

Texas Early Childhood Care and Education Institutions of Higher Education

Survey Data Report

June 2013

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TABLE OF CONTENTS

List of Tables	ii
List of Figures.....	ii
Introduction.....	1
Institutions Of Higher Education Capacity Survey	2
Sampling	2
Survey Instrument	3
Data Collection	4
Data Analysis	4
Results	5
Participating Programs’ Characteristics.....	5
Faculty Characteristics	13
Challenges for Students, Faculty and Institutions	19
Summary and Conclusions.....	22
References.....	24
Appendix A	26
Appendix B	27
Appendix C.....	28

LIST OF TABLES

Table 1. Early Childhood Education Programs and Respondents based on CIP codes	5
Table 2. Number of Respondents by Type of Program.....	6
Table 3. Accessibility of Early Childhood Teacher Preparation Programs	7
Table 4. Content Areas in which Programs Offer a Practicum or Full Course	9
Table 5. Required Content Areas for Early Childhood Teacher Preparation Programs, by Program Type	12
Table 6. Education, Qualifications, and Work Experience of Faculty in Early Childhood Teacher Preparation Programs.....	13
Table 7. Full-Time Faculty with Tenure by Degree Duration	14
Table 8. Race/Ethnicity of Full-time and Part-time Faculty	15
Table 9. Enrollment and Degrees Awarded 2008-2012.....	16
Table 10. Student Race/Ethnicity by Degree	17
Table 11. Estimations of Student Workforce Outcomes	19
Table 12. Mean Challenge Facing Early Childhood Teacher Preparation Programs	21

LIST OF FIGURES

Figure 1. Early Childhood Education Programs in Texas.....	3
Figure 2. Practicum Offerings by Degree Type	10
Figure 3. Percent of Programs with the Majority of Students Working Full-Time	18

INTRODUCTION

This study is designed to broaden our understanding of the capacity of Texas Institutions of Higher Education (IHE) early childhood care and education (ECCE) programs to effectively prepare Texas early childhood professionals for the workforce. In order to do this, IHEs promote developmentally appropriate practices that cultivate young children's optimal learning and development, grounded in both the research on child development and learning, and in the knowledge base regarding educational effectiveness in early care and education (Bredekamp & Copple, 1996).

Data were collected from Texas Institutions of Higher Education that offer certificates and degrees in the area of early childhood care and education.

INSTITUTIONS OF HIGHER EDUCATION CAPACITY SURVEY

Sampling

The sampling frame for the survey was composed of all degree-granting post-secondary institutions of higher education in Texas, including both public and private institutions, 2- and 4-year institutions, and technical Institutions. A list of programs and institutions was obtained from the website of the Texas Higher Education Coordinating Board (<http://www.theccb.state.tx.us/>). Programs were chosen, rather than institutions, because many institutions have more than one program, and these programs may or may not be located within the same departments. Given the relatively small size of the sampling frame, all institutions and programs were included in order to allow enough statistical power for a reliable analysis.

Programs at institutions were included in the sample if they were classified using one of the Classification of Instructional Programs (CIP) codes identifying programs that offer degrees or certificates in early childhood education and teaching, child development, child care provider/assistant and child care management. CIP codes are a taxonomic system of fields of study developed by the US Department of Education. The Texas Higher Education Coordinating Board uses CIP codes to allow users to search for programs throughout the state. The identified programs and the various degrees available are outlined in Figure 1. Based on an initial search of the relevant CIP codes (see Appendix 1), 248 programs across 88 Texas institutions of higher education were identified. A second list of institutions was obtained from the Council for Professional Recognition: the Child Development Associate National Credentialing Program. After duplicate programs were removed from within each list and between the two lists, 188 programs remained. Out of these 188 programs, 20 were disqualified because the program was found to either no longer exist, or it does not offer a course of study specific to ECCE. After these reductions, a total of 168 programs within 87 institutions remained in the sample. Attempts were made to collect data from all 168 programs.

