Higher Education Cohorts



Cohort Pathways in Illinois:

Innovative Models Supporting the Early Childhood Workforce

Institutions of higher education in Illinois have long implemented collaborative, innovative strategies to support credential and degree attainment. The Illinois Governor's Office of Early Childhood Development (GOECD) is invested in supporting flexible, responsive pathways to credentials and degree attainment for early childhood practitioners, as early childhood practitioners equipped with appropriate knowledge and skills are critical to developing and implementing high-quality early childhood experiences for young children and their families. At the same time, the State of Illinois is eager to ensure that pathways developed not only support entry into and progression within the field, but also are inclusive of and responsive to programs' diverse and experienced staff members who have not yet attained new credentials and/or degrees.

The purpose of this paper is to highlight the innovative work of Illinois institutions of higher education in creating cohort pathways that are responsive to the needs of the current and future early childhood workforce. Cohort models are commonly defined as a group of students moving through a program in a cohesive fashion with support provided for the overall healthy functioning of the group. In this paper, the highlighted cohort pathways focus on additional supports provided to cohort model participants (social and practical) as well as innovative model designs.

Understanding these unique cohort pathways requires a fundamental understanding of existing credential and degree pathways in Illinois, the current early childhood education (ECE) workforce, present challenges in growing an ECE workforce, and research highlighting

innovative components of cohort models. These factors will be explored through the concepts of pathways and pipelines, which was a useful lens advanced by Zinsser, Main, Torres, and Connor in their 2019 publication. These authors advocated the pressing need for programs and policymakers to "attend to both the "pipeline" through which new early childhood educators (ECEs) enter the workforce and the "pathways" by which ECEs work toward and obtain the necessary education and credentials for different roles within the field" (2019, p. 1).

Credential and Degree Pathways in Illinois: Early Childhood

There are varied educational pathways to careers in the field of early childhood education in Illinois. Our focus in this paper is on pathways housed within institutions of higher education that include early childhood credentials, associate's and bachelor's degrees, and licensure. Licensure, administered through the Illinois State Board of Education, requires the attainment of a bachelor's degree and the completion of prerequisite assessments. Gateways to Opportunity® Credentials are earned based on a combination of training and college credit, accumulated experience, are stacked, and can therefore be attained as an endpoint in themselves or in combination with a degree. These are awarded by the Illinois Department of Human Services (IDHS) Bureau of Child Care and Development, administered through the Illinois Network of Child Care Resource and Referral Agency (INCCRRA), and are in legislative rule. Core credentials in the early childhood field include the ECE Credential, School-Age and Youth Development (SAYD) Credential, and the Family Specialist Credential. Opportunities for specialization build off the ECE and SAYD core credentials, including the Illinois Director's Credential, Infant Toddler Credential (which builds off the ECE Credential), Family Child Care Credential, and Technical Assistance Credential. These leveled credentials provide a preparation and professional development "lattice" that serves to support entry into varied ECE settings

across the state, as well as promote ongoing educational attainment. (See Figure 1: Gateways to Opportunity® Early Childhood Career Lattice).



Figure 1. Gateways to Opportunity® Early Childhood Educator Career Lattice

At present, 97 percent of institutions of higher education at the 2- and 4-year level in Illinois offer the industry-recognized Gateways ECE Credential (Illinois Network of Child Care Resource and Referral Agencies, 2019), while 27 undergraduate and 5 master's degree programs offer opportunities to attain licensure in Early Childhood Education, Birth to Grade 2 (see Appendix A for a listing of higher education institutions offering early childhood credential and licensure pathways). Higher education institutions offering early childhood credentials and licensure have been highly successful in developing the educational attainment of the early childhood workforce in licensed child care settings, as 71% of those practitioners in Illinois have associate or baccalaureate degrees as compared to the national average of 53% (Whitehead, 2018; Bernoteit, Holt, & Kirchoff, 2017)

These strengths in the attainment of Gateways credentials and licensure are mirrored by Illinois' broader advancements in degree completion and attainment. The Illinois Board of Higher Education (IBHE) with its sister education agencies, the Illinois Community College Board (ICCB), the Illinois State Board of Education (ISBE), and the Illinois Student Assistance Commission, have worked extensively to grow the number of adults with 2-and 4-year degrees from the current 45% (Midwestern Higher Education Compact, 2018). Opportunities for growth remain, including supporting working adults, who are also students, in credential and degree completion. In the ECE workforce, specifically, there are a large number of adults who have completed some (and at times, substantial) amounts of college coursework, but not relevant ECE credentials or degrees (Darragh-Ernst, Latham, and Bernoteit, 2016).

Supporting Attainment of Credentials and Degrees: Early Childhood Education

In the United States, it is projected that 65% of all jobs will require some level of higher education; in the state of Illinois, that demand is anticipated to be 70% (Georgetown University

Center on Education and the Workforce, 2013). The importance of baccalaureate-prepared teachers in the field of early childhood was emphasized in 2015 by the National Academy of Medicine (NAM) in a report that described the complex knowledge and skills ECE professionals need to support the healthy development, learning, and well-being of children in their early years. The importance of early childhood professional preparation in supporting young children's development and learning is coupled with an anticipated growth of 14% in ECE careers and 17% for preschool teachers (Limardo, Sweeney, & Taylor, 2016). This demand, however, is coupled with a decreasing supply. For example, Illinois Board of Higher Education 2017 statistics indicate a 2-year decline in teacher preparation program completers when compared to 2014-2015; down 36.8% in comparison to 2015-2016 and 6.7% in comparison to 2016-2017 (Illinois State Board of Education, 2018). The Illinois teacher shortage, a focus of extensive legislation and advocacy in 2019, is most likely to impact communities of color and low-income school districts. Further, over half of the Illinois teacher vacancies are in bilingual and special education (Advance Illinois, 2019).

Existing challenges in the field include varying qualifications for specific roles. ECE practitioners serve in varied settings with different funding streams including licensed centers, family child-care homes, Head Start programs, public school Pre-K programs, and kindergarten through second-grade classrooms and have different roles within these settings (i.e., teacher assistant, teacher, director, etc.). Funding streams require different levels of educational preparation for staff, creating a workforce where education and degrees vary greatly by setting (Main & Yarborough, 2018). This challenge is coupled with vast differences in compensation by setting and role. For example, the median hourly wage for teachers who have attained a bachelor's degree in Illinois in licensed centers is \$28,371 (Whitehead, 2018); for kindergarten

teachers, the state median is \$54,856 (Sokanu, 2019). In the Executive Summary of the report, "Transforming the Early Childhood Workforce: A Call to Action for the State of Illinois," recommendations made by authors Main and Yarborough (2018) include adopting workforce qualifications aligned with a uniform, competency-based credentialing system, creating competency-aligned pathways, and increasing access to those pathways for targeted populations (in particular, populations who are culturally and linguistically diverse).

The Gateways competency-based credentialing system, because of widespread, voluntary participation of institutions of higher education, alignment with the early childhood quality rating and improvement system (i.e., ExceleRate® Illinois) and required embedding within the ISBE licensure system, unifies and clarifies educational pathways. Full implementation of this uniform system requires continued development of competency-based pathways, both within and across institutions of higher education, supporting articulation and transfer (Main & Yarborough, 2018).

Increasing access to pathways for targeted populations. An additional challenge in the present ECE pipeline includes the pressing need to honor and maintain the rich diversity of the ECE workforce as individuals are supported in attaining additional credentials and degrees. The majority of school-age children in Illinois, for example, are projected to be of a minority or mixed-race identity by 2020 (Center for American Progress, 2016). 2019 data on children in Illinois reflect this diversity, as 5.3 percent of young children are Asian, 15.3 percent are Black, 24.9 percent are Hispanic/Latinx, 50.7 percent of young children are White, and 3.8 percent of children are identified as "other" (Annie E. Casey Foundation, 2019). While there has been some growth in the diversity of child care staff, particularly in the area of assistant teachers, the diversity of staff has not kept up with, nor does it reflect, the diversity of young children in early childhood programs (Whitehead, 2019).

Another challenge in supporting credential and degree attainment for individuals presently in the field, as well as those who seek to enter the field, is the structural design of higher education programs and the ability of these programs to be responsive to the needs of non-traditional students. As noted by Zinsser et al. (2019), many bachelor's degree programs are not designed (due to such factors as, for example, day-time scheduling, a lack of online offerings, inflexibility in practicum placements) to support the participation of full-time working teachers with family obligations. The authors note that these and other structural, inter, and intrapersonal barriers preclude community-based teachers from initiating and/or completing degree programs. Many of these teachers are often first-generation college students who are also women of color, with limited incomes, who have not had the opportunity to build the social capital needed to negotiate higher education systems (Kagan, Kauerz, &Tarrant, 2008).

To remedy this diversity disparity, Zinsser et al. (2019) posit that increasing the qualifications of the ECE workforce while also widening the pipeline to enhance linguistic and cultural diversity is feasible through carefully designed pathways that provide access, opportunity, and targeted supports to both the existing workforce and those just entering into the field. In the following section, we will highlight national research on innovative cohort model strategies designed to address both pathways into the field as well as pipelines for those working with young children and their families.

