

**Higher Education Articulation Agreements:
A Study of State Policies Covering the
Early Care and Education Workforce
Volume 1 — Final Report**

Higher Education Articulation Agreements: A Study of State Policies Covering the Early Care and Education Workforce

Volume 1

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Executive Summary

A barrier that students and mid-career professionals often face in attempts to advance their education level is that the coursework completed and credits earned in one institution of higher education (IHE) may not transfer to another. As a result, students who seek to extend their education and qualifications may experience a loss of course credit and a disruption of degree progress when transferring between two-year and four-year IHEs. These delays can then discourage or delay them from pursuing or completing a bachelor's degree. Nationally, more than one third of community college students who transfer to a four-year institution do not earn a bachelor's degree within six years.

Recognizing the credit loss that these students experience during the transfer process, some states have developed articulation policies and agreements to facilitate the transfer of credits and coursework between degree programs in different IHEs within the state. Articulation policies are a particularly important issue for individuals who begin their higher education coursework in a two-year IHE and then seek to transfer to a four-year IHE to obtain a bachelor's degree, which often is the case for teachers and caregivers in the early childhood workforce. In some states, articulation policies and agreements include specific provisions for degree programs related to early care and education (ECE).

This report examines articulation policies and practices in six states with policies that include provisions specifically for ECE. The study involved telephone interviews and focus groups with state-level higher education administrators and staff, as well as administrators, faculty, and students from 20 IHEs within the six states (including both two-year and four-year institutions). The examples and experiences of these states and IHEs may be applicable to other fields as well and may be useful for policymakers, higher education administrators, and faculty seeking to improve the efficacy of their broader articulation policies and practices.

Key Findings

- All six states in the study used transfer associate's degrees and general education block transfers, which allow students to transfer courses as a set rather than on a course-by-course basis, to facilitate course and credit transfer for ECE students; half of the states also used guaranteed admission or common course numbering.
- Four states established at least one statewide committee to oversee articulation; the remaining two states oversaw articulation through a state higher education agency or system office.
- Most IHEs (17 of 20) supplemented state-level articulation policies with intrastate and interstate regional articulation agreements formed between IHEs.
- Most two-year IHEs (nine of 10) offered separate ECE degree pathways for students who planned to transfer and earn a bachelor's degree versus students who planned to end their education with an associate's degree.
- In nearly all IHEs (19 of 20), ECE faculty played several key roles in implementing articulation policies, such as evaluating course transferability (15 IHEs) and designing courses that reflect agreed-on competencies (12 IHEs).
- IHEs supported transfer students by providing online information about transfer (12 IHEs), transfer centers (six IHEs), outreach programs (six IHEs), and transfer student orientations (five IHEs).

- Faculty and staff advised students on topics including career paths (16 IHEs) and financial aid (15 IHEs), referred students to degree planning tools (14 IHEs), and referred students to transfer advisors (three IHEs).

Study Purpose

The purpose of this descriptive study was to identify the articulation approaches that states have used to facilitate higher education articulation for ECE professionals, allowing them to progress from subbaccalaureate coursework and credentials to an associate's degree and then a bachelor's degree without losing relevant coursework and credits. The study also examined implementation of articulation within states and IHEs. The study was designed to answer the following study questions:

1. In the six states examined in this study, what higher education articulation policies and practices have been implemented to support students seeking a degree in ECE?
2. What governance structures do these states have in place to oversee ECE articulation policy? How do the states involve stakeholders in policy development and oversight?
3. How do IHEs in these states implement articulation policies?
4. What supports do the states and IHEs provide for the transfer and articulation process?

Methodology and Study Limitations

To address these questions, the study team conducted case studies in a purposive sample of six states and 20 IHEs that have statewide articulation policies that address ECE degree pathways. To identify states for inclusion in the study, the study team reviewed extant documents to identify those states with statewide articulation policies for students pursuing a degree in ECE. The team identified an initial list of 11 states that met the study inclusion criteria and then narrowed the list to six states. Factors considered in selecting the six states included types of articulation policies, geographic region, higher education context, and ECE program context. States were selected to demonstrate a variety of state contexts and articulation approaches. The final sample included California, Florida, Indiana, Massachusetts, New Mexico, and Pennsylvania.

The study team selected 20 IHEs (10 two-year and 10 four-year) in the six states. The IHEs were selected primarily based on the number of ECE degrees granted, with the goal of ensuring at least one IHE was selected from each public higher education system within each state. This approach to IHE selection allowed the study team to examine cross-system articulation and transfer. Other criteria considered included the presence of a staff person, faculty member, or administrator who was involved in creating or overseeing statewide ECE articulation policy. In states with public Historically Black Colleges and Universities or minority-serving institutions that offered ECE degree programs, the study team endeavored to include at least one of those institutions in the study.

Data collection took place between February 2018 and July 2018. Interviews were conducted at the state level with representatives from state higher education executive offices, state higher education agencies, and state higher education system offices; state legislative analysts or policy staff; and representatives from articulation oversight committees. At IHEs, interviews were conducted with senior academic administrators and faculty. In addition, focus groups were conducted with IHE staff (such as registrars, student advisors, and financial aid officers) and with students. The study team coded the interview and focus group transcripts and information from extant documents to identify themes and verify evidence that emerged across the sites.

Readers should note some limitations to the interpretation and generalizability of the study findings. The six states were not nationally representative, and data should not be generalized to other states. Moreover, the IHEs selected may not be representative of all IHEs in each state, and findings for ECE may not generalize to other higher education disciplines or fields. Findings from the interviews and focus groups were based on self-reports of the specific individuals participating in the study and might not represent the views of other administrators, faculty, staff, students, and stakeholders in these states.

Summary of Findings

Statewide Articulation and Transfer Policies

All six states in the study used transfer associate’s degrees and general education block transfers to facilitate course and credit transfer for ECE students; half of the states also used guaranteed admission or common course numbering.

More specifically, all six states instituted transfer associate’s degrees in ECE that allow students to transfer their lower division coursework as a block and enroll in a four-year degree program with junior status. All six states established common general education requirements that allow for block transfer of 30–35 credits. These common requirements reflected a shared understanding between two-year and four-year IHEs regarding the content, competencies, and learning outcomes expected of all first- and second-year students. Three states offered guaranteed or priority admission into a public four-year IHEs for students who earned transfer associate’s degrees. Requirements for guaranteed admission included a minimum grade point average, minimum grades for specified courses, and passing scores on teacher licensure examinations prior to admission. Three states implemented common course numbering systems, which assigned common course numbers for equivalent courses at participating IHEs. These systems allowed faculty, staff, and students to track which courses would transfer and how they would fulfill degree requirements.

State-Level Governance and Oversight

Four of the states established at least one statewide committee to oversee articulation; the remaining two states oversaw articulation through a state higher education agency or system office.

In four states, articulation was governed by a statewide committee appointed by a higher education executive officer or a state higher education coordinating board. In three of the four states with an oversight committee, the committee had an active, ongoing role in monitoring, updating, and enforcing the statewide policy after the policy was developed. In the remaining two states, articulation policy was overseen by a state higher education agency or system offices, and individual colleges and universities had more discretion in determining how articulation would be implemented.

IHE-Level Implementation of Articulation Policies

Most of the IHEs in the study (17 of 20) supplemented state-level articulation policies with intrastate and interstate regional articulation agreements formed between IHEs.

Even with the existence of statewide articulation policies, nearly all IHEs continued to use regional agreements to supplement state-level articulation policies. Agreements between four-year IHEs and their two-year feeder institutions served to clarify how courses from a two-year IHE would transfer,

offer additional transfer benefits beyond those required under state-level policies, or extend transfer benefits to students not covered under state-level policies.

Most two-year IHEs (nine of 10) offered separate ECE degree pathways for students who planned to transfer and students who planned to end their education with an associate's degree.

ECE students at nearly all the community colleges had to choose from two or more degree options, depending on their goals for educational attainment. Generally, these options included transfer associate's degrees for students who planned to transfer plus other terminal associate's degrees that trained students for work in the ECE field immediately after graduation. Students who earned the terminal associate's degree and later decided to pursue a four-year degree often reported encountering misalignment and loss of credits after enrolling in a bachelor's degree program.

In nearly all of the IHEs (19 of 20), ECE faculty played key roles in implementing articulation policies, such as evaluating course transferability (15 IHEs) and designing courses that reflected agreed-on competencies (12 IHEs).

ECE faculty members — with their expertise in both the content and structure of their school's ECE coursework — were largely responsible for determining whether and how courses from other IHEs would transfer. To evaluate a course's transferability, faculty members reviewed syllabi, examples of student work from the course, and/or qualifications of the person who taught the course. ECE faculty also played a lead role in designing courses that reflected the skills and competencies outlined in statewide or locally agreed-on curricular frameworks.

Transfer Supports for Students

IHEs supported transfer students by providing online information about transfer (12 IHEs), transfer centers (six IHEs), outreach programs (six IHEs), and transfer student orientations (five IHEs).

Twelve of the 20 IHEs provided transfer information on their websites or through referral to statewide transfer websites. Six IHEs reported that their transfer centers provided prospective transfer students with information regarding coursework, degree requirements, scholarship information, and transfer timelines. Six of the four-year IHEs described sending representatives to two-year IHEs to meet with faculty, staff advisors, and prospective transfer students. In addition, several four-year IHEs offered orientations to help transfer students acclimate to their new campus and plan upper division course sequences.

Faculty and staff advised students on topics including career paths (16 IHEs) and financial aid (15 IHEs), referred students to degree planning tools (14 IHEs), and referred students to transfer advisors (three IHEs).

Faculty and staff at most IHEs advised students on career paths, degree options, and financial aid. Less frequently, faculty and staff advised students on the transfer process. They also referred prospective transfer students to degree planning tools, such as degree maps and transfer guides, or to transfer-specific advisors. Despite these resources, students reported receiving inaccurate or insufficient guidance from advisors about the transfer process and financial aid.

I. Introduction

A barrier that students and mid-career professionals often face in attempts to advance their education level is that the coursework completed and credits earned in one institution of higher education (IHE) may not transfer to another. To address this issue, states have developed a variety of articulation policies and agreements to facilitate the transfer of credits between degree programs. Articulation policies are particularly important for individuals who begin their higher education coursework in a two-year college and later seek to transfer their credits to obtain a bachelor's degree, which often is the case for teachers and caregivers in the early childhood education and care workforce. This study provides an in-depth examination of how six states and their IHEs have implemented articulation policies that include provisions specific to the early childhood field, including approaches to articulation, governance structures, roles played by various stakeholders, and supports provided to transfer students.

Policy Context

IHEs offer multiple pathways for pursuing postsecondary credentials and degrees. Although some students begin and end their postsecondary education in a four-year college or university, others may seek a two-year associate's degree and then enter the workforce, and still others may begin in a community college with the intention of transferring to a four-year institution. In fact, about one third of all college students are enrolled in a public, two-year community college (Ginder, Kelly-Reid, and Mann 2019). Furthermore, approximately half of all students who complete a bachelor's degree previously enrolled in a public, two-year community college (National Student Clearinghouse Research Center 2017). Individuals' education and career plans often change across time, and graduates who earn an associate's degree may decide to continue their education to increase their qualifications and skills (and potentially earn a higher salary), often at a different IHE than the one that conferred their associate's degree.

Whether seeking to make this transition mid-education or mid-career, such students often face barriers because of differing coursework requirements between degree programs and institutions. Coursework completed and credits earned at one IHE may not transfer to another; in particular, students who transfer between two-year and four-year IHEs may experience a loss of course credit and a disruption of degree progress (Jenkins and Fink 2015; Limardo, Sweeney, and Taylor 2016). On average, only 60 percent of transfer students nationally have been able to transfer most or all of their credits, whereas 15 percent were granted almost no transfer credit (Monaghan and Attewell 2015).

These challenges can increase the cost and effort required to obtain a bachelor's degree, as well as discouraging some candidates from pursuing or completing a degree. Nationally, more than one third of community college students who transfer do not earn a bachelor's degree within six years (Jenkins and Fink 2015). Moreover, students who lost half or more of their credits were significantly less likely to earn a bachelor's degree compared with students who were able to transfer most of their credits (Monaghan and Attewell 2015).

To address these challenges, states have developed a variety of articulation policies and agreements to facilitate the transfer of credits and coursework between degree programs. The National Conference of State Legislatures (2013) found that all 50 states had one or more articulation policies. Thirty states had common course numbering systems across participating IHEs, 40 states had identified a general education core accepted across institutions, and 45 states had transfer associate's degrees that allow students to block transfer their lower division coursework and enroll in a four-year degree program with

junior status. Twenty-eight states enacted legislation to adopt such policies, whereas others had policies that were adopted by IHE boards or state agencies. In some cases, networks of institutions entered into voluntary agreements to facilitate transfers.

Articulation policies are important for students who are preparing for a career in the early childhood workforce. These students often begin their higher education coursework in a two-year IHE and then seek to transfer to a four-year IHE to obtain a bachelor's degree. In addition, students may obtain a two-year associate's degree, enter the early childhood workforce, and then later decide to continue their education to improve their qualifications and skills, often at a different IHE than the one that conferred their associate's degree. In 2009, the National Association for the Education of Young Children (NAEYC) recommended that states require that colleges and universities implement articulation agreements to support early care and education (ECE) professionals in "moving seamlessly through and across undergraduate and graduate degree programs" (NAEYC 2009, 2). In 2015, a National Academies of Sciences' report recommended developing comprehensive pathways for transitioning lead early childhood educators¹ to a bachelor's degree qualification, with specialized knowledge and competencies, while acknowledging that the empirical evidence on the effects of a bachelor's degree is inconclusive, and a bachelor's degree requirement alone is not sufficient to ensure program quality (National Research Council 2015).

Overview of Study Purpose and Design

This descriptive study examined the articulation policies and practices used in six states that have articulation policies that specifically address the ECE discipline. Understanding the practices and experiences of these states and IHEs may help others develop ways to provide smoother pathways and transitions to support both students and mid-career professionals in the ECE field who are seeking to increase their qualifications and skills. In addition, strategies used in these six states may be applicable to other fields as well and may be useful for policymakers and educators seeking to improve the efficacy of their overall articulation policies and practices.

The study was designed to answer the following study questions:

1. In the six states examined in this study, what higher education articulation policies and practices have been implemented to support students seeking a degree in ECE?
2. What governance structures do these states have in place to oversee ECE articulation policy? How do the states involve stakeholders in policy development and oversight?
3. How do IHEs in these states implement articulation policies?
4. What supports do the states and IHEs provide for the transfer and articulation process?

The study involved telephone interviews and focus groups conducted in 2018 with state-level higher education administrators and staff, as well as administrators, faculty, and students from 20 IHEs within the six states (including both two-year and four-year institutions).

