

Early Childhood Education Preparation Programs

Program Designs & Practices to Support Candidate Learning & Success

June 2021

Our nation's success in rebuilding a stronger, more stable, and more supported early childhood education (ECE) system in the wake of the pandemic is dependent on our ability to rebuild a stronger, more stable, and more supported early childhood education workforce. This requires investments specifically targeting and increasing the compensation of educators working with young children across states and settings; equally critical are investments, policy, and program changes to support their professional preparation and development.

As outlined in reports from *Transforming the Early Childhood Education Workforce* to the *Unifying Framework for the Early Childhood Education Profession* to the 2020 Early Childhood *Workforce Index*, neither setting nor age should determine a child's equitable access to well-prepared early childhood educators. Likewise, there is a shared belief that degree programs must be intentionally designed to effectively prepare and *support* early educators—a reality that has only been elevated in the context of the pandemic, as students and colleges confront deep and exacerbated challenges.

This brief takes its learnings and recommendations about strategies that programs can implement to support candidate learning and success from qualitative data collected from NAEYC-accredited early childhood education degree programs. In addition, as policymakers and early childhood education program leaders look to strategies that address effective preparation, the brief provides a general overview of NAEYC Accreditation of Early Childhood Higher Education Programs as a system that both supports and recognizes quality early childhood professional preparation programs. It also provides an overview of the characteristics of accredited programs as well as candidate characteristics (see Appendix A for methodology).

Many early educators already have some level of higher education, even when it is not required: 80 percent of center-based teaching staff and 65 percent of listed home-based providers have completed at least some college; 52 percent and 31 percent, respectively, have earned an associate or bachelor's degree.¹

Introduction

Many fields and professions have hundreds or even thousands of institutions and programs preparing individuals to serve. The early childhood education field has more than 3,000 such early childhood and related-fields degree programs in the higher education context alone, which vary in name, quality, and depth of content. These programs include approximately 1,300 associate, 1,069 bachelor's, 612 master's, and 84 doctoral degree programs, with more than 50 different types of associate and bachelor's degree programs.²

In 2006, NAEYC launched the Accreditation of Early Childhood Higher Education Programs system, through which it provides a mechanism for early childhood associate, baccalaureate, and master's degree programs preparing early childhood educators for early career roles to demonstrate their commitment to high-quality professional preparation as well as their alignment to *NAEYC's Professional Preparation Standards* (transitioning into the *Professional Standards and Competencies for Early Childhood Educators*). The standards describe expectations for what graduates of early childhood higher education programs must know and be able to do. There are currently 184 institutions in 40 states with NAEYC-accredited early childhood education programs, equating to 215 associate degree programs (approximately 18 percent of the total), along with 12 bachelor's and two master's degree programs (baccalaureate and master's degree accreditation were granted since the commission's expansion in 2017.)



NAEYC Accreditation of Early Childhood Higher Education Programs collects a significant amount of both quantitative and qualitative data on professional preparation programs through the programs' Self-Study Reports (submitted when applying for first-time and renewal accreditation) and Annual Reports submitted by accredited programs (see Appendices B and C for data points contained in each database).

Specifically, in the Self-Study Report, programs describe their design and organization in response to 12 Accreditation Criteria and provide evidence of meeting the standards through documenting learning opportunities provided to candidates. Programs submit five to six key (or comprehensive) assessments used to evaluate candidate performance on the standards, report and analyze data on candidate performance, and document the quality of the programs' field experiences. The NAEYC Accreditation Criteria are used to better understand the program's unique context, the program's mission and goals, the program's conceptual framework and design, the characteristics of candidates and faculty, and the program's governance, structure, and resources.

In the Annual Report, programs provide updates on enrollment, faculty, and program performance on outcome measures, and report and analyze candidate performance data on the standards. For the program outcome data, the higher education programs must report on three measures (and for each measure, they report data on the three most recent sequential academic years for which the data are available):

- > For Outcome Measure 1, programs provide data on the number of program completers in a given academic year.
- > For Outcome Measure 2, programs examine a fall semester cohort of entering full-time students and determine the number and percentage of these students that complete the program within 150 percent and 100 percent, 200 percent, or 300 percent of the program's published time frame.
- For Outcome Measure 3, programs report on a third outcome measure of their choosing that is meaningful to their programs. This measure could include fall-to-fall retention rates, graduate employment rates, average GPAs of graduates, graduates' performance on licensure or performance assessments, or other measures that speak to the quality of the program.

These data are now collected and analyzed in a new database developed with support from the Heising-Simons Foundation. It will be used to share information through a series of briefs in order to advance the field's understanding of the early childhood higher education accreditation landscape as well as ECE program and candidate characteristics.

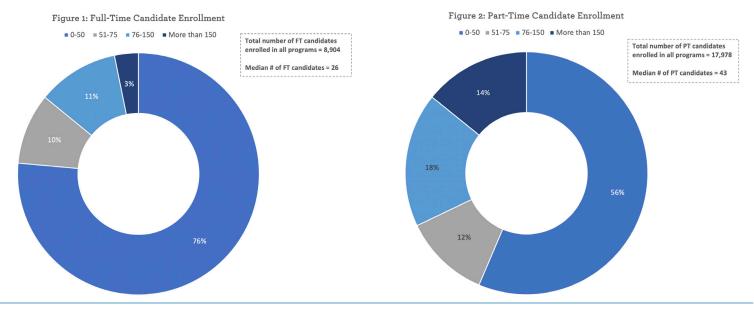
Overview of Candidate Characteristics

Candidate Enrollment

In keeping with prior research illustrating that early childhood education is a field in which many educators earn their degrees while working, the total number of full-time candidates enrolled in all accredited ECE higher education programs is 8,904, as captured in Figure 1, while enrollment of part-time candidates is 17,978, as evidenced in Figure 2.