Innovative Components of Cohort Models: National Focus

Cohort models have become increasingly popular in higher education in response to the need to improve student completion rates (Unzueta, Moores-Abdool, & Donet, 2008). Many institutions of higher education have adopted cohort models as they are easier for institutions of higher education to organize and administer (Seifert & Mandzuk, 2006). Our focus of attention

in this paper, as noted, includes innovative pathway model designs as well as additional supports provided to successful cohort model participants (social and practical). According to the paper, "Patching the Pathway and Widening the Pipeline" (Zinsser, Main, Torres, & Connor, 2019), carefully designed educational pathways that provide access, opportunity and targeted supports are critical components of widening the pipeline to enhance linguistic and cultural diversity of the early childhood workforce. Careful attention to each of these factors is of particular importance as prior attempts to increase early childhood workforce qualifications have, in turn, often decreased diversity (Bassok, Fitzpatrick, Loeb, & Paglayan 2013).

Cohort models: social support. The cohort educational model promotes the formation of social ties (Seifert & Mandzuk, 2006) and can support group cohesion (Unzueta, Moores-Abdool, & Donet., 2008). These factors, in turn, can result in greater student engagement in the academic process and increased student retention. (Unzueta, Moores-Abdool, & Donet, 2008). Cohort models can also be particularly responsive to the individual learning needs of students and the development of competencies that are transferable to a variety of employment opportunities (Fenning, 2004). According to Fenning, learning-centered models inclusive of these characteristics are particularly responsive to the needs of non-traditional learners who are unable to participate in traditional learning delivery systems. The creation of models that support social capital and are responsive to non-traditional learners and thereby serve to diversify the workforce, according to Fullan (2011), generates greater success and greater accountability.

Additional research highlights cohort education models as particularly supportive to specific populations of non-traditional learners. As opportunities to develop social capital relationships amongst participants, ongoing access to one another, and opportunities to participate in social networks are each hallmarks of well-designed cohort models, students who

have less of each of these factors (e.g., social capital relationships, access to social support, and social networks) are most likely to benefit (Lei et al, 2011). A particular support included in many cohort models designed in part to promote social capital and social networks is the practice of mentoring (Bowden, 2014; Kahraman & Kuzu, 2016). Jay and Miller (2016) identified mentoring that is ongoing, encouraging, collaborative, and thorough as particularly critical.

Cohort design: practical supports. Several practical supports have emerged from the literature on cohort implementation that are particularly well suited to supporting student goal attainment. Targeted recruitment designed to expand the pipeline to include high school students and community members, for example (Barnett, Maclutsky, & Wagonlander, 2015). Creating flexible, tailored pathways based on the present level of educational attainment for those already in the pipeline is also critical (Zinsser, Main, Torres, & Connor, 2019). Financial incentives (e.g. scholarships and forgivable loans) are important supports to attract and promote the success of culturally and linguistically diverse individuals (Billingsley, Crockett, & Kamman, 2014).

Cohort models: design. Research on the effectiveness of cohort models as well as innovative practices in higher education point to several effective model components that are most likely to support student goal attainment. For example, Rock et al. (2016) explored effective models supporting teacher development in special education. In their call for visionaries and researchers to construct 21st Century Models of special education teacher development, the need to leverage technology and diversify the workforce is highlighted. These authors posit that the power of technology is harnessed when it supports effective instruction. Technology, according to Fullan (2011), is a means of capacity building that is critical to support overall system change. Consideration of how to leverage technology to support flexible training

options (e.g., distance education, part-time study) is critical, particularly when designing programs that are responsive to the life-stage needs of non-traditional learners (Billingsley, Crockett, & Kamman, 2014).

Innovative Components of Cohort Models: Illinois Focus

Cohort models that are based on scheduling and the provision of social supports have long been employed in Illinois. In this paper, we will be highlighting cohort models that include innovative pathways in the areas of the targeted population, supports provided (practical and social) and/or cohort design. The innovative cohort models presented below are notable in not only their efforts to support credential and degree attainment but also their responsiveness to maintaining diversity and responding to historical challenges in higher education delivery systems for non-traditional students.

Methodology

In compiling the innovative pathways data for this study, national, state and local data were reviewed. Additional documentation and information were solicited from selected institutions of higher education across the state when necessary to attain a more detailed picture of the model designs and supports provided within their innovative cohort projects.

Sample Description

While many Illinois institutions provide cohort models, those selected for this report were all tied to college credit and/or credential or degree attainment, were implemented within the last 5 and, in some cases, 10 years, and were based on one or more innovative features, including social supports (e.g., group cohesion, developing social ties, mentoring), practical supports (e.g., targeted recruitment, paid internships, financial incentives), or design features (e.g., the use of technology, scheduling, responsiveness to unique needs) for non-traditional students. 25 pathway

models in Illinois with these criteria are represented in this report. These pathways were housed at one of three over-arching institutional levels including primarily at the associate's level within a community college, from an associate degree to a bachelor's degree and so within a community college to a four-year university, and at the bachelor's or master's level within a four-year university, with a few additional that while housed in either community colleges or 4-year universities, offered credit/ degree/ license at multiple levels. Each pathway was either individually created and/or supported by the higher education institution or by the institution partnering with a high school or a community-based organization. See Table 1. Sampled models exist across the State of Illinois (see Figure 2: here). This interactive figure allows different views where one can group locations by cohort type or partnership type.

Table 1

Participating Institutions with Pathway Models

Institution Type	Community College			Community College to 4- Year University	4-Year University		
Model	Multiple Levels	HS + Assoc. Level	Assoc. Level	Associate Level-to- Bachelor Level	Bachelor Level	Bach. Level, Plus	Multiple Levels
Higher Ed. Site/s			1	3	2	2	3
Plus, a community- based partner	1	2	1	2	3	4	1
Totals	1	2	2	5	5	6	4
N = 25							

Data Collection

Data collection began in September and continued through mid-November of 2019 and consisted of artifact collection, semi-structured interviews, and member checking. Open-ended requests for information about cohort models were sent to representative lists of individual faculty contacts, as well as various professional education organizations and disseminated through state councils and agencies in Illinois, including the Gateways higher education institution listsery, Illinois ACCESS, Illinois Association of Early Childhood Teacher Educators (ILAECTE), and Illinois English Learners Advocacy Council in Higher Education (ELACHE) members, the Professional Development Advisory Council, and the Illinois Early Learning Council Quality Committee. Additionally, concept sampling was used to directly contact higher education and community-based colleagues known to have early childhood cohort models. Respondents sent in a variety of artifacts that described their work in varying amounts of details, e.g., evaluation reports, PowerPoint presentations, written summaries, book chapters, summary reports, websites, and infographics. In addition, when written reports were unavailable or when there was a need to clarify details, semi-structured interviews were conducted with program representatives including faculty and community-based partner informants. This was followed by member checking, where program representatives were invited to review interview notes to increase information accuracy of this report. As such, information included in this report represents our best efforts to capture that which was reported and checked at the time of this study.

Data Analysis

All of the data was coded to identify patterns that could be used for analysis. Coding categories included geographic areas that were targeted, types of organization/s involved (e.g., high schools, community colleges, universities and community-based organizations), funding sources, timeframes, drivers for the creation of the cohort (e.g., teacher shortage, change of law or qualification requirements, etc.), participant qualifications, targeted ECE roles, demographics of the cohort participants, key components (e.g., delivery system, model design, types of supports), final educational goals, outcomes, and barriers. Through repeated coding, patterns and themes emerged. Finally, researchers compared these patterns to develop synthesized conclusions regarding the pathways models and what can be learned from them.

Results

The results of this data collection and analysis reveal outcomes, challenges, and nuanced levers that have supported successes within innovative cohort models across the state of Illinois. Because of the open-ended nature of the data collection process, the details for each cohort vary. To highlight these nuanced differences, in this section of the report, we provide descriptive profiles for each of the participating cohort models. The profiles are organized in alphabetical order within sequential order of the educational levels represented by the model and the partnership type of the model. This form of organization highlights two distinctions across the types of models offered in Illinois at the time of the report. The second section of the results will outline the patterns of nuanced levers that were revealed through data analysis.

Cohort Profiles

At the high school and associate level with a community-based partner.

 Highland Community College + Freeport Public Schools: Early Childhood Education Dual Credit Cohort

Highland Community College, located in northwestern Illinois, created a dual-credit cohort in 2019 for juniors and seniors in local high schools with Freeport Public Schools who were interested in pursuing the Gateways ECE Credential Level 2. Launched in the year of this report, the program will be offered through Career TEC and includes dual credit for courses related to this credential over the last two years of high school. The nature of the model will unfold over the course of the 2019-2020 school year. Currently, the number of participants is 13, 11 of whom are Juniors planning to return to the program next year.

• Truman College + One Summer Chicago + Chicago Public Schools: Early Childhood Education or Family Specialist Dual Enrollment High School Cohorts

Truman College facilitates two cohorts for students who are interested in pursuing a Gateways ECE Level 2 or Family Specialist Credential Level 2. Partners in this dual credit model include local Chicago Public School high schools and One Summer Chicago. There are two cohort delivery models including courses on the Truman campus, afternoons of participant's senior year, and in the summer after the participant's senior year. Another cohort delivery model, providing hybrid courses, was created to support increased student participation in their high school campus while still supporting student connectedness to all aspects of the college-space. All students participate in a paid internship in the students' targeted credential area through the One Summer Chicago program. Model components included a focus from faculty to create a sense of community on the college campus for these students. Challenges have included recruiting high school seniors interested in working in the early childhood field and scheduling classes with other high school commitments such as extracurriculars.