¹ The report defined lead educators as "those who bear primary responsibility for children and are responsible for planning and implementing activities and instruction and overseeing the work of assistant teachers and paraprofessionals" (National Research Council 2015, 6).

Key Elements of Articulation

To provide a conceptual foundation for this study, the study team developed a framework of core elements of articulation. The development of the framework was informed by a literature review and with the input of 12 technical experts who had experience with articulation policies. These experts represented a variety of stakeholders, including two-year IHE faculty, four-year IHE faculty, policy representatives, higher education administrators, and early childhood representatives. They helped define the elements of successful statewide articulation during a technical working group meeting that took place during the early stages of the study.

The framework is anchored by four core elements of articulation: governance, academic policy, articulation agreement provisions, and articulation and transfer supports. For each core element, the framework included a discussion of practices and considerations from the field. The study team used this framework to inform the questions asked of the study participants and to guide the process of analyzing and reporting the information gathered from extant data review, interviews, and focus groups. Policymakers and practitioners also may use this framework when thinking about how to develop and implement articulation policies.

Governance

The literature on articulation suggests the importance of governance structures and has named statewide oversight committees as a potentially promising practice (Southern Regional Education Board 2013; Wellman 2002; Western Interstate Commission for Higher Education 2010). It also recommends involving stakeholders, especially faculty with content area expertise (Ignash and Townsend 2000; Teacher Education and Compensation Helps [T.E.A.C.H.] Early Childhood National Center 2014; Western Interstate Commission for Higher Education 2010). Additional detail regarding the components of governance are provided in Exhibit 1, including oversight, administration, and stakeholder involvement and coordination.

Exhibit 1. Elements of articulation: Governance

Elements	Description
Oversight and administration	
Types of administrative bodies	Administrative bodies that oversee articulation at the state level may have an influence on the development and implementation of articulation policies, and the type of administrative body used may shape its ability to establish and enforce such policies. Examples of administrative bodies overseeing articulation include statewide oversight committees, coordinating boards, governing boards, and higher education agencies.
Monitoring implementation	Administrative bodies may monitor whether IHEs are implementing articulation policies as intended. These monitoring efforts may serve as an accountability measure and also inform the need for additional implementation support or incentives.
Updating policies	Administrative bodies may update articulation policies and processes regularly in response to changes in legislation and higher education policy or needs that surface within the higher education community.
Enforcement and appeals process	Administrative bodies may oversee an appeal process for students who claim that the terms of the articulation agreement have been violated or who would like to appeal decisions about credit transfer at receiving institutions.
Funding for administration	Dedicated, ongoing funding may support the work of the administrative body. This funding may, for example, cover the cost of staff support and pay members for expenses involved in attending committee meetings.

Exhibit 1. Elements of articulation: Governance (cont.)

Elements	Description
Stakeholder involvement and coordination	
Involvement of multiple sectors	Involving stakeholders from a variety of sectors may inform policy development with diverse perspectives on articulation needs and challenges, add legitimacy to the policies, and promote buy-in.
Stakeholder types	Stakeholders for ECE articulation may include internal stakeholders, such as higher education administrators, faculty, and students as well as external stakeholders, such as ECE employers, ECE teachers, teacher licensing agencies, nonprofit organizations, and state government and policy representatives.
Role of faculty	As content area experts, two-year and four-year faculty may play an important role in the development of articulation agreements. They may, for instance, promote the academic alignment of coursework across IHEs.

Academic Policy

Academic policies influence the internal practices of colleges, departments, or programs (Wellman 2002). Statewide articulation considers a variety of academic policy issues in both two-year and four-year IHEs regarding how and when credits will transfer. The research literature on articulation calls for several academic policies to support articulation, including common course numbering, other course equivalency systems, and common general education requirements (Cassidy 2015; Southern Regional Education Board 2013; Western Interstate Commission for Higher Education 2010). These components of academic policy and others related to degree pathways, teacher licensure, faculty and curricular alignment, and accreditation are detailed in Exhibit 2.

Exhibit 2. Elements of articulation: Academic policy

Elements	Description
Degree pathways	
Multiple degree pathways	Students may follow a variety of degree pathways to an ECE career. Comprehensive articulation policies that reflect these multiple pathways may benefit a broader range of students.
Types of associate's degrees	Articulation policies may acknowledge the multiple pathways to an ECE career by including various types of associate's degrees, such as associate of arts, associate of science, associate of applied science, and associate of arts in teaching. They also may include degrees focused on preparing teachers to work with different ECE age groups (e.g., preschool teachers, elementary teachers).
Stackable credentials	Stackable credentials may streamline the path to a degree, particularly for students who initially pursue a certificate and later choose to pursue a degree. When courses associated with certificates are embedded in degree programs, students can apply course credits earned for their certificate toward a degree.
Dual-enrollment programs	Allowing credits earned in dual-enrollment programs (i.e., college credit earned while in high school) to count toward a degree also may streamline degree completion. For example, high schools may form partnerships with community colleges that allow students to acquire a Child Development Associate (CDA) credential during high school and transfer the credits into a two-year program.

Exhibit 2. Elements of articulation: Academic policy (cont.)

Elements	Description
Teacher licensure	
Degree that leads to licensure	When states and institutions provide clear information about which degrees lead to licensure — and which ECE positions require licensure — this may help students make more informed decisions about which degree pathways align with their goals.
Multiple licensure options	In some states, ECE careers have multiple licensure options. If two-year and four-year IHEs work together to ensure they are consistently applying standards for those licensure options in their courses, it may promote stronger alignment between two- and four-year degree programs.
Competing demands	Two-year IHEs may face competing demands in their efforts to educate both students who plan to enter the workforce after earning ECE-related certificates or associate’s degrees and students who hope to transfer into four-year IHEs to complete a bachelor’s degree. If the requirements of these two programs are not aligned, they may not offer clear and accessible pathways that serve the needs of all students.
Faculty and curricular alignment	
Curriculum and learning standards	Alignment of curriculum and learning standards between two-year and four-year IHEs may help facilitate seamless credit transfer by ensuring that equivalent courses at different IHEs teach students the same core competencies.
Course competencies and numbering	Common course numbering systems assign courses that teach the same core competencies the same course title, number, and prefix across IHEs. Such systems may support articulation between two-year and four-year IHEs by enabling students and others to identify equivalent courses.
General education common core	The existence of a common core curriculum for general education, in which a set of agreed-on general education courses are fully transferable across IHEs, may support articulation by guaranteeing students transfer credit for courses that fall within that curriculum.
Faculty qualifications	When two-year faculty have similar academic qualifications as four-year faculty, the faculties may be more willing to enter into articulation agreements because of a perception that courses at two-year IHEs are equivalent to courses at four-year IHEs.
Accreditation	
A symbol of quality	Accreditation of ECE programs may reduce barriers to articulation by validating the quality and rigor of ECE associate’s degree programs.
Encouragement for articulation	Requirements or recommendations from institutional and programmatic accreditors, such as the NAEYC, may encourage institutions to develop student-focused articulation policies.
Mandate from licensing	When state educator licensing provisions require preparation programs at and beyond the baccalaureate level to receive both institutional and programmatic accreditation, those requirements may serve to reinforce specific articulation practices.

Articulation Agreement Provisions

Statewide articulation often relies on agreements that facilitate credit transfer. These statewide articulation agreements typically describe how credits will transfer, which students will be covered, and which institutions are included (Ignash and Townsend 2000). Related provisions of articulation agreements are listed in Exhibit 3, including those that address the portability of credits, data sharing, and other issues.

Exhibit 3. Elements of articulation: Articulation agreement provisions

Elements	Description
Portability of credits	
Block transfer	Articulation agreements specifying that all lower division coursework, including general education and early childhood credits, will transfer into the four-year degree program as a set or “block” may facilitate transfer students’ degree progress.
Course-by-course transfer	Articulation agreements that require course-by-course review of prior coursework based on course equivalencies or that allow only a limited number of credits to transfer from the sending institution may hinder student degree progress.
Transfer without an associate’s degree	Articulation agreements that allow students who transfer from a two-year program to a four-year program before earning their associate’s degree to earn transfer credit for their prior coursework may offer transfer students additional flexibility in their path to a bachelor’s degree.
Reverse transfer	Reverse-transfer provisions may help ensure that students who transfer from a two-year to a four-year IHE and then back to a two-year IHE do not lose credit. Reverse-transfer provisions could include the opportunity for two-year to four-year transfer students to complete an associate’s or certificate degree, even if they do not complete their bachelor’s degree.
Data sharing	
Electronic record sharing	The extent to which transcripts are electronically and systematically shared between two-year and four-year IHEs may help streamline the transfer process.
Oversight of data sharing	The administrative body that oversees articulation also may oversee a shared data system between two-year and four-year IHEs to facilitate the transfer process or support efforts to evaluate articulation policies across IHEs.
Other provisions	
Guaranteed admission	As an incentive for students to transfer, articulation agreements may offer guaranteed admission into ECE programs at four-year IHEs for students who complete an associate’s degree in ECE.
Private institutions	Inclusion of private IHEs in articulation agreements may increase the number of students who benefit from articulation agreements.

Articulation and Transfer Supports

Statewide articulation may help provide students with clear information about transfer pathways, offer accessible resources and supports, and promote degree affordability by reducing credit loss during transfers between two- and four-year IHEs. The research literature calls for a variety of articulation supports, including written transfer guides, Web-based information on transfer, a transfer counselor network, student transfer fairs, and student appeals procedures (Southern Regional Education Board 2013; T.E.A.C.H. 2014; Western Interstate Commission for Higher Education 2009, 2010). Examples of articulation supports that may benefit faculty, staff, and students are highlighted in Exhibit 4.

Exhibit 4. Elements of articulation: Articulation and transfer supports

Elements	Description
Transparency and accessibility	
Clear information	Clear, accessible information regarding transfer requirements, career pathways, and licensure options may help students make more informed decisions towards their career and educational goals.
Web-based transfer resource	Transfer guides and other Web-based resources, such as online course catalogs and degree progress tools, may provide useful supports for students, advisors, and faculty.
Accommodations for nontraditional students	Considering the needs of nontraditional students, such as those who are working while pursuing a degree, may help institutions ensure that courses and academic and student services are accessible and convenient for more students.
Student supports	
Transfer advising services	Specialized advising for transfer students, such as transfer advising service centers, at both sending and receiving institutions might promote student retention and degree attainment.
Well-informed and resourced advisors	Before and during the articulation process, students may benefit from the support of well-informed, accessible advisors. Advisors can help students determine which degree pathways are best aligned to their personal and professional goals.
Completion and affordability	
Importance of affordability	Statewide articulation policy that promotes the affordability of earning a bachelor's degree may make degree attainment more accessible, particularly for lower-income students.
Cost of degree versus earning potential	Articulation policies may promote affordability by helping students balance the cost of a credential with the likely future wage associated with earning it.
Dimensions of affordability	Numerous factors can shape degree affordability, including the cost of college attendance, cost of student debt, opportunity cost of foregoing work while acquiring a degree.
Stackable credentials	Stackable credentials may help students increase their salaries as they acquire additional credentials.
Dual-credit programs	Providing pathways for high school students to take dual-credit college courses may help them save money.

State Considerations

State policy contexts can influence articulation efforts. For example, states may choose to develop articulation agreements for specific degree programs that are in high demand among employers (Ignash and Townsend 2000; Western Interstate Commission for Higher Education 2009). In addition, state efforts to evaluate the effectiveness of articulation may provide insights on how to improve articulation policies or their implementation. In fact, the literature recommended that states set performance goals for two-year and four-year IHEs and collect data to evaluate implementation (Ignash and Townsend 2000; Southern Regional Education Board 2013; Western Interstate Commission for Higher Education 2009, 2010). Several aspects of state context that influence articulation, including articulation and teacher licensing policy, economic considerations, and the extent to which states monitor and evaluate articulation, are highlighted in Exhibit 5.

Exhibit 5. Elements of articulation: State context considerations

Elements	Description
Policy context	
Policy mandate	Policies that mandate or facilitate articulation efforts may enable statewide articulation.
Compulsory articulation agreements	State legislative or executive branch action can compel IHEs to create articulation agreements when they might not have otherwise.
Licensing policy	State policies that allow multiple options for teacher licensure may make the pathways into an ECE career flexible.
Economic context	
Availability of funding	The economic context and availability of funding within a state to support the implementation and oversight of articulation may influence the specific policies adopted.
Workforce needs	States may choose to tailor or prioritize articulation policies to address the state's ECE workforce needs and reflect the demographics of the existing teaching workforce.
Evaluation and evidence	
Purpose	Evaluation of articulation efforts may serve multiple purposes, including monitoring transfer student outcomes, informing policymakers about adjustments needed to articulation systems, and gathering data to make the case that articulation is needed.
Data	Statewide longitudinal data systems that contain information about student transfer and course-taking behavior, along with information about credit transfer, may help support evaluation of articulation policy.
Transparency	Making the results of evaluations publicly available may help keep stakeholders informed about areas of need and progress.

Study Methods and Limitations

State Sample Selection

To learn more about how states and IHEs developed and implemented articulation policies and practices that specifically address the ECE discipline, the study team conducted in-depth case studies in a purposive sample of six states. To identify states eligible for inclusion in the study, the study team conducted an extant document review to identify states with statewide articulation policies with ECE-specific provisions. States were considered to have a statewide articulation policy if evidence existed of statutes, executive orders, or higher education department or board-directed initiatives to guide transfer and articulation. In addition, these policies were required to address systemwide articulation between public two-year and four-year IHEs. ECE-specific provisions addressed ECE degree pathways, including transfer and articulation between the CDA credential and other credentials, dual enrollment programs, certificates, associate’s degrees, and/or bachelor’s degrees in the state’s public two-year and four-year higher education institutions. Using these definitions, the study team identified an initial list of 11 states with statewide articulation policies with ECE-specific provisions: California, Connecticut, Florida, Indiana, Iowa, Kansas, Massachusetts, New Mexico, Oklahoma, Pennsylvania, and South Carolina.

The study team then selected six focal states from this list of 11 states. Factors considered in selecting the focal states included types of articulation policies, geographic region, higher education governance structure, the size and complexity of the state’s higher education systems, the presence of Historically Black Colleges and Universities or minority-serving institutions, the number of ECE degrees granted within the state, the existence of a statewide preschool program, enrollment in early childhood programs, and pay parity or baccalaureate degree requirements for preschool teachers. States were selected to demonstrate a variety of state contexts and articulation approaches. The final purposive sample included California, Florida, Indiana, Massachusetts, New Mexico, and Pennsylvania. Characteristics of these states are presented in Exhibit 6. See the state profiles in Appendix A for more information about the selected states. Appendix B provides additional detail about the study design and methodology.