Nearly 77 percent of programs have a full-time enrollment range of 0-50 candidates, while only 3 percent have more than

150 candidates enrolled full time (median number of full-time candidates is 26). Approximately 14 percent of programs report having more than 150 part-time candidates enrolled, while 56 percent have 0-50 part-time candidates enrolled (the median number of part-time candidates is 43). These percentages are also in line with the fact that 99 percent of NAEYC-accredited programs award degrees at the associate degree level, which tend to have a high percentage of part-time enrollment.



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Candidate Completion

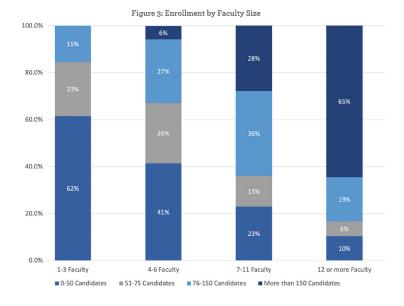
In order to graduate from their program of study, students have to complete both general education coursework as well as early childhood education coursework. In the programs studied through this research, which include programs that provide associate of arts, associate of science, and associate of applied science degrees, as well as two bachelor of science degree programs, the required number of general education credit hours has a median value of 24, and the required number of early childhood credit hours in these programs has a median value of 37.5. Given that the vast majority of accredited degree programs are associate of science, associate of applied science, and bachelor of science, the higher number of required early childhood credit hours and lower number of required general education hours are neither unusual nor unexpected: these degrees tend to have a greater emphasis on credit hours in the major than associate of arts and bachelor of arts degrees.

In these programs, part-time students represent the majority with regard to enrollment numbers as well as program completions. The median percent of part-time program completers is 75 percent of the total number of completers at the program, while the median percent of full-time program completers reported is 24 percent. This means that in general, three out of four program completers in an academic year attended part time while one out of four program completers in an academic year attended full time.³

While many programs acknowledge that the completion time may be much longer for their part-time and non-traditional candidates—often four to eight years—findings indicate that even students who graduate while attending full time rarely complete the program within its published time frame. For most accredited ECE associate degree programs, the published time frame for program completion is two years for students attending full time. We found that a median of 15 percent of full-time candidates completed the program within 150 percent of the published time frame (three academic years). Additionally, the most commonly cited "other percent" that programs reported on was 200 percent (four academic years) with a median completion rate of 18 percent.⁴ These data seem to imply that some candidates who began the program as full-time students were unable to maintain their full-time status or may have ultimately had to switch to a part-time candidate status.

Supporting Candidate Success

Whether we are talking about young children in early childhood education programs or grown adults in higher education programs, the success of students is substantially driven by the support from and for their teachers. In early learning programs, we talk about educator competencies, qualifications, compensation, and diversity, as well as comprehensive services for families and ratios that allow for deep interactions and relationship-building that drive quality and learning. Similarly, in higher education programs, faculty size, non-academic student supports, advising, and teaching practices become critical aspects for facilitating student success.



The Unifying Framework for the Early Childhood Education Profession seeks to ensure that all professional preparation programs receive and provide infrastructure, resources, and supports including:

- > All faculty and professional development specialists have qualifications aligned to the expectations set by early childhood professional preparation accreditation/recognition bodies.
- Faculty and professional development specialists are adequately compensated for the work that they do.
- > Faculty-to-student ratios are comparable to other clinically based programs within an institution of higher education.
- > Faculty and professional development specialists have access to relevant and ongoing professional development.
- Faculty and professional development specialists reflect the diversity of early childhood education students and/or US demographics.

Currently, however, faculty in early childhood preparation programs, like the students they serve, confront their own challenges related to support and compensation. There are approximately 598 full-time early childhood education faculty in accredited programs and a broad reliance on adjunct faculty. Among NAEYC-accredited ECE higher education programs, the median number of full-time faculty is two, while the median number of part-time faculty is 4.5. More than 60 percent of NAEYC-accredited ECE higher education programs with 0-50



candidates have one to three faculty members. Among larger programs (more than 150 candidates), nearly 65 percent have 12 or more faculty members.

So how are these faculty members and the programs in which they work teaching, advising, and supporting their students to learn and be successful? Even prior to the pandemic, maintaining enrollment and supporting completion could be a daunting task for ECE higher education programs as students balanced the competing challenges of school, work, and family, often with limited time and income from their underpaid work as early childhood educators and underdeveloped skills in technology, literacy, and math that need to be grown and supported to achieve success in the program. In this section, we analyze qualitative data submitted by programs in their Self-Study Reports (SSR) for three Accreditation Criteria that most directly contribute to supporting candidate success in the program:⁵

- > Criterion 4 (Quality of Teaching)
- > Criterion 5 (Role in the Pipeline)
- > Criterion 7 (Candidate Advising and Support)

The results of our analysis are outlined in three sections that highlight successes and challenges in program designs and practices that support candidate learning and success, namely in the categories of teaching quality and academic supports partnerships and transfer/articulation to support the early childhood educator pipeline non-academic supports

Accreditation Criteria Supporting Candidate Success

Twelve Accreditation Criteria in the Self-Study Report address aspects of early childhood education degree program design that contribute to programs' abilities to develop candidates' proficiency in the 2010 NAEYC Professional Preparation Standards. A description of the three criteria that most directly contribute to supporting candidate success in the program, as well as the indicators of strength that programs respond to in the Self-Study Report, follows:

Criterion 4: Quality of Teaching

The teaching strategies used by program faculty reflect the characteristics, instructional methods, and evaluation strategies that are likely to promote candidate learning in relation to the *NAEYC Professional Preparation Standards*. They reflect the current professional knowledge base and are responsive to the characteristics of the program's candidates.