At the associate level.

 Heartland Community College: Family Child Care & Early Childhood Education Pilot

In the Spring of 2017, Heartland Community College in Central Illinois offered a streamlined family child care pilot for seven practitioners who had been in the field for 5 years to earn college credit and Gateways Credentials. The components of the model included several credit pathways (i.e., Gateways Family Child Care Levels 2 and 3 and ECE Level 2), Prior Learning Assessments (PLA) which were linked to competency-aligned assessments, training, and traditional college course content. A unique feature of this pilot was the use of each individual's Professional Development Record (PDR) to place participants in appropriate online modules for an individualized plan. The combination of these individualized pathways and the online format of delivery allowed for an accelerated format and overall reduced cost to participants. For example, a traditional model in which students would acquire credit is 17 hours with 272 hours of seat time at this institution. Yet, the cost of this piloted model was five credit hours and included 80 hours of seat time, 51 training hours, and six competencies assessed through prior learning, thus resulting in a reduction in cost.

With a community-based partner.

• Truman College + Logan Square Neighborhood Association: Early Childhood Education ECE Cohort Program

With three cohorts beginning in 2014 and funding provided by a grant from the W. K. Kellogg Foundation, in partnership with the Chicago Early Learning Workforce Scholarship, Truman College and the Logan Square Neighborhood Association (LSNA) of Chicago created a cohort model for Logan Square community members interested in working in the ECE workforce to pursue early childhood courses that would be stackable towards an associate's degree in child development and Gateways ECE Credential Level 4. There have been 54 total participants since the cohort's inception. Participants across the three cohorts have been primarily Latinx who speak Spanish and are employed in home-based and center-based early childhood programs. Truman College offered courses based on the needs of each group and delivery format varied from face-to-face courses to hybrid study modules to provide the flexibility that was needed for working adults with families. Supports have included scholarships for tuition and allowing students to borrow textbooks from the Child Development Department, although cost was still very much a concern for participants. Although transportation was provided in the first two cohorts, location was a concern. In response to this, in the third cohort, courses were offered closer to Logan Square. Additional supports have included LSNA staff and Truman instructor consistency, intentionality from both in building trusting relationships, consistency of scheduling, and resources available on Saturdays and/or built into class time, e.g., writing supports and financial advisors. Moreover, for the most recent cohort, the LSNA has been able to pay a small stipend for child care resources.

From an associate level to a bachelor level.

• City Colleges of Chicago + University of Illinois at Chicago: Pathway to Early Childhood Professions

In the Chicago Metro area, the City Colleges of Chicago and the University of Illinois at Chicago have partnered together to offer a cohort model that supports participants who wish to work in the field of ECE. Developed with funding from an Educator Preparation Program Innovation grant (a portion of the State of Illinois' Race to the Top funding), the program moves participants towards earning an associate's degree at the community college level to a bachelor's degree at the university level, along with earning stackable levels of the Gateways ECE Credential at each institution. Additionally, possibilities are built-in for a path to a master's degree with licensure.

• Harold Washington College + Loyola University Chicago: Early Childhood Special Education Cohort

In the Chicago Metro area from 2016-2018, Harold Washington College and Loyola University Chicago partnered together to offer an early childhood special education cohort model that followed a 2+2 articulation model for participants to complete an associate's degree at Harold Washington College with embedded infant toddler coursework and then transfer to complete the remainder of the Early Childhood Special Education bachelor's degree with licensure at Loyola University. Components of this model included additional supports from both partners, including individualized recruitment and advising content-specific writing tutors, a continuum of support between institutions, summer bridge programs, technology and textbooks provided free of charge, financial aid including scholarships to cover portions of tuition, and a private job fair. Identified challenges related to the alternative learning format, adjustment to nontraditional scheduling, and increased tuition in a bachelor's program that is built upon field-based modules rather than in courses. Benefits included new crossinstitutional relationships and supports with an increased sense of community, an enhanced understanding of the complexities of the ECE higher education landscape, a renewed commitment to addressing broader issues facing the field, and a strengthened focus on increasing the numbers and diversity of licensed early childhood educators.

 Heartland Community College + Illinois Central College + Illinois Valley Community College + Illinois State University: Early Childhood Professional Preparation Program (ECP3)

In 2014, Illinois State University (ISU) and Heartland Community College (HCC) created a collaborative cohort model in Central Illinois designed to allow students to begin coursework at the community college level and complete a bachelor's degree, early childhood professional educator license, and Gateways ECE Credential Level 5 at ISU. Through support from an Educator Preparation Program Innovation grant (a portion of the State of Illinois' Race to the Top funding), this initiative was expanded in 2017 to include Illinois Central College and Illinois Valley Community College and was organized to align early childhood competencies across the community colleges and Illinois State. The cohort program was specifically designed to accommodate nontraditional and working students, with daytime, evening, and online courses with class locations on Heartland's campus. Now in the model's second cohort, students complete specified coursework at their community colleges and then enroll in a specially designed schedule of courses at ISU delivered at HCC, completing two courses each semester and in the summer before student teaching in a local early childhood classroom. The first cohort began with 11 students; 9 teacher candidates are scheduled to graduate in Spring 2020. The second cohort, consisting of 11 students, began in Summer 2019 and are scheduled to graduate in Spring 2022.

With a community-based partner.

 Truman College + University of Illinois at Chicago + Chicago Commons: ECE Cohort

Beginning in 2018, the Chicago Commons cohort was created to support parents who were interested in taking early childhood courses and entering the ECE workforce. The program initially supported 16 parents whose preschool-aged children were enrolled in Chicago Commons' early childhood program to take two college courses in early childhood education. During the program, some participants expressed the desire to take additional courses and gain a Truman certificate that aligns with Gateways ECE Credentials or an ECE associate degree. Cohort model components include providing participants with fully subsidized courses, bus cards, on-site child care, and dinner for the children and the participants; coaching in the areas of academic readiness, technology, soft skills, and parenting; and additional training and supports provided by Chicago Commons staff. The Chicago Early Learning Workforce Scholarship provides support for tuition (which is covered at 100% after any financial aid) and a \$200 book voucher per class. For continuity, the first three courses were taught by the same Truman instructor. The program also provided support for participants as they completed all enrollment and financial aid applications. By providing these technical supports as well as the programmatic supports, the program removed many of the barriers that typically make attending college difficult for adults with families.

These participants are predominantly female and are either Latinx (70%) or African American (30%). The majority are under 35-years-old with Spanish as their first language (70%) and working full-time through at least the first two courses of the cohort. As of 2019, 62.5% of the participants have completed the initial two course offering, and 50% have elected to continue taking five additional courses that will grant them Truman's Advanced Certificate. The University of Illinois at Chicago is a transfer partner for the cohort.

• Illinois Network Child Care Resource & Referral Agencies (INCCRRA) + Chicago Public Schools + Chicago Department of Family Support Services + City Colleges of Chicago: Harold Washington & Truman Colleges, Harper College, Chicago State University, National Louis University, and Roosevelt University: Infant-Toddler Cohort

From 2015-2017, the Illinois Network of Child Care Resource & Referral Agencies funded by a grant from the McCormick Foundation, partnered with Chicago Public Schools and the Chicago Department of Family Support Services to identify and recruit Infant and Toddler (IT) teachers in Chicago to participate in cohort programs to advance their education levels. Cohort participants were predominantly African American and/or Latina women. The trainings and coursework were made more accessible via technology and scheduling. The most successful approaches were developing supportive higher education enrollment procedures, e.g., partnering with 2- and 4-year institutions (Harold Washington College, Truman College, Harper College, Chicago State University, National Louis University, and Roosevelt University), securing transcripts before course start, using large-scale training for foundational knowledge (in partnership with the Illinois Department of Children and Family Services) prior to college coursework initiation, providing accelerated hybrid and online courses as well as Saturday courses to support access, addressing the high cost of textbooks cost by using earlier editions at lower cost, and securing program supervisor/director support. Trainings alone resulted in 161 participants attaining their Gateways Infant Toddler Credential at a range of levels. Trainings combined with college coursework led to the awarding of an additional 37 Gateways IT Credentials.

At the bachelor level.

• National Louis University Early Childhood Practice (ECP) BA Degree Program (ECE, IT, Family Child Care, Director Level II)

A unique cohort model at National Louis University is the Early Childhood Practice (ECP) program that provides a pathway for teacher candidates interested in working with children birth to five, in settings that do not require a state of Illinois license. The program is competency-based, aligned to the Gateways to Opportunity® Credentialing system, entitled to provide courses leading to the Gateways ECE Credential Level 5, Infant Toddler Credential Level 5, Family Child Care Credential Level 5 and the Illinois Director Credential II (baccalaureate level). Students in this program can choose an ESL/Bilingual, Special Education or Early Childhood Administration minor. The ESL/Bilingual and SPE minor coursework can be used toward endorsements later if students choose to pursue licensure, and the ECE Administration minor prepares ECP students for work as program leaders, directors, and agents of change in the ECE field. This program is offered in three different modalities: fully online, a blended daytime model, and a weekend/evening model. With cohorts starting every term, each cohort runs for approximately six terms if taken full time, and up to 12 terms if courses are taken part-time. Supports include one lead instructor assigned to each cohort and remaining with them for the cohort duration, as well as weekly meetings with NLU faculty to identify needs and what "just in time supports" can be offered to promote student retention. Two cohort models offered by the McCormick Center for Early Childhood Leadership at National Louis University offer credit towards this degree, i.e., the Aim4ExcellenceTM National Online Director Credential and the Leadership Academy: Taking the Lead (TTL). The program is currently serving, in 2019/2020, 251 students, 84% of whom are from minority populations.