Figure 1. Early Childhood Education Programs in Texas

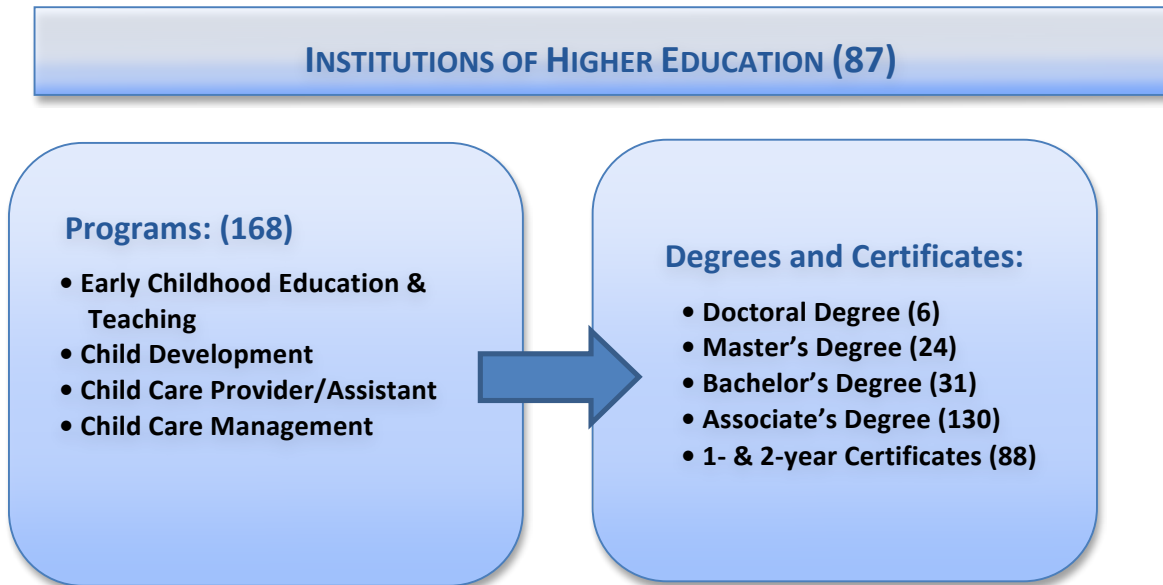


Figure 1 lists fewer programs (168) than degrees and certifications (279) because some programs offer more than one degree or certification.

Survey Instrument

A survey for IHEs was created using questions from the Survey of Early Childhood Teacher Preparation Programs in Post-Secondary Institutions¹ (Early & Winton, 2001). This survey has been used to conduct a national survey, and it has been adapted by researchers in Massachusetts for use in a specific state (Marshall, Dennehy, Starr, & Robeson, 2005). Similar to the Massachusetts survey, the present IHE Capacity Survey includes the majority of items from the national survey and questions adapted specifically for Texas. Items include faculty characteristics such as numbers of faculty (full- and part-time), degrees held by faculty members, numbers of faculty members with early child education or child development degrees, and faculty members who have direct experience working with children. Items regarding program characteristics include child age ranges covered by program content,

¹ Permission to use survey items was obtained from the survey authors and the Frank Early Graham Child Development Center at the University of North Carolina Chapel Hill.

courses in specialized content areas, time required in teaching practicum, time required in teaching practicum for specialized areas, student enrollment, number of graduates per year and estimates of student work outcomes.

Data Collection

Based on the methodologies employed in the national survey (Early & Winton, 2001) and the adapted state survey (Marshall et al., 2005), researchers conducted phone interviews with program directors. Prior to phone interviews, websites for each institution were examined to identify IHE administrators' contact information. Administrators were then contacted by e-mail or telephone to initially inform them of this project and to schedule an interview time. Introductory packets explaining the survey were mailed and emailed two weeks before the scheduled phone interviews. The introductory letter explained the survey's purpose and the information to be obtained from the phone interviews. A confirmation and reminder email was sent to each administrator prior to the interview, and an interviewer called the administrator at their selected time. For missed appointments, three attempts were made to contact the administrator by email and phone. Data from interviews were entered into a computer-assisted telephone interview (CATI) system by the interviewers. The administrators who completed the survey were entered into a drawing to win a \$450 gift card for lunch for their office.

Data Analysis

Data from phone interviews were entered directly into the CATI system and exported into SAS for analysis. Basic descriptive analyses, including means and standard deviations where appropriate, were run to provide estimates for the various faculty and program characteristics. Data were analyzed on a statewide basis, and presented so as to depict overall findings as well as findings specific to types of institutions (2- versus 4-year institutions) and types of degrees. For the purpose of this report, 'degree' in text below refers to both degrees and certifications.

Means presented, except for Child Development Associate (CDA)-related statistics, were weighted to account for the variation in institutions' sizes. The weight used was the most

recent, non-missing, annual number of degrees awarded as reported in the survey. If no survey data were available, 2012 award data from the Texas Higher Education Coordinating Board (THECB) were used. If weights were still missing, the most recent, non-missing annual enrollment, as reported on the survey, was used.

CDA-related statistics were not weighted as CDAs are not technically awarded by higher educational institutions; rather, CDAs are awarded by the Council of Professional Recognition upon completion of training, experience and professional observation requirements. Thus the survey responses on CDA awards varied greatly depending on question interpretation and were determined to be unreliable weighting factors.

Results

Participating Programs' Characteristics

Table 1 compares the CIP codes of the study sample to the survey respondents. CIP codes beginning with the number 13 are identified as education programs, while codes beginning with 19 are family and consumer science/human sciences programs. Only 18 of the 63 programs responding to the survey are education programs. One-third of the child development programs responded and 19% of the child care and support services management programs responded.