Exhibit 6. Characteristics of the case study states

State	Number of higher education system(s)	Number of HBCUs and MSIs	Total number of ECE degrees granted	Percentage of 4-year-olds served in preschool	Bachelor-degree requirements	Pay parity
California	3	53	4,083	18%	Yes	No
Florida	2	36	1,006	76%	No	No
Indiana	3	2	642	64%	Yes	Yes
Massachusetts	1	5	1,039	8%	No	No
New Mexico	1	13	291	33%	No	Yes
Pennsylvania	2	11	2,039	12%	Yes	No

Exhibit reads: California uses a consolidated governing board structure to oversee higher education in the state.

Note: HBCUs = Historically Black Colleges and Universities; MSIs = minority-serving institutions.

Sources: Barnett et al. 2017; Barnett and Kasmin 2017; Collegescorecard.ed.gov; state higher education websites; Collegescorecard.ed.gov; U.S. Department of Education 2016; U.S. Department of Education 2007.

The study team selected 20 IHEs (10 two-year and 10 four-year) in the six states. The IHEs were selected primarily based on the number of ECE degrees granted, with the goal of ensuring at least one IHE was selected from each public higher education system within each state. This approach to IHE selection allowed the study team to examine cross-system articulation and transfer. Other criteria considered included the presence of a staff person, faculty member, or administrator who was involved in creating or overseeing statewide ECE articulation policy. In states with public Historically Black Colleges and Universities or minority-serving institutions that offered ECE degree programs, the study team endeavored to include at least one of those institutions in the study.

Data Collection and Analysis

The findings from this report were based on 106 semistructured telephone interviews and focus groups conducted by videoconference with key stakeholders from the six focal states and 20 IHEs (10 two-year IHEs and 10 four-year IHEs). State-level interview participants included representatives from state higher executive offices, state higher education agencies, and state higher education system offices; state legislative analysts or policy staff; two-year and four-year IHE representatives serving on state articulation oversight committees; state teacher licensure administrators; and ECE workforce development representatives.² Data collection from each IHE consisted of interviews with a senior academic administrator (e.g., ECE department chair, program director, school of education dean) and an ECE faculty member and a focus group of IHE staff members, including representatives from student advising services, registrar's offices, and financial aid offices. The study team also conducted virtual focus groups with ECE students from each state who either were planning to transfer or had already transferred from a two-year to a four-year IHE. Appendix C contains the interview and focus group protocols. To supplement data collected through the interviews and focus groups, the study team conducted a review of extant policy documents and relevant websites.

The study team's analysis of the interview, focus group, and extant data followed a multistep process that was designed to examine ECE articulation policies and their implementation within and across the six states. First, using qualitative data analysis software, analysts coded transcripts of the interviews and focus groups to systematically organize the data according to important topics drawn from the study questions. (Appendix D contains the codebook that the study team used for analysis.) Analysts then summarized the coded and extant data for each state and IHE. They entered that information into a structured, spreadsheet-based data repository, which supported the analysis of important issues and themes across states and IHEs. Finally, analysts developed and applied criteria for classifying states and IHEs into categories to examine the prevalence of various approaches to articulation. The analysis identified general articulation policies that may apply to students pursuing degrees in the ECE field, in addition to examining ECE-specific provisions in states' articulation policies.

Study Limitations

This qualitative study was based on data collection and analysis in a purposive sample of six states with statewide articulation policies that address the ECE discipline and 20 IHEs within those states. Findings were based on extant data review and self-reports of the administrators, faculty, staff, students, and

² The workforce development representatives who participated in the study interviews included early childhood advocacy organizations, a university-based research center that conducts research on early childhood workforce issues, and state affiliates of the NAEYC. In general, the workforce development representatives who participated in the study interviews were familiar with the challenges faced by both students pursuing degrees in early childhood education and employers who hire ECE staff.

other stakeholders interviewed in each state. Readers should note that the six states are not nationally representative, and these case study data should not be generalized to other states. The selected IHEs and individual respondents may not be representative of all IHEs in each state. Articulation for the ECE discipline may differ from that of other disciplines, given the National Academy of Sciences' recommendation to develop degree pathways for lead early childhood educators to earn a bachelor's degree (National Research Council 2015). Even so, the study described various policy approaches that states have taken, how states oversee policy development and implementation, and how IHEs have implemented them.

Key Terms

Several terms used throughout this report may be unclear or unfamiliar to the reader. They are defined here for the reader's reference.

- **Articulation.** This is the process of comparing and equating the content of courses from one institution to courses completed at another institution. Courses determined to be equivalent through the process of articulation may be accepted for transfer credit.
- **Academic alignment.** Two-year and four-year IHEs align academic programs to facilitate transfer. This may include alignment of individual course content, curriculum, learning standards, or course competencies. Common course numbering systems, common general education requirements, and transfer associate's degrees rely on academic alignment to facilitate the transfer of credit.
- **Block transfer.** Through articulation agreements, four-year colleges and universities accept a designated associate's degree or course sequence as a block, rather than reviewing transcripts on a course-by-course basis to determine where transfer credit will be granted. Typically, block transfer is available only if the lower division course sequence or degree was completed in full.
- **Child Development Associate (CDA) credential.** Issued by the Council for Professional Recognition, this credential is based on a set of competency standards. To earn this credential, a teacher must hold a high school diploma or general equivalency diploma, complete 120 hours of formal early childhood education training, have 480 hours of relevant work experience, and prepare a portfolio demonstrating mastery of the competency standards.
- **Common course numbering system.** These systems ensure that equivalent courses at different institutions have the same title, number, and prefix. All such equivalent courses will be accepted in transfer as if they had been taken at the receiving campus.
- **Course-by-course transfer of credits.** This type of transfer is based on course equivalency, which is determined by reviewing the course syllabi and, in some cases, the qualifications of the faculty teaching the course at the sending institution. Courses that are equivalent are comparable and may be transferred from one institution to another.
- **Early childhood educator.** For the purposes of this report, this term encompasses child care providers who work with young children from birth through the early elementary grades, preschool teachers in public and private settings, and teachers working with elementary school students in grades K–3.
- **Regional articulation agreement.** These formal agreements between two or more colleges and universities determine how one institution will accept and apply course credit from another.

Articulation agreements are generally for specialized professional programs offered at colleges that can be applied to a specific program/major at the receiving university.

- **Reverse transfer.** This type of transfer occurs when a student transfers from a four-year IHE to a two-year IHE. Credits earned at a four-year college or university are transferred to a community college and applied toward an associate's degree.
- **Statewide articulation agreement.** These agreements specify how courses taken at two-year IHEs must count toward degree requirements at four-year IHEs within that state. Statewide articulation agreements are typically focused on transfer from public community colleges to public four-year universities within the state.
- **T.E.A.C.H. (Teacher Education and Compensation Helps) scholarship program.** This national scholarship model aims to increase the qualifications of the early childhood workforce. The program links continuing higher education with increased compensation and requires that recipients and their sponsoring child care programs share in the cost.
- **Transfer associate's degree.** This type of block transfer grants full junior-standing to a student who has successfully completed an associate's degree, provided that other terms of the articulation agreement are met. It also is referred to as a 2+2 degree.

II. Statewide Articulation and Transfer Policies

The six states examined in this study have instituted one or more statewide articulation policies to create transparent and seamless transfer pathways so that students may transfer without losing credits. These policies include block transfer of transfer associate’s degrees, guaranteed admission after completion of a transfer associate’s degree, block transfer of common general education requirements, and common course numbering. This chapter discusses these policy approaches, detailing general articulation policies that may benefit ECE students and policies that specifically address the ECE discipline.

Transfer Associate’s Degrees and Guaranteed Admission

Transfer associate’s degrees and guaranteed admission are related policies (see Exhibit 7). Transfer associate’s degrees are designed to seamlessly transfer between two-year IHEs and four-year IHEs. These degrees transfer as a block, and students enroll in their four-year degree programs with junior status. Guaranteed admission policies amplify the value of a transfer associate’s degree by requiring four-year degree programs to admit those students who have earned their transfer associate’s degrees.

All six states established statewide “transfer associate’s degrees” in ECE, which allow students to block-transfer credits into four-year IHEs and enter with junior status.

Transfer associate’s degrees are commonly referred to as 2+2 degrees because they are designed to fulfill the first two years of a four-year pathway to the baccalaureate degree. In this manner, 2+2 degrees address issues of student costs and time to degree because students enter the four-year degree program with the opportunity to complete their bachelor’s degree in two years. Because transfer associate’s degrees transfer as a block, the need for receiving institutions to conduct course-by-course evaluations to determine if and how a student’s coursework will transfer is diminished.

Exhibit 7. States with transfer associate’s degrees and guaranteed admission

	Number of states	California	Florida	Indiana	Massachusetts	New Mexico	Pennsylvania
Transfer associate’s degree	6	Yes	Yes	Yes	Yes	Yes	Yes
Guaranteed admission	3	Yes	Yes	—	Yes	—	—

Exhibit reads: All six states established statewide transfer associate’s degrees in ECE.

Note: “—” indicates that the state did not have the policy or practice in place.

Sources: State policy documents and higher education websites; interviews with state-level stakeholders, 2017–18.

The type of transfer associate’s degree awarded varied by state. In Florida, New Mexico, and Pennsylvania, the transfer associate’s degree in ECE was an associate of arts degree. In California, Indiana, and Massachusetts, the transfer associate’s degree in ECE was an associate of science degree. The type of associate’s degree did not always align with the type of baccalaureate degree program into which the associate’s degree would transfer. For instance, Pennsylvania’s statewide program-to-program agreement for prekindergarten–4 (PK–4) education transferred an associate of arts degree into a bachelor of science program.

In addition to statewide transfer associate’s degrees, two-year IHEs in five of the six states continued to offer ECE associate’s degree programs that might include some transferable coursework but were not

designed for transfer into a four-year degree program. Students who enrolled in these terminal degrees often sought careers that did not require four-year degrees (e.g., early childhood teachers working outside public school systems). These terminal degrees include more professional and technical coursework and less general education coursework, whereas the transfer associate’s degrees require more transferable general education courses and fewer professional (i.e., ECE-specific) courses. New Mexico was the only state where all ECE associate’s degrees were designed to be fully transferable to any public IHE in New Mexico. The state’s teacher licensure representative explained,

Every single institution of higher education has the same program for the associate’s level and the same program for the bachelor’s level. . . . Every institution of higher ed[ucation] has the same process, standards, course curriculum. It’s fully aligned across the state.

Three states offered a guarantee of admission for students who completed the transfer associate’s degree, although application and program terms could limit participation.

California, Florida, and Massachusetts offered guaranteed or priority admission for students who earned transfer associate’s degrees (see Exhibit 8), although these three states placed some limitations on students’ access to guaranteed admission policies. Indiana, New Mexico, and Pennsylvania did not offer guaranteed admission to students holding a transfer associate’s degree. In these three states, admissions policies were set at the institutional level.

In California, the associate’s degree for transfer also was known as a “degree with a guarantee.” Community college students who earned an associate’s degree for transfer, which consists of up to 60 transferable units of coursework in general education, major preparation, and electives, were guaranteed admission to a California State University campus with junior standing. Once admitted to a California State University campus, students needed to complete only 60 additional units to earn a bachelor’s degree in the same field.

Exhibit 8. States with common general education requirements and course numbering systems

	Number of states	California	Florida	Indiana	Massachusetts	New Mexico	Pennsylvania
Common general education requirements	6	Yes	Yes	Yes	Yes	Yes	Yes
Common course numbering system implemented	3	Yes	Yes	—	—	Yes	—
Common course numbering system in development	2	—	—	Yes	Yes	—	—
Other course equivalency system	3	—	—	Yes	Yes	—	Yes

Exhibit reads: All six states have established common general education requirements.

Note: “—” indicates that the state did not have the policy or practice in place.

Sources: State policy documents and higher education websites; interviews with state-level stakeholders, 2017–18; Education Commission of the States 2016.

One limitation to this “guarantee” in California was that it did not apply to IHEs in the University of California system, although in 2018, the University of California system was working with California community colleges to begin accepting associate’s degrees for transfer and offering admission

guarantees. The Association of Independent California Colleges and Universities also was working with California community colleges to offer associate's degrees for transfer to students and guaranteed admission to 36 private, nonprofit IHEs in California. Another limitation to California's guaranteed admissions policy was that students interested in attending "impacted" IHE campuses or degree programs, where too many students applied for admission, either needed to meet additional admissions requirements or were accepted into a different campus or degree program.

In Massachusetts, all state university systems offered the guaranteed admission for transfer associate's degree students, but guaranteed admission for ECE students was contingent on earning a minimum 2.75 grade point average and a passing score on the Communication and Literacy Skills Test of the Massachusetts Test for Education Licensure. In Florida, PK–3 teacher preparation programs were considered "limited access" degree programs, which meant additional requirements had to be met, such as a minimum grade point average, minimum grades required for specified courses, and passing the teacher licensure examination before admission. Moreover, Florida students might not necessarily have been admitted to their first-choice university, or they might have been admitted to the university but not to their degree program of interest. As one senior administrator from the University of Florida system explained, "Some of the students are not happy with the fact that they may not be transferring into the institution they want or into the major that they want. That can be a bone of contention."

Common General Education Requirements

All six states offered block transfer of common general education requirements into bachelor's degree programs, which can benefit ECE students who begin their studies at a two-year IHE and later transfer to a four-year IHE.

If a transfer associate's degree creates a 2+2 pathway, then common general education requirements composed of lower division coursework create a 1+3 block transfer mechanism because they cover the amount of coursework that four-year degree students would be expected to complete in their first year. All six states established statewide transfer of lower division general education courses (see Exhibit 8). These foundational blocks reflected agreement between two-year and four-year IHEs regarding the content, competencies, and learning outcomes to be expected of all first-year IHE students. In California, Florida, Indiana, and Pennsylvania, the general education block equated to 30 transferable credit hours, whereas in Massachusetts and New Mexico, it was slightly more (34 and 35 credit hours, respectively). As one New Mexico transfer student described, "All my credits [applied] to my bachelor's degree," which "gave me the option to take those [general education] classes at the community college."

Despite these common general education requirements, a significant amount of course transfer still happened on a course-by-course basis. Course-by-course transfer occurs because many students transfer prior to completing the transfer associate's degree or prior to — or in conjunction with — completing common general education requirements. Some states and their IHEs have worked to make course-by-course transfer more seamless, such as by mandating the implementation of common course numbering and making course transfer libraries available online to allow stakeholders to see which courses are transferable between institutions in their state.

Common Course Numbering and Other Equivalency Systems

Three states had implemented common course numbering, three states had established some other course equivalency system, and two states were in the process of developing common course numbering.

California, Florida, and New Mexico had all implemented common course numbering systems (see Exhibit 8). Common course numbering systems assign common course numbers for equivalent courses at participating institutions. These systems allow faculty, staff, and in some cases students to track which courses will transfer and how they will transfer. In other words, these systems indicate whether courses will transfer for an equivalent number of credit hours, and whether they will apply toward general education, major, or elective requirements. Even when states have articulation policies that promote transfer through common general education requirements and transfer associate's degrees, common course numbering systems can streamline course-by-course transfer.