• Southern Illinois University, Edwardsville: Early Childhood Off-Site (EChOS) Program

In response to local needs over time, Southern Illinois University, Edwardsville (SIUE) created the Early Childhood Off-Site (EChOS) cohort model for participants with an associate degree and bachelor's level-general education requirements completed/ underway and interested in pursuing a bachelor's in early childhood education, licensure and a Gateways ECE Credential Level 5. The first cohort began in 2010-2011, with the addition of two additional cohorts beginning in the following years. After putting the program on hiatus, a fourth cohort began in Fall of 2019 with support of the SIUE Office of the Provost, but no additional external funding. Current participants include seven predominantly African American women working full-time predominantly in the ECE field. For this part-time program, ease of access has been considered related to the location of courses and the timing of courses. Additional recent supports include partnerships with Southwestern Illinois Community College (e.g., SWIC supports pre-requisite accrual on-site and provides study groups) and the SIUE Educational Outreach Office (e.g., securing locations for courses and partnering with outside agencies for support such as paying for parking and travel for participants to attend the required art classes on SIUE's campus).

With a community-based partner.

• Chicago State University + Chicago Public Schools: Grow Your Own Cohort

Running for ten years before the elimination of funding in 2015-2016, Chicago State University with the Chicago Public Schools created a Grow Your Own cohort model that supported bilingual education and early childhood education through a face-to-face delivery model. In addition to typical financial support for tuition and books, this project also included funding for transportation and child care. Social networking, relationship building and mentoring in both Spanish and English were important aspects of this project. These supports were offered in exchange for teaching in a high needs school for 5 years (Chicago schools met the requirement).

• Columbia College Chicago + Chicagoland Head Start: ECE Cohort

From 2009 to 2013, Colombia College in Chicago partnered with local Head Start classrooms to recruit 60 teachers and teacher assistants who had an AAS and wanted to earn ECE bachelor's degrees with a Gateways ECE Credential Level 5. Thirteen Chicago-area agencies, including Hull House and Catholic Charities, funded three cohorts. All of the participants were African American or Latinx. The graduation rate was nearly 100%. Courses consisted of face-to-face coursework with flexible scheduling including weeknights and weekends, plus job-embedded weekly individualized coaching available in English and Spanish (i.e., three hours of course work and three hours of coaching per week).

• Roosevelt University + Chicago Public Schools: ECE AA to BA Residency Program

Over three cohorts starting in the Fall of 2019 to the Spring of 2022, Roosevelt University and Chicago Public Schools plan to support current CPS employees who have an associate's degree or at least 40 credit hours towards a bachelor's degree (e.g., special education and early childhood classroom assistants) and who want to pursue a bachelor's degree in early childhood or special education with licensure and a Gateways ECE Credential Level 5 through an early childhood residency cohort model. Support for this model comes from funding through the Illinois State Board of Education Teacher Residency Partnership Planning Grant. Participants in this accelerated two-year program complete college coursework through Roosevelt with discounted tuition equivalent to 40% off per undergraduate credit hour. A hallmark of this model is the one-year, paid teaching residency in a CPS classroom with mentoring and coaching from CPS lead teachers and supervision from Roosevelt faculty. This stipend by CPS (\$35,000/year) is provided for the residency year with \$15,000 of this as an interest-free repayable loan over three years of CPS employment postcompletion; participants are guaranteed job placement in a CPS classroom. Each cohort plans to include 20-30 participants annually.

At the bachelor level, plus.

Erikson Institute: Infant-Toddler Cohort

For several years, Erikson Institute in the Chicago Metro area has been running multiple cohorts at a time (generally two at a time, though sometimes as many as three) focused on supporting local early childhood educators from varied roles who have a minimum of a bachelor's degree to earn an Infant Specialist certificate in Birth to Three Early Learning and Family Support and a Gateways Infant Toddler Credential Level 5. This model is offered as fully face-to-face or fully online in structure and combines coursework and internships in 18 credit hours over six semesters. Funding is provided by various entities and covers varied student costs. Of the two most common funder models, one covers all student tuition and fees for the 18 credits, and the other covers tuition, fees, and all textbooks for the full program. The cost of textbooks was noted as a particular obstacle for students, resulting in students using outdated editions or students not using textbooks all together. Participants are required by Erikson to maintain GPA guidelines throughout the program.

In addition to financial supports, participants benefit from relationship-building from the start with recruitment interviews designed to find a mutually good fit for candidates and the program and the provision of ongoing relationship-based supports from the Program Manager. Course tasks have been revised to support student access and engagement, with revisions focused on practitioner application. Cohort program practices have been adapted over time, decreasing attrition and resulting in a 100 percent graduation rate in the most recent cohort (20 women who each work in the field and are racially and linguistically diverse with 60-70% African American, 20-30% Mexican American, and 10% Caucasian representation).

 McCormick Center for Early Childhood Leadership at National Louis University: Taking Charge of ChangeTM (TCC) Leadership Academy

For over twenty years, the McCormick Center for Early Childhood Leadership at National Louis University has implemented the Taking Charge of ChangeTM (TCC) Leadership Academy cohort model that feeds into the National Louis University Early Childhood Administration (ECA) Master's Degree Program. This leadership academy provides professional development for bachelors level administrators and leaders of early childhood center-based programs and consists of an 11-month community of practice model that includes nine days of face to face learning experiences, mentor support, documented reflections, field assignments program assessments, and a quality improvement plan (QIP) with an accompanying implementation quality grant. Participants can earn 98 hours of professional development, six credits towards their Gateways Illinois Director Credential, and are eligible to apply their completed coursework for up to six semester hours of graduate credit towards the Early Childhood Administration Master's degree at NLU. As of 2019, there have been 26 completed cohorts each of about 20 participants with diverse backgrounds from across the state of Illinois. This model has been evaluated twice, first after the first 10 cohorts and again after the 20th cohort. Results outlined in the most recent evaluation report include several indicators of success, including participants' desire for continued professional development, their commitment to the field as demonstrated by persistence in the ECE field, their efforts to mentor new directors both formally and informally, and their heightened sense of self-efficacy that supports their efforts in making incremental organizational changes.

• Millikin University: Early Childhood ESL Cohort

In 2016, Millikin University, located in Central Illinois, with funding through an Educator Preparation Program Innovation grant (a portion of the State of Illinois' Race to the Top funding), created a cohort focused on the ESL/ Bilingual needs of the local early childhood community. Participants included seven early childhood teachers from local Head Start and public-school districts, and the cohort format was a new accelerated, 6-week, evening-only segment of courses able to be completed in one year with \$3,000 towards tuition (at \$500/ course). Teacher interest was high. Even so, attrition proved challenging for this model with potential participants dropping out and entering due to the length of time to completion, remaining costs after the tuition support, and compensation realities. A specific example is the two participants who dropped out after learning that the addition of an extra endorsement would not bump their pay within their district as a master's degree would.

With a community-based partner.

• DePaul University + Academy for Urban School Leadership (AUSL): Early Childhood Special Education Licensure Cohort

From 2015-2019, DePaul University partnered with the Academy for Urban School Leadership (AUSL) to offer a series of accelerated early childhood cohorts for participants with bachelor's degrees interested in pursuing Early Childhood licensure and teaching at AUSL schools in Chicago. This accelerated model delivered the entire licensure program within a one-year framework with student teaching taking place within the participants' classrooms. Participants received deeply discounted tuition and were able to earn stipends as interns within the AUSL schools while they were in the cohort. Open education resources were used to reduce the cost of text and materials. For the past four years, the cohorts of 13-18 have been racially and linguistically diverse. A challenge within this cohort was aligning AUSL content with Illinois State Board of Education's general education requirements.

 Northern Illinois University + Rockford Public Schools: ESL for Early Childhood Educators Cohort

In 2015-2016, Northern Illinois University partnered with the Rockford Public Schools to create a cohort of 24 early childhood-certified teachers who were teaching in Preschool for All classrooms and interested in obtaining the ESL endorsement to address recent law changes. Funding from Race to the Top dollars covered participants' tuition, but not books. Technology was utilized to build a hybrid online and face-to-face program to provide flexibility in scheduling. The face-to-face courses were offered locally. Social networks developed and the participants worked together to support each other's academic and personal needs. Because the program was ESL-directed and not early childhood-specific, teachers made necessary adaptations and the Rockford early childhood director supplemented the required textbook with an EC-specific one that remained as a classroom resource. An additional practical support included intentionally placing ESL students in the participants' classroom for the year to fulfill required practicum hours.