Rationale: Today, we know a great deal about how to promote the learning of candidates in early childhood degree programs. Teaching-learning experiences in strong programs reflect that knowledge base and are responsive to the characteristics of the program's candidates.

Indicators of Strength

NOTE: Indicators should be evident whether faculty are full time or part time, and whether courses are offered in day or evening, in distance or other formats, or on- or off-campus.

> The teaching-learning experiences offered in the degree program are consistent with the program's mission, role, and conceptual framework, and the *NAEYC Professional Preparation Standards*.

- > The content of the program's teaching-learning processes reflects the early childhood field's current knowledge base derived from research on early development and education and other professional sources.
- > Teaching reflects current research about the role of faculty as facilitators of candidate learning and about learner-centered education that uses a variety of methods and strategies.
- Candidate participation is frequently fostered and monitored, as appropriate, to the delivery (faceto-face, online, hybrid) of the program.
- > Teaching reflects knowledge about and experiences with diverse populations of adults and is based on knowledge of cultural and individual adult approaches to learning.
- > The program continuously evaluates the quality of its teaching-learning processes such as through peer review, self-reflection, reflective supervision, course evaluations, and other candidate feedback. The program uses the results, including candidate performance data from the program's assessments (not just Key assessments), to improve the program and to promote all candidates' learning in relation to the NAEYC Professional Preparation Standards.



Criterion 5: Role in Supporting the Education Career Pathway

The program of study allows early childhood professionals to build on prior credentials and prepares them for future professional education opportunities in order to advance early childhood education and improve student learning.

Rationale: The professional preparation standards are relevant throughout an early childhood professional's educational studies as individuals pursue education opportunities to advance their knowledge, serve young children in their learning environments, meet professional performance standards in the degree program, and achieve career aspirations. Successful programs consider ways to build on candidates' prior credentials and position them for seamless advancement in their educational studies through supporting transfer, articulation, and collaboration across programs and institutions to sequence and reduce redundancy in content and requirements.

Indicators of Strength

- > The program(s) reflects on the credentials with which candidates commonly enter the program and considers opportunities to avoid duplication and/or deepen coursework at a more advanced level of study.
- > The program(s) identifies common educational steps its graduates take prior to entering and after completing the program and proactively addresses opportunities to streamline requirements, reduce redundancy, align coursework, etc. to create a seamless higher education pipeline for early childhood candidates and professionals.
- > The program(s) actively participates in partnerships with relevant high schools, community colleges, and/or four-year colleges and universities and graduate programs to support the recruitment and development of early childhood candidates through higher education pathways. (Examples might include dual enrollment agreements or articulation agreements).

Criterion 7: Advising and Supporting Candidates

The program ensures that candidates are adequately advised and supported.

Rationale: Candidates need many kinds of assistance if they are to gain the competencies reflected in the NAEYC standards. Strong programs ensure that comprehensive services are available to all candidates, and that candidates' career goals are being met.

Indicators of Strength

- Advising and supports are designed around the needs and characteristics of the candidate population.
- > The program ensures that all candidates have equitable access to a comprehensive support system including appropriate academic advisement, career counseling, financial aid information, academic support services, and other resources from admission to the completion of their education.

- On a regular basis, program faculty review the performance of candidates in relation to learning outcomes (including NAEYC standards) and provide candidates with advice and counseling regarding their progress and potential in the program and early childhood profession.
- > The program has protocols in place for identifying and advising candidates whose behaviors, actions, and/ or performance related to the standards are not appropriate for working with young children.
- > The program makes every effort to ensure that candidates complete their course of study in a way that recognizes and supports each candidate's goals and characteristics.

Currently, the NAEYC Commission on the Accreditation of Early Childhood Higher Education Programs is revising the accreditation standards to elevate many of the components addressed in the accreditation criteria to the level of an accreditation standard. The Commission anticipates releasing the new accreditation standards later in 2021. Information about the current accreditation standards and the revision of the standards can be found at https://www.naeyc.org/accreditation/higher-ed/standards.



Teaching Quality and Academic Supports

The practices described by programs in Criteria 4 and 7 are critical to a candidate moving successfully from student to graduate to a practitioner in the early childhood workforce. In responding to these criteria, ECE higher education programs discuss both the strengths and challenges associated with their teaching and academic support practices.

Because teaching methods and practices are an integral component of successful program completion for candidates, program faculty implement several measures and practices to meet the learning needs of their candidates, including using hands-on teaching methods, offering courses and materials online, as well working toward a faculty diverse in multiple ways, who bring multiple perspectives to the learning environment. As with any process, there are also corresponding challenges that programs face while trying to strengthen their teaching practices. Because many students work or are considered "non-traditional," challenges cited include finding ways to meet the needs of their program candidates while also dealing with staff attrition, confronting time constraints for both faculty and candidates, and figuring out how to keep course materials up-to-date while also managing course sequencing regardless of the delivery method.

Table 1 presents a summary of the themes about teaching strengths and challenges that were found while analyzing the text of Criterion 4 of the Self-Study Report data, supported by quotes from the reports.