California's Course Identification Numbering System assigned and cataloged descriptors of frequently transferred courses between the state's three higher education systems (i.e., California Community Colleges, California State Universities, and the University of California), as well as many private IHEs in the state. Florida's Statewide Course Numbering System was used at all public institutions and participating private IHEs in Florida.

In response to the concerns expressed by admissions personnel and a concern over unnecessary repetition of courses by transfer students, Florida developed a common course numbering system to facilitate the transfer of credit for equivalent courses among the state's colleges and universities (Florida Department of Education 2014, 2).

New Mexico's statewide common course numbering system considered courses to be equivalent if 80 percent of the student learning outcomes in the two courses were aligned. Equivalent courses were then assigned a common course number and listed in the state's common course catalog.

Indiana, Massachusetts, and Pennsylvania did not have common course numbering systems as of the 2017–18 school year, but each of these states had an alternative course equivalency system in place. Indiana's TransferIN, Massachusetts' MassTransfer, and Pennsylvania's Transfer and Articulation Center websites each maintained their state's transfer course catalogues. Indiana's TransferIN website, maintained by the Indiana Commission of Higher Education, included a Core Transfer Library of courses offered by its state IHEs. Most courses in the Core Transfer Library transferred as exact, one-for-one equivalents at the receiving institutions, although a small number of courses did not have exact equivalents and transferred as departmental or general electives. Massachusetts' MassTransfer website was maintained by the Department of Education and allowed students to find general education courses at their two-year IHE that would satisfy the core requirements at the commonwealth's public four-year IHEs. The Pennsylvania Transfer and Articulation Center website was maintained by the Department of Education's Office of Postsecondary and Higher Education. It allowed stakeholders to find course equivalencies between all participating Pennsylvania Transfer and Articulation Center institutions, but it did not include courses transferable between all state-related IHEs because of varying levels of participation. For example, the Pennsylvania State University system participated in the commonwealth's statewide general 30-credit framework block, but its commonly transferable courses were not listed in the Pennsylvania Transfer and Articulation Center website. IHEs in the Pennsylvania State University system had their own course database and, as a receiving institution, they evaluated equivalency and determined transferability on a course-by-course basis.

Although Indiana and Massachusetts had course equivalency systems in place, both states passed legislation to also develop common course numbering systems. Indiana’s Common Course Numbering Initiative required the Indiana Commission for Higher Education, in collaboration with state higher education institutions, to develop, implement, and maintain a common course numbering system for general education curriculum courses. Massachusetts was using the Performance Incentive Fund to support its state IHEs and University of Massachusetts campuses to identify equivalent courses as a step toward implementing a common course numbering system.

The Role of ECE Industry Standards

In five of the six states, ECE industry standards played a role in statewide ECE articulation efforts by informing curricular alignment and facilitating articulation. In particular, the NAEYC developed two sets of standards³ to guide ECE professional preparation programs and specify what ECE professionals should know and be able to do. In addition, the Council for Professional Recognition developed a CDA credential that ECE professionals can earn to demonstrate mastery of key competencies that are valued in the field.

Exhibit 9. States in which ECE industry standards played a role in statewide ECE articulation efforts

	Number of states	California	Florida	Indiana	Massachusetts	New Mexico	Pennsylvania
NAEYC standards and competencies informed statewide ECE curricular alignment	3	—	—	Yes	—	Yes	Yes
Students who hold a CDA credential may receive transfer credit toward an associate’s degree	1	—	Yes	—	—	—	—
Certificate programs fulfill requirements of the CDA credential and articulate with associate’s degree programs	3	Yes	—	Yes	—	Yes	—

Exhibit reads: In three of the six states, the NAEYC standards informed statewide curricular alignment.

Note: “—” indicates that the state did not have the policy or practice in place.

Source: Interviews with state-level stakeholders, 2017–18.

In three states, the NAEYC standards served as an anchor for curricular alignment.

State-level stakeholders in Indiana, New Mexico, and Pennsylvania indicated that their state’s efforts to promote academic alignment between two-year and four-year preparation programs were grounded in the NAEYC standards for ECE professional preparation programs and educator competencies (see Exhibit 9). For example, when Indiana developed the Transfer Single Articulation Pathway for ECE, faculty agreed that students awarded associate’s degrees were to demonstrate mastery of the skills and competencies outlined in the NAEYC standards. Furthermore, all ECE degree programs offered by Indiana’s single community college system, Ivy Tech, were NAEYC accredited. In New Mexico, the core

³ These standards are the NAEYC Standards for Initial and Advanced Early Childhood Professional Preparation Programs and the NAEYC Professional Standards and Competencies for Early Childhood Educators.

competencies that make up the state's universal ECE curriculum also were aligned with the NAEYC standards. In Pennsylvania, the program-to-program articulation agreement for degrees leading to PK–4 teacher certification was aligned to the NAEYC standards, as were the Department of Education's standards for PK–4 Certification. Faculty involved in developing the articulation agreement compared their own course and program content to the NAEYC competencies to determine whether students were receiving the necessary skills and training, according to a two-year faculty member. The resulting ECE transfer associate's degree was composed of 30 ECE credits that aligned with the NAEYC standards and 30 credits from the common general education requirements. A former member of Pennsylvania's Transfer and Articulation Oversight Committee said that alignment to the NAEYC standards and outcomes provided "a real trust that, at the two-year program, we would be doing the necessary entry-level training for those competencies . . . for our students who are moving onto the four-year programs."

In one state, articulation policies granted credit toward an associate's degree for the CDA credential, and community college systems in three additional states offered stackable credentials for related certificate and associate's degree programs.

In some states, a CDA credential substitutes for a portion of the educational requirements needed for a preschool credential (National Center on Early Childhood Development, Teaching, and Learning, 2018). To earn a CDA credential, a candidate must hold a high school diploma or general equivalency diploma and be enrolled in a career technical program; complete 120 hours of formal early childhood education training; have 480 hours of relevant work experience; and prepare a portfolio demonstrating mastery of key competencies. ECE professionals may obtain the CDA credential to enter the workforce but later choose to increase their educational attainment. For example, they may decide to pursue an associate's degree to advance their careers.

In Florida, students could earn up to nine credits toward their associate's degree after having earned a CDA credential (see Exhibit 9). Florida's statewide ECE articulation agreement guarantees the transfer of nine credit hours toward an ECE associate's degree for students who held child care certifications approved by the state board of education (Florida Department of Education n.d.). Approved certifications included the CDA credential plus other certificates and credentials issued by the Florida Department of Children and Families and Florida Department of Education. To receive transfer credit, students needed to provide proof that their credential was issued within five years prior to enrolling in the associate's degree program.

Although other states lacked policies mandating transfer credit for the CDA credential, two-year IHE systems in Indiana, California, and New Mexico had created stackable credentials. In these three states, credits earned toward a certificate that fulfilled the CDA requirement for 120 hours of formal training also could be applied toward an associate's degree if students chose to continue their education. For example, Indiana's Ivy Tech Community College system offered an 18-credit-hour certificate at its campuses, which fulfilled the requirements for the CDA credential. Nine credits (three courses) from the certificate program were transferable into the statewide transferable associate of arts degree (the Transfer Single Articulation Pathway). California and New Mexico IHEs offered similar stackable certificates. For example, in New Mexico, the ECE courses that were required for earning a Child Development Certificate were the same courses required for the ECE associate's degree and were fully transferable toward that degree.

Although Pennsylvania and Massachusetts did not have statewide policies that allowed students to obtain transfer credit for the CDA credential, representatives of those states recognized the importance

of articulating this credential. For example, a state agency representative in Massachusetts stated, “With our current career latticework, we’re embedding more formally the CDA as a part of the pathway, so that by doing so it would signal to institutions across the board that this is something that they should be providing and articulating to the AA because it’s clearly shown as a step towards an AA.”

Other Statewide Transfer Policies

Other statewide transfer policies designed to support students pursuing ECE degrees included reverse transfer policies, dual enrollment programs, and inclusion of private IHEs in articulation agreements. Two states, Florida and Pennsylvania, had statewide reverse transfer policies; however, Pennsylvania’s policy did not include state IHEs outside the Pennsylvania State System of Higher Education. Indiana and Massachusetts had statewide initiatives to increase reverse transfer options for students, but no legislation had been enacted as of 2017–18. In New Mexico, ECE courses could be taken at any public IHE and count toward an associate’s and/or a bachelor’s degree at any other public IHE.

All six states provided opportunities for high school students to earn college credit that could be applied toward an ECE degree. Indiana’s Course Transfer Library on the TransferIN website included a dual-credit cross-walk to assist high school students. In Indiana, students could take dual-credit coursework to earn a CDA credential, which could then transfer into an associate’s degree program. They also could earn college credit by taking exams for the College-Level Examination Program and Advanced Placement programs. In Massachusetts, the Commonwealth Dual Enrollment Partnership offered opportunities for high school students to take college-level courses at a discounted price and earn credit toward high school completion and their future college degrees. New Mexico’s 2015 legislation allowed any course included in the state’s general education core to be offered to high school students for dual credit and required IHEs to count such courses toward lower division course requirements. Pennsylvania’s secondary schools at career tech centers helped students earn the CDA credential that articulated into the associate’s degree on the ECE program-to-program transfer pathway.

Most of the six states allowed private IHEs to participate in statewide articulation policies. Respondents in most states also noted that an increasing number of private and out-of-state IHEs were interested in entering into regional and statewide articulation agreements. However, private IHEs were not considered key stakeholders or drivers of statewide articulation policy, and some states did not include information about participating private IHEs on their articulation websites. Furthermore, although states may invite private IHEs to enter into statewide articulation agreements, one respondent noted that they often entered into separate, regional articulation agreements.

III. State-Level Governance and Oversight

All six states in this study had a governing body that oversaw statewide articulation and transfer. Generally, governing bodies were composed of state agents or representatives from two-year and four-year IHEs that helped develop the statewide articulation agreement. This section provides an overview of the various types of governing bodies, the roles and responsibilities of the governing bodies in each state, and the stakeholders involved in these processes.

Governance Structure: Articulation Oversight Committees and Agencies

Four states established at least one statewide committee to oversee articulation; the remaining two states oversaw articulation through a state higher education agency or system office.

To facilitate credit transfer and coordinate articulation across IHEs, all six states had at least an administrative office or an oversight committee that oversaw articulation efforts. These governing bodies were tasked with overseeing the development of the articulation policy and implementing the policy at the IHE level for various degree programs, including ECE. The structure of these committees varied by state contexts and needs.

In Florida, Indiana, New Mexico, and Pennsylvania, articulation was governed by a statewide committee (see Exhibit 10). These committees were convened by state education agencies and often received resources from the agency to support articulation policy development and the ongoing monitoring of implementation. The purpose of these committees was to allow stakeholders across the state to provide input on statewide articulation, based on their experiences and expertise in higher education. California and Massachusetts did not have statewide committees overseeing articulation policies in 2017–18; rather, they managed articulation and transfer directly through state higher education agencies and system offices. In California, this included the Chancellor’s Offices and Academic Senates of the California State University, University of California, and California community colleges systems. In Massachusetts, it was the Board of Higher Education.

Exhibit 10. Primary type of governing body for statewide articulation efforts, by state

	Number of states	California	Florida	Indiana	Massachusetts	New Mexico	Pennsylvania
Statewide articulation committee	4	—	Yes	Yes	—	Yes	Yes
State higher education agency or system office	2	Yes	—	—	Yes	—	—

Exhibit reads: Four of the six states used a statewide articulation committee to oversee articulation efforts.

Note: “—” indicates that the state did not have that type of governing body.

Sources: State policy documents and higher education websites; interviews with state-level stakeholders, 2017–18.

In states with oversight committees, a state higher education agency often convened the committee, working with and providing support to the committee. This support came in various forms, such as funding or staff support. For example, in Florida, faculty and staff who participated in events or meetings of the Articulation Coordinating Committee were reimbursed for their attendance. In addition, this

committee received support from staff in the Florida Department of Education Office of Articulation. Respondents in Massachusetts, Indiana, and New Mexico also highlighted the importance of staff support for successful statewide articulation committees.

The specific roles and responsibilities, as well as the level of involvement and oversight of these governing bodies, differed within each state (see Exhibit 11).

Exhibit 11. Roles and responsibilities of states’ primary articulation governing bodies, by state

State	Primary oversight body	Roles and responsibilities
California	Chancellor’s Offices and Academic Senates of the three higher education systems	Oversee transfer associate’s degrees, approve general education coursework, and establish guidelines for course equivalencies.
Florida	Articulation Coordinating Committee	Approve common prerequisites, approve course equivalencies, oversee implementation of statewide agreements, and recommend articulation policy changes.
Indiana	State Transfer and Articulation Committee	Develop statewide articulation agreements for specific undergraduate courses, develop statewide transfer associate’s degrees for the associate of arts and associate of science degrees, and publicize these policies.
Massachusetts	Board of Higher Education	Set the mission for and coordinate the state system of public higher education.
New Mexico	Articulation and Transfer Committee	Develop and oversee statewide common course numbering and the articulation system.
Pennsylvania	Transfer and Articulation Oversight Committee	Develop course equivalencies, transfer associate’s degrees, and requirements for education degrees; identify needed changes to existing degrees to ensure accreditation.

Governance Process and Roles

The governing bodies in each state, including articulation oversight committees and state higher education agencies, performed several functions, including developing and updating articulation policy, facilitating adherence to the policy, and reviewing and evaluating articulation policy.

Policy Development and Updates

In all six states, legislative mandates drove statewide articulation efforts. Generally, these mandates required IHEs to create student transfer pathways from two-year to four-year IHEs with minimal or no loss of credit. To do so, these mandates often required IHEs to align curriculum, competencies, and/or standards for general education and degree programs. The legislatures, however, left this coordination and the development of statewide articulation policies and procedures to the articulation governing bodies in each state.

In Florida, Indiana, New Mexico, and Pennsylvania, oversight committees played a key role in developing the statewide articulation policy. The representatives on these committees met periodically to review and update the agreements as needed, often based on changes in state policy or legislation, teacher licensure/certification, and/or the IHE curriculum. If the state used a statewide general education core

and/or common course numbering system, then the governing bodies were charged with coordinating and maintaining those policies as well.

To facilitate a statewide articulation policy, curriculum must be aligned across two-year and four-year IHEs. For ECE, this includes alignment of ECE curricula and associated competencies. Five states convened faculty working groups to align curriculum and associated competencies and learning standards across public institutions to facilitate the consistency necessary for block transfer of an associate’s degree into a bachelor’s degree program. See the “Developing Policies for Academic Alignment” section for more information on how IHEs aligned curriculum.