 Western Illinois University + Rock Island Regional Office of Education: ESL for Early Childhood Educators Cohort

From 2015 to 2017, Western Illinois University partnered with the Rock Island Regional Office of Education to recruit 25 certified early childhood teachers to complete their ESL endorsement on the WIU campus in the Quad Cities within two cohorts. Participants who were working full-time came from school districts, as well as community-based organizations and family child care settings. The delivery model varied from face-to-face to online, to hybrid. The participants were primarily white and did not speak a language other than English. 24 completed the program. The ROE staff took an active role in supporting the participants by building relationships with them, checking in frequently on well-being, as well as providing support for assignments including materials. WIU kept the faculty consistent so that they could develop relationships with the cohort members. WIU also waived part of the application process and some other requirements to expedite the process. Logistical supports included allowing the required practicum work to be completed in each teacher's own classroom.

At multiple levels.

 McCormick Center for Early Childhood Leadership at National Louis University: Aim4ExcellenceTM National Online Director Credential

The Aim4Excellence™ National Online Director Credential, offered by the McCormick Center for Early Childhood Leadership at National Louis University, is a nine-module fully online program that is focused on early education leadership and is aligned with the Gateways Illinois Director Credential. It can be completed for professional development or to earn nine semester hours of college credit towards the National Louis University Early Childhood Practice degree. Participants may proceed through the program individually or as part of a facilitated cohort. There have been 654 Illinois practitioners have completed the program since its inception, of whom, 361 participated in the facilitated model. One half (50%) of Illinois participants came from minority populations who were actively working within the field.

 McCormick Center for Early Childhood Leadership at National Louis University: Taking the Lead (TTL) Leadership Academy

The Taking the Lead (TTL) Leadership Academy, offered by the McCormick Center for Early Childhood Leadership at National Louis University, is focused on family child care professionals and provides a hybrid model of face-to-face learning experiences and online learning modules. Family child care professionals earn 119 hours of professional development and six points towards their Gateways Family Child Care Credential. Similar to the Aim4ExcellenceTM National Online Director Credential model, participants in this cohort are eligible for up to six semester hours of undergraduate credit at NLU, which articulates towards the baccalaureate degree in Early Childhood Practice. As of 2019, five cohorts of approximately 20 participants, have completed the TTL program. Approximately 80% of TTL participants come from minority populations. TTL has a completion rate of 92%.

• Truman College + Chicago Public Schools: ESL Cohort Program

Another cohort model offered by Truman College partnered the community college with the Chicago Public Schools Office of Language and Culture to fund a cohort for inservice Chicago Public School teachers from local elementary schools with bachelor's or master's degrees to pursue an ESL endorsement. The online delivery model, which also provides support for practicum access and completion, worked well for participants as 70% of educators in the cohort already held master's degrees and are teachers currently working in the field. Participants completed their practicum work in their own classroom with Truman faculty visiting their sites. By allowing the completion of practicum hours in their own classrooms, barriers such as finding time off work and to travel, as well as identifying appropriate sites, were eliminated. One challenge that was mentioned was that the community college and public-school schedules did not always align, creating a scheduling challenge.

• University of Illinois at Chicago + Chicago Public Schools Community Partnership Program: Alternative Certification Program

From 2007-2014, 94 teachers working in community-based organizations in Chicago, across seven cohorts ranging in size from 11 to 19, earned an Illinois teaching certificate in early childhood education (type 04) through an alternative certification program through a pathway created by the UIC College of Education in partnership with the Chicago Public Schools Community Partnership Program (CPSCPP). The program included a course of study and a teacher residency. The teachers reflected the cultural and linguistic diversity of the children and families they served (i.e., 51% African American, 15% Latinx and 21% Caucasian), more than half were over the age of 40 and they were predominantly women. The CPSCPP paid all tuition and fees for the teachers in the program. Nearly 85% of the teachers who started the program completed the program and more than half went on to earn master's degrees at UIC. Program supports included strengths-based admission criteria, intensive program mentoring for each candidate using a reflective supervision approach, a mentor who acted as director liaison for each center and targeted tutoring to prepare for state tests. This program closed in 2014 due to changes in ISBE rules regarding alternative teacher preparation routes.

• University of Illinois at Chicago + City of Chicago Early Learning Workforce Scholarship Program + City Colleges of Chicago: Alternative Licensure Program

In 2018, the UIC College of Education redesigned and opened a revised alternative route called the UIC Early Childhood Alternative Licensure Program. In this current version, UIC partners with the City of Chicago Early Learning Workforce Scholarship Program and City College of Chicago (CCC). The scholarship program pays the tuition, books and fees for all the teachers in the program. Similar to the first version, the program includes an ECE course of study and a teacher residency. In this program, teachers can complete the course of study at partner institutions in CCC. Upon completion of the course of study, teachers complete a four-semester residency aligned with four key areas: social-emotional learning and teaching, inclusion, STEM, and leadership. The residency includes intensive coaching from UIC faculty. The program is also supported by a Department of Education Teacher Quality Partnership (TQP) grant and includes an extensive evaluation component.

The first cohort, which began in Spring 2019, includes 41 teachers of the average age of 38, who are predominantly female, 26 African American, 14 Latinx, and 1 Caucasian. This group averages 10.2 years of experience in the field. The second cohort, beginning in spring of 2020 includes 41 participants with the average age of 43, of which 17 identify as Latinx, 20 identify as African American, 3 identify as White, and 1 identifies as Asian-American. Seven already have master's degrees, 29 have level an Illinois Gateways ECE Credential Level 5 and twelve indicated that English was not their first language. The program provides additional supports to the teachers including parking, testing fees and meals. Program features include strengths-based criteria for admissions, individualized and targeted support for meeting state testing requirements, intensive coaching during the residency phase, and additional support for the administrators where the teachers are employed.

Pathway Model Themes

Across these 25 cohort pathways, patterns and distinctions emerged. Whether a model was created and supported by an individual institution of higher education or in partnership with another body, which outcome designations were affiliated with the models, and most importantly, which levers of access these innovative models supplied were all explored through data analysis.

Pathway partnerships. 23 of the total pathway models were affiliated with college credit and/or a degree that was tied to specific institutions of higher education in some way. Two models, while able to contribute to credit to degree, were not housed primarily at one specific educational level within an institution of higher education. These included two training-to-credit models both offered by the McCormick Center for Early Childhood Leadership at National Louis University: including, the Aim4ExcellenceTM National Online Director Credential and the Taking the Lead (TTL) Leadership Academy.

A prominent theme that emerged across the other 22 models related to whether an institution of higher education created and supported a pathway model internally or with an external or community-based partner. Of these 22, six of the highlighted pathway models were housed solely within a single institution or entity, including the Heartland Community College: Family Child Care Pilot, McCormick Center for Early Childhood Leadership at National Louis University: Taking Charge of ChangeTM (TCC) Leadership Academy, National Louis University's Early Childhood Practice (ECP) BA Degree Program (ECE, IT, Family Child Care, Director Level II), Southern Illinois University, Edwardsville's Early Childhood Off-Site (EChOS) Program, the Erikson Institute's Infant-Toddler Cohort, the Millikin University: Early Childhood ESL Cohort, and the University of Illinois at Chicago: Alternative Certification Program. A majority, (i.e., the remaining 16 models) partnered at least one institution of higher education with another institution (n=3) or a community-based partner (n=11) or both (n=2). (See Figures 2 and 3 below).

2 + Institutions of Higher Education

City Colleges of Chicago + University of Illinois at Chicago: Pathway to Early Childhood Professions

Harold Washington College + Loyola University Chicago: Early Childhood Special Education Cohort

Heartland Community College + Illinois Central College + Illinois Valley Community College + Illinois State University: Early Childhood Professional Preparation Program (ECP3)

2 + Institutions of Higher Education + Community-Based Partner

Truman College + University of Illinois at Chicago + Chicago Commons: ECE Cohort

Illinois Network Child Care Resource & Referral Agencies (INCCRRA) + Chicago Public Schools + Chicago Department of Family Support Services + City Colleges of Chicago: Harold Washington & Truman Colleges, Harper College, Chicago State University, National Louis University, and Roosevelt University: Infant-Toddler Cohort

University of Illinois at Chicago + City of Chicago Early Learning Workforce Scholarship Program + City Colleges of Chicago: Alternative Licensure Program

Figure 2. Types of partnerships in pathway models

Figure 3
Partnerships between Institutions of Higher Education with a Community-Based Partner



Figure 3. Types of partnerships with community-based partners in pathway models

When partnering with community-based partners, nine models were created and supported in partnership with local school entities, including two partnerships with local high schools for dual-credit programs (i.e., the Highland Community College + Freeport Public Schools: Early Childhood Education Dual Credit Cohort and the Truman College + One Summer Chicago + Chicago Public Schools: Early Childhood Education or Family Specialist Dual Enrollment High School Cohorts) and seven partnering with public school systems to recruit educators for advanced degree/ license/ credential including the Columbia College Chicago +

Chicagoland Head Start: ECE Cohort, the Chicago State University + Chicago Public Schools:

Grow Your Own Cohort, the Roosevelt University + Chicago Public Schools: ECE AA to BA

Residency Program, the Northern Illinois University + Rockford Public Schools: ESL for Early

Childhood Educators Cohort, the Western Illinois University + Rock Island Regional Office of

Education: ESL for Early Childhood Educators Cohort, and the Truman College + Chicago

Public Schools: ESL Cohort Program and the DePaul University + Academy for Urban School