Table 1: Summary of Teaching Strengths and Challenges Themes (Criterion 4 from SSR Data)

Strengths	In Their Own Words	Challenges	In Their Own Words
Deploying hands-on teaching using real-life scenarios integrated into curriculum	"We are able to order materials through grant-funded projects." "We have proposed the installation of a mock [child care] room setting." "We have ECED hands-on labs within the ECED classrooms."	Addressing course sequencing and consistency, regardless of delivery methods, while keeping courses and materials up to date	"While textbooks are standardized and uniform across all sections of any particular course, more attention could be made toward other aspects of making courses more uniform across sections." "For example, helping candidates understand how to integrate emerging technologies into developmentally appropriate classrooms of young children."
Providing flexible schedules and mechanisms, including online platforms, to align classes with students' schedules	"We offer most of our ECE courses over an online meeting platform."	Meeting students' educational needs, assessing their learning, and managing their expectations amidst heavy course loads	"Meeting the needs of an older student body, many of whom work full time while attending school." "Many of the ECE students come with challenges in reading, writing, or both."
Using a continuous improvement framework to improve teaching and making ongoing professional development for faculty available, including for faculty research labs	"Our faculty is encouraged to take professional development courses that are offered throughout the school year on campus." "Faculty members have access to research and resource materials through our campus library system."	Recognizing limitations on faculty time and availability, and reliance on a large number of adjunct faculty	"Faculty members work together and meet as often as possible to discuss teaching and student learning effectiveness. The program employs several adjunct faculty which creates some time constraints and scheduling conflicts, though, and collaboration on a regular basis has been a challenge."
Operating within the context of a close- knit, passionate, and supportive staff with a diverse range of perspectives	"Our collective experience in the field of early childhood offers students a very rich perspective. Our faculty have diverse degrees and experiences."	Increasing staff attrition and challenging recruitment, with a focus on a diverse pipeline	"In the past seven years, half of our teaching staff has changed."



Supportive, engaged advising is also a critical aspect of candidate success. Table 2 presents a summary of the themes found while analyzing the text of Criterion 7 of the Self-Study Report data. This was done to determine the strengths and challenges programs have when providing academic supports to their candidates. Program faculty and other university staff use advising methods such as one-on-one or group formats to ensure they are meeting the needs of their candidates. Some of these approaches include offering a variety of advisement options, ensuring there are clear pathways, and providing tutoring, writing, and computer labs. However, having a large proportion of part-time and working students can make having adequate and effective advising options a challenge. A few of the challenges indicated include inadequate resources, underutilization of advising by candidates due to time and accessibility constraints, as well as candidate and faculty attrition.

Table 2: Summary of Academic Supports Strengths and Challenges Themes (Criterion 7 from SSR Data)

Strengths	In Their Own Words	Challenges	In Their Own Words
Offering a variety of advisement options with consistent availability and experienced advice on transfer and full access to transcripts	"Program faculty keep advising records for advisees, have both face-to-face and distance advising hours, reach out to all advisees regularly with reminders for registration, graduation applications, and other institutional deadlines, and make sure to respond to student inquiries regularly."	Inaccessibility and underutilization of advisement options despite availability	"Because so many of the ECE students work full time and are doing their coursework online, the main challenge is to have them access the multitude of services and resources available to them."
Ensuring clear pathways with sample "Master Schedules" for students to follow	"To make the coursework more predictable for students, our program has drafted a "master schedule" that includes the typical fall/spring courses and elective option rotations."	Ensuring students are able to access consistent advising and follow appropriate sequences for courses of study	"Students will readily self-advise into courses and not follow the appropriate sequence, creating a great disconnect in their understanding."
Providing flexible class delivery options	"In an effort to meet the challenge of students' work schedules and family obligations, the program has developed and employed a variety of course delivery methods including hybrid, online, Saturday, and online with a campus requirement."	Confronting resources insufficient to support program budgets and faculty and student retention	"A challenge in dealing with advising is the large number of advisees for which each faculty member is responsible." "Our program continues to see a reduced number of students accomplishing their degree at full-time student status."
Creating partnerships with other campus services, including tutoring, writing, and computer labs	"The Academic Advising Center has a director and six academic advisors to support students in their career path, workforce development, educational goals, and professional commitment."	Connecting candidates to appropriate supports	"Many candidates begin their coursework under the 'special student' [non- degree seeking] designation. This is an ongoing challenge for the program because the students are not identified as program majors."
Ensuring regular relationship building among advisors and faculty	"The ECE program coordinator periodically meets with Advising & Career Center staff to inform and update them on relevant program information."	Ensuring candidate employability	"Non-ECE' counselors struggle to keep up with state and professional changes due to the extent of ECE complexities."

Partnerships and Transfer/Articulation to Support the Early Childhood Educator Pipeline

One of the persistent postsecondary barriers early childhood educators face is lack of access to smooth articulation/transfer pathways that help students move from high school through certificate programs to early childhood associate degree programs and early childhood baccalaureate degree programs. Many factors contribute to articulation and transfer challenges, including the variability of early childhood education content within degree levels and across degree levels, but the upshot is that this bifurcated, chaotic, and complex reality makes a challenging recruitment and retention process worse. It marginalizes those without time, power, and privilege to access and navigate the complexity, and it perpetuates significant cost implications for educators who may find themselves spending money they don't have and are unable to recoup with increased compensation at the end of the journey.