Facilitating Adherence to Articulation Policy

An important component of statewide articulation is ensuring that all IHEs included in the agreement adhere to the statewide policy through a combination of monitoring implementation and enforcement. In addition, some states offered performance-based funding to encourage IHEs to follow the state’s articulation policy. These strategies could be used singularly or in tandem to promote the articulation policy at all public IHEs in the state.

In three states, a statewide oversight committee had an active role in monitoring and enforcing the statewide articulation agreement.

In Florida, Indiana, and New Mexico, the oversight committee had an active, ongoing role in monitoring and enforcing the statewide policy after the policy was developed (see Exhibit 12). The Florida Articulation Manual explicitly stated that the Articulation Coordinating Committee was responsible for “recommending articulation policy changes to the Higher Education Coordinating Council, the State Board of Education, and the Board of Governors” (Florida Department of Education 2014, 2). In Indiana, the Commission for Higher Education was responsible for overseeing the work of the Statewide Transfer and Articulation Committee and submitting an annual progress report to the legislature on the status of course and program transfer (Indiana Commission for Higher Education 2004). The Articulation and Transfer Committee in New Mexico met several times annually to monitor and guide implementation of the state’s articulation policies (New Mexico Higher Education Department n.d.). Although Pennsylvania had an existing oversight committee chaired by the state secretary of education, the committee has not met since 2015 (Pennsylvania Transfer and Articulation Center 2018). In 2017–18, all inquiries about transfer and articulation were directed to the Pennsylvania Department of Education, Office of Postsecondary and Higher Education (Pennsylvania Transfer and Articulation Center 2018).

Exhibit 12. Approaches to facilitating adherence to statewide articulation policies, by state

	Number of states	California	Florida	Indiana	Massachusetts	New Mexico	Pennsylvania
Monitoring and enforcement through governing body	3	—	Yes	Yes	—	Yes	—
Encouragement through performance-based funding	4	—	Yes	Yes	Yes	Yes	—

Exhibit reads: Three of the six states used a centralized governing body to monitor and enforce statewide articulation policies.

Note: “—” indicates that the state did not have the practice in place.

Sources: State policy documents and higher education websites; interviews with state-level stakeholders, 2017–18.

Oversight committees often offered an appeals process when articulation from a two-year to a four-year IHE did not go smoothly. Students could make their case why credits should have transferred, and the oversight body would determine whether the IHE should accept such credits. Although Pennsylvania, California, Florida, and Massachusetts offered an appeals process at the state level, many respondents noted that the appeal process was used infrequently, if ever.

In California, Massachusetts, and Pennsylvania, higher education system offices and individual IHEs had more latitude to determine how articulation would be implemented. In these states, IHEs were granted more flexibility in determining the curriculum, degrees offered, and articulation procedures that best met the needs of their communities and students if they followed the overarching statewide policy. With this flexibility came fewer and less centralized monitoring and enforcement activities because these IHEs were less actively managed at the state level.

For example, in California, the Chancellor's Offices of all three higher education systems (the California community college, California State University, and University of California systems) had responsibility for making and implementing articulation policy, in conjunction with the systems' Academic Senates. As a result, the three systems negotiated with each other to establish the details of transfer policy. Another example of less centralized oversight of articulation existed in Massachusetts. In this state, the Department of Higher Education, which provides staff support to the Board of Higher Education, played a coordinating role in the ongoing management of articulation. The Department of Higher Education provided guidance to IHEs, dictated whether programs had degree-granting authority, and controlled whether an institution's information was included on the MassTransfer website. However, the IHEs themselves were responsible for reviewing and amending policies, managing student appeals processes, and designating the central contact at each IHE for implementing transfer policies.

In four states, performance-based funding encouraged IHEs to use the state's articulation policies.

Florida, Indiana, Massachusetts, and New Mexico incentivized IHEs to adopt articulation agreements through performance-based funding (see Exhibit 12). Each state implemented this model differently. Florida, Indiana, and New Mexico's performance-based funding models for distributing state appropriation dollars to IHEs include student completions. Because IHEs get "credit" when students complete a degree, it is in the institutions' interests to help students complete a degree quickly and efficiently. These policies encourage IHEs to fully implement articulation policies. An IHE registrar in New Mexico explained that performance-based funding seemed to have positively impacted articulation:

The side effect of that process, in addition to putting the motivator there to getting students over the finish line, was that we did see a lot more openness and accessibility in conversations between schools. In terms of, okay, how do we get these credits moving back and forth so that we can get these awards happening quicker?

Massachusetts' legislature in 2012 included funding in the Vision Project Performance Incentive Fund, which was dedicated to promoting adoption of common course numbering across all public IHEs. This led to an expansion of the common course numbering system, which began in the state's community college system, to include the state universities and the University of Massachusetts.

Three states shared other strategies to enforce the agreements. For example, Massachusetts would not publish an IHE's information on the MassTransfer website if the IHE did not follow the statewide articulation policy. This ensured that the Department of Higher Education was not misleading students

about their ability to transfer without credit loss. As such, a consequence of not using the articulation policy could be lower enrollment numbers because of fewer transfer students.

Other strategies shared by respondents to enforce articulation policies included not funding courses that did not comply with the common course numbering system and providing negative marks on performance metrics for IHEs that did not accept enough transfer students.

Reviewing and Evaluating Articulation Policy

In addition, governing bodies also were tasked with reviewing and evaluating the state articulation policy to ensure that it was working smoothly. Respondents in four states emphasized the need for periodic reviews of existing articulation and alignment efforts to ensure they were kept up to date because the content or structure of ECE courses and programs can shift across time. However, many stakeholders noted that although faculty were engaged at the outset in developing the articulation agreements, states varied in how they continued to engage faculty in reviewing and monitoring the agreements. Respondents in all six states said that data were collected on postsecondary student progress, but the state could not disaggregate these data sufficiently to evaluate their ECE articulation efforts. Examples of barriers to collecting data included a lack of capacity to analyze IHE- and program-specific trends or state privacy laws against collecting student data. In Pennsylvania, state law prohibits the collection of unit- or student-level data unless required by a federal or state mandate, and the end of a state mandate to collect semester-by-semester data for a two-year IHE annual report meant that the transfer law was the only vehicle for providing a data collection mandate.

Although all six states collected data on variables such as enrollment, degree completions, and graduation rates, no state analyzed ECE student progress from two-year to four-year IHEs with enough specificity to evaluate the articulation policy. According to respondents in these states, the inability to evaluate articulation efforts through data presented a challenge in effectively and efficiently updating the policies.

Stakeholder Involvement

Stakeholders involved in the development or oversight of statewide articulation policies included senior academic administrators or faculty from IHEs (six states), other IHE stakeholders such as registrars or students (six states), and ECE workforce development representatives (four states).

Faculty and Senior Academic Administrators

Every state recognized the importance of guidance from faculty and other academic stakeholders in creating a statewide articulation policy. In all six states, senior academic administrators, such as academic deans or ECE department chairs, served as representatives to the statewide governing body (see Exhibit 13). The manner in which faculty were also engaged, however, varied across states. For example, in Florida, faculty did not sit on the Articulation Coordinating Committee but participated in faculty working groups and provided input to the larger committee, which made the final decisions. In New Mexico, faculty sat directly on subcommittees of the Statewide Articulation and Transfer Committee. Faculty were mainly engaged in aligning academic curriculum and competencies. See the “Developing Policies for Academic Alignment” section for more information.

States varied with regard to how they continued to engage faculty in reviewing and monitoring statewide articulation agreements. In at least two states, faculty were engaged at the outset in the

development of the articulation agreements but were not consistently engaged across institutions. In one state, for example, respondents indicated that their state lacked an ongoing process to continue to engage IHE faculty and staff.

Exhibit 13. Types of stakeholders engaged in developing or overseeing statewide articulation efforts, by state

	Number of states	California	Florida	Indiana	Massachusetts	New Mexico	Pennsylvania
IHE faculty and senior academic administrator	6	Yes	Yes	Yes	Yes	Yes	Yes
Other IHE-level stakeholders	6	Yes	Yes	Yes	Yes	Yes	Yes
ECE workforce development representative	4	—	Yes	Yes	Yes	Yes	—

Exhibit reads: All six states engaged IHE faculty members and senior academic administrators in developing or overseeing statewide articulation efforts.

Note: “—” indicates that state respondents did not report that type of stakeholder was engaged in overseeing state articulation efforts.
Source: Interviews and focus groups with state-level stakeholders, IHE faculty, and IHE staff, 2017–18.

Other IHE Stakeholders

All six states engaged representatives other than faculty, such as students and staff, including advising, registrar, and admissions staff, from two-year and four-year IHEs in the governing process (see Exhibit 13). Although faculty are content area experts, additional IHE stakeholders have important understandings of transfer processes and institutional policies that may be useful in creating and maintaining successful statewide articulation agreements. Students were engaged in Florida, Indiana, and New Mexico. In Florida and Indiana, one student representative served on the statewide articulation committee. In New Mexico, students were not members of the committee, but they could provide input to faculty who served on the committee to share their opinions and ideas. However, one respondent in New Mexico noted that no systematic process was in place for engaging students.

In addition, California, Massachusetts, and New Mexico included IHE staff in the process. Massachusetts and New Mexico made concerted efforts to consult and include registrars when creating the articulation agreements to ensure that credits would transfer seamlessly, whereas California convened articulation officers across the state to provide input on the articulation agreements. However, in Pennsylvania, IHE staff respondents noted that no formal process was used to solicit their input.

ECE Workforce Development Representatives

ECE workforce development representatives were involved in the development or ongoing monitoring of articulation policies in Florida, Indiana, Massachusetts, and New Mexico (see Exhibit 13). For example, the Children’s Forum in Florida drafted and administered a survey to Florida state colleges about their articulation policies on associate of science degrees, with the cooperation of the Office of Articulation. The Children’s Forum is a statewide, not-for-profit membership organization that provides professional development and support for the ECE workforce, including the T.E.A.C.H. scholarship. The results of the survey informed conversations between the Office of Articulation, the Articulation Coordinating Committee, the Children’s Forum, and the responding IHEs about IHE transfer and articulation practices that caused students who transferred within the state college system to lose credit in the transfer

process. This led to discussions about the possibility of using block transfer rather course-by-course evaluation of transfer credit for students who transfer within the state college system.

In Indiana, a workforce development representative (the co-chair of the Early Childhood Higher Education Forum) was included on the early working group that discussed the development of the Transfer Single Articulation Pathway. This is a board committee of the Indiana Association for the Education of Young Children, which administers T.E.A.C.H. scholarships in the state. The forum also played an instrumental role in ensuring that courses that count toward a CDA credential would be included in the Transfer Single Articulation Pathway. In advocating for the CDA credential to be part of the pathway, ECE workforce development representatives could advocate for current students as well as current ECE professionals looking to acquire additional credentials to ensure that the articulation policy best fit their needs and ensured minimal loss of credit.

In New Mexico, the director of the New Mexico Association for the Education of Young Children, which administers New Mexico’s T.E.A.C.H. scholarship program, provided input on articulation decisions through participation in the state’s Early Childhood Higher Education Task Force. This task force was responsible for developing and implementing the statewide ECE transfer associate’s degree and a universal curriculum for ECE coursework throughout the state.

Developing Policies for Academic Alignment

Faculty and/or IHE stakeholders provided input on the academic alignment of ECE degree programs in all six states through appointments to state-created working groups (six states) or working groups that came together without a mandate (three states).

To achieve the goals of articulation and transfer, academic alignment is meant to ensure that equivalent coursework or degrees at different institutions reflect agreed-on learning standards, content, or core competencies. As discussed previously, policies mandating academic alignment involve state oversight and formal input from institutional partners. In the six states, the development or implementation of academic alignment included specific initiatives and working groups to align ECE programs. Some efforts occurred outside, or concurrently with, the implementation of other statewide articulation policy efforts.

In all six states, faculty were involved in academic alignment efforts through appointments to state-created working groups (see Exhibit 14). In each state, oversight committees created these faculty working groups to advise them on the details and necessary competencies for providing high-quality and consistent ECE degree programs at all institutions.

Exhibit 14. Methods for acquiring faculty stakeholder input, by state

	Number of states	California	Florida	Indiana	Massachusetts	New Mexico	Pennsylvania
Faculty appointments to state-creating working groups	6	Yes	Yes	Yes	Yes	Yes	Yes
Faculty working groups that came together without a mandate	3	Yes	—	—	—	Yes	Yes

Exhibit reads: In all six states, faculty appointed to state-created workgroups worked on state academic alignment efforts.

Note: “—” indicates that state respondents did not report that practice.

Source: Interviews with state-level stakeholders, 2017–18.

In California, New Mexico, and Pennsylvania, ECE faculty came together without statewide mandates for articulation, forming working groups on their own. These grassroots efforts in statewide articulation were motivated by faculty at two-year and four-year IHEs wanting to create seamless pathways for ECE professionals to receive associate's and bachelor's degrees. In these states, grassroots efforts began prior to the mandates from the state to align curriculum and standards.

New Mexico's Early Childhood Higher Education Task Force emerged from informal meetings of ECE faculty during the 1990s when two-year and four-year IHEs across the state were redesigning their ECE programs in response to the creation of a new ECE teaching license. The task force became more formalized in the early 2000s when it developed a universal ECE curriculum that all IHEs in the state then adopted. "We looked at all the coursework leading to the degree at all institutions. We developed one set of coursework from freshman level all the way through to senior level that was implemented at all two-year and four-year institutions," a task force participant explained. This universal ECE curriculum, which included common course titles, course descriptions, and course competencies, became the basis for the statewide articulation agreement that made these courses transferable across all IHEs in the state. As of 2017–18, the task force continued to meet regularly, bringing together ECE faculty from all public IHEs and other key ECE stakeholders to refine and monitor implementation of the statewide ECE curriculum and transfer associate's degree.

In California, the Curriculum Alignment Project was a similar grassroots effort. This project created an aligned set of foundational ECE courses to create more consistency among two-year IHEs. Participation in the Curriculum Alignment Project was voluntary, and the transfer of aligned courses began as a "handshake agreement" among participating IHEs. Without a mandate behind these grassroots efforts, it was not possible to ensure the implementation of aligned curriculum because IHE leaders and departments were fully able to discontinue their participation in these agreements at any time, without consequence.

Although the statewide curriculum and consistent competencies created by these nonmandated faculty working groups were not enforceable at the state level, respondents noted that these grassroots efforts laid the foundation for statewide articulation efforts. In California, for example, the state selected the set of courses created by the Curriculum Alignment Project to serve as the model curriculum for all ECE transfer associate's degrees. In Pennsylvania, ECE faculty from a variety of institutions came together through the Western Pennsylvania ECE articulation group to create articulation pathways for their students. The work of ECE faculty in the state was noticed by state-level education agents and furthered by the Transfer and Articulation Oversight Committee. A state-level respondent described how the grassroots efforts among ECE faculty had already accomplished a lot of the work before the state became involved, but the state was able to help faculty overcome barriers to completion. A state respondent explained,

[ECE faculty] had started to do some of this on their own but kept getting stuck. They were doing it regionally, so when the law passed . . . I was able to go to them and say, "Let us help take you the rest of the way," and we helped to unstick them.