Table 1. Early Childhood Education Programs and Respondents based on CIP codes

CIP code	Title	Number of Programs in Texas	Respondents	
			Number	Percentage
13.1210	Early Childhood Education and Teaching	64	17	26.5%
3.1207	Montessori Teacher Education	1	0	n/a
3.1015	Education/Teaching of Individuals in Early Childhood Special Education Programs	0	0	n/a
13.1209	Kindergarten/Preschool Education and Teaching	1	1	n/a
19.0706	Child Development	83	26	31.3%
19.0708	Child Care and Support Services Management	48	9	18.7%
19.0709	Child Care Provider/Assistant	51	10	19.6%

The information collected for the 63 programs includes 37 institutions: 24 2-year institutions and 13 4-year institutions. Table 2 presents the number of respondents by type of degree and certification program.

Table 2. Number of Respondents by Type of Program

Type of Program	Number of Programs in Texas	Respondents	
		Number	Percentage
CDA or other certificates	83	20	24.10%
Associate's	131	22	16.79%
Bachelor's	14	11	78.57%
Master's	16	7	43.75%
Doctoral	4	3	75.00%
Total	284	63	25.61%

Education requirements for early childhood care and education (ECCE) professionals are determined by state and federal regulations. The Texas public school Pre-K program requires Pre-K teachers to have a bachelor's degree (Barnett et al., 2012). Head Start and Early Head Start teachers and assistant teachers are required to meet specific education requirements as stated in the 2007 revisions to the Head Start Act. The revised Act specifies that by September 30, 2013, 50% of all Head Start 3- and 4-year old student classrooms must have one teacher with a bachelor's degree and all assistant teachers must at least have a CDA. Early Head Start teachers working with children ages 0-2 were required to have a CDA by September 30, 2012. Texas Department of Family and Protective Services Child Care Minimum Standards requires directors of child care centers with 13 or more children to have a combination of post-secondary education and experience in the ECCE field, while child care center employees working with children are required to have a minimum of a high school diploma, or the equivalent, with eight hours of pre-service training.

As state and federal ECCE programs develop systems and guidelines that identify the training and education of ECCE professionals as an indicator of quality that impact outcomes for child health, safety, development, and kindergarten readiness, accessibility of programs is increasingly important. As indicated in Table 3, over half of the 2- and 4-year institutions have a

satellite or branch campus, and nearly all of both types of institutions offer some form of distance learning option.

Table 3. Accessibility of Early Childhood Teacher Preparation Programs

Accessibility Options	2- Year (N=24)	4-Year (N=13)
Satellite or branch campuses affiliated with their institutions where students can take courses, but still receive a degree or credential from their institution	53%	64%
Awards transfer credits to students entering with a CDA credential (e.g., life experience or prior learning experience)	44%	25%
Distance learning option (e.g., web based instruction, videoconferencing, or using web based tools for syllabus and course dissemination) for their Early Childhood Teacher Preparation Programs	99%	89%

Table 4 lists content areas in which programs at 2-year and 4-year institutions offer practica or full courses. Almost all institutions (93% or more) have programs offering such work in the area of working with children with disabilities, while very few (26% or fewer) offer such topics as working in a family child care home. On the other hand, dramatic differences are seen in the offerings of 2-year and 4-year institutions in some areas. For example, 2-year institutions are least likely to offer bilingual or ESL certifications (3%), while all surveyed 4-year institutions (100%) offer this. This finding is related to how ESL and bilingual certification programs are structured at different institutions. Most 2-year institutions offer English as a second language (ESL) and bilingual certifications as advanced certification programs available for bachelor level teachers. Typically, at 2-year institutions, these certifications are not offered through the same departments that offer the ECCE degrees and certifications. Four-year institutions offer education degrees that include specialized instruction to prepare students to apply for and test for ESL and bilingual certifications. In contrast, 4-year institutions are unlikely (15%) to offer

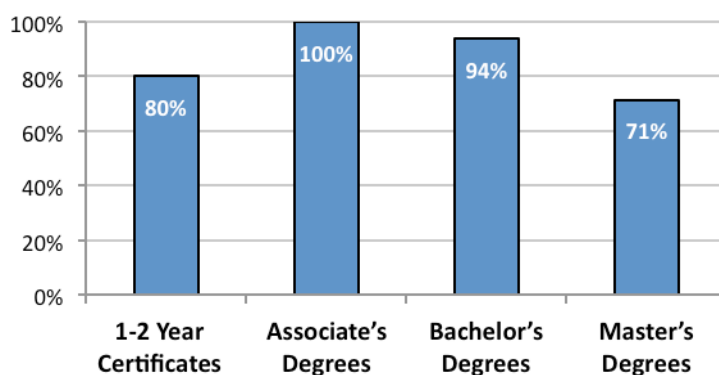
content related to administration of early childhood programs, whereas all 2-year institutions surveyed (100%) offered practica or full courses covering this content.