The Professional Standards and Competencies for Early Childhood Educators, along with the associated leveling to the ECE I, II and III designations, are important levers in addressing the challenges of transfer and articulation.⁶ The Professional Standards and Competencies identifies the expected knowledge, skills, and dispositions for early childhood educators; the associated leveling (Appendix D) clarifies the expectations for mastering the standards and competencies for graduates of associate degree programs (preparing individuals for ECE II roles) and baccalaureate programs (preparing individuals for ECE III roles). One of the intended uses of these standards and competencies is to serve as a guide for curricular content in professional preparation programs. This will build consistency within and across degree levels regarding expectations for students' proficiency in the *Professional Standards and Competencies* upon graduation and support professional preparation programs in sequencing courses and eliminating or mitigating course redundancy in transfer/articulation policies.

With Criterion 5, programs must demonstrate how they build upon candidates' previous credentials to ensure a smooth transition in their educational studies by having transfer, articulation, and collaboration agreements that account for course sequencing and the reduction of redundancy in content and requirements. Transfer and articulation information was also pulled from Criterion 7.

Programs strive to offer a number of ways to support an equitable, diverse educator pipeline from high school to college, including building partnerships with high schools, local early learning programs, and other community stakeholders. The benefits of many of the partnerships noted include the expansion of outreach, greater visibility, and increased learning opportunities for both faculty and candidates. However, while partnerships with other schools or agencies can be beneficial, building them also creates additional time commitments for program faculty. Additional challenges cited include faculty schedule limitations and difficulty finding high school teachers with academic preparation and experience to teach ECE courses.

Table 3: Summary of Supporting the Educator Pipeline Strengths and Challenges Themes (Criterion 5 and 7 from SSR Data)

Strengths	In Their Own Words	Challenges	In Their Own Words
Developing dual enrollment agreements and an articulation process with high schools that allows for the transference of learning and credentials	"Over the past two years, we have added dual enrollment partnerships with high schools in two of our district campus areas."	Managing implementation of dual enrollment and challenges of not having all credentials embedded within the degree programs	"The reason dual credit tends to be a challenge is a difficulty in finding high school teachers with the academic preparation and experience to teach courses in our early childhood program."
Creating articulation agreements with a strong process for stackable credentials	"Our college has excellent articulation agreements, and the process for stackable credentials remains a strength for the program."	Encountering program options that have various state requirements that change and/or require upkeep and perceptions that an associate degree is terminal	"Students have faced challenges in this process due to differences with articulation agreements between our school and various four-year universities within our state."
Relying on T.E.A.C.H. Early Childhood Education for scholarships, capacity-building, and support navigating professional development	"We invite guest speakers from several early childhood professions such as child care licensing and child care resource and referral to speak with candidates."	Recognizing that it is ultimately hard to recruit candidates for a low-wage profession that it is frequently seen by them as "low-status"	"The greatest challenge we see ahead is the need for a concerted statewide approach to rebrand the image of the teaching profession."
Expanding the use of career fairs on and off campus and intentionally cultivating a pipeline	"Our faculty members are involved in having a greater presence in the community at career fairs, career expos, professional development days for local early childhood organizations, program information sessions at college and internship sites, and serving as workshop presenters locally and at large." "We enthusiastically recruit candidates from local high schools, career centers, and from local child care programs/agencies through active engagement by faculty in the field."	Acknowledging that there is limited faculty/staff time to dedicate to outreach, which means that student contact may be only with college recruiters and not ECE faculty; additional complications result from the geography of county/ state school districts	"It has been a challenge for the full-time faculty member to keep up with recruitment opportunities and articulation fairs due to limitations in scheduling." "Our university is in a rural area, with limited geographic proximity to high schools with early childhood vocational-technical programs."

Non-Academic Supports

In describing how they meet Criterion 7, programs must not only discuss the strengths and challenges associated with their academic support practices, they also must describe the types of non-academic supports they offer to students. When working with a large population of older and non-traditional students, it is imperative that programs balance their teaching and advising practices with non-academic supports to help facilitate the success of their candidates. Table 4 presents a summary of the strengths and challenges programs have regarding non-academic supports, including cohorts, campus food pantries, and on-campus child care. Unfortunately, efforts to provide non-academic supports can be hindered by things such as budget cuts, faculty attrition, candidate life events, and underprepared candidates.

Table 4: Summary of Non-Academic Supports Strengths and Challenges Themes (Criterion 7 from SSR Data)

Strengths	In Their Own Words	Challenges	In Their Own Words
Providing free on-site child care for student parents and resources, such as campus food pantries, as well as coaching to meet comprehensive needs, such as housing	"There is free on-site child care for students. There is also a food pantry on campus with items that children might need."	Facing ongoing budget cuts and reductions in state funding that also lead to increased tuition, as well as candidates' geographic distance from campus, which can prevent them from successfully taking advantage of on-site resources	"Many students are low-income, working adults, and they can find it challenging to meet the demands of school and work. There has been a reduction of state funding for education and increasing tuition costs." "ECE candidates live in a wide variety of counties across the state, and a few even reside out of state."
Utilizing cohorts and groups to provide social and emotional support and ensuring students have access to health and medical treatments and resources as needed	"Our department attempts to offer social and emotional supports to the teacher candidates by placing them in cohort groups." "The office of health service offers first aid treatment for injuries, accidents, and illness and makes referrals to local medical resources as necessary."	Encountering difficulty connecting candidates with resources due to their limited time, especially those who are working full time and often taking coursework in the evening	"Because so many of the ECE students work full time and are doing their coursework online, the main challenge is to have them access the multitude of services and resources available to them."
Providing individual advice, guidance, and referrals for specialized support, including job openings	"To ensure candidate success and address issues and concerns, faculty often meet with candidates individually, communicate via telephone and email, and make referrals for specialized support/resources."	Confronting increasing faculty attrition and a lack of faculty time to review candidate progress	"High turnover rates for ECD faculty and the program coordinator position limit high impact and deep engagement with candidates."
Establishing and implementing an early alert system to identify high-risk candidates	"Our program uses an early alert system that sends notifications to predict and identify high-risk candidates. This new system will allow advisors, success coaches, and peer mentors to collaborate with intentionality to personalize outreach and success strategies for at-risk candidates."	Confronting a range of interconnected challenges to ensure candidates can finish degrees, including their own financial difficulties and a lack of preparation and/or confidence	"It is a constant challenge to encourage students to continue on to finish their degrees." "Many of our students hold off on registration because they do not have the funds to pay for the courses."