Leadership (AUSL): Early Childhood Special Education Licensure Cohort. Four models

partnered a institutions of higher education with community-based organizations (i.e., the

Truman College + Logan Square Neighborhood Association: Early Childhood Education ECE

Cohort Program, the Truman College + One Summer Chicago + Chicago Public Schools: Early

Childhood Education or Family Specialist Dual Enrollment High School Cohorts, the University

of Illinois at Chicago + Chicago Public Schools Community Partnership Program: Alternative

Certification Program and the University of Illinois at Chicago + City of Chicago Early Learning

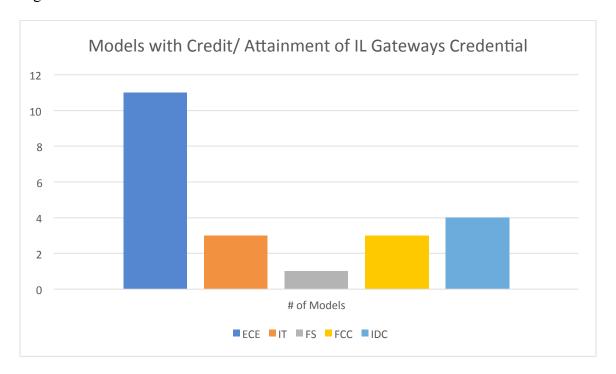
Workforce Scholarship Program + City Colleges of Chicago: Alternative Licensure Program.

In some of these cases, these partnerships came with funding, and in others, they provided other supports, outlined in a later section. In all, the data provided highlighted that 11 cohort pathway models utilize or have utilized external funding streams to help offset costs or support the pathway. 9 of these 11 were in partner-created and -supported pathways with three of the eight being funded in part by the City of Chicago Early Learning Workforce Scholarship Program and four supported with funding from Race to the Top dollars.

Pathway designations. All of the pathway models included in the study were created with a focus on one or more outcome designation, i.e., credit towards a degree, a degree, a credential, a licensure designation, or a combination of these. Degrees and credit towards

degrees included high school, associates, bachelors, and master's degrees. 16 of the models were tied directly to a degree or credit towards a degree with 11 towards or completing bachelor's degrees, one with credit towards a master's degree, and four towards or completing an associate degree. Credentials included various levels of Illinois' Gateways ECE Credential (n= 12), the Infant Toddler Credential (n=3), the Family Specialist Credential (n=1), the Family Child Care Credential (n=3), and the Illinois Director Credential (n=4). Four models created pathways to more than one credential (See Figure 5).

Figure 5



Related to Illinois licensure, four possible license endorsements and specialties were outcome designations in these models. The Early Childhood Education endorsement on the Illinois Professional Educator License was the most common license to which pathways provided access (n= 8), with one cohort model focused on the Early Childhood Special Education endorsement on the Illinois Professional Educator License. Four of the cohort models were specifically focused on the English as a Second Language (ESL) endorsement on the

Illinois Professional Educator License. These models were located across the state of Illinois with representation in northwestern and western parts of the state, in Central Illinois, as well as in the city of Chicago.

Identified supports within pathways. Whether reported through an interview or gleaned from a pathway report, various supports were identified as themes in the data. These supports centered around those criteria that we used to guide the sample and based in pathway research, i.e., social supports, practical supports, and design features that lent themselves to supporting pathway completion. These innovative features are relevant for revealing access levers, as well as for considering the possible impact of external funding on the ability to offer these supports.

Additionally, while the number of levers housed in any pathway model may impact the model's outcomes in the total number of completers and/or completion rates, the identification of this cause and effect was out of the scope of this research report. Because of this, while the types and total number of supportive levers at institutions are revealed in each supportive domain below, these are not intended to denote an automatic connection to positive outcomes, i.e., to say that the use of five or more supportive levers creates/ed better outcomes compared to a model using fewer. Instead, the totals are provided to highlight pathway models that may have insights into one or more specific supports for access. For contact information regarding each of these models please see Appendices.

Social supports. 13 of the pathway models described aspects of support for student participants that was social in nature, ranging from one feature to three of them, including ideas of group cohesion (aka: "a sense of community") (n= 6, three of whom received external funding) and a focus on developing social ties, such as relationship-building (n= 6, three of

whom received external funding). Ten total models offer/ed some sort of coaching and/or mentoring. Related to coaching, a report from one model described providing coaching in both English and Spanish in order to support the student participants' needs. In the models offering these types of social support, all five who offered coaching received external funding, and three of the five offering mentoring do. One model that offered all four of these aspects of social support, and that could serve as a model to consider social supports, was the Truman College + University of Illinois at Chicago + Chicago Commons: ECE Cohort.

Practical supports. Practical supports that provided access within these models ranged from logistical supports at the institutions of higher education, e.g., tutoring, to financial supports, such as tuition waivers and covering the cost and need for child care. The most common feature of practical support related to fee supports at the institutional level ranging from covering transportation needs, e.g., bus passes, parking passes (n=4, one with external funding) to technology (n= one with external funding). The most common fee supports models could offer was tuition support and/or full coverage (n=9, seven with external funding). Tuition supports provided varied from partial scholarships to discounted tuition, and three models identified the remaining cost of tuition still problematic for their student-participants. Fee support also included textbook support/coverage (n= 8, five with external funding). One way that textbook support was offered was to use older editions, and one source cited textbooks as a barrier. Additional fee supports covered meals (n=2, both with external funding) and university fee coverage (n=3, all with external funding). The ability for a model to provide child care was a major feature of support for working families, of which three models (all of whom received external funding) were able to provide.

One pathway model described waiving university application procedures to provide easier access, and five explained that their models provided course and testing support such as test prep and writing tutors. Three of these received external funding. Two present supports in place for employers of student-participants, and three (two with external funding) offer paid internships. Other financial supports include one model offering specific financial aid advising built into the pathway and course time, and another offers a living stipend and opportunity for loan payback. Both models offering these innovative financial supports receive external funding support. Two models aid with job placement including one that helps student-participants secure employment upon completion and the other that offers a private job fair for those in the pathway. One model has included a conditional feature related to practical supports that outlined that in order for student-participants to receive practical supports, such as tuition and textbook coverage, they were required to teach in a school of high need for five years. This was not seen as a problem due to their placements in Chicago fulfilling these criteria. Ultimately, 14 of the 25 total pathways offer at least one of these practical supports with one offering six, i.e., the University of Illinois at Chicago + City of Chicago Early Learning Workforce Scholarship Program + City Colleges of Chicago: Alternative Licensure Program that benefits from the external funding support of the partner scholarship program.

Design features. The final theme of supports that emerged from the data related to aspects of each pathway models' design and structure. Innovations related to design were the most common across the 25 models in this report, as 22 of them described at least one design feature, ranging from offering one aspect to five. 15 models outlined targeted recruitment and admission processes that specifically recruited certain student-participants, e.g., the Harold Washington College + Loyola: ECSE Cohort, or specifically recruited particular populations,

e.g., the Truman College + LSNA: ECE Cohort Program. Eight of these models received external funding.

Six models (three with external funding) featured accelerated programs that allow for financial savings and positive life-work balance for student-participants. Five pathways (i.e., the Heartland Community College: Family Child Care and Early Childhood Pilot and the three McCormick Center for Early Childhood Leadership at National Louis University programs) provided model designs that served to accelerate student time to degree by including training to credit pathways (both models), as well as prior learning assessment and traditional academic instruction (Heartland Community College's model). An additional design feature that surfaced from the data was whether a model adapted course tasks, advising, or student placement in courses. Three pathway models included these adaptations. Seven (three with external funding) specifically locate courses and field placements based on student needs, moving course locations to be closer to child care and allowing student-participants to complete field placements in their own classrooms or placing specific students, such as ESL students, in student-participant classrooms for ease of completing field placements.

The second most common design feature related to instructional delivery and whether the pathway's courses were delivered fully online, as a hybrid model, or as an option based on student needs (e.g., Truman College + One Summer Chicago + CPS: ECE/ Family Specialist Dual Enrollment High School Cohorts, among others). 10 (three with external funding) described this aspect of technology as an innovative and supportive feature allowing flexibility in multiple ways for student-participants. Additional design features that supported access included flexible and creative scheduling, for which seven models included features such as weekend and evening courses (four with external funding). Three pathway models identify struggles with

scheduling in order to meet both their student-participants' and institution's needs. Three pathways provide aspects that highlight responsiveness to their students, for example, the NIU + Rockford Public Schools: ESL for ECE Cohort. Two models, the Truman College + Logan Square Neighborhood Association: ECE Cohort Program and the Northern Illinois University + Rockford Public Schools: ESL for ECE Cohort, offer five of these seven design features.

Pathway scale and outcomes. A sub-sample of pathway models (*n*= 22) provided the years running for their cohort models, detailed information about participants, and overall outcomes with completer totals. A summary of these points includes the fact that these models in Illinois have been running since the late 1990s with the majority operable within the last ten years. 13 of the 22 that reported these metrics shared that their models are operable at the time of this report. Of the 22 models that provided the average number of participants in their cohorts, this number ranged from seven total (i.e., Millikin University: Early Childhood ESL Cohort, Heartland Community College: Family Child Care and Early Childhood Pilot, and Southern Illinois University, Edwardsville: EChOS Program) to 41 in UIC's current Alternative Licensure Program.