Table 4. Content Areas in which Programs Offer a Practicum or Full Course

	2- Year (N=24)	4-Year (N=13)
Institutions offer at least a full course or practicum on infant or toddler care or education.	95%	74%
Institutions offer at least a full course or practicum on preschool care or education.	98%	83%
Institutions offer at least a full course or practicum on school-age care or education.	63%	99%
Institutions offer at least a full course or practicum on home-visiting/parent education.	42%	52%
Institutions offer at least a full course or practicum on working in a family childcare home.	26%	13%
Institutions offer bilingual or English as a second language certification.	3%	100%
Institutions offer at least a full course or practicum on working with children with disabilities.	99%	93%
Institutions offer at least a full course or practicum on administration of early childhood programs.	100%	15%

Figure 2 focuses specifically on which types of programs offer practicum experience. While the vast majority of programs that responded offer students supervised practicum experience with children ages 4 and under, this is most likely in programs offering associate’s degrees (100%), and least likely in master’s programs (71%).

Figure 2. Practicum Offerings by Degree Type



Note: For this survey, practicum was defined as supervised work in a care or educational setting with children, any ages from 0 to 4. Practicum is the same as a field placement or student teaching and must include more than one observation. Doctoral programs were not asked about practicum offerings as practica are rarely included in doctoral studies.

Table 5 expands on the prior table by identifying content areas required by the surveyed ECCE programs, broken out by the level of degree or certificate awarded². In this context, “Required Content Areas” are those in which at least one entire course was required.

Patterns in the table suggest that master’s level programs have a unique focus compared to bachelor and associate degree programs. In general, bachelor’s and associate degrees prepare individuals to practice in their chosen field, while master’s degrees typically prepare students to lead or manage teams, and doctoral programs prepare students to conduct research (Carliner, 2012). This survey was designed to capture the education requirements that support ECCE professionals working with children 0-4.

² Note that, as described earlier, the weighting scheme on degree programs ensures that results are representative of student experiences, with the exception of the certificate programs that are unweighted, and are thus representative of programs.

Table 5 compares the specific course work required by the various degree types. The associate's programs, which include the 1- and 2- year certification programs that provide the prerequisite course work for a CDA credential, reported the broadest coverage in required course areas. Every topic listed in Table 5 was required in at least 50% of associate's programs, with the exception of bilingual, adult learning, and research method areas. Of the 1- and 2-year certificate programs responding, fewer than 65% required an entire course in any of the content areas, except for the popular classroom and behavior management that is required by 70% of the programs.

Eighty-nine percent of the bachelor level programs require a course in bilingual education yet only 23% require a course on health and nutrition. This relatively low percentage of required course work in health and nutrition was surprising in light of the recent focus in the field of early childhood on childhood obesity.

Seventy percent of the master's level programs responding to this study require students take a course in research and evaluation methods. Only three other content areas are required for a substantial portion of master's level programs (at least 43%): working with families, emergent literacy and literacy strategies, and appropriate learning environments and activities for young children.

Table 5. Required Content Areas for Early Childhood Teacher Preparation Programs, by Program Type

	1-2 Year Certificates (N=20)	Associate's Degrees (N=22)	Bachelor's Degrees (N=11)	Master's Degrees (N=7)
a. Education and care of infants and toddlers	65%	93%	50%	13%
b. Education and care of preschool aged children	65%	90%	80%	13%
c. Education and care of young children	60%	74%	98%	4%
d. Working with families	55%	95%	93%	43%
e. Working with children and families from diverse ethnic & cultural background	65%	88%	93%	30%
f. Working with bilingual children or children learning English as a second language	40%	43%	89%	30%
g. Assessment/observation of young children	55%	86%	49%	38%
h. Emergent literacy and literacy strategies	60%	95%	92%	43%
i. Numeracy and math for young children	40%	83%	55%	25%
j. Science, technology, and engineering for young children	40%	76%	55%	25%
k. Health and nutrition for young children	65%	95%	23%	4%
l. Social and emotional development of young children	60%	79%	89%	4%
m. Appropriate learning environments and activities for young children	65%	95%	89%	43%
n. Classroom or behavioral management of young children	70%	93%	91%	38%
o. Early childhood program administration	45%	94%	9%	21%
p. Collaborating with professionals in other disciplines	30%	52%	17%	30%
q. Professional knowledge (ex. confidentiality, ethics and codes of conduct)	65%	59%	17%	9%
r. Adult learning and development	15%	18%	16%	0%
s. Leadership and advocacy	45%	63%	9%	30%
t. Research and evaluation methods	30%	46%	17%	70%

Note: Due to doctoral programs' focus on research, content area data were not obtained for doctoral programs.

Faculty Characteristics

This section provides information on the faculty in early childhood programs in participating institutions. Faculty is defined to include all persons whose principle activities are instruction, research and/or public service and who hold titles of professor, associate professor, assistant professor, instructor, lecturer or the equivalent of any of these. Chairs and deans are included in this category if their principal activity is instruction or research.

The education, qualifications, and work experience of participant program faculty are presented in Table 6. Four-year institutions that responded to the survey have more teachers with doctoral degrees (65%) compared to 2-year institutions (10.4%). Yet 4-year institutions report fewer faculty members with degrees that include the study of early childhood (37%) or direct work experience with young children (36%), as compared to 2-year institutions that report 67% and 75% respectively.