Conclusion

The impact of COVID-19 on the early childhood higher education community as well as the longstanding challenges and barriers described in this brief are formidable. As described in NAEYC's report "From On Campus to Online: The Impact of the Pandemic on ECE Higher Education Programs," in spring 2020, 92 percent of ECE higher education programs had to quickly shift their faceto-face courses to online. This resulted in significant modifications to courses and fieldwork. Unfortunately, student attrition and emotional health were also impacted. NAEYC recently surveyed the ECE higher education community again and found that:

- > 53 percent of faculty responded that only some of their students were able to participate in field experiences.
- 36 percent of respondents reported a decline in the number of students graduating.
- 60 percent of the faculty surveyed said it was "difficult" or "very difficult" to support their students' emotional health and their challenges related to food, housing, job, child care, and financial insecurities.
- 37 percent indicated that it was difficult supporting their students' transition to online learning (despite the institutional support for doing so).
- > 43 percent of respondents cited difficulty managing their own home/family responsibilities while fulfilling work obligations.
- > 42 percent of those surveyed cited challenges maintaining their own emotional health.

However, there are numerous strengths and promising practices that ECE higher education programs have implemented related to teaching quality and advising, partnerships and transfer/ articulation, and non-academic supports that are advancing student success and contributing to the preparation of highquality early childhood educators.

NAEYC-accredited ECE higher education programs, the subject of this brief, work tirelessly to support their candidates by using intentional teaching and advising practices, forging partnerships and developing transfer/articulation agreements with community partners, and maintaining a bevy of non-academic supports to help ensure their candidates are successful. While the COVID-19 pandemic has added difficulties to an already under-resourced ECE professional preparation system, NAEYC and its accredited ECE higher education programs are committed to finding more new and creative ways to equitably serve this diverse and essential population of candidates. As such, our hope is that this brief helps not only to highlight the work done by these programs, but also to help spur further investment and innovation in the ECE higher education field. © NAEYC 2021. The primary staff author for this piece is Johnette Peyton. Additional NAEYC contributors and reviewers include Mary Harrill and Lauren Hogan.

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Endnotes

- 1 https://cscce.berkeley.edu/wp-content/uploads/2016/ Early-Childhood-Workforce-Index-2016.pdf
- 2 https://degreefinder.naeyc.org/
- 3 Based on Outcome Measure 1; given that programs report outcome data on the three most recent academic years available, the "most recent year" may vary from program to program. Typically, for programs that submitted Annual Reports in 2019, the most recent academic years were fall 2017-spring 2018 or fall 2016-spring 2017.
- 4 While we are capturing the median, the overall percentage masks a wide variation within and among programs. Many report a 50 percent or less program completion rate while others report program completion rates up to 100 percent.
- 5 The Self-Study Report data analyzed consist of data submitted by 253 currently accredited NAEYC ECE higher education programs (or those actively awaiting accreditation decisions) through the fall of 2019. There are more cases in the SSR database than the Annual Report database because there are cases that are actively awaiting an accreditation decision in this database. Once they receive NAEYC accreditation, they will have to submit their first Annual Report one year after receiving their accreditation decision.
- 6 The Unifying Framework for the Early Childhood Education Profession calls for a clear and simplified structure for the early childhood education profession. As such, there will be three designations of early childhood educators – ECE I, ECE II, and ECE III – each with an associated scope of practice and expected level of preparation.



Appendix A Methodology

This brief uses a mixed methods research approach to analyze guantitative data on program characteristics collected through the Annual Reports and to analyze qualitative data on program characteristics collected through the Accreditation Criteria in programs' Self-Study Reports. Open-ended responses were analyzed to identify common themes associated with the strengths and challenges programs faced, which were subsequently summarized in table format. These data were initially contained in PDF format and have now been converted and housed in the NAEYC Early Childhood Higher Education Programs Research Accreditation databases. The creation of these databases has been generously funded by the Heising-Simons Foundation. Program and candidate data have been derived from the most recent Annual Report data (submission years primarily 2017-2019) of 239 currently or recently NAEYC-accredited ECE higher education programs. These reports contain the most recent data regarding enrollment figures, faculty size, and program outcome measures. Text data for the thematic analysis of Criteria 4, 5, and 7 were derived using information gathered from the Self-Study Report programs submitted while seeking NAEYC accreditation (submission years 2010-2019).

Two measures of distribution—skewness (symmetry) and kurtosis (distribution of data tails)—were evaluated when analyzing these data. Of the six characteristics studied, only the number of required early childhood education credit hours in the program has a normal distribution. The ability to provide accurate and reliable program outcome data can be a struggle for some programs, especially smaller programs. There may be instances when the Office of Institutional Research (OIR) is unable to provide the required data to programs, or a program may not have an OIR to provide the data. Due to this, program outcome data may be unreliable or incomplete. NAEYC is aware of the issues programs to ease the burden of data collection. As such, the data presented in this section are currently the best available with a goal of reporting improved data in the future.