IV. IHE-Level Implementation of Articulation Policies

State-level articulation policies are intended to provide a framework for facilitating more seamless transfers of credit between two-year and four-year IHEs, but their ultimate impact may hinge on individual IHEs' implementation of that framework. For example, IHEs may be responsible for designing their degree pathways and coursework in a manner that reflects state academic alignment requirements. In addition, IHEs must ensure that their student transfer procedures reflect any mandatory rules or guarantees outlined in statewide articulation agreements. Furthermore, IHEs may have some degree of discretion in determining how they will accept certain types of transfer credit and/or the authority to offer transfer benefits beyond those required by the state.

This chapter examines IHE-level activities to support the transfer and articulation of coursework toward a bachelor's degree in ECE. It begins with a discussion of policies that IHEs have established to implement or expand on state-level articulation frameworks. It then discusses key roles that IHE faculty and staff play to carry out state- and IHE-level articulation policies.

IHE-Level Transfer and Articulation Policies

Most IHEs (17 of 20) supplemented state-level articulation policies with intrastate and interstate regional articulation agreements formed between IHEs.

Although IHEs in the six states were required to honor the provisions of state-level articulation policies, they also had the authority to develop ancillary agreements with individual IHEs or groups of IHEs within or outside the state. Interview participants from nine of the 10 two-year IHEs and eight of the 10 four-year IHEs indicated that their institution used regional agreements to supplement state-level articulation policies (see Exhibit 15). These agreements between four-year IHEs and their two-year feeder institutions served to clarify how courses from the two-year IHE would transfer, offer students additional transfer benefits, or extend transfer benefits to students not covered under state-level policies. In California, for example, IHEs have developed articulation agreements that identify whether and how specific courses from the two-year IHEs can be used to satisfy major or degree requirements at the four-year IHEs. For students pursuing a transfer associate's degree through the state's associate's degree for transfer program, these regional agreements are meant to offer additional clarity as to how the transfer credits students have earned will contribute to their bachelor's degree. These agreements also provide a means for students not participating in the associate's degree for transfer program to receive transfer credit on a course-by-course basis.

Exhibit 15. Number of two-year and four-year IHEs that reported various articulation policies and practices, by institution type

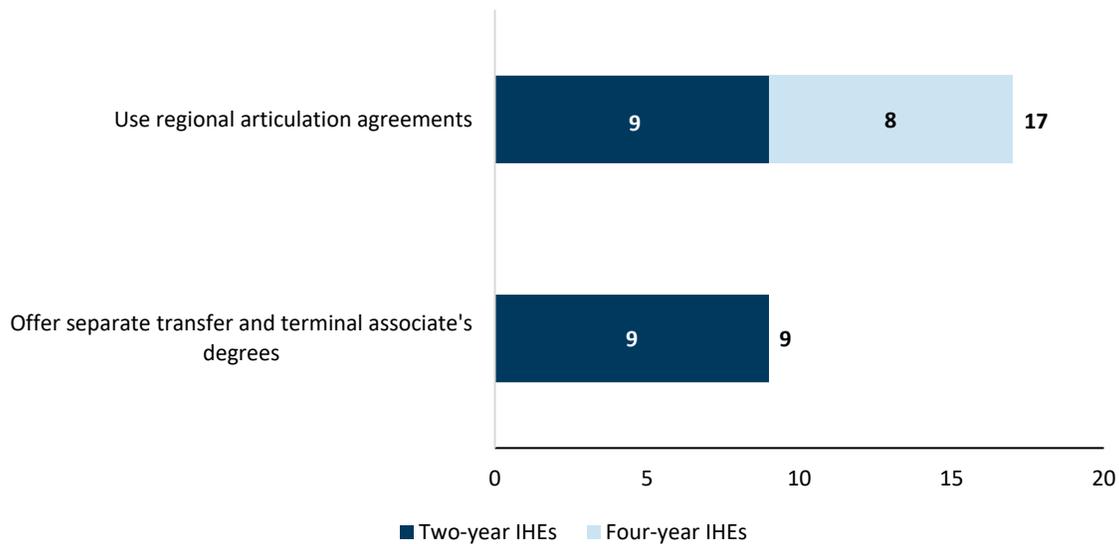


Exhibit reads: Seventeen IHEs, including nine two-year IHEs and eight four-year IHEs, supplemented state-level articulation policies with regional agreements.

Source: Interviews and focus groups with state-level stakeholders, IHE faculty, and IHE staff, 2017–18 ($n = 10$ two-year IHEs and 10 four-year IHEs).

Other types of regional articulation agreements were created to offer additional benefits for students seeking to transfer. For instance, a 2+2 agreement in place between Tallahassee Community College and nearby Florida State University established the TCC2FSU program. Students who complete an associate of arts program at Tallahassee will be guaranteed that at least 60 of their credits will transfer directly into their chosen major at Florida State. The TCC2FSU program also grants students additional benefits, such as individualized transfer counseling, support for applying to limited access majors at Florida State that are oversubscribed and impose additional admissions requirements, access to transfer-specific scholarship opportunities, and the ability to purchase reduced-priced passes to campus recreation facilities at the university.

Regional articulation agreements also served as a vehicle for supporting articulation with IHEs that fall outside state-level articulation policies, such as private or out-of-state institutions. Faculty and staff from a two-year IHE in Pennsylvania described having agreements with several private IHEs that bestow benefits similar to those outlined in the state’s transfer policies for public IHEs. Students who complete an ECE associate’s degree and meet grade point average requirements are guaranteed acceptance into the private institution with junior status. In many cases, students transferring under those agreements received transfer scholarship money as well.

A state administrator from Pennsylvania mentioned “innovative partnerships” that have emerged among IHEs to address gaps in state-level policy and guidance, noting how these collaborations have been responsive to student and workforce needs within their local community. However, stakeholders from other states cautioned against relying on a patchwork of individual agreements between IHEs because such agreements can be challenging to navigate and maintain. A state administrator from

Massachusetts underscored why the state has pushed for system-level approaches to create more consistency for students:

[Individual agreements] can just be very confusing for community college students to try to navigate, like, “So, if I go to this four-year institution, I have to take this course, but if I go to this one, I have to take the other, and I changed my mind, and now my courses don’t transfer.”

Furthermore, keeping individual agreements with many different IHEs up-to-date across time can be burdensome for faculty and staff. An articulation specialist from a California IHE referred to the process of reviewing and revising agreements as the “black hole of articulation.”

Faculty and staff from three of the 20 IHEs indicated that four-year IHEs often accepted credits from ECE transfer associate’s degrees to fulfill general education requirements and electives, not to fulfill ECE major requirements.

Although states’ transfer associate’s degree policies require IHEs to accept a certain amount of credits for students transferring in with those degrees, policies in five of the six states give four-year IHEs discretion in determining how to apply those credits toward their bachelor’s degree requirements. Faculty and staff from three IHEs in those states indicated that four-year IHEs generally accepted few if any of the ECE courses from students’ associate’s degrees to satisfy requirements for their ECE major. Instead, they tended to count ECE credits toward electives or general education requirements, or in cases where a student transferred in with an excess of two-year IHE credits, they might opt not to award any credit for the student’s ECE courses.

For example, a faculty member from a two-year IHE in California said that their partner four-year IHEs accepted only nine of the 30 ECE units within their associate’s degree for transfer as credits toward the ECE major. A representative from a four-year IHE in Florida noted that ECE courses “only count as general education requirements or electives because they are at the 1000-, 2000- level. To get the BA, upper division courses have to be in the 3000-, 4000- level.” Because of the emphasis four-year IHEs place on upper division ECE coursework, students may be required to take similar but more advanced ECE courses once they reach their four-year program. A faculty member from a two-year IHE in California noted that students would sometimes become upset at having to take multiple courses on the same topic, but she noted that four-year IHEs’ courses had a different emphasis. As an example, she explained:

In our language and literacy [course], we’re going to talk about what do you do in circle time [teacher-led group instruction] to teach phonological awareness, where at the four-year level, they’re doing a lot heavier look at research, and they might be coding children’s language and stuff like that.

Because lower division ECE credits from a two-year IHE were unlikely to count toward an ECE major at a four-year IHE in their state, faculty members from two of the 20 IHEs indicated that for students who know from the outset that they plan to transfer to a four-year program, their most expedient pathway would be to focus on completing general education requirements at the two-year IHE rather than pursuing an ECE degree.

Most two-year IHEs (nine of 10) offered separate ECE degree pathways for students who planned to transfer and students who planned to end their education with the associate's degree.

At these nine IHEs, ECE students could choose from two or more degree options depending on their educational or professional goals (see Exhibit 15). Respondents described the associate of applied science degree as a terminal degree designed for students who plan to go directly into ECE positions that do not require a bachelor's degree or teacher licensure. The associate of applied science degree requires more professional and technical coursework specific to the ECE field and fewer general education courses than the transfer associate's degree, given its focus on preparing students for more immediate employment. The transfer associate's degree requires students to take more general education courses and wait to take more of their ECE major-specific coursework after they have transferred to a four-year IHE.

Some two-year IHE faculty members stated that the associate of applied science degree has value because the pathway to a bachelor's degree might be out of reach or undesirable for some students caused by the cost of tuition and fees, students' own professional goals, or their ability and interest in taking the requisite general education coursework for a licensure track degree. However, these faculty members also noted that students who earned an associate of applied science and later decided to pursue a four-year degree could encounter misalignment and loss of credits after enrolling in a bachelor's degree program. Not all professional and technical courses from the two-year IHE are academically aligned to course offerings or part of the ECE major requirements at the four-year IHE.

In both Florida and Indiana, state and IHE administrators described how ECE students who pursue the more employment-oriented associate of science degree — rather than the associate of arts degree that is part of the state's 2+2 agreement — miss out on the transfer benefits afforded by the associate of arts degree should they later decide to earn a bachelor's degree. A state administrator indicated that the transferable associate of arts degree works well for students who know from the outset that their goal is a four-year degree, because it allows them to complete general education requirements for that degree at a lower tuition rate at a two-year IHE. However, the administrator stated that ECE students were not typically in that situation. He explained,

Most of them don't know in high school that that's the degree they want to pursue, and . . . they're like, "Well, I know that I can get a job working with an early childhood center nearby, so let me find out what I need to get that job." And they end up taking classes that are very specific to the job.

Unlike schools in the other five states, two-year IHEs in New Mexico typically offer a single ECE associate's degree program for both transfer and nontransfer students. However, designing a unified pathway that meets the needs of both types of students can be challenging. A faculty member from one New Mexico IHE explained, "That's the one push-and-pull that's a struggle here in New Mexico: meeting the workforce needs at the associate degree level but also meeting the upper division requirements at the four-year schools."

Implementation Roles and Supports

In nearly all the IHEs (19 of 20), ECE faculty played several key roles in implementing articulation policies, such as evaluating course transferability (15 IHEs) and designing courses that reflect agreed-on competencies (12 IHEs).

Stakeholders from 15 of the 20 IHEs highlighted how ECE faculty members — with expertise in both the content and structure of their school’s ECE coursework — were largely responsible for determining whether and how courses from other schools would transfer (see Exhibit 16). These determinations were necessary for courses not covered under statewide common course numbering systems. To evaluate a course’s transferability, faculty members reviewed syllabi and, in some cases, examples of student work from the course in question to assess whether it is sufficiently equivalent to one their own course offerings. In some cases, IHE faculty reviewed the qualification of the faculty person who taught the class at the sending institution. Faculty conducted these equivalency reviews as part of their process for developing articulation agreements with other IHEs as well as in response to requests from transfer students with coursework that was not covered under existing agreements.

Exhibit 16. Number of two-year and four-year IHEs that reported various types of faculty and staff roles in implementing articulation policies, by institution type

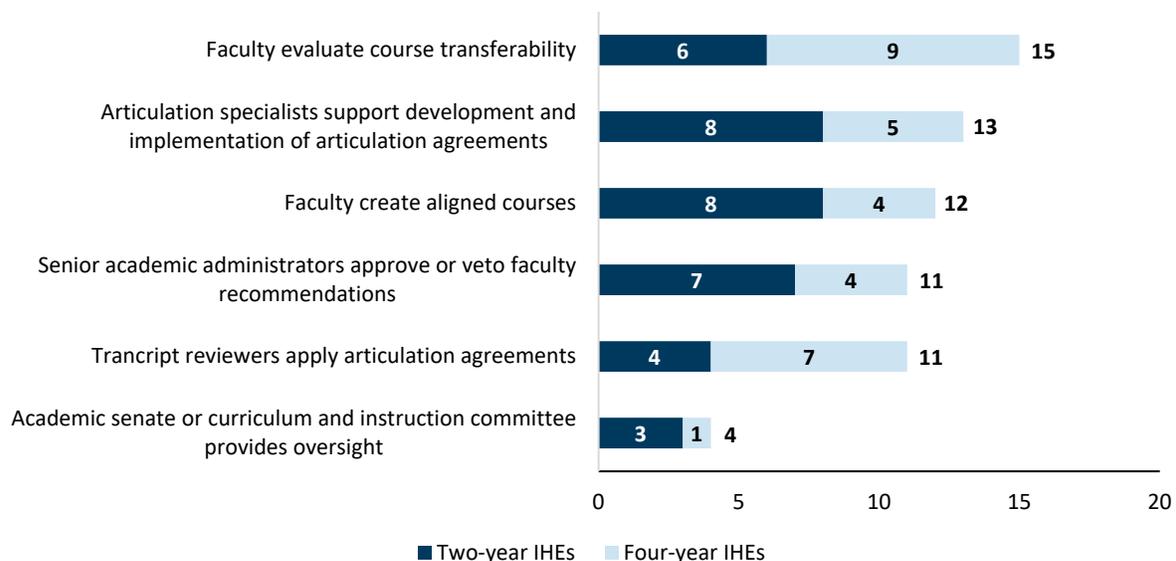


Exhibit reads: Faculty and staff from 15 IHEs, including six two-year IHEs and nine four-year IHEs, reported that faculty members were responsible for evaluating course transferability.

Source: Interviews and focus groups with IHE faculty and staff, 2017–18 (*n* = 10 two-year IHEs and 10 four-year IHEs).

Faculty and staff mentioned a variety of factors that influenced faculty decisions about course transferability, such as a course’s stated objectives, textbooks, and credit units. A staff member from a four-year IHE in California indicated that guidelines from their Academic Senate call for faculty to consider whether a course is “appropriate for a university degree in terms of its purpose, scope, and depth” when deciding whether to accept it. A faculty member from a four-year IHE in Florida recalled a situation in which her program refused to accept a course from a local two-year IHE because it

combined content that they covered in two courses into a single course. As a result, her program deemed that the two-year IHE's combined course did not adequately cover the objectives for either of their courses, and students were required to take both courses once they reached the four-year IHE.