Table 6. Education, Qualifications, and Work Experience of Faculty in Early Childhood Teacher Preparation Programs

	2- Year	4-Year
Highest degree earned by faculty (including full-time, part-time, and adjunct)		
Doctorate	10.35%	64.56%
Master's	69.08%	35.44%
Bachelor's	5.24%	0.00%
Associate's	0.80%	0.00%
High School Degree	0.00%	0.00%
Faculty with an early childhood degree covering an age span that includes children ages birth to 4	67.33%	37.51%
Faculty who have had direct employment experience working with children ages birth to 4	74.64%	35.94%
Faculty who are fluent in a language other than English	22.26%	22.78%

Note: Some Texas community colleges' adjunct faculty education requirements include a bachelor's degree with years of work experience

Table 7 compares the tenure opportunities among faculty at 2- and 4-year institutions. Tenure, most often available to full-time faculty with a doctorate, is offered at all 4-year programs. Only 37% of the 2-year institutions provide tenure opportunities. Among those institutions that offer tenure, faculty who do not yet have tenure are more likely to be on a tenure-track at a 4-year institution. As presented in the previous table, the majority of faculty with a doctorate are employed at 4-year institutions.

Table 7. Full-Time Faculty with Tenure by Degree Duration

TENURE	2- Year (N=24)	4-Year (N=13)
IHE's that offer Tenure	37%	100%
Average Number of Full-time Faculty		
Tenured	2.9	2.22
Non-Tenured on tenure-track	0.36	2.22
Non-Tenured, not on tenure-track	0.87	1.00

The available literature on trends in tenure and tenure-track faculty in 2- and 4-year institutions identifies a decline in the number of full-time faculty in tenure and tenure-track positions. According to a recent article in the Education Digest (2012), America's colleges and universities have been moving slowly but steadily away from tenure over the past decade. The article reports that between 1997 and 2007, the percentage of community college full-time tenured or tenure-track faculty has declined from 21% to 18%. The Texas Higher Education Coordinating Board identified a decrease in full-time tenured or tenure-track university faculty from 67.7% in 2000 to 64.5% in 2011. Respondents to this survey reported approximately 82% of full-time faculty are either tenured or on the tenure-track.

Table 8 lists the racial/ethnic breakdown of faculty members in early childhood teacher preparation programs. In 4-year institutions, three-fourths or more of faculty is white. In contrast, 2-year institutions tend to have a higher percentage of Black and Hispanic faculty members than do 4-year institutions.

Table 8. Race/Ethnicity of Full-time and Part-time Faculty

Race/Ethnicity Full-Time /Part-Time Faculty	2- Year (N=24)		4-Year (N=13)	
	Full	Part	Full	Part
Black, Non- Hispanic	11.59%	12.47%	2.05%	0.53%
American Indian or Alaskan Native	0.00%	0.18%	0.10%	0.00%
Asian or Pacific Islander	0.79%	0.39%	3.70%	2.07%
Hispanic	23.85%	19.44%	10.94%	8.39%
White, Non-Hispanic	62.74%	60.78%	79.94%	75.19%
Race/Ethnicity Unknown	0.00%	0.00%	1.17%	0.00%
Other	0.00%	0.00%	0.67%	0.00%
Information is Not Available	0.69%	0.35%	1.42%	1.42%
Prefer Not to Answer	0.00%	0.00%	0.00%	0.00%

Student Characteristics

Weighted average student enrollment and number of degrees awards are presented, by degree type, for the years 2008-2012 in Table 9.

Table 9. Enrollment and Degrees Awarded 2008-2012

	2008	2009	2010	2011	2012	Totals
CDA						
Enrolled	73.82	84.45	103.00	77.75	60.00	399.02
Awarded	14.50	19.20	20.90	22.90	17.25	94.75
Associate's						
Enrolled	269.86	272.93	311.40	312.75	277.31	1444.25
Awarded	25.44	30.99	39.00	38.39	35.35	169.18
Bachelor's						
Enrolled	833.90	884.20	915.63	872.02	859.76	4365.52
Awarded	359.08	312.36	352.91	350.43	352.01	2235.54
Master's						
Enrolled	38.24	25.60	29.88	29.96	30.29	153.98
Awarded	11.49	15.91	10.88	11.21	11.55	80.78
Doctorate						
Enrolled	5.00	5.00	4.00	3.00	12.45	29.45
Awarded	0.00	0.00	0.00	0.00	8.00	13.45
Totals						
Enrolled	1220.82	1272.19	1363.92	1295.48	1239.82	6392.23
Awarded	410.51	378.46	423.70	422.93	958.11	2593.70

Source: The "N's" for table 9 responses are in Appendix B.

