 16,000 teachers with a Bachelor's degree enter the workforce each year, it would take a little over 9 years to meet today's need for 150,000 additional teachers of 4-year-

olds. Many more would be required for teaching younger children. How can the educational system adjust to meet the growing demand for teachers with a Bachelor's degree?

PREPAREDNESS FOR DIVERSITY

The population of young children in the U.S. is changing. About 45% of children under 5 in the U.S. are not White (U.S. Census, 2004). About 25% of children under 5 live with a parent who speaks a language other than English at home (U.S. Census, 2000). The findings from this study suggest that graduates of early childhood teacher preparation programs may not have had the coursework or practicum experience necessary to be well prepared to teach these young children. Less than 15% of programs offering a Bachelor's or Associate's degree, for example, required an entire course or more on working with bilingual children.

The diversity of faculty and their students is also an important component of preparedness for diversity (NAEYC, 1995; Stayton, Miller, & Dinnebeil, 2003). Data from this study suggest that most faculty members of early childhood teacher preparation programs were White, non-Hispanic yet most chairs and directors were aware of the need to increase diversity. Chairs and directors, for example, rated "difficulty attracting and retaining ethnically diverse faculty" as one of their greatest challenges. The students in early childhood teacher preparation programs were slightly more diverse than the faculty. For example, about 80% of faculty in 4-year institutions were non-Hispanic White compared to 69% of students in Bachelor's programs. These data suggest that programs need to continue recruiting and supporting both students and faculty from diverse backgrounds. Efforts to support the continued education of students from diverse cultures will not only help diversify the teaching population but also support a cadre of possible future faculty and leaders.

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BREADTH VS. DEPTH

About 70% of the early childhood programs prepared teachers to work with children across a broad age span—from the infant/toddler years to early elementary school. Although this breadth provides flexibility for future employment, it may not provide the depth necessary to be "highly qualified" to teach children at each age covered. For example, only 49% of the Bachelor's programs covering infants/toddlers in their degree required at least one course in the education and care of infants and toddlers.

These data suggest two questions for future consideration. First, the current span of ages covered in degrees seems quite broad, but how narrow must it be to ensure that teachers are well qualified while still having enough flexibility in the job market? A little less than 20% of the Bachelor's degree programs covered the age range of 3 to 8. With the increasing role of public schools in serving 4-year-olds and some 3-year-olds (Barnett, Hustedt, Robin, & Schulman, 2005), does this age range represent a balance of breadth and depth? Second, do infants and toddlers have highly qualified teachers? The National Research Council (2001) recommended in its *Eager to Learn* report that every preschooler have access to a teacher with at least a Bachelor's degree in early childhood education. The data from this report suggest that teachers with a Bachelor's degree may not be adequately prepared to teach very young children. How can the qualifications of teachers for infants and toddlers be strengthened and supported?

NON-TEACHING ROLES

Many people with Bachelor's and Master's degrees will become program administrators, supervisors, and technical assistance providers. Although these people may not be teaching young children directly, they may be "knowledge mediators" who prepare and support teaching personnel (Winton & McCollum, in press). Non-teaching, leadership roles require specific skills that may not be covered adequately in the educational system. Nearly 25% of Bachelor's or Master's programs did not require any coursework in administration, and about 40% did not require any coursework in adult learning and development. What is the best way to support these leadership skills? What role should the higher education system play?

LIMITATIONS

This study's strength lies in its breadth. We gathered information from over 1,000 early childhood teacher preparation programs representing about 85% of the total population of such programs in the United States. The emphasis on breadth limited the depth of information we collected. For instance, we gathered data from only one or sometimes two individuals at each institution. We did not gather information from program graduates, students, or other faculty that would have yielded a richer, more complete understanding in the programs. We asked a limited number of questions on any particular topic so that we know a little about some (but not all) topics covered in required courses. We did not collect any data about the quality of instruction in those courses or about offered electives.

Another limitation of this study is its reliance on self-reported data. Although these individuals were chairs or program directors who were likely to be the best informant for their program, we did not verify any of the information they provided by reviewing program reports or other data sources. As noted in previous sections of the report, we acknowledge that participants provided estimates for some questions such as student ethnicity.

FINAL COMMENTS

This study was designed to provide basic information about the early childhood teacher preparation system in the United States. In addition to the national data reported here, we have also prepared individual state reports for 45 states with 5 or more programs and a response rate of at least 75%.

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We hope that policymakers, teacher-educators, and practitioners will use the data in these reports to advocate for resources and policies needed to strengthen the early childhood teacher preparation system. We offer only one specific recommendation. We urge early childhood teacher education programs to gather key data systematically. Many programs, for example, could not readily report information about the ethnic composition of students. Gathering and reporting on certain aspects of the program not only highlights the importance of whatever is measured but also provides the information needed to document progress made toward goals.

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