Faculty and staff from 12 of the 20 IHEs highlighted how ECE faculty played a lead role in designing courses that reflect the skills and competencies outlined in statewide or locally agreed-on curricular frameworks (see Exhibit 16). Faculty members often emphasized how ongoing collaboration between two-year and four-year IHEs helped ensure appropriate academic alignment between courses they treated as equivalent. "I think if you don't have those conversations, that's when this could fall apart," a faculty member from a four-year IHE in Pennsylvania stated. "The face-to-face meetings and the follow-ups through email and phone calls are really important."

ECE faculty also highlighted collaborative efforts between institutions to promote vertical alignment between lower and upper division coursework. For example, a faculty member from a New Mexico IHE described regular meetings between two-year and four-year IHE faculty to ensure that upper division ECE courses built on and were not duplicative of the material covered in the two-year IHE's lower division courses. Similarly, a faculty member from a two-year IHE in Pennsylvania described designing lower division ECE coursework based on the coursework requirements students were likely to face at a four-year IHE. For example, knowing that four-year IHEs often required ECE students to take a course on families during their senior year "because you need to know about kids and what they're doing before you're discussing how do you deal with families," her two-year IHE's ECE program decided not to require a stand-alone course on families but rather to embed that content into other lower division courses.

Faculty and staff from 14 of the 20 IHEs noted how oversight and approval for ECE program decisions that affect articulation ultimately rested with senior leaders, such as deans, provosts, or vice presidents (11 IHEs), or with college-level governance bodies, such as an academic senate or curriculum and instruction committee (four IHEs; see Exhibit 16). A faculty member from a four-year IHE in Florida indicated that gaining input from senior leadership provided faculty a broader perspective on how their programmatic decisions could affect transfer and articulation. She related how the ECE department had approved an increase to their program's grade point average entry requirement from 2.75 to 3.0, but an associate provost vetoed the decision because it would be overly restrictive for students transferring in from two-year IHEs, who had few other options for pursuing a four-year ECE degree.

Thirteen of the 20 IHEs reported having full- or part-time articulation specialists who helped manage the implementation of state articulation policies and facilitated the development of regional agreements.

To support faculty and staff in implementing articulation policies, more than half of the IHEs (13 of 20) employed articulation specialists responsible for coordinating their school's efforts to institute articulation initiatives such as transfer associate's degree pathways and common course numbering (see Exhibit 16). The three California IHE systems, for instance, had an articulation officer whose responsibilities included keeping faculty and staff informed about changes in state-level policies as well as shepherding the process for setting up associate's degrees for transfer. A state-level administrator explained, "Typically, it's the articulation officers on those campuses within the student services divisions who are really spearheading and working with the faculty and every department that's working for an ADT."

In addition to supporting the implementation of state-level articulation policies, IHEs articulation specialists facilitated regional articulation agreements and served as liaisons with partner IHEs on articulation issues. On behalf of faculty and students, articulation officers managed course articulation

requests to and from other IHEs, negotiated provisions of regional agreements, and offered guidance and oversight on the transfer and articulation process. A faculty member from one California IHE lauded her school's articulation officer as a "go-to" person for her questions and concerns related to articulation. She explained,

It's a voice; it's an individual to have a conversation with about what's going on for students or for programs from one institution to another. So, there's one place to go for expert knowledge about that process.

Articulation officers also serve as resources for their counterparts in other IHEs. The California Intersegmental Articulation Council provides a forum for articulation officers from across the state to meet and discuss issues that affect their work. An articulation officer from one of the California two-year IHEs explained that the council has various committees and listservs that can answer specific questions related to the state's common course numbering system, transfer associate's degrees, or transfer in general. "Because we are such a tight-knit community, the articulation community across the state, every time there are questions or just lack of information, we always depend on each other statewide to answer those questions," the officer commented.

Given the centrality of articulation specialists' role in facilitating articulation efforts, faculty and staff from two IHEs indicated that limitations in their articulation specialist's capacity to do the work — perhaps caused by an unmanageable workload or a lack of buy-in for the state's approach to articulation — can hamper a school's development and implementation of articulation policies.

In addition to articulation specialists, admissions or registrar's office staff who review incoming transfer students' transcripts and assign credit contributed to the development of informal course transfer agreements. As faculty and staff from 11 of the 20 IHEs highlighted, these individuals were ultimately responsible for applying the articulation rules outlined in state and local agreements, often with the aid of software applications or databases programmed with predetermined course equivalencies (see Exhibit 16). These staff members also might flag courses not covered by existing articulation agreements and refer them to appropriate faculty members to decide their transferability. Interview participants from four of the 10 four-year IHEs indicated that once a faculty member approved a course for transfer through this process, transcript reviewers could update their transfer equivalency software or databases to apply that decision for future students transferring in with the same course. A staff member from another four-year IHE mentioned using this practice in the past but described moving away from it because it led to inconsistencies with formal articulation agreements that had been negotiated directly with individual IHEs.

V. Transfer Supports for Students

This chapter describes the supports that community colleges and four-year IHEs provide to transfer students. These supports include student advising by faculty and staff on a variety of topics, and referrals to degree planning tools and online information about transfer. Other services aimed at transfer students include outreach programs in which four-year IHEs send representatives to two-year campuses to advise and recruit prospective transfer students, transfer centers that cater to the needs of transfer students, and orientations designed specifically for transfer students. This chapter also highlights some of the challenges students have encountered in their efforts to access transfer supports.

Advising

Faculty and staff advised students on topics including career paths (16 IHEs) and financial aid (15 IHEs), referred students to degree planning tools (14 IHEs), and referred students to transfer advisors (three IHEs).

Advising on Career Paths

Respondents from 16 institutions, including nine two-year IHEs and seven four-year IHEs, described advising students on the multiple career paths available in the ECE field and the differing associate's degrees associated with these paths (see Exhibit 17). In five of the six states in our study, students at two-year IHEs must choose between associate's degrees that are optimized for transfer or associate's degrees that are designed for direct entry into the workforce. Likewise, at some of the four-year IHEs in the study, students must choose between an academic program that leads to licensure to work in the public schools with preschool or early elementary grade students, or a separate degree track that prepares students to work in early childhood settings. Advisors reported giving students information about the process for earning an ECE teacher permit, credential, or license. A faculty member at one two-year IHE explained that advisors would ask students what their ultimate degree goal was and then share with them the specific pathway created by their degree program, which outlines required classes in the order they need to be taken.

Exhibit 17. Number of two-year and four-year IHEs that reported providing various types of advising supports to students, by institution type

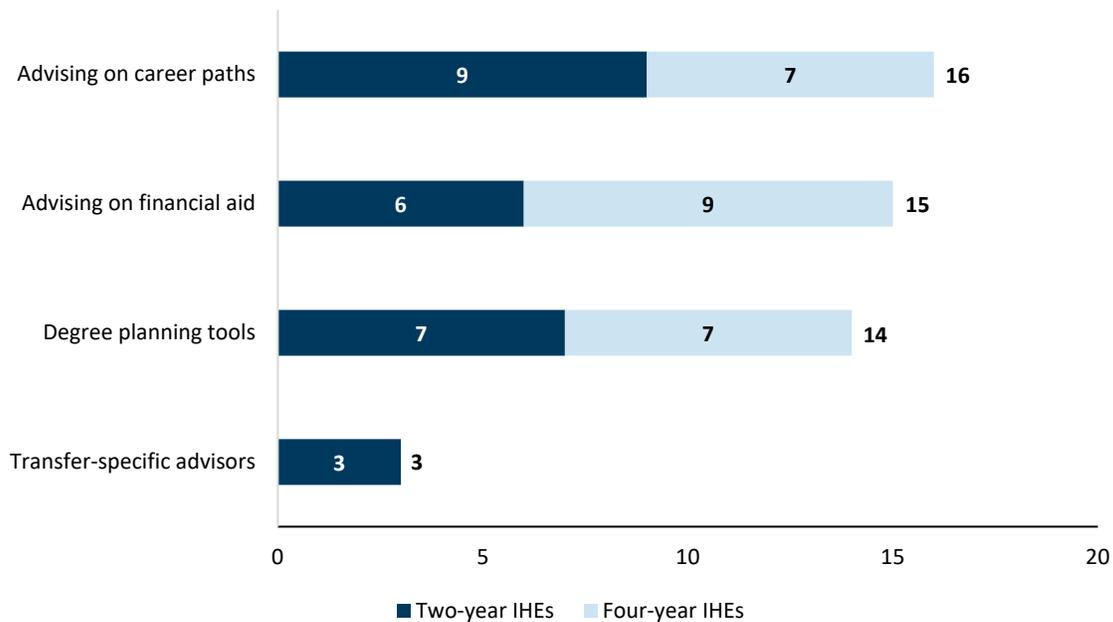


Exhibit reads: Faculty and staff from 16 IHEs, including nine two-year IHEs and seven four-year IHEs, reported providing advising on career paths to students.

Source: Interviews and focus groups with IHE faculty and staff, 2017–18 ($n = 10$ two-year IHEs and 10 four-year IHEs).

Other resources include career centers’ job connector and career fairs, and required hours in the field (e.g., internships or jobs for course credit). One advisor reported that much of the career path support she provides is around “what happens after the associate’s and if they want to move beyond the positions they currently have in childcare centers,” because many of the students at her institution are pursuing additional education after they are already working in the ECE field.

Advising on Financial Aid

Respondents from 15 institutions, including six two-year IHEs and nine four-year IHEs, said they engaged in discussions regarding ECE degree affordability, transfer scholarships, and general financial supports, such as textbook grants and open education resources during general advising sessions (see Exhibit 17). Several institutions offered financial supports specifically aimed at transfer students. For example, faculty and staff from a two-year IHE in Pennsylvania mentioned agreements and partnerships with several four-year IHEs that provided merit scholarships and funding for transfer students. A two-year IHE in California provided scholarship funds for recipients’ last semester that also could be used at a four-year IHE when the recipient transfers.

Referrals to Degree Planning Tools

Advisors at 14 institutions, including seven two-year IHEs and seven four-year IHEs, introduced students to transfer planning tools and resources so students can better navigate the transfer process (see

Exhibit 17). These resources were designed to help entering transfer students understand the next steps to make efficient degree progress. Examples of these resources included a Pathways to Transfer tool at one two-year IHE in California, which provided a list of general and specific degree program requirements at certain four-year IHEs and mapped out students' academic and transfer plans. Other IHEs used Degree Maps, which acts as a transfer guide, providing students with admissions requirements, websites with credit transfer service, and major and degree plan information. A faculty member at a four-year IHE in California described having an online degree audit system for recently admitted transfer students that illustrates how all the credits that transferred in from their two-year IHE were counted toward their bachelor's degree requirements.

Transfer-Specific Advisors

In addition to general advising sessions, which include transfer information as necessary, three of the two-year IHEs provided transfer-specific advisors to support students planning to transfer (see Exhibit 17). These advisors specialized in the transfer process, kept up to date with transfer policy, and held relationships with advisors at four-year IHEs. A faculty member from a two-year IHE in Pennsylvania described how transfer advisors specialized in course articulation across institutions:

The Advising and Transfer Center knows, for example, if you transfer to [X Institution], these classes will transfer, these ones will not. If you go to [Y Institution], these ones will transfer, these ones will not. That level of detail, some of our [general] advisors know that, but our Advising and Transfer Center definitely knows that.

General advisors will sometimes refer students to transfer advisors to ensure accuracy of transfer information. As noted by an advisor from a two-year IHE, "They get the best of both worlds. They get me, and they get the transfer counselor just to double check ourselves."

Efforts to Increase Access to and Use of Advising

Faculty and staff at all IHEs took steps to enhance students' access to advising supports, such as offering numerous and flexible advising options (10 IHEs) and requiring mandatory advising sessions (three IHEs).

Faculty and staff from 10 institutions, five two-year IHEs and five four-year IHEs, mentioned efforts to ensure students' access to advising resources by offering a variety of flexible advising options to accommodate and support students' fluctuating schedules (see Exhibit 18). Advising options included appointment-based or walk-in advising, online advising, evening and weekend advising hours, and advising at satellite locations off campus.

Exhibit 18. Number of two-year and four-year IHEs that reported strategies to increase students' access to advising supports, by institution type

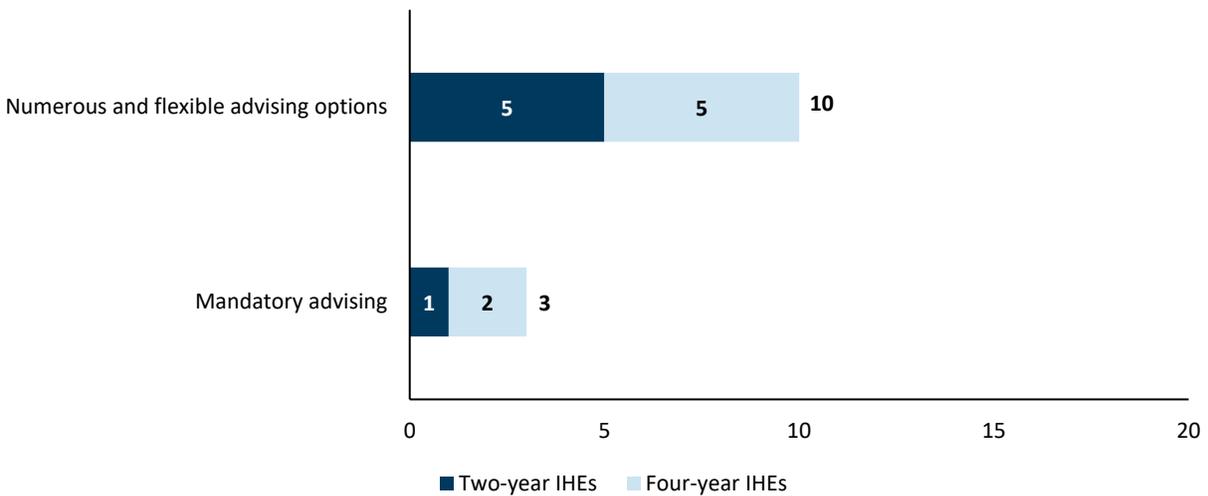


Exhibit reads: Faculty and staff from 10 IHEs, including five two-year IHEs and five four-year IHEs, reported providing numerous and flexible advising options to increase students' access to advising supports.

Source: Interviews and focus groups with IHE faculty and staff, 2017–18 ($n = 10$ two-year IHEs and 10 four-year IHEs).