The total number of completers were reported by a smaller sample (n= 12) and varied depending on the number of years that the model had been running (e.g., McCormick Center for Early Childhood Leadership at National Louis University: Taking the Lead (TTL) Leadership Academy for 20+ years versus the Roosevelt University + CPS: ECE AA to BA Residency Program, which has just started in the year of the report) and the total number of cohorts each entity had run within those years (e.g., McCormick Center for Early Childhood Leadership at National Louis University: TCCTM with 26 cohorts compared to NIU + Rockford Public Schools: ESL for ECE Cohort with only one). These totals ranged from seven from one model with only

one iteration (e.g., Heartland Community College: Family Child Care and Early Childhood Pilot) to 654 over 20 years of cohorts (i.e., McCormick Center for Early Childhood Leadership at National Louis University: Aim4ExcellenceTM). 4 of the 12 represented pathway models have had between 10-25 total completers, and the remainder varies from 26 to 500 plus.

Of those who shared participant demographics, (n= 12), the majority of the models' participants have been and currently are African American and Latinx females working full-time, and many with children. A very small sub-sample (n= 6) reported completion rates for their models, and of these that shared, their rates were remarkably positive, e.g., five self-reporting that they have a 90-100% completion rate for their cohort model, and one with a 62.5% completion rate because their cohort is in progress right now. While these findings are distinct from the supportive levers provided within each model, they highlight that pathways have and continue to exist in the state of Illinois, providing access to specific populations of individuals to outcomes that are dependent on individual contexts.

Discussion

As noted, there is a growing need to create innovative, responsive pathways in the field of early childhood education that support new practitioners in the field as well as existing practitioners looking to advance. Factors that influence this pressing need include the anticipated growth in employment opportunities in the field, as well as data indicating that there is a decreasing supply. The resulting Illinois teacher shortage has been identified as most likely to impact communities of color and low-income schools (Advance Illinois, 2019).

This data, coupled with the reality that diverse members of the workforce are more likely to be employed in positions requiring lower levels of education (and subsequently, earning less) (Whitehead, 2019) has created a call to address not only pathways to careers in the field of early

childhood education, but also to explore pipelines that support individuals as they advance in the field (Zinsser, Main, Torres, & Connor, 2019).

The Illinois Governor's Office of Early Childhood Development is invested in supporting innovative pathways that both promote entry into and progression within the field and are responsive to diverse and experienced ECE staff members who have not yet attained new credentials. In this paper, we have highlighted the innovative work of Illinois institutions of higher education in creating cohort pathways that are responsive to the needs of the current and future early childhood workforce.

The results section of this paper included a myriad of models organized by sponsoring institutions and/or collaborative partnerships, then further delineated by goal (i.e., credential, degree, licensure, or endorsement). The goals of each of these cohorts, as well as the supports provided and/or cohort delivery system, varied extensively. These cohort models, therefore, do not exclusively fit into one category. In this section of the paper, model components that promote access, opportunity, and targeted supports will be highlighted. These factors, according to Zinsser, Main, Torres, and Connor (2019), are essential facets of educational pathways that can serve to both address pathway issues for those entering and working in the field, while also widening the pipeline to enhance linguistic and cultural diversity of the early childhood workforce.

Responsiveness to the Unique Needs of Participants: Social and Practical Supports

Social supports. Research conducted on the efficacy of cohort models has emphasized the importance of strategies that support the formation of social ties (Seifert & Mandzuk, 2006) and group cohesion (Unzueta, Moores-Abdool, & Donet., 2008). These factors are associated with greater student engagement in the academic process, increased student retention (Unzueta,

Moores-Abdool, & Donet, 2008). As well, supporting social ties and promoting group cohesion play a critical role in diversifying the workforce, as research has indicated that culturally and linguistically diverse populations are most likely to benefit from targeted supports in these areas (Fullan, 2011).

Additional research highlights the potential for cohort models to be responsive to the needs of specific populations of non-traditional learners. For example, students are developing social capital relationships, social support, and their social networks, and can greatly benefit from cohort models that include attention to these factors (Lei et al., 2011). Radical hospitality, employed by Lewis University, is an excellent example of a novel strategy designed to promote social ties and group cohesion among students. Radical hospitality is based on the needs and preferences of each individual and each unique group and therefore changes and adapts. Communication and course strategies are negotiated and bi-directional.

Mentoring has been specifically identified as an effective strategy in promoting social capital and social networks (Bowden, 2014; Kahraman & Kuzu, 2016), with ongoing, encouraging, and collaborative mentoring identified as particularly useful. Examples of Illinois cohort models that have embraced mentoring include The Taking Charge of ChangeTM (TCC) Leadership Academy between McCormick Center for Early Childhood Leadership at National Louis University. In this cohort model, which includes training to credit opportunities toward the Illinois Director Credential, mentoring support is provided to participants from program inception to conclusion. Chicago State University and the Chicago Public Schools (CPS) Grow Your Own cohort model provided specific mentoring supports in both Spanish and English. The alternative certification program partnership between University of Illinois-Chicago and the City of Chicago Early Learning Workforce Scholarship program also uses extensive coaching, tied to

residency and supported by a coaching tool, to facilitate participant development. The partnership between Roosevelt University and CPS supports participants moving from an associate to a bachelor's degree and includes a one-year paid teaching residency with mentoring and coaching provided by CPS lead teachers. Columbia College, working in partnership with local Head Start classrooms, also included job-embedded weekly individualized coaching that was provided in both English and Spanish. The Chicago Commons partnership provided coaching in the areas of parenting, soft skills, and academic readiness, while the Logan Square Neighborhood Association included financial coaching.

An important social support mechanism utilized by many of the cohort models highlighted focused on the use of spaces that were both practical as well as likely to meet the psychological needs of participants. For example, the ECP3 cohort that includes Illinois State University, Heartland Community College, Illinois Valley Community College, and Illinois Central College is housed at Heartland. Placement at Heartland provides an accessible space, as well as a small group atmosphere within a smaller college context (when compared to Illinois State). Truman College's dual enrollment cohort includes a hybrid delivery system designed to support student-participants' transition to college as well as continued participation in high school life. The Southern Illinois University, Edwardsville cohort also provides varied course locations (community-based or college campus) based on participant needs, as does the Logan Square Neighborhood Association cohorts. In this model, course offerings also vary based on the resource demands of individual courses.

Practical supports. In addition to outlined social supports, effective cohort models are also responsive to the unique needs of participants in the area of practical supports. Targeted recruitment designed to expand the pipeline to include high school students and community

members (Barnett, Maclutsky, & Wagonlander, 2015) as well as financial incentives, such as scholarships and forgivable loans (Billingsley, Crockett, & Kamman, 2014) have been identified as important supports. In Illinois, numerous cohorts have included financial supports for participants including tuition and, in many cases, textbooks (e.g., the nine total models in this report offering tuition support and eight models covering textbooks). As noted by outcomes research associated with several cohort partnerships included in this study, the cost of textbooks is a significant barrier for students. Practical supports in the form of paid internships were components of some of the cohorts (e.g., Truman College Early Childhood Education & Family Specialist Dual Enrollment High School Cohort, DePaul + AUSL cohort, and the Roosevelt + CPS: AA to BA Residency Program), as was debt repayment (Chicago Commons), and child care and/or transportation (Chicago State University + CPS: Grow Your Own Cohort, Truman College- Chicago Commons and Logan Square).

Responsiveness to Unique Workforce Needs

Cohort models can also be particularly responsive to the individual learning needs of students and the development of competencies that are transferable to a variety of employment opportunities (Fenning, 2004). Each of the cohort models included in this report was developed in response to a unique workforce need. Many of the early childhood cohorts, for example, were designed to support the attainment of early childhood credentials, degrees, or licensure. In other cases, specialized cohorts were designed in response to a specific workforce need. Examples of specialization included the areas of infant toddler, family specialist, family child care, Director, and ESL/bilingual cohorts. The Illinois Network of Child Care Resource and Referral Agencies Infant Toddler Cohorts were designed to increase the number of credentialed infant toddler teachers in the Chicago area. These cohorts were housed at City Colleges (Harold Washington,

and Harry S. Truman), Chicago State University, Harper College, National Louis University, Erikson Institute, and Roosevelt University.

Truman College, Chicago State University, Millikin University, National Louis

University, Western Illinois University, and Northern Illinois University all created ESL and
bilingual cohorts to intentionally increase the number of practitioners with broad knowledge and
skills in this area. Both Heartland Community College and Aim4Excellence™ National Online

Director Credential at the McCormick Center for Early Childhood Leadership offered family
child care cohorts, and Truman College's dual enrollment cohort focuses on both the ECE and
Family Specialist credentials. Each of these cohort models are responding to workforce and
pathway needs.

Responsiveness to Pathway Needs

There are a variety of ways to think about specific pathway needs, and related supportive strategies, in the field of early childhood. Pathways can support entry into the field or goal attainment for individuals with some credit and no degree. Pathways can also be designed to address major obstacles. The following highlights innovative cohorts that have addressed each of these issues in varied ways.