Appendix B Variables Contained in the Annual Report Database

Variable	Label	Measurement Level
UNIQUE_IDENTIFIER	Unique identifer for each school or program. This number is the same across all files	Nominal
ANNUAL_REPORT	Year number of Annual Report	Nominal
PROGRAM_NAME	Program Name	Nominal
CATALOG_PROGRAM_NAME	Program name as listed in college catalog and degree type	Nominal
FULL_TIME_CANDIDATES	Number of FT candidates enrolled in degree (most recent semester)	Scale
PART_TIME_CANDIDATES	Number of PT candidates enrolled in degree (most recent semester)	Scale
NUMBER_REQUIRED_EARLY_ED	The number of required early childhood credit hours in the program	Scale
NUMBER_REQUIRED_GENERAL_ED	The number of required general education credit hours in the program	Scale
NUMBER_REQUIRED_METHODOLOGY	The number of required non-early childhood education methodology and other education courses in the program	Scale
NUMBER_OF_GRADUATES	Total number of graduates (most recent academic year)	Scale
FULL_TIME_FACULTY	Number of FT faculty (most recent academic year)	Scale
PART_TIME_FACULTY	Number of PT faculty (most recent academic year)	Scale
ACADEMIC_YEAR1	Academic year for PROGRAM_COMPLETERS1	Scale
PROGRAM_COMPLETERS1	Number of program completers for ACADEMIC_YEAR1	Scale
FT_PROGRAM_COMPLETERS1	Percent of full-time program completers for ACADEMIC_YEAR1	Scale
PT_PROGRAM_COMPLETERS1	Percent of part-time program completers for ACADEMIC_YEAR1	Scale
ACADEMIC_YEAR2	Academic year for PROGRAM_COMPLETERS2	Scale
PROGRAM_COMPLETERS2	Number of program completers for ACADEMIC_YEAR2	Scale
FT_PROGRAM_COMPLETERS2	Percent of full-time program completers for ACADEMIC_YEAR2	Scale
PT_PROGRAM_COMPLETERS2	Percent of part-time program completers for ACADEMIC_YEAR2	Scale
ACADEMIC_YEAR3	Academic year for PROGRAM_COMPLETERS3	Scale
PROGRAM_COMPLETERS3	Number of program completers for ACADEMIC_YEAR3	Scale
FT_PROGRAM_COMPLETERS3	Percent of full-time program completers for ACADEMIC_YEAR3	Scale
PT_PROGRAM_COMPLETERS3	Percent of part-time program completers for ACADEMIC_YEAR3	Scale
PUBLISHED_TIME_FRAME	Published time-frame for full-time candidates to complete program (in academic year)	Scale
PROGRAM_NAME_COMPLETIONS	Program name from the program completion rate data (FT students only)	Nominal
AY1_COMPLETIONS	Academic Year1 for PROGRAM_NAME_COMPLETIONS	Scale
PERCENT_COMPLETIONS1_150	Percent completions within 150% of published time-frame for AY1_COMPLETIONS	Scale
OTHER_PERCENT1	Program completions other than 150%	Nominal
OTHER_PERCENT_COMPLETIONS1	Percent of program completions within OTHER_PERCENT1	Scale
AY2_COMPLETIONS	Academic Year2 for PROGRAM_NAME_COMPLETIONS	Scale
PERCENT_COMPLETIONS2_150	Percent completions within 150% of published time-frame for AY2_COMPLETIONS	Nominal
OTHER_PERCENT2	Program completions other than 150%	Nominal
OTHER_PERCENT_COMPLETIONS2	Percent of program completions within OTHER_PERCENT2	Scale
AY3_COMPLETIONS	Academic Year3 for PROGRAM_NAME_COMPLETIONS	Scale
PERCENT_COMPLETIONS3_150	Percent completions within 150% of published time-frame for AY3_COMPLETIONS	Scale
OTHER_PERCENT3	Program completions other than 150%	Nominal
OTHER_PERCENT_COMPLETIONS3	Percent of program completions within OTHER_PERCENT3	Scale
OUTCOME_MEASURE_3	Institution Selected Data	Nominal