Three institutions, including one two-year IHE and two four-year IHEs, made participation in general advising sessions mandatory to help ensure that transfer students understood how the articulation process applied to them, which of their courses would transfer, and how they could plan their coursework around bachelor's degree requirements (see Exhibit 18). For example, an administrator from one of the four-year IHEs stated that mandatory advising was designed to ensure that “students get the most out of their transfer credits, and that students are taking the right courses and following the right sequences.” To enforce their advising mandate, the two four-year IHEs placed a hold on students' registration until they met with an advisor. A faculty member from one of the IHEs explained that to remove this hold, students had to either schedule an individual advising appointment, which they were “strongly encouraged” to do, or call the registration office to actively opt out of advising.

Challenges Related to Student Advising

Staff from four IHEs reported having inadequate staff resources for advising, while students reported advising challenges such as receiving inaccurate or insufficient guidance from advisors about the transfer process (five states) and financial aid (four states).

Although IHEs provided multiple advising supports, faculty, staff, and students described several challenges in meeting students' advising needs. For example, while advisors from two-year and four-year IHEs referred students to degree planning tools or online transfer resources, not all resources were described as “user friendly” nor did they always hold the most up-to-date information about articulation policy and agreements. Furthermore, if students are not required or encouraged to meet with an advisor, they may not be aware that these systems and supports exist. As a result, students may fail to take crucial coursework, waste time and money on courses that are nontransferable or do not meet degree requirements, and/or miss important deadlines.

Faculty and staff from four IHEs mentioned staffing constraints that limited the guidance that students received as they moved through the different stages of the transfer process. An ECE program administrator from a two-year IHE stated that students needed to have more advisors in their specific subject areas, and they needed to have longer sessions with an advisor to build rapport, share their goals, and fully discuss the implications of those goals and plans related to transfer. She mentioned that advising appointments were typically 15 minutes long and suggested that advisors should have at least an hour to meet with each student.

A faculty member from a four-year IHE noted that, depending on the department, some faculty advisors were able to advise two-year IHE students who were planning to transfer in, but others were spread too thin advising students who were already enrolled. “Sometimes, they’re the only advisor for 900 students who are already at [our IHE], and so their focus is the students who are recently admitted,” she commented.

Several faculty and staff members also noted challenges in supporting nontraditional students, such as re-entry, English learners, low-income students, and first-generation students.

Reflecting faculty and staff perspectives on the difficulty of providing adequate advising resources, students from five of the six states reported difficulty obtaining information on coursework articulation, general education classes, degree requirements, and financial aid (see Exhibit 19). One student from Florida described scheduling multiple advising sessions with different advisors at a two-year IHE, in which he or she received conflicting information:

I went through one counselor, and then the same week, I scheduled one on Monday, I scheduled another one on Wednesday, and another on Friday. I saw that there was a discrepancy between one counselor, another counselor, and another counselor.

Another student from New Mexico described being told by a two-year IHE advisor to reach out to her prospective four-year IHE herself to obtain information:

[An advisor] told me that my best bet would be to reach out to the schools myself because they would better know what I need to do. . . . You would just think, as a community college wanting you to transfer to a four year, there would just be a little bit more help with that.

Exhibit 19. Number of states in which students reported challenges related to advising supports

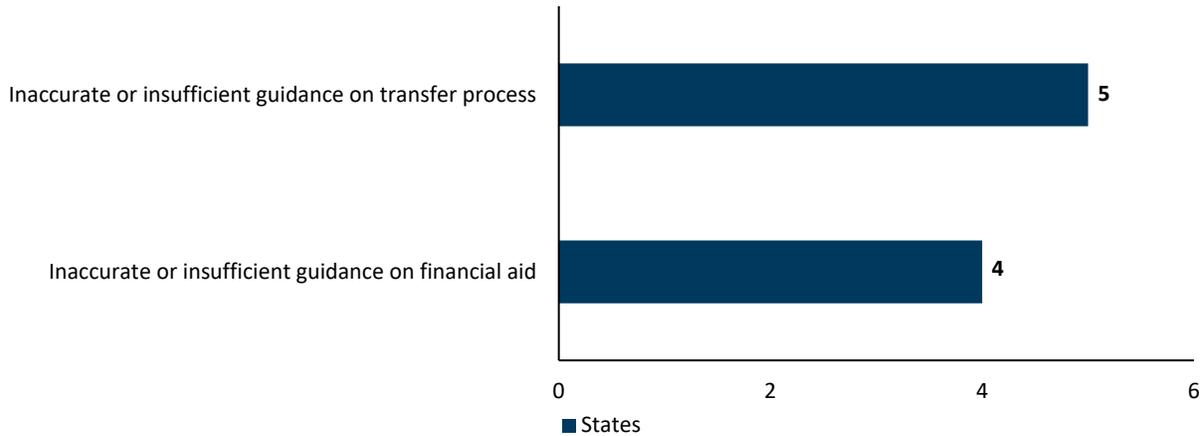


Exhibit reads: Students from five case study states reported receiving inaccurate or insufficient guidance on the transfer process.

Source: Student focus groups for each case study state, 2017–18 ($n = 6$).

Students from four of the six states also mentioned challenges with advising related to financial aid (see Exhibit 19). For example, many students reported reaching federal financial aid limits without any warning. Students who have changed majors and/or transferred more than once may reach their lifetime eligibility maximums for Pell grants and/or federal financial aid prior to completing their degrees. Students across focus groups described no longer qualifying for Pell grants and other federal financial aid because they had reached these limits. These students explicitly mentioned that they were not made aware, they did not have warning, or advisors neglected to tell them about financial aid limits.

Other Supports

IHEs supported transfer students by providing online information about transfer (12 IHEs), outreach programs (seven IHEs), transfer centers (six IHEs), and transfer student orientations (five IHEs).

Online Information About Transfer

Advisors from 12 institutions, seven two-year IHEs and five four-year IHEs, described providing transfer information on their institutions' websites or through referral to statewide transfer websites (see Exhibit 20). Students could use these websites as an additional support to supplement or replace transfer information from advisors or outreach and recruitment programs. Although the information provided through these online resources was not always accurate or up-to-date, students could use them to evaluate their coursework independently and plan their course of study.

Exhibit 20. Number of two-year and four-year IHEs that reported providing other transfer-related supports to students, by institution type

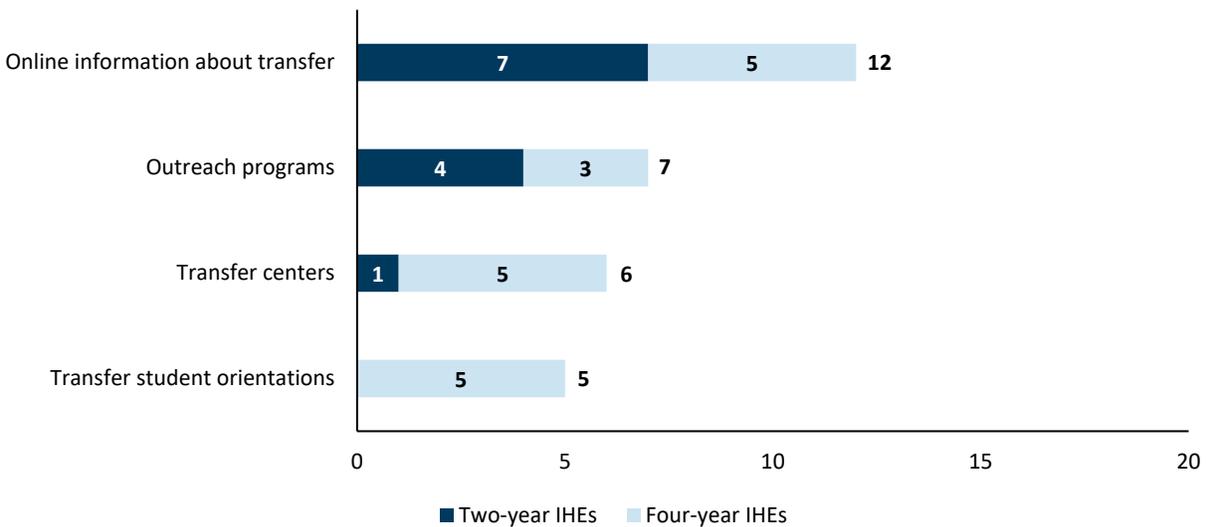


Exhibit reads: Faculty and staff from 12 IHEs, including seven two-year IHEs and five four-year IHEs, reported providing online information about transfer to support students in the transfer process.

Source: Interviews and focus groups with IHE faculty and staff, 2017–18 (n = 10 two-year IHEs and 10 four-year IHEs).

Transfer information on two-year IHE websites included links to institution-specific transfer policies, transfer events, college and university partnerships, and information about transferring to specific institutions. Two IHEs reported that they provide links to databases for course equivalencies and students can independently plan coursework for transfer using the course listed on the website. For example, one IHE’s website had links to a public Transfer Equivalency System database where students could look up coursework equivalencies at participating four-year IHEs. Similarly, the other IHE’s website allowed students to look up their transfer institution’s degree “check sheet” and use it to self-advise.

Other IHEs referred students to statewide websites such as California’s assist.org, Indiana’s TransferIN.net, Massachusetts’s MassTransfer page, and Pennsylvania’s Transfer and Articulation Center. These websites are open to the public so that students, faculty, and other advisors can view transfer-related resources and information, such as the specific provisions of statewide policy, common general education and specific degree program requirements, and the transferability of course credit. These statewide websites have course equivalency database systems, similar to the IHEs’ equivalency databases described above, but these websites are managed at the state level.

Outreach Programs

Faculty and staff from seven of the 20 IHEs described outreach and recruitment programs, in which representatives from four-year IHEs traveled to two-year IHEs to meet with faculty and advisors, host informational meetings, and/or have advising appointments with prospective transfer students (see Exhibit 20). For example, a two-year IHE in Florida established a permanent advising office that regularly hosted advisors from local four-year IHEs as part of the Direct Connect program. The four-

year advisors held regular office hours on campus several days a week and were open to meet with prospective transfer students and advise them on the transfer process specific to their institution.

ECE faculty members from a four-year IHE in another state conducted outreach efforts at local two-year IHEs to ensure that students who were interested in transferring could be advised on the process. To facilitate outreach efforts, the ECE program established a tracking database of 1,400 potential transfer students with whom faculty had held outreach and recruitment conversations. A faculty member from a two-year IHE in the state described working in partnership with four-year IHEs to support such outreach activities so that students understand the transfer process, including “what paperwork is necessary, whom to talk to, what they need to transfer, [and] who to ask for a letter of references.”

Transfer Center or Office

Four two-year IHEs and two four-year IHEs highlighted their school’s transfer center or relevant transfer office as a resource for students (see Exhibit 20). At the two-year IHEs, the transfer center or offices provided transfer advisement to prospective transfer students regarding coursework, degree requirements, scholarship information, and transfer timelines. They also connected students to advisors and resources from different four-year IHEs. Two-year IHEs’ transfer centers and offices also hosted transfer-related events such as transfer field trips, which allowed their students to learn about a four-year IHE by visiting its campus, and celebrations for transferring students. A faculty member from a two-year IHE described their transfer center’s workshops on the application process and costs of attending a four-year IHE. At the four-year IHEs, the transfer center or office was an open resource for newly admitted and prospective transfer students, providing transfer guides, information on course equivalency, transfer advising, and peer mentoring.

Transfer Student Orientations

Faculty and staff from five of the 10 four-year IHEs described offering transfer student orientations for newly accepted students at the beginning of their first semester (see Exhibit 20). As opposed to traditional student orientations, transfer student orientations were tailored to support the needs of transfer students in an unfamiliar four-year IHE environment. They were often a student’s entry point to contacts and supports that a junior-level transfer may need in adjusting to the upper division coursework, academic rigor, and financial costs of a four-year IHE. Four-year IHEs offered a mix of online, in-person, mandatory, and optional transfer student orientations, and they also varied in focus: Some IHEs emphasized acclimating students to the IHE, while others emphasized degree planning and program navigation. For example, one IHE held a day-long, on-campus transfer student orientation in which students attended presentations about general education and major requirements and could meet with IHE or program representatives to ask questions.

Conclusion

Higher education articulation is a concern for students across many academic disciplines. Articulation between ECE degree programs may serve as a model for other disciplines given that ECE degrees are offered at both two-year and four-year IHEs, and research and dialogue about the ideal competencies for early childhood educators are ongoing. The six states in this study are using higher education articulation policies to provide smoother degree pathways and transitions for current and future ECE professionals.

Several general articulation policy approaches were common across all six states, including transfer associate's degrees, common general education requirements, and a statewide course equivalency system. Transfer associate's degrees and common general education requirements were designed to increase the number of transfer credits that receiving institutions accept by instituting block transfer of applicable credits. All states had put into place formal course numbering systems or other course equivalency systems to help faculty, advisors, and students determine which courses would readily transfer between institutions.

In addition, three of the six states offered some guarantee of admission for students who earned the transfer associate's degree, although in some cases, ECE students benefitted from this policy only if they met additional admissions requirements, such as a minimum grade point average, prerequisite coursework for the major program, or successful testing on the state's teacher licensing exam. Three of the six states provided performance-based funding tied to IHE graduation rates and/or the adoption of common course numbering conventions to encourage effective implementation of the state articulation policies. After initial policy development, three states continued to actively update policy and monitor implementation through appointed articulation committees.

Most IHEs reported supplementing state-level articulation policies with regional articulation agreements between sending and receiving institutions. Articulation specialists at more than half of the IHEs assisted with the development of regional articulation agreements and the implementation of statewide articulation policy. All but one of the 10 two-year IHEs offered separate associate's degree programs for students who plan to transfer versus those who plan to pursue employment in the ECE field immediately after graduation.

IHE faculty were key stakeholders in both the development and the implementation of articulation policies. Faculty were engaged in policy development in all states through participation in (1) statewide articulation oversight committees, (2) discipline-specific subcommittees charged with establishing academic alignment across institutions and degree programs, and/or (3) grassroots faculty working groups that met to develop consensus regarding lower division ECE curricula and coursework. Within IHEs, faculty designed coursework aligned to statewide curricular frameworks and evaluated course equivalencies to make transfer decisions on a course-by-course basis. In conjunction with advising staff, faculty also provided guidance to students regarding degree options and career paths, financial aid, and transfer planning, drawing on a variety of articulation and transfer tools and resources.

Challenges in the implementation of articulation policies reported by faculty and staff included difficulty meeting the advising needs of their large caseloads of students. Students from five of the six states reported insufficient guidance about the transfer process, including whether specific courses would transfer as well as financial aid limits encountered en route to the bachelor's degree.

Although this study focused specifically on articulation policies for early childhood educators, the examples and experiences of these states and IHEs also may be helpful to those seeking to develop more comprehensive career pathways for a wider range of fields. Findings may inform efforts to facilitate the transfer of credits and coursework for students moving between institutions and support higher degree completion rates for both entry-level and mid-career professionals.

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