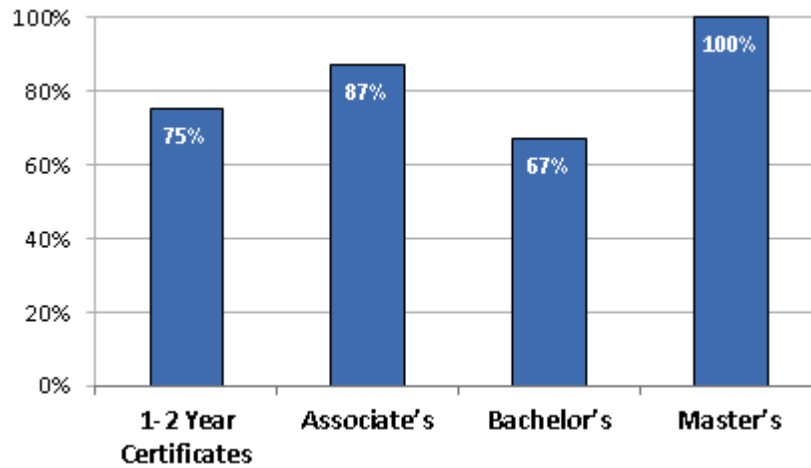
Student ethnicity/race means, by degree type, are presented in Table 10. Hispanic students composed the majority ethnicity in all degree-types except for Bachelor degrees in which White students were most numerous (58.9%).

Table 10. Student Race/Ethnicity by Degree

	1-2 Year Certificates	Associate's Degrees	Bachelor's Degrees	Master's Degrees	Doctoral Degrees
Black, Non- Hispanic	13.61%	10.99%	12.69%	8.24%	0.00%
American Indian or Alaskan Native	0.39%	0.44%	1.13%	0.15%	0.00%
Asian or Pacific Islander	3.14%	0.74%	3.57%	10.49%	21.54%
Hispanic	28.53%	42.78%	22.34%	42.77%	38.46%
White, Non-Hispanic	18.75%	17.16%	58.90%	37.04%	24.62%
Race/Ethnicity Unknown	0.35%	0.36%	0.25%	0.00%	0.00%
Other	0.20%	0.25%	1.02%	0.00%	0.00%
Information is Not Available	30.00%	21.45%	0.30%	1.69%	15.00%
Prefer Not to Answer	5.00%	6.06%	0.00%	0.00%	0.00%
Total	100%	100%	100%	100%	100%

The percentages of administrators reporting that the majority of their students work full-time are presented in Figure 3. All of the master's administrators report that a majority of students are employed full-time; fewer bachelors' administrators report that a majority of students work full time (67%).

Figure 3. Percent of Programs with the Majority of Students Working Full-Time



Note: Doctoral programs were not asked about students' work loads.

The majority of associate’s, bachelor’s and master’s graduates work in ECCE center, kindergarten, or elementary settings (see Table 11). Of the associate’s degree holders, nearly 30% continue their education at four-year ECCE bachelor’s programs.

Table 11. Estimations of Student Workforce Outcomes

	Associate’s Degrees	Bachelor’s Degrees	Master’s Degrees
Work with children ages 0-4 in a center-based program	58.31%	5.30%	16.59%
Teach or work with children ages 0-4 in a home based setting	3.98%	0.92%	3.24%
Teach or work in a kindergarten or elementary setting	2.28%	79.42%	63.31%
Work in an administrative capacity	-	0.97%	11.62%
Teach at the high school, community college or university level	-	5.28%	3.97%
Work in a research or policy capacity	-	0.64%	0.07%
Do not teach or work with children	5.88%	2.34%	0.54%
Go on to a 4-year early childhood education or care baccalaureate program	29.79%		

Note: Doctoral programs were not asked about their students’ workforce outcomes outside the arenas of becoming faculty, administration, or research.

Challenges for Students, Faculty and Institutions

Challenges facing ECCE teacher preparation programs are presented in Table 12. The answers were provided on a Likert scale, with responses ranging from 1, “Not a challenge” to 5, “A large, frequent challenge.” Two-year program administrators reported students’ lack of academic preparation or skill (3.81) and students’ competing work or family related responsibilities (3.66) as the largest challenges faced by their students on average. At the institution level, problems with the transfer of credits and articulation were reported as challenging (3.45).

Four-year program administrators reported the challenge of students’ competing work or family related responsibilities (3.56) at a high level, as well as students’ lack of

financial support (3.24) and the institutions' difficulty in attracting and retaining ethnically diverse faculty (3.24).

Two-year institutions report higher challenges with transfer of student credits and articulation agreements (3.45). Transferring student's credits involves a process of moving student's course credit hours across different institutions, while articulation agreements are the institutions' policies or structures that are implemented to encourage, facilitate and monitor the student transfer process (WICHE, 2010).