Appendix C Variables Contained in the Self-Study Report Database

Variable	Label	Measurement Level
UNIQUE_IDENTIFIER	Unique identifier for each school or program. This number is the same across all files	Nominal
DEGREE_TYPE	Type of degree graduates earn upon completion	Nominal
PROGRAM_NAME	Program Name	Nominal
CATALOG_PROGRAM_NAME	Program name as listed in college catalog and degree type	Nominal
ONLINE_CLASSES	Indicates whether online classes are offered *only if annual report data is unavailable*	Nominal
ONLINE_PERCENT	Percent of classes offered online *only if annual report data is unavailable*	Nominal
CRITERION2_CHALLENGES	Summary of Conceptual Framework challenges	Nominal
CRITERION2_STRENGTHS	Summary of Conceptual Framework strengths	Nominal
CRITERION3_CHALLENGES	Summary of Program(s) of Study challenges	Nominal
CRITERION3_STRENGTHS	Summary of Program(s) of Study strengths	Nominal
CRITERION4_CHALLENGES	Summary of Quality of Teaching challenges	Nominal
CRITERION4_STRENGTHS	Summary of Quality of Teaching strengths	Nominal
CRITERION5_CHALLENGES	Summary of Role in Supporting the Education Career Pathway challenges	Nominal
CRITERION5_STRENGTHS	Summary of Role in Supporting the Education Career Pathway strengths	Nominal
CRITERION6_CHALLENGES	Summary of Qualifications and Characteristics of Candidates challenges	Nominal
CRITERION6_STRENGTHS	Summary of Qualifications and Characteristics of Candidates strengths	Nominal
CRITERION7_CHALLENGES	Summary of Advising and Supporting Candidates challenges	Nominal
CRITERION7_STRENGTHS	Summary of Advising and Supporting Candidates strengths	Nominal
CRITERION8_CHALLENGES	Summary of Qualifications and Composition of Faculty challenges	Nominal
CRITERION8_STRENGTHS	Summary of Qualifications and Composition of Faculty strengths	Nominal
FACULTY_STATUS1	Indicates status of faculty	Nominal
FACULTY_ASSIGNMENT1	Faculty assignment for FACULTY_STATUS1	Nominal
FACULTY_DEGREE1	Academic degree of faculty for FACULTY_STATUS1	Nominal
FACULTY_STATUS2	Indicates status of faculty	Nominal
FACULTY_ASSIGNMENT2	Faculty assignment for FACULTY_STATUS2	Nominal
FACULTY_DEGREE2	Academic degree of faculty for FACULTY_STATUS2	Nominal
FACULTY_STATUS3	Indicates status of faculty	Nominal
FACULTY_ASSIGNMENT3	Faculty assignment for FACULTY_STATUS3	Nominal
FACULTY_DEGREE3	Academic degree of faculty for FACULTY_STATUS3	Nominal
FACULTY_STATUS4	Indicates status of faculty	Nominal
FACULTY_ASSIGNMENT4	Faculty assignment for FACULTY_STATUS4	Nominal
FACULTY_DEGREE4	Academic degree of faculty for FACULTY_STATUS4	Nominal
FACULTY_STATUS5	Indicates status of faculty	Nominal
FACULTY_ASSIGNMENT5	Faculty assignment for FACULTY_STATUS5	Nominal
FACULTY_DEGREE5	Academic degree of faculty for FACULTY_STATUS5	Nominal

Appendix C Variables Contained in the Self-Study Report Database Continued

CRITERION9_CHALLENGES	Summary of Professional Responsibilities challenges	Nominal
	Summary of Professional Responsibilities challenges	Nominal
CRITERION9_STRENGTHS	Summary of Professional Responsibilities strengths Summary of Professional Development challenges	Nominal
CRITERION10_CHALLENGES		
CRITERION10_STRENGTHS	Summary of Professional Development strengths	Nominal
CRITERION11_CHALLENGES	Summary of Program Organization and Guidance challenges	Nominal
CRITERION11_STRENGTHS	Summary of Program Organization and Guidance strengths	Nominal
CRITERION12_CHALLENGES	Summary of Program Resources challenges	Nominal
CRITERION12_STRENGTHS	Summary of Program Resources strengths	Nominal
NUMBER_LEARNING_OPP	Number of Learning Opportunities available to candidates	Scale
TYPES_LEARNING_OPP	Types of Learning Opportunities available to candidates	Nominal
LEARNING_OPP_CHALLENGES	Summary of Learning Opportunities challenges	Nominal
LEARNING_OPP_STRENGTHS	Summary of Learning Opportunities strengths	Nominal
KEY_ASSESSMENT1	Name of Key Assessment 1	Nominal
KEY_STANDARD1	Name of standard KEY_ASSESSMENT1 measures	Nominal
ASSESSMENT_METHOD1	Assessment method for KEY_ASSESSMENT1	Nominal
KEY_ASSESSMENT2	Name of Key Assessment 2	Nominal
KEY_STANDARD2	Name of standard KEY_ASSESSMENT2 measures	Nominal
ASSESSMENT_METHOD2	Assessment method for KEY_ASSESSMENT2	Nominal
KEY_ASSESSMENT3	Name of Key Assessment 3	Nominal
KEY_STANDARD3	Name of standard KEY_ASSESSMENT3 measures	Nominal
ASSESSMENT_METHOD3	Assessment method for KEY_ASSESSMENT3	Nominal
KEY_ASSESSMENT4	Name of Key Assessment 4	Nominal
KEY_STANDARD4	Name of standard KEY_ASSESSMENT4 measures	Nominal
ASSESSMENT_METHOD4	Assessment method for KEY_ASSESSMENT4	Nominal
KEY_ASSESSMENT5	Name of Key Assessment 5	Nominal
KEY_STANDARD5	Name of standard KEY_ASSESSMENT5 measures	Nominal
ASSESSMENT_METHOD5	Assessment method for KEY_ASSESSMENT5	Nominal
KEY_ASSESSMENT6	Name of Key Assessment 6	Nominal
KEY_STANDARD6	Name of standard KEY_ASSESSMENT6 measures	Nominal
ASSESSMENT_METHOD6	Assessment method for KEY_ASSESSMENT6	Nominal
FIELD_EXP_HOURS	Number of field experience hours available to candidates	Scale
AGE_GROUPS1	First age groups candidates observe and practice; select at least 2	Nominal
	answers separated by semicolon	
AGE_GROUPS2	Second age groups candidates observe and practice; select at least 2	Nominal
_	answers separated by semicolon	
AGE_GROUPS3	Third age groups (optional) candidates observe and practice; select at	Nominal
	least 2 answers separated by semicolon	
FIELD_PLACEMENT_SETTING1	First setting candidates observe and practice; select at least 2 answers	Nominal
	separated by semicolon	
FIELD_PLACEMENT_SETTING2	Second setting candidates observe and practice; select at least 2	Nominal
	answers separated by semicolon	
FIELD_PLACEMENT_SETTING3	Third setting candidates observe and practice; select at least 2 answers	Nominal
hero_referment_serrings	separated by semicolon	
L	separated of semicoron	