Dual credit and dual enrollment models, including Highland Community College and Truman College, are designed to support entry and transition into the field and/or further study upon graduation. Another aspect of pathway support is the reality that so many adults have some college but have not yet attained a credential or degree. Heartland Community College's Family Child Care and Early Childhood Cohort was designed to address that specific issue and included participant opportunities to leverage prior learning assessments, training plus assessment to

credit opportunities, and traditional college credit delivery. The pathways each participant accessed were based on their professional development record.

An example of a pathway support to address major obstacles is provided by the Truman College + CPS: ESL Cohort. In this pathway model, participants were able to complete their practicum hours in their own classrooms, eliminating barriers that include time for practicum work, travel, and finding and securing appropriate sites. Each of these challenges are common barriers to completion that have been addressed in this model and others like it.

Addressing Issues of Access

The structural design of higher education programs may present obstacles to credential and degree attainment for individuals presently in the field, as well as those who seek to enter the field, due to the inability of these programs to be responsive to the needs of non-traditional students. As noted by Zinsser et al. (2019), many bachelor's degree programs are not designed (due to such factors such as, for example, day-time scheduling, a lack of online offerings, and inflexibility in practicum placements) to support the participation of full-time working teachers with family obligations. Many of these teachers are often first-generation college students who are also women of color, possibly living at or below the poverty line, and not provided with experiences that would give them the social capital needed to negotiate higher education systems (Kagan, Kauerz, &Tarrant, 2008). Fenning (2004) advocates for the creation of learning-centered models that are responsive to the needs of non-traditional learners unable to participate in traditional learning delivery systems. Effective models that are responsive to individual needs bypass challenges by attending to scheduling, as well as design.

Rock et al. (2016) highlighted the need to leverage technology, positing that the power of technology is harnessed when it supports effective instruction. Leveraging technology to support

flexible training options (e.g., online education, part-time study) is an essential component of program design that is responsive to the life-stage needs of non-traditional learners (Billingsley, Crockett, & Kamman, 2014).

Innovative scheduling that supports access includes attention to location and delivery format. Class scheduling was identified as an essential cohort success component in the INCCRRA Infant Toddler Cohorts represented in this report. Recommended scheduling considerations based on cohort research include minimizing the number of classes per week, offering classes at a time that met student needs, providing hybrid and online options, and holding classes on Saturdays. Cohorts offered by the McCormick Center for Early Childhood Leadership at National Louis University (e.g., Aim4ExcellenceTM, Taking Charge of ChangeTM, and Taking the Lead) and National Louis University (both in partnership and independently of one another), Truman College's various cohorts, and the ECP3 cohort at Illinois State University and Heartland Community College, also include face-to-face and/or online delivery options that provides scheduling support.

Unique design features provided by cohorts include opportunities that blend a unique combination of prior-learning assessment, training-to-credit, and traditional course delivery. The McCormick Center for Early Childhood Leadership's Aim4Excellence™ National Online Director Credential is a nine-module fully online program that is focused on early education leadership and aligned with the Illinois Director Credential. The modules can be completed for professional development or to earn nine hours of college credit towards the Early Childhood Practice program at National Louis University. A similar model is used by McCormick's Taking the Lead (TTL) Leadership Academy, which is offered to family child care professionals. This

model provides a hybrid of online and face-to-face learning experiences resulting in 119 hours of professional development and six semester hours of undergraduate credit at NLU.

A similar training-to-credit model was used by Heartland Community College, with the addition of opportunities to gain credit through prior learning assessment and traditional course content. This model leveraged modularized Gateways credential competencies to create unique pathways for family child care professionals based on documentation provided through their Professional Development Record. The model resulted in a significant reduction in cost and time to credential attainment.

Based on Rich Collaboration

A common theme across many of the cohort partnerships is the incredible importance of collaboration. From the beginning, developing clear communication strategies for candidates and partners, engaging trusted messengers to recruit and build relationships and providing access to information about financial supports were significant features of many of the innovative cohorts. Interviewees provided data to Truman College, for example, emphasized the importance of clear, active lines of communication with community partners as critical, including when to hand expertise off to whom. A strategy that these Truman cohorts used to support communication with partners included one-pagers outlining how decisions were made (e.g., course selection and sequencing).

Results from the INCCRRA Infant Toddler Cohort also emphasized the importance of collaboration with employers, as these student-participants' employers played a key role in supporting class attendance, adjusting work schedules if needed, and encouraging cohort completion (INCCRRA, 2017). College and university advisors were also identified as key communication partners by several of the cohorts, as working with advising to streamline

registration and secure transcripts were critical to student access and participation. Additionally, within models, inner-institution collaboration was cited, e.g., in the EChOS program at Southern Illinois University, Edwardsville where the university's Student Outreach Program is now working with the pathway model to provide better access for student-participants. This is in addition to the benefits identified by the Harold Washington + Loyola University Chicago: ECSE Cohort where the contact for the pathway described new cross-institutional relationships and supports with an increased sense of community between the two institutions.

In summary, differing combinations of key supports embedded in cohort models act as a lever for successful outcomes. Surprisingly, financial supports were important but did not surface as a lever required for cohort success. Although some levers were used in isolation by the models within this report, others were used in combination to varied success, dependent on context. Briefly outlined below are a variety of key levers embedded in the Illinois' range of successful cohort models:

Social Supports:

- Strategies that support the development of social ties; learner engagement
- Responsiveness to needs of non-traditional learners (e.g. radical hospitality)
- Mentoring & coaching: ongoing & collaborative

Practical Supports

- Locations designed for student comfort/access
- Financial incentives (e.g. tuition, textbooks, fees, paid internships)

Workforce Supports:

• Cohesion within design (e.g. workforce role focused, credential or degree attainment as goal, high school pathway, etc.)

Access Supports

- Responsiveness to individual or specific group needs
- Course structure (e.g. utilization of technology, course acceleration, timing, etc.)

Conclusion

This report has provided a holistic overview of early childhood-focused cohort models that have existed and currently take place in the state of Illinois. Several important themes within the data reflect the features currently found in the literature including the provision of practical and/or social supports, as well as innovative design features. Many of the cohorts shared common characteristics such as part-time options, accelerated pathways, the use of technology, mixed delivery systems and strong partnerships (e.g., with community-based organizations, government programs, community colleges and universities). Variations in model designs highlighted institutional responsiveness to individual, workforce, community, and specific cohort needs.

The variety of strategies used by institutions of higher education highlight the reality that there is not a one-size-fits-all approach to cohort planning, development, nor implementation. Effective cohort models share many components but vary based on population served, appetite and support for innovation, resource allocation, workforce need, and collaborative partners. Any number of innovative features may be more or less supportive within individual contexts. The findings of this report reveal nuanced and dynamic features and supports that may be the much-needed levers the field of early childhood education needs to provide clearer and more accessible to becoming the kinds of educators Illinois' children need and deserve.

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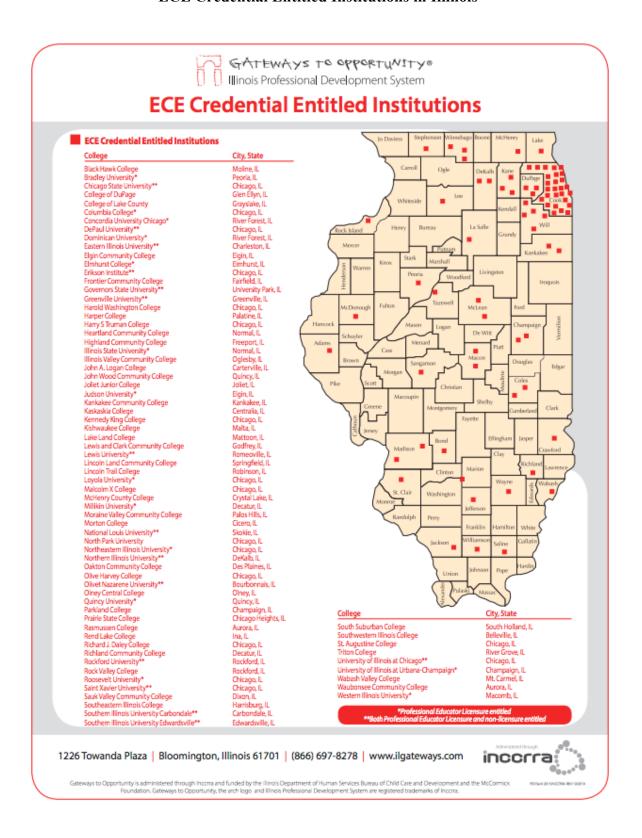
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Appendix A

Directory of Approved Illinois State Board of Education Licensure Programs for Birth-Grade 2

Aurora University	National Louis University
Bradley University	North Park University
Chicago State University	Northeastern Illinois University
Concordia University	Northern Illinois University
DePaul University	Olivet Nazarene University
Dominican University	Quincy University
Eastern Illinois University	Rockford University
Elmhurst College	Roosevelt University
Erikson Institute	Saint Xavier University
Governors State University	Southern Illinois University
Greenville University	Southern Illinois University-Edwardsville
Illinois State University	University of Illinois at Chicago
Judson University	University of Illinois at Urbana-Champaign
Lewis University	Western Illinois University
Loyola University	Harry S. Truman-City Colleges of Chicago
Millikin University	

ECE Credential Entitled Institutions in Illinois



College Cohorts Represented Geographically