Lack of quality early childhood practicum sites was a larger issue for 4-year than 2-year institutions: 1.60 and 2.80 respectively. Currently only six community colleges across the state have ECCE associate degree programs that are accredited by the National Association for the Education of Young Children (NAEYC) and seven universities with 15 programs in child development and early childhood education are NAEYC accredited. Across the state, Texas has only 246 NAEYC accredited ECCE sites. There are too few choices for high quality ECCE field settings and currently no quality standards for evaluating the settings where community college students can satisfy their field placement requirements. Some programs allow students employed at child care centers to achieve their practicum hours at their place of work. At other programs, such as Austin Community College (ACC), require all hours must be completed at the ACC Children's Lab School (an NAEYC accredited program) unless the student is working 30 hours or more per week directly with young children. At ACC, if the student is working 30 hours a week or more directly with young children, then half of the required hours can be completed at the students place of employment and the other half at ACC children's Lab School.

Table 12. Mean Challenge Facing Early Childhood Teacher Preparation Programs

	2- Year (N=24)	4-Year (N=13)
Student-Related		
Students' competing work or family related responsibilities	3.66	3.56
Lack of student motivation	2.94	1.53
Students' lack of academic preparation or skill	3.81	1.62
Lack of financial support or scholarships	3.25	3.24
Faculty-Related		
Lack of faculty in your department with expertise in early childhood education	1.17	1.93
Lack of full-time faculty in department	1.47	2.19
Poor faculty working conditions and wages	1.45	1.82
Difficulty attracting and retaining ethnically diverse faculty	2.39	3.24
Difficulty attracting and retaining linguistically diverse faculty	2.47	2.97
Institution-Related		
Problems with transfer of credits and articulation	3.45	1.61
Lack of support from your college/ university for early childhood teacher preparation	1.73	1.89
Inability to serve the number of students who want to enroll	1.28	1.82
Community-Related		
Lack of quality early childhood practicum sites	1.60	2.80
Attracting and keeping students due to poor working conditions and wages in the field of early childhood.	2.99	2.14

Note: 1 = not a challenge; 3 = somewhat of a challenge; 5 = a large, frequent challenge

Correlations among Challenges for Students, Faculty and Institutions

Correlations among the challenge items detailed in Table 12 are available in Appendix C. Among student-related challenges, a lack of motivation was statistically significantly correlated with a lack of academic preparation or skill. According to a report distributed by the National Conference of State Legislators, students who come to higher education academically unprepared and require remediation are at risk of dropping-out.

Also competing work and family responsibilities were correlated with a lack of financial support.

Among faculty-related challenges, a lack of faculty with expertise in early childhood education, a lack of full-time faculty and poor faculty working conditions and wages were inter-correlated. Also, difficulty attracting and retaining ethnically diverse faculty was correlated with difficulty attracting and retaining linguistically diverse faculty.

Among institution-related challenges, a lack of institutional support for ECCE programs was statistically significantly correlated with an inability to serve the number of students that wish to enroll.

Summary and Conclusions

This study was designed to contribute to our understanding of the capacity of Texas Institutions of Higher Education (IHE) early childhood care and education (ECCE) programs to prepare Texas early childhood professionals for the workforce. Data were collected from 63 2- and 4-year programs that offer certificates and degrees in the area of early childhood care and education.

Respondents reported on a number of challenges facing institutions, faculty and students. Administrators of 4-year institutions reported difficulty attracting and retaining ethnically diverse faculty in a field of study that attracts ethnically diverse students. The majority of students represented in each category of degree type are Hispanic except for the bachelor level students. The majority of bachelor level students are white, non-Hispanic as are the majority of faculty at both 2- and 4-year institutions. At 4-year institutions there is a lack of faculty with degrees and experience related to young children ages 0-4.

Administrators reported that students' competing work or family related responsibilities is one of the largest challenges faced by their students as the majority of students working toward all degree types are working full-time. All administrators further report a lack of financial support or scholarships for students. Forty percent of participating 2-year program graduates go on to pursue further education at 4-year institution while

administrators of 2-year institutions identified problems with transfer of credits and articulation agreements.

The responses from this study will be related to the results from the survey of newly certified and degreed ECCE professionals to create a final report that will continue to contribute to our understanding of the capacity of Texas to effectively prepare out early childhood professionals.

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APPENDIX A

Early Childhood Education Programs in Texas based on CIP codes

CIP code	Title	Number of Programs in Texas
13.1210	Early Childhood Education and Teaching	64
3.1207	Montessori Teacher Education	1
3.1015	Education/Teaching of Individuals in Early Childhood Special Education Programs	0
13.1209	Kindergarten/Preschool Education and Teaching	1
19.0706	Child Development	83
19.0708	Child Care and Support Services Management	48
19.0709	Child Care Provider/Assistant	51

APPENDIX B

Number of Respondents for Enrollment and Degrees Awarded 2008-2012

	2008	2009	2010	2011	2012
CDA					
Enrolled	11	11	11	12	12
Awarded	10	10	10	10	8
Associate's					
Enrolled	11	14	14	14	14
Awarded	16	17	18	18	18
Bachelor's					
Enrolled	5	6	7	8	8
Awarded	7	7	8	9	9
Master's					
Enrolled	4	5	5	6	6
Awarded	5	5	5	5	4
Doctorate					
Enrolled	1	1	1	1	2
Awarded	0	0	0	0	1

APPENDIX C

Correlations among Program Challenges (statistically significant correlations shaded in red)

Pearson Correlation Coefficients Prob > r under H0: Rho=0 Number of Observations														
	competing_work_fam	lack_motivation	lack_prep_skill	lack_finan_suprt	lack_fac_expertise	lack_ft_faculty	poor_fac_wrk_cond	eth_diverse_faculty	ling_diverse_faculty	transf_credits	lack_suprt_ece_prep	inability_serve_stud	lack_practic_sites	attr_stud_poor_wages
competing_work_fam														
lack_motivation	0.199 0.245 36.000													
lack_prep_skill	0.098 0.571 36.000	0.655 <.0001												
lack_finan_suprt	0.346 0.039 36.000	0.048 0.780 36.000	0.158 0.358 36.000											
lack_fac_expertise	0.056 0.748 36.000	-0.308 0.067 36.000	-0.270 0.112 36.000	0.117 0.495 36.000										
lack_ft_faculty	0.004 0.983 36.000	-0.297 0.079 36.000	-0.042 0.807 36.000	0.228 0.181 36.000	0.564 0.006 36.000									
poor_fac_wrk_cond	0.204 0.232 36.000	-0.187 0.274 36.000	-0.071 0.680 36.000	0.257 0.130 36.000	0.526 0.001 36.000	0.555 0.000 36.000								
eth_diverse_faculty	-0.085 0.621 36.000	-0.304 0.072 36.000	-0.377 0.023 36.000	-0.066 0.703 36.000	0.192 0.262 36.000	0.278 0.100 36.000	0.275 0.105 36.000							
ling_diverse_faculty	-0.067 0.700 36.000	-0.210 0.219 36.000	-0.185 0.280 36.000	0.057 0.741 36.000	0.072 0.674 36.000	0.276 0.103 36.000	0.287 0.090 36.000	0.820 <.0001 36.000						
transf_credits	0.098 0.575 35.000	0.472 0.004 35.000	0.519 0.001 35.000	-0.141 0.420 35.000	0.163 0.349 35.000	0.099 0.571 35.000	0.015 0.930 35.000	0.048 0.786 35.000	0.089 0.612 35.000					
lack_suprt_ece_prep	0.358 0.035 35.000	-0.137 0.432 35.000	0.050 0.776 35.000	0.343 0.044 35.000	0.316 0.064 35.000	0.537 0.001 35.000	0.490 0.003 35.000	0.002 0.991 35.000	0.002 0.508 34.000	-0.116 0.982 34.000				
inability_serve_stud	0.020 0.906 36.000	-0.426 0.010 36.000	-0.319 0.058 36.000	0.101 0.559 36.000	0.511 0.001 36.000	0.381 0.022 36.000	0.472 0.004 36.000	0.189 0.269 36.000	0.117 0.498 35.000	-0.139 0.425 35.000	0.410 0.015 35.000			
lack_practic_sites	-0.086 0.618 36.000	-0.223 0.191 36.000	-0.139 0.418 36.000	-0.146 0.397 36.000	0.333 0.047 36.000	0.649 <.0001 36.000	0.092 0.592 36.000	0.213 0.212 36.000	0.130 0.450 35.000	0.184 0.290 35.000	0.289 0.092 35.000	0.227 0.183 36.000		
attr_stud_poor_wages	0.359 0.031 36.000	0.190 0.267 36.000	0.211 0.217 36.000	0.391 0.019 36.000	0.227 0.183 36.000	0.244 0.152 36.000	0.331 0.049 36.000	0.025 0.883 36.000	0.059 0.734 35.000	0.120 0.492 35.000	0.312 0.068 35.000	0.085 0.624 36.000	0.068 0.693 36.000	

Crosswalk between correlation table labels and program challenge items

Student-Related	
competing_work_fam	Students competing work or family related responsibilities
lack_motivation	Lack of student motivation
lack_prep_skill	Students' lack of academic preparation or skill
lack_finan_suprt	Lack of financial support or scholarships
Faculty-Related	
lack_fac_expertise	Lack of faculty in your department with expertise in early childhood education
lack_ft_faculty	Lack of full-time faculty in department
poor_fac_wrk_cond	Poor faculty working conditions and wages
eth_diverse_faculty	Difficulty attracting and retaining ethnically diverse faculty
ling_diverse_faculty	Difficulty attracting and retaining linguistically diverse faculty
Institution-Related	
transf_credits	Problems with transfer of credits and articulation
lack_suprt_ece_prep	Lack of support from your college/ university for early childhood teacher preparation
inability_serve_stud	Inability to serve the number of students who want to enroll
Community-Related	
lack_practic_sites	Lack of quality early childhood practicum sites
attr_stud_poor_wages	Attracting and keeping students due to poor working conditions and wages in the field of early childhood.